VCR 2024 User Manual

Virginia Cancer Registry

2024 USER MANUAL

COMMONWEALTH OF VIRGINIA

The Honorable Glenn A. Youngkin,

Governor

Karen Shelton, MD

State Health Commissioner

VIRGINIA CANCER REGISTRY MANUAL

2024

Commonwealth of Virginia Department of Health

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Table of Contents

End of Table of Contents

PREFACE

The rate of new cancer cases in Virginia is a public health concern. More than 39,000 Virginia residents are diagnosed with cancer each year (Virginia Department of Health, 2020). Without information on these new cases of cancer, it is difficult to plan prevention, education, screening, early detection, treatment, and rehabilitation programs. The Virginia Cancer Registry (VCR) records the incidence of cancer for the Commonwealth of Virginia and provides data tohelp public health authorities, physicians, researchers, and other health professionals plan and evaluate cancer programs. The registry also directly serves the citizens of the Commonwealth by providing and interpreting statistical information on cancer in the state.

In 1970, hospitals began voluntarily contributing cancer reports to the Virginia Tumor Registry. In 1990, the Virginia General Assembly mandated that the Virginia Cancer Registry be established in the Virginia Department of Health (see Appendix A). The legislation prescribed the purpose of the statewide cancer registry to include:

- Determining means of improving the diagnosis and treatment of cancer patients.
- Determining the need for and means of providing better long-term, follow-up care of cancer patients.
- Conducting epidemiological analyses of the incidence, prevalence, survival, and risk factors associated with the occurrence of cancer in Virginia.
- Collecting data to evaluate the possible carcinogenic effects of environmental hazards including exposure to dioxin and the defoliant, Agent Orange.
- Improving rehabilitative programs for cancer patients. Assisting in the training of hospital personnel.
- Determining other needs of cancer patients and health personnel.

As a population-based cancer incidence registry, the VCR collects demographic, diagnostic, and first course treatment information on all Virginia residents diagnosed with cancer. A population-based incidence registry collects all reports for an entire population; for VCR, the relevant population is the population of the state. All information collected and maintained in the VCR database is strictly confidential. Only summary statistical information is published for general distribution and public knowledge. The Virginia Department of Health may permit use of in-depth information for research, subject to careful screening, strict supervision, and only to accomplish approved program objectives.

To fulfill some of the goals the state legislature set for the registry, VCR is an active partner with Virginia Department of Health programs that promote cancer prevention and control. These programs include the Virginia Comprehensive Cancer Control Program and the Virginia Breast and Cervical Cancer Early Detection Program. VCR data are used for cancer research

and surveillance activities, and for epidemiologic and other special studies. Virginia incidence and mortality data are published annually in the national summary *United States Cancer Statistics* (USCS,(https://www.cdc.gov/cancer/uscs/index.htm). USCS is a joint publication that CDC and the National Cancer Institute (NCI) produce. It includes the most recent five years of data. A large variety of cancer incidence data broken out by site and demographic variables is available on the VCR website at http://www.vdh.virginia.gov/virginia-cancer-registry/. Virginia data are also published in *Cancer in North America* (CINA), which is an annual report the North American Association of Central Cancer Registries (NAACCR) publishes. CINA is available at the NAACCR web site, http://www.naaccr.org/.

VCR is recognized as a high-quality reporting registry and a valuable resource for cancer data. VCR uses current technology and national data collection standards to enhance the completeness, accuracy, and timeliness of cancer data. As the volume of VCR incidence data increases over time, the utility of these data for program planning, evaluation, and epidemiologic studies increases as well. VCR depends on all cancer reporters for support, cooperation, and accurate reporting for the ongoing operation of the statewide cancer registry. As VCR staff work together with staff of reporting facilities statewide, complete and reliable cancer incidence data will continue to be available to provide answers to our questions, to reduce the burden of cancer in Virginia, and to improve the lives of both present and future patients.

Nikkia L.G. Ray, MPH; Director, Virginia Cancer Registry / Division of Population Health Data

Office of Family Health Services/Virginia Department of Health

USER MANUAL 2024 UPDATES

Summary of Changes

Summary of Changes

Some sections of this manual are based on the 2022 VCR User Manual (2022 VCR User Manual) and a significant amount of content has not changed or required revision, therefore, this manual can still be used as a reference for coding cases with a diagnosis date of January 1, 2022 and later. Where standard setter coding requirements and manuals are referenced, please see included section notations for codes, manuals, and editions utilized.

For cases with a diagnosis date of January 1, 2024, forward, *ALWAYS* refer to the changes and updates outlined in this Summary of Changes section of the manual and respective appendices, including any corresponding hyperlinks. As standard setters update their online content, hyperlinks in this manual may become obsolete. VCR does its best to keep this manual current; however, please check with the standard setting organization(s) main website(s) for additional content related to updated information, and/or any related hyperlinks that may become inactive.

**OTHER THAN THE BELOW SPECIFIED REVISIONS, CoC DATA REPORTING REQUIREMENTS REMAIN THE SAME.*

STORE Manual 2023

Beginning with cases diagnosed January 1, 2023, and forward, all CoC accredited programs should follow the rules and instructions in STORE v2023. Word and minor coding changes allowed STORE to align more with SEER.

STORE 2023 Summary of Changes

New Data Items

STORE 2023 Page Number	NAACCR Number	Data Item Name
94	344	Tobacco Use Smoking Status
216	671	Rx Hosp -Surg 2023 Replacing Surgical Procedure of Primary Site at this Facility [670] for cases with diagnosis year 2023 For diagnosis years 2003 – 2022, leave this data item blank and complete data item Surgical Procedure of Primary Site at this Facility [NAACCR data item #670] utilizing the STORE manual based on the year of diagnosis. All 2023 site specific surgery codes begin with a letter A except for skin which start with a letter B to indicate a significate change in coding. For melanoma skin surgical codes ONLY: ○ The priority order for sources used to assign surgery codes: • Operative report, statement from a physician, description of the surgical procedure on a pathology report, results of the pathology report. Code based on the description of the procedure. • Do not code base on margin status documented in the pathology report.

218	1291	Rx Summ- Surg 2023 Replacing Surgical Procedure of Primary Site [1290] for cases with diagnosis year 2023 For diagnosis years 2003 – 2022, leave this data item blank and complete data item Surgical Procedure of Primary Site [NAACCR data item #1290] utilizing the STORE manual based on the year of diagnosis. All 2023 site specific surgery codes begin with a letter A except for skin which start with a letter B to indicate a significate change in coding. For melanoma skin surgical codes ONLY: ○ The priority order for sources used to assign surgery codes: • Operative report, statement from a physician, description of the surgical procedure on a pathology report, results of the pathology report. Code based on the description of the procedure. • Do not code base on margin status documented in the pathology report.

Data items with Name Changes

NAACCR Number	Previous Name	Current Name
670	Surgical Procedure of Primary Site at this Facility	Rx Hosp Surg Prim Site 03-2022
1290	Surgical Procedure of Primary Site	Rx Summ- Surg Prim Site 03-2022

Data Items removed from STORE 2023.

STORE 2022 Page Number	NAACCR Number	Data Item Name
82	241	Date of Birth Flag
125	581	Date of First Contact Flag
141	1281	Rx Date–Dx/Stg Proc Flag
217	1201	Rx Date–Surgery Flag
219	1290	Surgical Procedure of Primary Site All instructions for #1290 have been changed to reflect the new surgical codes for diagnosis year 2023 RX Summ-Surg 2023 [1291]

221	670	Surgical Procedure of Primary Site at this Facility All instructions for #670 have been changed to reflect the new surgical codes for diagnosis year 2023 RX Hosp-Surg 2023 [671]
297	1221	Rx Date–Chemo Flag
306	1231	Rx Date–Hormone Flag
313	1241	Rx Date–BRM Flag

The table below lists changes to STORE v23 manual by the page number in STORE 2023.

NOTE:
All date data items allow blanks **EXCEPT** for the following:

1. Date of Birth
2. Date of Diagnosis
3. Date of last Contact or Death

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
43	2023 Source References	2023 Source References	The 2023 Source Reference Document is located on the NAACCR website available at https://www.naaccr.org/implementation-guidelines/
46	Overview of Coding Principles	Case Eligibility	Updated reportability on juvenile pilocytic astrocytoma 9421/1. Added: Effective January 1, 2023, low grade appendiceal mucinous neoplasms (LAMN) (8480) are reportable. LAMN is a distinctive histologic subtype of mucinous appendiceal neoplasm and can be in-situ or invasive. Please reference the AJCC Appendix Protocol Version 9 for further information.
46	Overview of Coding Principles	Case Eligibility	All Rads are still being discussed amongst standard setters. An update on coding the Date of Diagnosis will be released once decided. Registrars should follow current rules in STore to assign Date of diagnosis. CoC does not collect rads alone, a positive biopsy must confirm the diagnosis, the Date of Diagnosis is the date of the biopsy.
46	Overview of Coding Principles	Case Eligibility	Added: Lobular Carcinoma In Situ alone is not reportable to CoC. The decision not to collect LCIS was made to align STORE with the AJCC 8th Edition. Please see the AJCC 8th Edition for complete details. Please note: SEER and NPCR require reporting of LCIS. If LCIS is reportable for your state registry, follow your state registry requirements. Assign Class of Case according to the relationship between the patient and the reporting facility.

50	Overview of Coding Principles	Coding Dates	Removed sentences: If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates. The table for coding dates was updated. All reference associated with the date flags were removed, including flags, 10, 11 and 12.
60 61	Overview of Coding Principles	Relationships among Surgical Items	Added • (excluding code 1) to first paragraph. • (excluding code 1) to bullet #2
63	Overview of Coding Principles	Radiation Therapy	Removed: A new phase begins when there is a change in the target volume of a body site, treatment fraction size, modality or treatment technique. Up to three phases of radiation treatment can now be documented. Added: "but modern radiotherapy allows phases to be delivered simultaneously so new terminology is needed. Each phase is meant to reflect a "delivered radiation prescription". At the start of the radiation planning process, physicians write radiation prescriptions to treatment volumes and specify the dose per fraction (session), the number of fractions, the modality, and the planning technique. A phase simply represents the radiation prescription that has actually been delivered (as sometimes the intended prescription differs from the delivered prescription.

86	240	Date of Birth	Removed: If the date of birth cannot be determined at all, record the reason in the Date of Birth Flag [241]. The Date of Birth Flag [241] is used to explain why Date of Birth is not a known date. See Date of Birth Flag for an illustration of the relationships among these items. Wording Added: Blank is not allowed.

<table>
<tr><td>88</td><td>160</td><td>Race 1</td><td>Labels were further clarified for codes 02, 03, 07, 13, 15, 21, 32, 98, and 99.
<table>
<tr><th>Code</th><th>Diagnosis year 2022 and prior Label</th><th>Diagnosis 2023+ Label</th></tr>
<tr><td>02</td><td>Black</td><td>Black or African American</td></tr>
<tr><td>03</td><td>American Indian, Aleutian, or Alaska Native (includes all indigenous populations of the Western hemisphere)</td><td>American Indian or Alaska Native</td></tr>
<tr><td>07</td><td>Hawaiian</td><td>Native Hawaiian</td></tr>
<tr><td>13</td><td>Kampuchean (Cambodian)</td><td>Cambodian</td></tr>
<tr><td>15</td><td>Asian Indian or Pakistani, NOS</td><td>Asian Indian, NOS or Pakistani, NOS</td></tr>
<tr><td>21</td><td>Chamorro/Chamoru</td><td>Chamorro</td></tr>
<tr><td>32</td><td>New Guinean</td><td>Papua New Guinean</td></tr>
<tr><td>98</td><td>Other</td><td>Some other race</td></tr>
<tr><td>99</td><td>Unknown</td><td>Unknown by patient</td></tr>
</table></td></tr>
<tr><td>92</td><td>630</td><td>Primary Payer at Diagnosis</td><td>Removed:
Code 62: A 65-year-old male patient is admitted for treatment and the patient admission page states the patient is covered by Medicare with additional insurance coverage from a PPO.</td></tr>
<tr><td>127</td><td>580</td><td>Date of First Contact</td><td>Removed:
The Date of First Contact Flag [581] is used to explain why Date of First Contact is not a known date. See Date of First Contact Flag for an illustration of the relationship.
Added to Allowable Values : Blank
Wording Added: Blank is Allowed</td></tr>
<tr><td>129</td><td>390</td><td>Date of Initial Diagnosis</td><td>Wording Added: Blanks are not allowed.</td></tr>
</table>

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
138	490	Diagnostic Confirmation	Removed: Code 1 when the microscopic diagnosis is based on tissue specimens from biopsy, frozen section, surgery, or autopsy or bone marrow specimens from aspiration or biopsy. For leukemia only, code 1 when the diagnosis is based only on the complete blood count (CBC), white blood count (WBC) or peripheral blood smear. Do not use code 1 if the diagnosis was based on immunophenotyping or genetic testing using tissue, bone marrow, or blood.
141	1280	Date of Surgical Diagnostic and Staging Procedure	Removed: The RX Date DX/Stg Proc Flag [1281] is used to explain why Date of Surgical Diagnostic and Staging Procedure is not a known date. See RX Date DX/Stg Proc Flag for an illustration of the relationships among these items. Added to Allowable Values: Blank Wording Added: Blank is Allowed
151	3950	Macroscopic Evaluation of Mesorectum	Change Allowable Values from Alphanumeric, BLANK to 00, 10, 20, 30, 40, 99 or BLANK
153	832	Date of Sentinel Lymph Node Biopsy	Wording Added: Blank is Allowed
159	830	Regional Lymph Node Examined	Primary sites always coded 99. Use code 99 for a. Any case coded to primary site C420, C421, C423, C424, C589, C700-C709, C710-C729, C751-C753, C761-C768, C770-C779, or C809 b. Lymphoma 00790 c. Lymphoma-CLL/SLL 00795 d. Plasma Cell Disorders (excluding 9734/3) 00822 e. HemeRetic 00830 (excluding primary sites C420, C421, C423, C424) f. Ill-Defined/Other 99999 g. Cases with no information about positive regional lymph nodes

161	820	Regional Lymph Nodes Positive	Primary sites always coded 99. Use code 99 for a. Any case coded to primary site C420, C421, C423, C424, C589, C700-C709, C710-C729, C751-C753, C761-C768, C770-C779, or C809 b. Lymphoma 00790 c. Lymphoma-CLL/SLL 00795 d. Plasma Cell Disorders (excluding 9734/3) 00822 e. HemeRetic 00830 (excluding primary sites C420, C421, C423, C424) f. Ill-Defined/Other 99999 g. Cases with no information about positive regional lymph nodes
169	1112	Mets at Diagnosis Bone	Removed Table under C and added Use code 8 when primary site is C42.0, C421, C423, C424 or histology is 9671, 9734, 9731 or 9761 for any primary site.
171	1113	Mets at Diagnosis Brain	Removed Table under C and added Use code 8 when primary site is C42.0, C421, C423, C424 or histology is 9671, 9734, 9731 or 9761 for any primary site.
173	1114	Mets at Diagnosis Distant Lymph Nodes	Removed Table under C and added Use code 8 when primary site is C420, C421, C423, C424, C770-C779 or histology is 9671, 9734, 9731 or 9761 for any primary site.

175	1115	Mets at Diagnosis Liver	Removed Table under C and added Use code 8 when primary site is C42.0, C421, C423, C424 or histology is 9671, 9734, 9731 or 9761 for any primary site.
177	1116	Mets at Diagnosis Lung	Removed Table under C and added Use code 8 when primary site is C42.0, C421, C423, C424 or histology is 9671, 9734, 9731 or 9761 for any primary site.
179	1117	Mets at Diagnosis Other	Removed Table under C and added Use code 8 when primary site is C42.0, C421, C423, C424 or histology is 9671, 9734, 9731 or 9761 for any primary site.

207 208	n/a	Site Specifics Data Items	Added: Item # 3956 p16 Anus No longer collected with date of diagnosis after January 1, 2023, ○ Estrogen Receptor Total Allred Score [3828] ○ Progesterone Receptor Total Allred Score [3916] Wording added: One new SSDI [3956] Two SSDIs no longer required [3828,3916]
210	1270	Date of First Course of Treatment	Wording Added: Blank is Allowed
214	1200	Date of First Surgical Procedure	Removed: The Rx Date–Surgery Flag [1201] is used to explain why Date of First Surgical Procedure is not a known date. See Rx Date–Surgery Flag for an illustration of the relationships among these items. Added to Allowable Values : Blank Wording Added: Blank is Allowed
215	3170	Date of Most Definitive Surgical Resection of the Primary Site	Added to Allowable Values : Blank Wording Added: Blank is Allowed

220 223 226 228	10104 10105 10106 10107	Rx Hosp-Surg Breast Rx Summ-Surg Breast Rx Hosp-Recon Breast Rx Summ-Recon Breast	Continue collecting data items for diagnosis year 2023+ *If these required data items are left blank for diagnosis year 2022 forward for a breast primary, edits will populate and must be corrected.*
234	1292	Scope of Regional LN Surgery	Bullet #1 added: (excluding code 1) Removed from Code 9: o Lymphoma (excluding CLL/SLL, Schema ID 00790) o Lymphoma (CLL/SLL, Schema ID 00795) o Plasmacytoma, bone (9731/3) Removed: Added to Code 9: C589 Plasma Cell Disorders (excluding histology 9734/3 Schema ID 00822 (9671, 9731, 9761)
240	672	Scope of Reginal LN Surgery at this Facility	Bullet #1 added: (excluding code 1) Removed from Code 9: o Lymphoma (excluding CLL/SLL, Schema ID 00790) o Lymphoma (CLL/SLL, Schema ID 00795) o Plasmacytoma, bone (9731/3) Added to Code 9: C589 Removed: Plasma Cell Disorders (excluding histology 9734/3 Schema ID 00822 (9671, 9731, 9761)
246	1294	Surgical Procedure/Other Site	Removed from Bullet #6 Second bullet point: When the involved contralateral breast is removed for a single primary breast cancer. Note: See also notes and codes in Appendix A, Breast surgery codes
248	674	Surgical Procedure/Other Site at this Facility	Removed from Bullet #6 Second bullet point: When the involved contralateral breast is removed for a single primary breast cancer. Note: See also notes and codes in Appendix A, Breast surgery codes
250	3180	Date of Surgical Discharge	Added to Allowable Values : Blank Wording Added: Blank is Allowed

256	1210	Date Radiation Started	Repetitive statement identified Bullet #1 and #3. Bullet #1 removed: Date radiation started will typically be found in the radiation oncologist's summary letter for the first course of treatment. Determination of the date radiation started may require assistance from the radiation oncologist for consistent coding.
259	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Removed the Bullet #2 Phase II III of radiation treatment also commonly includes draining lymph node regions that are associated with the primary tumor or tumor bed. The draining lymph nodes are recorded in the Phase II Radiation to Draining Lymph Nodes [1515,1525]. Removed from Bullet #3 If one or more discrete volumes are treated and one of those includes the primary site, record the Phase II III treatment to the primary site in this data item. Added to Bullet #3 Draining lymph nodes may also be concurrently targeted most commonly during the first phase. Added to Bullet #4 When the primary volume is a lymph node region, draining lymph nodes are not targeted. Record code 88 in the Phase III-III Radiation to Draining Lymph Nodes [1505, 1515, 1525] when primary volume is a lymph node region.

260	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 02 Thoracic lymph node regions and removed mantle or mini mantle for lymphoma
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 03 Neck and thoracic lymph node regions and removed mantle or mini mantle for lymphoma
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 04 Breast/ Chest wall lymph node regions: Radiation is directed primarily to one or some combination of axillary, supraclavicular, and/or internal mammary lymph node regions WITHOUT concurrent treatment of the breast or chest wall.
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 05 Abdominal lymph nodes: Treatment is directed to one or some combination of the lymph nodes of the abdomen, including retro-crural, peri-gastric, peri-hepatic, portocaval and para-aortic node regions.
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 06 Pelvic lymph nodes: Treatment is directed to one or some combination of the lymph nodes of the pelvis
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 21 Oral Cavity: Treatment is directed at all or a portion of the oral cavity, which may include the lips, gingiva, alveolus, buccal mucosa, retromolar trigone, hard palate, floor of mouth and/or oral tongue.

263	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 64 Prostate -whole: Treatment is directed at all of the prostate with/without all or part of the seminal vesicles. Use this code even if seminal vesicles are not explicitly targeted.
263	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 86 Pelvis (NOS, non-visceral): For example, this code should be used for sarcomas arising from non-visceral soft tissues of the pelvis.
264	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 91 Soft Tissue: This category should be used to code primary or metastatic soft tissue malignancies when localizing to a region of the body (e.g. pelvis) is not possible or when the case does not fit other categories.
264	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Clarification added to code 98 Other: For example, code 98 when the radioisotope I-131 is used in the treatment of thyroid cancer.
267	1506 1516 1526	Phase I-II-III Radiation Treatment Modality	Removed for Bullet #1 For the first course of treatment.
270	1502 1512 1522	Phase I-II-III External Beam Radiation Planning Technique	Removed Bullet #6: When code 98 is recorded, document the planning technique in the appropriate text data item.

276	1503 1513 1523	Phase I-II-III Number of Fractions	Removed Example: Code 025 A patient with breast carcinoma had treatment sessions in which treatment was delivered to the chest wall and encompassing the ipsilateral supraclavicular region for a total of three fraction portals. Twenty-five treatment sessions were given. Record 25 fractions as 025.
277	1507 1517 1527	Phase I-II-III Total Dose	Rationale Removed word : prescribed and added wording of: maximum delivered
282	1533	Radiation Course Total Dose	Added wording to bullet #3 major type (External Beam, Brachytherapy, or Radioisotopes
284	1380	Radiation/Surgery Sequence	Clarified Example #5
286	3220	Date Radiation Ended	Removed Bullet #2 (duplicate instruction): The date when treatment ended will typically be found in the radiation oncologist's summary letter for the first course of treatment.
292	1220	Date Chemotherapy Started	Removed: The RX Date–Chemo Flag [1221] is used to explain why Date Chemotherapy Started is not a known date. See RX Date–Chemo Flag for an illustration of the relationships among these items.

299	1230	Date Hormone Therapy Started	Removed: The RX Date–Hormone Flag [1231] is used to explain why Date Hormone Therapy Started is not a known date. See RX Date–Hormone Flag for an illustration of the relationships among these items.
305	1240	Date Immunotherapy Started	The RX Date–BRM Flag [1241] is used to explain why Date Immunotherapy Started is not a known date. See RX Date–BRM Flag for an illustration of the relationships among these items.
324	1860	Date of First Recurrence	Added to Allowable Values : Blank Wording Added: Blank is Allowed
328	1772	Date of Last Cancer (tumor) Status	Wording Added: Blank is Allowed
330	1750	Date of Last Contact or Death	Wording Added: Blanks not Allowed.

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
344	Appendix A	Current Site-Specific Surgery Codes for 2023+	Codes changed from two-digit numeric code to alphanumeric beginning with letter followed by four digits. All 2023 site specific surgery codes begin with a letter A except for skin which start with a letter B to indicates a significate change in coding. For diagnosis years 2003 – 2022, Surgical Procedure of Primary Site at this Facility [NAACCR data item #670] and Surgical Procedure of Primary Site [NAACCR data item #1290] should be coded utilizing the STORE manual based on the year of diagnosis. **NOTE TO VENDORS/RESEARCHERS:** RX Hosp--Surg Prim Site [670] was changed to RX Hosp—Surg Prim Site 03-2022 [670] RX Summ--Surg Prim Site [1290] was changed to RX Summ-Surg Prim Site 03-2022 [1290]
408	Appendix M	CTR Guide to Coding Melanoma Skin	Added as a reference for registrars
423	Appendix R	CTR Guide to Coding Radiation Therapy Treatment in the STORE	Added as a reference for registrars
Multiple	All	Column #	With v21 and the change to XML (for the NAACCR layout), the column number is no longer required therefore the Column # has been removed from the data item tables.

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
207	n/a	Site Specifics Data Items	Added SSDI data items: [3960] Histologic Subtype -appendix [3961] Clinical Margin Width - melanoma
257	1550	Location of Radiation Treatment	Added wording for clarification to 3rd bullet: "and usually includes draining lymph nodes"
261	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Wording added to code 05: If field or target is described as hockey stick, dog leg, and inverted Y then use code 07.

Changes 12/15/2022

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
169 171 173 175 177 179	1112 1113 1114 1115 1116 1117	Mets at Diagnosis-Bone Mets at Diagnosis-Brain Mets at Diagnosis-Distant LNs Mets at Diagnosis-Liver Mets at Diagnosis-Lung Mets at Diagnosis-Other	Added: Use code 0 when: • Tumor is a borderline or benign brain or CNS tumor. • Any other reportable tumor with a behavior of benign (/0), borderline (/1), or in situ (/2) Removed: o Use code 8 (Not applicable) for benign/borderline brain and CNS tumors
260 261 262 263	1504 1514 1524	Phase I-II-III Radiation Primary Treatment Volume	Added for clarity : Code 13: Use code 13 when primary tumor volume is brain stem. Code 29 Head and neck (NOS): Use code 29 when the Primary Tumor Volume is Paraganglioma of the jugular foramen in the middle ear. Code 71 Uterus or Cervix: Added parametrium. Code 93 Whole Body Radiation: Added For example as with total body irradiation (TBI).

47	Overview of Coding Principles	Case Eligibility	Under Analytic Cases: Removed Joint Commission accreditation and replaced with Federal Employer Tax ID (FEIN)

Changes 12/19/2023

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
48	Overview of Coding Principles	Case Eligibility	Updated Analytic Cases: Added: Any program listed in your FEIN is included within your accreditation and therefore reportable to NCDB.
51	Overview of Coding Principles	Cancer Identification	Added clin to Grade Post Therapy **Clin** (yc) [1068]
372	Appendix A	Breast Surgical Codes	Corrected note under A410: If the contralateral breast reveals a second primary, each breast is abstracted separately. The surgical procedure is coded **A**41**0** for the first primary.

Changes 1/23/2024

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
421	Appendix M	Case example #8	Correction to the coding for the SSDI Clinical Margin [3961] to XX.9
422	Appendix M	Summary of Coding Rules	Removed: • If multiple procedures are performed, record the largest peripheral (radial) margin. Added: this margin is documented by the surgeon in the CoC operative note as a single measurement: • If the margin documentation is missing, the SSDI Clinical Margin should be coded as XX.9, do not use other measurements. • Do not use any clinical margin measurements (e.g., 3.1 cm x 5.2 cm) for this data item • If multiple WLE procedures are performed, record the documented margin from the op note with the largest margin

Changes 4/11/2024

Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
Appendix M	Case Studies for Coding Melanoma	Removed from STORE 2023

2023 Source References

The 2023 Source Reference Document is located on the NAACCR website available at

https://www.naaccr.org/implementation-guidelines/

STORE 2024 Summary of Changes

New Data Items

STORE 2024 Page Number	NAACCR Number	Data Item Name
195	3956	SSDI: Vulva primary site added to p16 SSDI
207	751	Rx Hosp- Recon Breast
209	1335	Rx Summ-Recon Breast

Data Items removed from STORE 2024

STORE 2023 Page Number	NAACCR Number	Data Item Name
207	3884	SSDI: LN Status Femoral-Inguinal, Para Aortic, Pelvic Site-Specific Data Item
219	10104	Rx Hosp--Surg Breast
222	10105	Rx Summ—Surg Breast
225	10106	Rx Hosp –Recon Breast
227	10107	Rx Summ—Recon Breast

Changes to STORE v24 manual by the page number in STORE 2024

STORE 2024 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
36	Case Eligibility	Analytic Cases	Added clarification for case eligibility under FEIN
39	Overview of Coding Principles	Cancer Identification	Added clin to Grade Post Therapy Clin (yc) [1068]
238	1550	Location of Radiation Treatment	In codes 2 and 3: The word administered has been changed to started In coding instructions: Removed: Regional and boost Added: Code the first course of treatment. Do not include subsequent treatments in the coding of this data item.

294	1639	Systemic/Surgery Sequence	Code 4 clarified At least one course of systemic therapy was given before and at least one more after a surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional distant site(s), or distant lymph node(s) was performed.

325	Appendix A	Current Site-Specific Surgery Codes for 2024	Surgical code changes for the sites below noted with 2024. Thyroid topography was corrected on Appendix A title page List of sites were organized chronologically then by topography code. • C44.0-C44.9 Skin (2023) • C18.0-C18.9 Colon (2024) • C25.0-C25.9 Pancreas (2024) • C34.0-C34.9 Lung (2024) • C 50.0-C50.9 Breast (2024) • C73.9 Thyroid (2024)
335 344 347	Appendix A	Current Site-Specific Surgery Codes for 2024	Colon: Note Added: Note: B100 includes electrocautery; fulguration (includes use of hot forceps for tumor destruction). B120 is obsolete. Pancreas Removed wording: code B700 Obsolete, (combined with code B600) Lung Removed wording: code B700 Extended radical pneumonectomy- Obsolete
373	Appendix B	ICD-O-3 Eligibility Reportability Table	Updated Histology Table
401	Appendix M	Case example #8	Correction to coding of the SSDI Clinical Margin [3961] to XX.9
402	Appendix M	Summary of Coding Rules	Removed: • If multiple procedures are performed, record the largest peripheral (radial) margin. Added: this margin is documented by the surgeon in the CoC operative note as a single measurement: • If the margin documentation is missing, the SSDI Clinical Margin should be coded as XX.9, do not use other measurements. • Do not use any clinical margin measurements (e.g., 3.1 cm x 5.2 cm) for this data item. • If multiple WLE procedures are performed, record the documented margin from the op note with the largest margin
437	Appendix R	Case example #19	Correction made to Case example #19 phase I, II and III volume. Volume changed from code 02 to 01.
438	Appendix R	Case example #20	Correction made to Case example #20 phase I, II and III volume. Volume changed from code 02 to 01.

STORE 2023 Page Number	Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
34	Case Eligibility	SIN III is not reportable to CoC	Exception 4: removed the words excluding cervix (SIN III) and the last sentence of SIN III is a specific instance of intraepithelial neoplasia, grade III which is listed in ICD-O-3 as/2.
35	Case Eligibility	LCIS is not reportable to CoC	Removed the sentence from paragraph: "Assign Class of Case according to the relationship between the patient and the reporting facility."
228 230 354	674 1294 Appendix A	Surgical Procedure/Other Site at This Facility Surgical Procedure/Other Site Breast Surgical Code Notes	Note added (inadvertently removed from breast surgical codes): For single primaries only, code removal of contralateral breast under the data item Surgical Procedure/Other Site (NAACCR Item #1294) or Surgical Procedure/Other Site at This Facility (NAACCR Item #674).

3/5/2024 Changes

Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
Appendix M	Case Studies for Coding Melanoma	Removed from STORE 2024

4/11/2024 Changes

Section or NAACCR Data Item Number	Data Item Name	Changes/Comments/Clarifications
Appendix M	Case Studies for Coding Melanoma	Removed from STORE 2024

Summary of Changes

This table lists the changes in the 2024 manual by page number.

Page	Section	Data Item	Change	Notes/Comments
Cover				Updated cover information: Updated dates. Changed page numbers so page numbers in Word and PDF match.
8	Preface	Summary of Changes	Listing of major changes updated	Revised the section with the list of major changes including additions, deletions, and modifications made to the 2024 manual and appendices. See manual.
9	Preface	2024 Changes	Listing of additional 2024 changes updated	Revised the list of 2024 changes including a link relating to additional sources for cancer coding and staging. See manual.
9	Preface	Submitting Questions	Note revised	***Note:*** See the American College of Surgeons Commission on Cancer CAnswer Forum for questions about **AJCC TNM staging**, Grade, the **Site-Specific Data Items**, and **data items not required by SEER**. SEER required data items are listed in the NAACCR Required Status Table.
10	Preface	Collection and Storage of Dates	Text edited	See the 2023 and 2024 NAACCR Implementation Guidelines for further information regarding the updated data exchange standard.
15	Reportability	Reportable Diagnosis List	Item 1.b.v modified	Changed to: High-grade dysplasia in colorectal sites.
18	Reportability	Ambiguous Terms for Reportability	Text added	Added text: Equivalent to “Diagnostic for” malignancy or reportable diagnosis. These phrases are reportable when no other information is available or there is no information to the contrary. • In keeping with [malignancy or reportable diagnosis]

19	Reportability	Ambiguous Terminology Lists: References of Last Resort	Text edited	Revised the text in the first paragraph: This section clarifies the use of Ambiguous Terminology as listed in STORE 2018 for case reportability and staging in Commission on Cancer (CoC)-accredited programs. When abstracting, registrars are to use the "Ambiguous Terms at Diagnosis" list with respect to case reportability, however, these lists need to be used correctly.
23	Changing Information on the Abstract		Dates in example revised	Updated the dates in #4 example: 4 When the date of diagnosis is confirmed in retrospect to be earlier than the original date abstracted. ***Example***: Patient has surgery for a benign argentaffin carcinoid (8240/1) of the sigmoid colon in May 2022. In January 2023, the patient is admitted with widespread metastasis consistent with malignant argentaffin carcinoid. The registrar accessions the malignant argentaffin carcinoid as a 2023 diagnosis. Two months later, the pathologist reviews the slides from the May 2022 surgery and concludes that the carcinoid diagnosed in 2022 was malignant. Change the date of diagnosis to May 2022 and histology to 8241 and the behavior code to malignant. (/3).
24	Determining Multiple Primaries	Hematopoietic and Lymphoid Neoplasms	Text revised	Revised first sentence: No updates were made to the *Hematopoietic and Lymphoid Neoplasm Coding Manual* and *Database* for 2024 cases.
31	Section I: Basic Record Identification	NAACCR Record Version	Code added	Added code 240 and description, 2024 Version 24.
35	Section II: Information Source	Type of Reporting Source	Example added	***Example***: Surgery for primary cancer performed at hospital as outpatient (no overnight stay). Assign code 1 if the hospital is part of a managed health plan with comprehensive, unified medical records – meaning that a single record is maintained for each patient and that record includes all encounters in affiliated locations. Otherwise, assign code 8.
42	Section III: Demographic Information	Social Security Number	Coding Instruction 2 added	For missing parts of the Social Security number, enter 9s or leave blank depending on what the registry software allows

45	Section III: Demographic Information	Address at Diagnosis--Number and Street	Coding Instruction 3 revised	Updated date of the publication: The USPS Postal Addressing Standards, Publication 28, November 2022, can be found on the Internet at https://pe.usps.com/cpim/ftp/pubs/pub28/pub28.pdf
58	Section III: Demographic Information	Geocoding Quality Code	Data item added	See manual.
59	Section III: Demographic Information	Geocoding Quality Code Detail	Data item added	See manual.
80	Section III: Demographic Information	Race 1, 2, 3, 4, 5	Examples added	***Example 15:*** Electronic medical record indicates patient is "Native Hawaiian or Other Pacific Islander." Look for other descriptions of the patient's race. When no other information is available, assign 97, Pacific Islander, NOS. ***Example 16:*** Patient is "Belgian." Medical record indicates "non-hispanic, other race." Patient appears white on scanned driver's license photo. Assign race code 01 for white. "Belgium" is classified as "European" in appendix D and European is included under the descriptions for white. Driver's license photo supports this.
82	Section III: Demographic Information	IHS Link	Note added	***Note***: Do not change race coding based on results from IHS linkage.
89	Section III: Demographic Information	Tobacco Use Smoking Status	Coding Instructions modified	Revised Coding Instructions 2, 3.c (formerly 3.b), 4.c (formerly 4.b), 6.a, and 7.a. Added Coding Instruction 3.b, 4.b, and 5.c, 6.b., 6.c, and 7. See manual.
92	Section IV: Description of this Neoplasm	Introductory section--Pathology Reports	Text revised	Revised first sentence: For the purposes of coding primary site, histologic type, and behavior, SEER recommends that information from consult pathology reports be preferred over the original pathology report.
95	Section IV: Description of this Neoplasm	Date of Diagnosis	Coding Instructions examples--dates revised	Updated dates in Examples used in several Coding Instructions. See manual.
95	Section IV: Description of this Neoplasm	Date of Diagnosis	Coding Instruction 2 and 3 combined	When the **only** information available is a positive pathology or cytology report, code the date the procedure was done as the date of diagnosis. Do not code the date the specimen was received, read as

				positive by the pathologist, or the date the report was dictated or transcribed.
97	Section IV: Description of this Neoplasm	Date of Diagnosis	Cases Diagnosed Before Birth examples revised	Updated dates in the example.
101	Section IV: Description of this Neoplasm	Sequence Number--Central	Coding Instruction 6 examples--date revised	Non-Malignant Coding Instruction 6: Updated date in the example.
102	Section IV: Description of this Neoplasm	Primary Site	Section added	Added section: Physician Priority Order for Coding Primary Site for Solid Tumors. See manual.
104	Section IV: Description of this Neoplasm	Primary Site	Coding Instruction 9 updated	Added Anus to the list of site-specific coding guidelines for coding of primary site.

112	Section IV: Description of this Neoplasm	Diagnostic Confirmation	Note added to Coding Instruction 8	***Note***: Intraductal papillary mucinous neoplasm with high grade dysplasia (8453/2) of the pancreas is reportable based on imaging alone; histologic confirmation is not required.
114	Section IV: Description of this Neoplasm	Histologic Type ICD-O-3	Text removed	Removed text: See the NAACCR website for additional updates for 2024. Refer to the most current Solid Tumor Rules for histology code changes. Items 1-4 also removed.
114	Section IV: Description of this Neoplasm	Histologic Type ICD-O-3	Text revised	*Histology Coding for Solid Tumors* table: Revised Primary Site text to: Non-malignant CNS Tumors Revised Topography text for: Other Sites: Excludes Head and Neck, Colon, Lung, Melanoma of Skin, Breast, Kidney, Renal Pelvis, Ureter, Bladder, Brain, Lymphoma and Leukemia
117	Section IV: Description of this Neoplasm	Behavior Code	Exception added to In Situ section	***Exception:*** Intraductal papillary mucinous neoplasm with high grade dysplasia (8453/2) of the pancreas is reportable based on imaging alone, histologic confirmation not required.
119	Section IV: Description of this Neoplasm	Cancer PathCHART Site-Morphology Combination Standards	Section added	See manual.

124	Section IV: Description of this Neoplasm	Derived Summary Grade 2018	Data item added	See manual.
	Section IV: Description of this Neoplasm	Tumor Size--Clinical	Data item deleted	
	Section IV: Description of this Neoplasm	Tumor Size--Pathologic	Data item deleted	
125	Section IV: Description of this Neoplasm	Tumor Size Summary	Data item added	Added data item. Replaces Tumor Size--Clinical and Tumor Size--Pathologic. See manual.
138	Section IV: Description of this Neoplasm	Derived Summary Stage	Data item added	See manual.
145	Section IV: Description of this Neoplasm	Mets at Diagnosis data items	Text moved	Moved the statement below the coding instructions for all Mets at Diagnosis data items: For more information about schemas and schema IDs, go to the SSDI Manual, Appendix A.
157	Section VI: Stage-related Data Items	SEER Site-specific Factor 1	Coding instructions modified. Updates made.	Changed codes to 2-digits. Modified coding instructions. See manual.
159	Section VI: Stage-related Data Items	Additional Stage-related Data Items/ SSDIs	Introductory text revised	Revised introductory paragraphs to update information for 2024. See manual.
160	Section VI: Stage-related Data Items	Additional Stage-related Data Items	Table 5 added	Added Table 5: Site-specific Data Items Implemented in 2024. See manual.

169	Section VII: First Course of Therapy	Date Therapy Initiated	Coding instruction 2 added	Record the date the decision was made for active surveillance even if the patient later changes their mind and opts for additional treatment. Code Treatment Status as 2, Active surveillance/watchful waiting.
170	Section VII: First Course of Therapy	Date Therapy Initiated	Coding instruction 4 dates in example revised added	See manual.
170	Section VII: First Course of Therapy	Date Therapy Initiated	Coding instruction 7.b deleted	Deleted former 7.b: When Treatment Status is coded 2, Active surveillance/watchful waiting
174	Section VII: First Course of Therapy	Surgery of Primary Site 2023	Coding Instruction 1 edited	Minor edits made to note: ***Note***: Codes A000 and B000 exclude all sites and histology's that are coded A980. (See Coding Instruction 11 below.)
175	Section VII: First Course of Therapy	Surgery of Primary Site 2023	Coding Instruction 4 notes deleted	Note 2 and Example deleted
176	Section VII: First Course of Therapy	Breast Reconstruction	Data item added	Added new data item. See manual.
200	Section VII: First Course of Therapy	Radiation Treatment Modality--Phase I, II, and III	Text modified	Made minor edit to the bullet: Refer to the current Standards for Oncology Registry Entry (STORE) Manual and the CTR Guide to Coding Radiation Therapy Treatment in the STORE (see 2024 STORE Manual, Appendix M)

200	Section VII: First Course of Therapy	Radiation Treatment Modality--Phase I, II, and III	Coding Instruction 1 modified	Assign code **13** Radioisotopes, NOS for Radioembolization procedures, e.g., intravascular yttrium-90 or lutetium-177

203	Section VII: First Course of Therapy	Radiation External Beam Planning Technique--Phase I, II, III	Text modified	Made minor edit to the last bullet: Refer to the current Standards for Oncology Registry Entry (STORE) Manual and the CTR Guide to Coding Radiation Therapy Treatment in the STORE (see 2024 STORE Manual, Appendix M)
207	Section VII: First Course of Therapy	Date Systemic Therapy Started	Coding Instruction 1 edited	Made minor text edit: Record the date of the first/earliest systemic therapy if *Chemotherapy, Hormone Therapy, Immunotherapy, or Hematologic Transplant and Endocrine Procedures* was recorded as part of the first course of therapy
209	Section VII: First Course of Therapy	Chemotherapy	Code Description modified	Code 82: Chemotherapy was not recommended/administered because it was contraindicated due to patient risk factors (.i.e., comorbid conditions, advanced age, progression of tumor prior to administration, etc.).
210	Section VII: First Course of Therapy	Chemotherapy	Date in Example 1 updated	See manual.
211	Section VII: First Course of Therapy	Chemotherapy	Coding Instruction 7.c added	Progression of tumor prior to administration
216	Section VII: First Course of Therapy	Hormone Therapy	Code Description modified	Code 82: Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (.i.e., comorbid conditions, advanced age, progression of tumor prior to administration, etc.).
220	Section VII: First Course of Therapy	Immunotherapy	Code Description modified	Code 82: Immunotherapy was not recommended/administered because it was contraindicated due to patient risk factors (.i.e., comorbid conditions, advanced age, progression of tumor prior to administration, etc.).
221	Section VII: First Course of Therapy	Immunotherapy	Date in example updated	See manual.
223	Section VII: First Course of Therapy	Hematologic Transplant And Endocrine Procedures	Code Description modified	Code 82: Transplant procedure and/or endocrine therapy was not recommended/administered because it was contraindicated due to patient risk factors (.i.e., comorbid conditions, advanced age, progression of tumor prior to administration, etc.).

230	Section VII: First Course of Therapy	Neoadjuvant Therapy	Coding Instruction 1.d added	When the primary site is unknown; however, and neoadjuvant therapy is given to treat another site. ***Example***: Patient is diagnosed with melanoma in the lymph nodes with no primary skin site found. The physician gives immunotherapy as neoadjuvant therapy with planned and carried out surgical resection of involved lymph nodes following completion of immunotherapy.
234	Section VII: First Course of Therapy	Neoadjuvant Therapy--Clinical Response	Coding Instruction 1.d added	When the primary site is unknown; however, and neoadjuvant therapy is given to treat another site. ***Example***: Patient is diagnosed with melanoma in the lymph nodes with no primary skin site found. The physician gives immunotherapy as neoadjuvant therapy with planned and carried out surgical resection of involved lymph nodes following completion of immunotherapy.
237	Section VII: First Course of Therapy	Neoadjuvant Therapy--Treatment Effect	Coding Structure text edited	For purposes of this data item, neoadjuvant therapy is defined as systemic treatment (chemotherapy, endocrine/hormone therapy, targeted therapy, immunotherapy, or biological therapy) and/or radiation therapy of the primary site given to shrink a tumor before surgical resection.
241	Section VII: First Course of Therapy	Other Therapy	Coding Instruction 2.b note modified	***Note***: Code UVB phototherapy for mycosis fungoides as photodynamic therapy under Surgery of Primary Site 2023 for skin. Assign code B110 [Photodynamic therapy (PDT)] when there is no pathology specimen. Photopheresis: This treatment is used ONLY for thin melanoma or cutaneous T-cell lymphoma (mycosis fungoides).
241	Section VII: First Course of Therapy	Other Therapy	Coding Instruction 2.d deleted	Former coding instruction 2.d deleted: Peptide Receptor Radionuclide Therapy (PRRT)

Appendix A	County Codes		Updated dates.
Appendix B	Country and State Codes	Minor edits made	Updated links in the Source section. Made editorial changes to the names of countries. Changed Netherlands (the) to Netherlands (Kingdom of the). Changed Turkey to Türkiye. Deleted countries and codes not on the current list of ISO 3166-1.
Appendix C: Site Specific Coding Modules	Coding Guidelines: Anus	Guideline added	See manual.

Appendix C: Site Specific Coding Modules	Coding Guidelines: Brain/CNS, Benign and Borderline	Guideline edited	Added a statement to the Tentorial section and corresponding primary site codes for supratentorial and infratentorial: Supratentorial and Infratentorial subsites are based on Summary Stage 2018.
Appendix C: Site Specific Coding Modules	Coding Guidelines: Brain/CNS, Malignant	Guideline edited	Added a statement to the Tentorial section and corresponding primary site codes for supratentorial and infratentorial: Supratentorial and Infratentorial subsites are based on Summary Stage 2018.
Appendix C: Site Specific Coding Modules	Coding Guidelines: Breast	Guideline edited	Added that C500 is preferred over C508 to the existing statement that C501 is preferred over C508.
Appendix C: Site Specific Coding Modules	Coding Guidelines: Pancreas	Guideline edited	Added a footnote to Neck of pancreas^: ^Pancreas body vs. neck: the neck is a thin section of the pancreas located between the head and the body.

Appendix C: Site Specific Coding Modules	Surgery Codes: Bone/Soft Tissue		Added SEER Notes: A250 Local excision
			[***SEER Note***: According to the CoC, "excision" in the surgery codes refers to the lesion and "partial resection" refers to the organ.] A260 Partial resection [***SEER Note***: According to the CoC, "excision" in the surgery codes refers to the lesion and "partial resection" refers to the organ.] A300 Radical excision or resection of lesion WITH limb salvage [***SEER Note***: Assign code A300 when the tumor was excised, and the limb was saved (salvaged). ***Example***: Six cm sarcoma excised from soft tissue near the distal humerus. Able to obtain 2 cm pathologic margins. Plastic team intercepted to perform graph with muscle. taken from abdomen.

Appendix C: Site Specific Coding Modules	Surgery Codes: Breast	Codes changed	Changed codes from A designation to B. Added and deleted codes. Edited existing codes including updating text and adding and deleting notes. See manual.
Appendix C: Site Specific Coding Modules	Surgery Codes: Colon	Codes changed	Changed codes from A designation to B. Added new surgery codes. Designated code as obsolete. Edited existing codes including updating text and adding notes. See Colon Surgery Codes in Appendix C.

Appendix C: Site Specific Coding Modules	Surgery Codes: Lung	Codes changed	Changed code from A designation to B. Added new surgery codes. Designated code as obsolete. Reordered the order of codes. Edited updating text of existing codes including adding notes. See Lung Surgery Codes in Appendix C.
Appendix C: Site Specific Coding Modules	Surgery Codes: Pancreas	Codes changed	Changed code from A designation to B. Edited Code text of some codes to add examples. Modified the code number of existing code description. Noted as Obsolete: code B700
Appendix C: Site Specific Coding Modules	Surgery Codes: Thyroid	Codes changed	Changed code from A designation to B. Reordered the order of codes and text associated with codes (B200 and B250 and corresponding sub-codes). Edited existing codes including updating text of codes (B200 and B250 and corresponding sub-codes).
Appendix D	Race and Nationality Descriptions	References updated	Updated references.

Appendix E1	Reportable Examples		Updated document dates. Revised Diagnosis/Condition and Note for #23. See Appendix E1.
Appendix E2	Non-Reportable Examples		Updated document dates. Revised Diagnosis/Condition and Note for #1. Revised Diagnosis/Condition for #32. See Appendix E2.

SEER Staging

Staging Requirements for 2024 Diagnosis

CDC-NPCR continues to require directly assigned Summary Stage 2018 [764] (most current version). NPCR requirements for Summary Stage 1977 [760], Summary Stage 2000 [759], and CS Derived Summary Stage 2000 [3020] have not changed. If voluntarily capturing AJCC TNM and/or SEER EOD stage data items, rules and requirements provided by those sources should be followed.
Central registries will inform state reporters of their individual state requirements.
Questions related to CDC-NPCR Stage requirements can be submitted to:
cancerstaging@cdc.gov

Questions regarding information on SEER updates for any of the following categories should be directed to "Ask a SEER Registrar" using the link provided below.

https://seer.cancer.gov/registrars/contact.html

Ask a SEER Registrar Provides Information on the Following Subjects:

- Solid Tumor Rules (for cases diagnosed 2018+)
- Multiple Primary & Histology Rules (for cases diagnosed 2007-2017)
- ICD-O-3 Update (for cases diagnosed 2018+)
- Hematopoietic Rules (database and manual)
- SEER Manual
- SEER*Rx
- Extent of Disease (EOD 2018)
- Summary Stage 2018 (SS2018)
- Collaborative Stage (for cases diagnosed 2016-2017)

SEER Site/Histology Validation List

In the past, the SEER Site/Histology Validation List was updated to reflect new ICD-O-3.2 histology codes and behaviors identified in the 2024 ICD-O-3 Update guidelines and was posted on the SEER website.
This list has now been replaced by the 2024 Cancer PathCHART ICD-O-3 Site Morphology Validation List.

Summary Stage 2018

The Summary Stage 2018 [764] notes for Prostate are updated similarly to the EOD fields to improve clarity. Registrars are not required to update previously coded information. This information is incorporated in the SEER Staging REST API/library and will be available once the staging API has been updated.

AJCC Version 9

AJCC Version 9 Protocols

AJCC Cancer Staging System will release seven Version 9 Protocols to go into effect with cases diagnosed January 1, 2024, and forward:

- Vulva Version 9
- Neuroendocrine Tumors of the Stomach Version 9
- Neuroendocrine Tumors of the Duodenum and Ampulla of Vater Version 9
- Neuroendocrine Tumors of the Jejunum and Ileum Version 9
- Neuroendocrine Tumors of the Appendix Version 9
- Neuroendocrine Tumors of the Colon and Rectum Version 9
- Neuroendocrine Tumors of the Pancreas Version 9

These Version 9 protocols replace the current AJCC 8th edition chapters for these disease sites. AJCC Cancer Staging System has changed the AJCC IDs for Version 9 Protocols. This will align with the fact that there are no longer chapters with chapter numbers. The following will be the new AJCC IDs for Version 9 Protocols.

AJCC Protocol	AJCC ID
Cervix Uteri	9001
Appendix	9002
Anus	9003
Brain and Spinal Cord Other	9004
Brain and Spinal Cord Medulloblastoma	9005
Vulva	9006
Neuroendocrine Tumors of the Stomach	9007
Neuroendocrine Tumors of the Duodenum and Ampulla of Vater	9008
Neuroendocrine Tumors of the Jejunum and Ileum	9009
Neuroendocrine Tumors of the Appendix	9010
Neuroendocrine Tumors of the Colon and Rectum	9011
Neuroendocrine Tumors of the Pancreas	9012

AJCC Histology Changes

The following Histology ICD-O-3 [522] with AJCC ID [995] is now eligible for AJCC staging for cases diagnosed January 1, 2024, and forward. Note: the staging DLL/APIs will also indicate these histologies are eligible for AJCC staging in 2018-2023, but registries are not expected to collect stage for those years. Each registry may decide how to handle these earlier cases.

AJCC ID	AJCC Chapter	Histology
57	Penis	8085
57	Penis	8086
20	Colon and Rectum	8154

The following Histology ICD-O-3 [522] for Primary Site [400] has been moved to a new protocol (AJCC ID) for cases diagnosed January 1, 2024, and forward.

AJCC ID	AJCC Chapter	Primary Site/Histology	Notes
46	Merkel Cell Carcinoma	C51.0, C51.1, C51.2, C51.8, C51.9 with 8041	These primary sites and histology combinations will now be in Version 9 Vulva

Extent of Disease (EOD)

For cases diagnosed January 1, 2024, and forward, new schemas are added to align with changes in AJCC version 9 (V9):

- NET Ampulla of Vater [V9: 2024+] (09302)
- NET Appendix [V9: 2024+] (09320)
- NET Colon and Rectum [V9: 2024+] (09330)
- NET Duodenum [V9: 2024+] (09301)
- NET Jejunum and Ileum [V9: 2024+] (09310)
- NET Pancreas [V9: 2024+] (09340)
- NET Stomach [V9: 2024+] (09290)
- Vulva [V9: 2024+] (09500)

The existing related schemas are "[8th: 2018-2023]" appended to the name (for example, Vulva [8th: 2018-2023]) and their schema IDs remain unchanged. The schemas based on the 8th edition continue to be used for cases diagnosed from January 1, 2018, through December 31, 2023. Some histologies are added to the new schemas based on version 9. These histologies continue to be included in the original schemas for cases diagnosed from January 1, 2018, through December 31, 2023, so no conversions are necessary. The original schemas include:

- Merkel Cell Skin (00460) – 8041 with C51._moves to Vulva V9
- Pancreas (00280) – 8272 with C25._moves to NET Pancreas V9
- Soft Tissue Abdomen and Thoracic (00421) – 8982, 9064 with C51._moves to Vulva V9

There are significant differences between the Vulva 8th and Vulva V9 EOD Primary Tumor [772] and EOD Regional Nodes [774] definitions so that the Vulva V9 definitions align with the AJCC T and N definitions.

The calculation tables for the Derived EOD 2018 fields are updated so that In Situ cases, where AJCC does not define Tis, the table now derives 88 for the four Derived EOD 2018 fields.

The calculation tables for Derived EOD 2018 Stage Group for the 8 schemas where Grade is considered as part of the stage group determination have been updated. The calculation no longer prioritizes by timing, but now uses the more severe grade captured between Grade Clinical [3843] and Grade Pathological [3844]. **If Derived EOD 2018 Stage Group is collected, it will need to be recalculated for cancers diagnosed January 1, 2018, and later**. This affects Schema ID [3800] = 00190 (Appendix 8th), 09190 (Appendix V9), 00381 (Bone Appendicular Skeleton), 00480 (Breast), 00430 (GIST), 00580 (Prostate), 00440 (Retroperitoneum), 00410 (Soft Tissue Trunk and Extremities).

Some Extent of Disease fields changed to improve clarity or to address questions that were raised in the various forums. These changes are applicable to cases diagnosed January 1, 2018, and forward, but registrars are not required to update previously coded information. The new information is incorporated in the SEER Staging REST API/library. Other than updating the staging API that you use, there is no need for action for these types of changes. They are documented in the change log which can be accessed on https://seer.cancer.gov/tools/staging/eod/.

SEER Hematopoietic and Lymphoid Neoplasm Database

*2024 Note

The Hematopoietic and Lymphoid Neoplasms Manual and Database (Heme manual) is effective for cases diagnosed 2010+.
There are no changes to the Heme manual or to the Heme database for 2024.

Database Updates - Released August 11, 2021

1.) The Hematopoietic and Lymphoid Neoplasm Database has been updated based on the latest edition of the WHO Classification of Tumors for Hematopoietic and Lymphoid Neoplasms.

2.) The Hematopoietic database has a new field called "Diagnostic Confirmation." Information for each /3 histology has information about diagnostic confirmation added.

3.) For 9896/3: Alternate name "AML with recurrent genetic abnormalities, NOS" was removed from this code and was moved to 9861/3. a. Due to questions received about a case presented at NCRA and then consultation with a Hematopoietic expert, it was determined that this alternate name was incorrectly placed in code 9896/3 and the appropriate place for this alternate name was in 9861/3.

4.) Additional information added in 9861/3 about the "AML with recurrent genetics abnormalities" group. 5. For 9811/3, the more specific B-cell lymphoma/leukemias were added as a reference.

SEER Heme Database Questions

Questions regarding the SEER Hematopoietic and Lymphoid Neoplasm Database should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

NAACCR 2024

NAACCR 2024 – New Data Items

Geocoding Quality Code and Geocoding Quality Code Detail

There are two new geocode data items, the Geocoding Quality Code [86] is used to describe the quality of the geocoding match and the Geocoding Quality Code Detail [87] provides the details of the elements related to the quality of the geocode. Both data items have been available in the NAACCR Geocoder since 2017 and the first request for the NAACCR Call for Data was in December 2022. Registries that do not use the NAACCR Geocoder will be unable to generate these codes.

RX Hosp- and RX Summ-Recon Breast

CoC added two new data items, RX Hosp-Recon Breast [751] and RX Summ-Recon Breast [1335] for cases diagnosed on or after January 1, 2024. For diagnosis years 2022 and 2023, CoC collected these data in RX Hosp-Recon Breast [10106] and RX Summ-Recon Breast [10107].

Derived Summary Grade 2018

Derived Summary Grade [1975] has been defined. This field will be calculated at the central registries for all cases diagnosed in 2018 and later. The more severe value from Grade Clinical [3843] and Grade Pathological [3844] will be used. Breast is a special case because behavior affects the priority. If this field is required for your registry, logic is provided in section 14.1. The current expectation is that this logic will be added to NAACCR*Prep. Central registries may choose to calculate this value via NAACCR*Prep and not store it in their database.

Brain Primary Tumor Location

Brain Primary Tumor Location [3964] is added to Brain V9 to distinguish between the Pons and all other subsites within the brain stem. All new SSDI information is incorporated into the Staging APIs. See the SSDI Manual, Version 3.1.

NAACCR 2024 – Revised Data Items

Site-Specific Data Items

Some SSDI codes and code descriptions are changed to reflect changes in clinical management and/or staging and to improve clarity or to address questions that were raised in the various forums. Code changes for SSDIs are applicable to cases diagnosed January 1, 2018, and forward, but registrars will not be required to update previously coded information.
Significant changes are made to three SSDIs:

- Brain Molecular Markers [3816] is used in Brain V9 (09721) and CNS Other V9 (09722) schemas. Codes 10-23 are added to incorporate new terms for various histologies. Code 85 is revised to include all histologies applicable for this data item.
- p16 [3956], which is an existing SSDI for the Cervix V9 (09520) and Anus V9 (09210) schemas, is added to the Vulva V9 schema (09500). For cases diagnosed prior to January 1, 2024, Vulva cases would be in Vulva 8th and p16 would not be captured.
- SEER Site Specific Fact 1 [3700] is the HPV status for the Oral Cavity schemas (Buccal Mucosa, Floor of Mouth, Gum, Hypopharynx, Lip, Mouth Other, Oropharynx HPV-Mediated (p16+), Oropharynx (p16-), Palate Hard, Tongue Anterior). It is expanded to 2 digits to allow for more values and greater specificity. Existing values will need to be converted.

New SSDIs and code changes are incorporated in the AJCC Cancer Surveillance DLL and the SEER Staging REST API/library. Other than updating the staging API that you use, there is no need for action for these types of changes. They are documented in the change log which can be accessed on
https://apps.naaccr.org/ssdi/list/. Also, the SSDI Manual, Version 3.1 provides the changes to existing notes, codes, and code descriptions.

Location of Radiation Treatment

Location of Radiation Treatment [1550] coding labels were updated to align with the wording for radiation phases. In the label and definition of the code “administered” was changed to “started”.

NPCR-Sponsored Data Item Changes

The descriptions and rationales for the following six NPCR-sponsored data items have been updated:

- Indian Health Service (IHS) Purchased/Referred Care Delivery Area [194]
- Urban Indian Organization (UIO) [284]
- Urban Indian Organization (UIO) Service Area [285]
- Tobacco Use Smoking Status [344]
- Early Detection Program Minimum Data Element (EDP MDE) Link Date [530]

- Early Detection Program Minimum Data Element (EDP MDE) Link [531]

Refer to the NAACCR Data Standards and Data Dictionary v24 for updated descriptions and rationales.

Urban Indian Organization (UIO) [284]

The data item name for Urban Indian Health Organization (UIHO) [284] changed to Urban Indian Organization (UIO) [284].

For UIO [284], the text description for code 9 has been updated to “the county is unknown or unknown if county is designated as UIO”.

Note: the XML NAACCR ID does not change when the data item name is changed.

Urban Indian Organization (UIO) Service Area [285]

The data item name for UIHO City [285] changed to Urban Indian Organization (UIO) Service Area [285].

For UIO Service Area [285], the text description for code 43 has been corrected to "Bismarck”.

Note: the XML NAACCR ID does not change when the data item name is changed.

Tobacco Use Smoking Status [344]

The following coding instructions are implemented for Tobacco Use Smoking Status [344]:

- Record cigarette, cigar, and/or pipe use only. Tobacco Use Smoking Status does not include marijuana, chewing tobacco, e-cigarettes, or vaping devices.

- Tobacco smoking history can be obtained from sections such as the Nursing Interview Guide, Flow Chart, Vital Stats or Nursing Assessment section, or other available sources from the patient's hospital medical record or physician office record.

- Use code 1 if there is evidence in the medical record that the patient quit smoking within 30 days prior to diagnosis. The 30 days prior information is intended to differentiate patients who may have quit recently due to symptoms that led to a cancer diagnosis.

- Use code 2 if medical record indicates patient smoked tobacco in the past but does not smoke now. Patient must have quit 31 or more days prior to cancer diagnosis to be coded as ‘Former smoker.’

- Use code 3 if it cannot be determined whether the patient currently smokes or formerly smoked. For example, the medical record only indicates “Yes” for smoking without further information.

- Use code 9 (Unknown if ever smoked) rather than code 0 (Never smoker), if o the medical record only indicates “No” for tobacco use; o smoking status is not stated or provided; or o the method (cigarette, pipe, cigar) used cannot be verified in the chart.

- This data item can be left blank for cases diagnosed prior to 1/1/2022.

Coding System Data Items

- NAACCR Record Version [50]: Code 240 is added for 2024 version 24.

- Morph Coding Sys--Current [470] and Morph Coding Sys—Original [480]: Code E is added for ICD-O-
  3.2, plus WHO new terms used for conditions effective January 1, 2024***.

- Schema ID Version Current [2117] and Schema ID Version Original [2118]: Code 3.1 is added. Schema ID Version Current should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to include the new EOD 2018 version. Schema ID Version Original should be set to the version in use when the case is collected. While this version is required for the 2023 diagnosis year, if a 2018-2022 case is collected after the system is updated, the schema ID Version Original should be set to 3.1.

- AJCC Cancer Surveillance DLL Version Current [2158] and AJCC Cancer Surveillance DLL Version
Original [2159]: Code 09.02.00.0001 is added. AJCC Cancer Surveillance DLL Version Current [2158] should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to NAACCR V24. AJCC Cancer Surveillance DLL Version Original [2159] should be set to the version in use when the case is collected. While this version is required for the 2024 diagnosis year, if a 2018-2023 case is collected after the system is updated, the AJCC Cancer Surveillance DLL Version Original [2159] should be set to 09.02.00.0001.

- AJCC API Version Current [2156] and AJCC API Version Original [2157]: Code 09.02.00 is added. AJCC API Version Current [2156] should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to NAACCR V24. AJCC API Version Original [2157] should be set to the version in use when the case is collected. While this version is required for the 2024 diagnosis year, if a 2018-2023 case is collected after the system is updated, the AJCC API Version Original [2157] should be set to 09.02.00.

Note: The versioning of the AJCC API and DLL may be updated after the release of the 2024 Implementation Guidelines. See Cancer Staging System Products for the latest version number(s).

See section 14.4 of the NAACCR 2024 Implementation Guidelines for the conversions of the three staging API/DLL Version Current fields.

Follow-up Source Central

The parent XML element for Follow-up Source Central [1791] was changed from tumor to patient.

NAACCR 2024 – Retired Data Items

Birthplace

In 2013, two new data items were added (Birthplace-State [252] and Birthplace-Country [254]) and were intended to replace the use of Birthplace [250]. All standard setters agreed that Birthplace [250] should have been previously converted to the new interoperable codes. See the 2013 NAACCR Implementation Guidelines for further information.

Place of Death / Country

In 2013, two new data items were added (Place of Death-State [1942] and Place of Death-Country
[1944]) and were intended to replace the use of Place of Death [1940]. All standard setters agreed that Place of Death [1940] should have been previously converted to the new interoperable codes. See the 2013 NAACCR Implementation Guidelines for further information.
Name-Maiden

Name – Birth Surname

In 2021, a new data item was added (Name-Birth Surname [2232]) and was intended to replace the use of Name-Maiden [2390]. See the 2021 NAACCR Implementation Guidelines for further information.

LN Status Femoral-Inguinal, Para-aortic, Pelvic

In 2022, three new data items were added (LN Status Para-aortic [3958], LN Status Pelvic [3957], and LN
Status Femoral-Inguinal [3959]); these replace the data item LN Status Femoral-Inguinal, Para-aortic, Pelvic [3884] which has been retired and no longer included in any schema. See the 2022 NAACCR Implementation Guidelines for further information.

CRC Checksum

The CRC Checksum [2081] is no longer used; it was designed to address potential data file errors that could be introduced in media such as diskettes.

ICD-O-3 2024

Guidelines

The Guidelines for 2024 ICD-O-3.2 Histology Code and Behavior, effective January 1, 2024, developed by the NAACCR ICD-O-3 Implementation Work Group and approved by the High-Level Strategic Group (HLSG), address implementation of updated histology terms and new codes for cases diagnosed on or after January 1, 2024. Members of the work group represent standard setting organizations, central registries, hospital registries, and cancer registry software vendors.

The 2024 ICD-O-3.2 update includes changes identified during review of recently published World Health Organization's WHO Classification of Tumours 5th Edition books (WHO "Blue Books"). This series covers all principal sites of cancer and includes ICD-O morphology codes for each neoplasm. Each new edition underwent thorough review to identify new histologies and ICD-O codes, behavior changes to existing ICD-O codes, and new terminology.

The ICD-O-3 Implementation Work Group recommended adopting the changes for 2024 and implementation of the changes was approved by the standard setting agencies. These changes will be made congruent with Cancer PathCHART standards.

The 2024 ICD-O-3.2 histology code and behavior update includes tables listing changes made after the 2023 update and is effective for cases diagnosed January 1, 2024, and forward. As introduced in 2022, the 2024 update tables include columns for each standard setter which indicates if that code and/or term are required for data collection and submission.

The ICD-O-3 Implementation Work Group created a guide for users which provides important information on the background and issues for this update along with how to use the tables. The 2024 guidelines have been modified to include only two tables, numeric and alpha, listing new ICD-O codes, terminology, behavior changes, and required status. The Work Group strongly recommends that users read the guidelines to efficiently use ICD-O-3.2 and the 2024 Update tables.

Note: Use of these guidelines is required for determining reportability and accurate coding.

Following the release of the 2023 Guidelines for ICD-O-3.2 Histology Code and Behavior Update, the ICDO-3 Implementation Work Group reviewed the recent 5th Ed WHO Blue Books published after the creation of ICD-O-3.2.

The Work Group submitted their implementation recommendations to the MidLevel Technical Group (MLTG) and High-Level Strategic Group (HLSG) in March 2023. The MLTG and HLSG reviewed the recommendations and accepted them for implementation in 2024.

Additional updates to site and morphology combination standards will be released via the Cancer PathCHART standards, including the 2024 Cancer PathCHART ICD-O-3 Site Morphology Validation List.

The ICD-O-3 Implementation Work Group is charged with developing the implementation documents and acting as the clearinghouse for the review and resolution of new histology code implementation questions. If there are any questions, they are to be submitted through Ask A SEER Registrar.

These documents will be posted to the NAACCR web site at: ICD O 3 Coding Updates (naaccr.org)

Blast emails from the standard setting organizations will also include links to the updated tables. The documents can then be saved to your desktop or printed. A link to the tables will also be posted on the SEER website.

Implementation guidelines and updates will be posted on NAACCR's website. The Work Group will also be communicating updates via email using the NAACCR listserv and mailing lists of all organizations.

Solid Tumor Rules

The Solid Tumor Rules are a comprehensive revision to the 2007 site specific Multiple Primary and Histology Rules (MP/H), which were developed to promote consistent and standardized coding for cancer surveillance. In 2018, eight site groups were revised: Malignant and Non-malignant CNS, Breast, Colon, Head & Neck, Kidney, Lung, and Urinary. Since their implementation in 2018, these site groups continue to be updated to reflect changes in histology coding. In 2021, Cutaneous Melanoma MP/H site rules were revised as Solid Tumor

Rules and became effective for cases diagnosed January 1, 2021, and forward. Beginning January 1, 2022, the 2018 Solid Tumor Rules are now called "Solid Tumor Rules" and no longer include year. The General Instructions and each site-specific module include instructions on which rules to use depending on diagnosis date. The content of the *Solid Tumor Rules* will be made consistent with the Cancer PathCHART tumor site and morphology standards as outlined in the 2024 Cancer PathCHART ICD-O-3 Site Morphology Validation List.

General: The addition of new terminology, clarifications to equal/equivalent terms, and clarifications to terms that are not equal/equivalent comprise most of the changes for 2024.

New site-specific modules are not planned for 2024 at this time, pending the publication of the remaining *5th Edition WHO Classification of Tumours* books.

Reportability

Reportability for cases diagnosed in 2024 is based on the ICD-O Third Edition, Second Revision Morphology (ICD-O-3.2) plus the ICD-O-3.2 updates posted on the NAACCR website.

There are no changes to reportability for 2024 diagnosis.

Surgery Code Crosswalks

Crosswalks of surgery codes for the data items RX Summ--Surg Prim Site 03-2022 [1290] and RX Summ-Surg Prim Site 2023 [1291] have been developed for sites where significant changes occurred to the surgery codes and code definitions. These crosswalks are intended to be used for quality control, by registry software vendors, and by data analysts interested in reviewing surgery codes over time. Footnotes within each crosswalk worksheet have been provided for those who may want to perform additional text review to translate to a more specific code when additional code translations are technically possible. The spreadsheets include the codes as they appear in the STORE and the SEER Program Coding and Staging Manuals, 2022, 2023 and 2024 versions. The crosswalks should not be used to directly code the surgery fields.

Cancer PathCHART *Initiative*

The Cancer Pathology Coding Histology and Registration Terminology (Cancer PathCHART) initiative is a ground-breaking collaboration of North American and global registrar, registry, pathology, and clinical organizations, including the following tumor and histology cancer data standard setters:

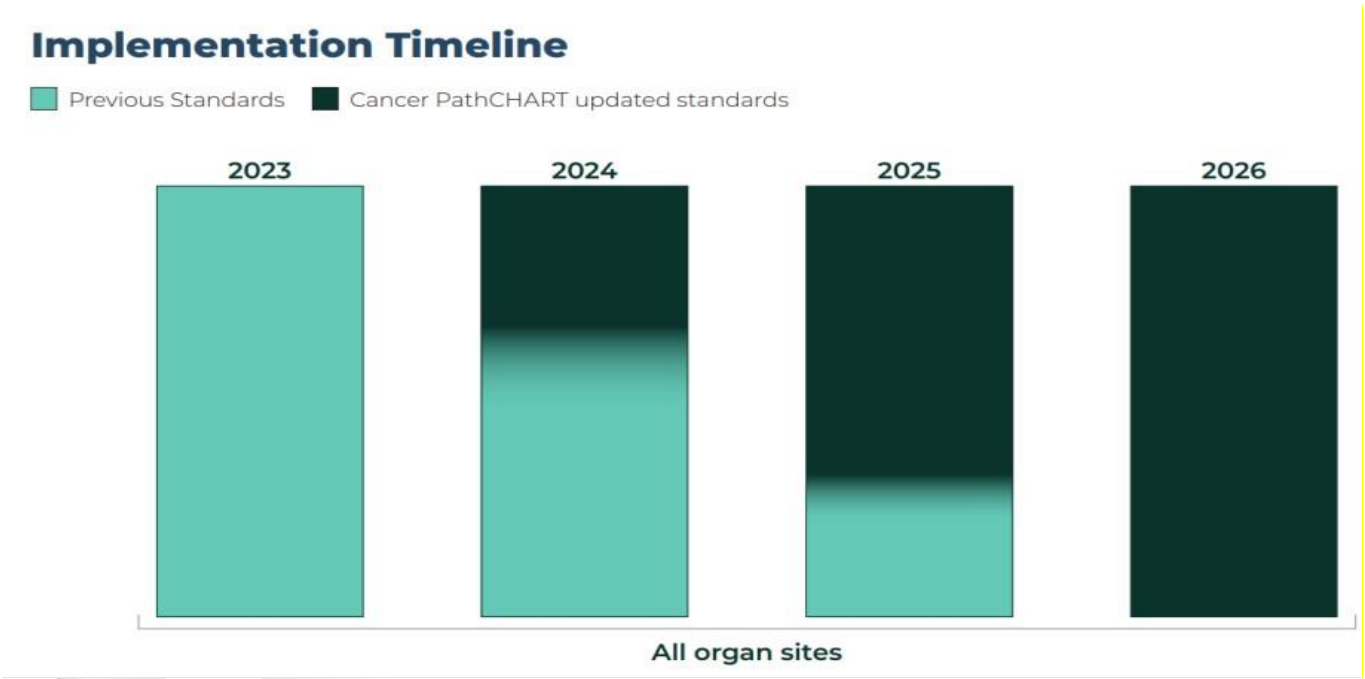
- World Health Organization/International Agency for Research on Cancer
- College of American Pathologists
- National Cancer Institute, Surveillance Research Program
- Center for Disease Control and Prevention, National Program of Cancer Registries
- American College of Surgeons, Commission on Cancer
- American Joint Committee on Cancer
- International Association of Cancer Registries
- International Collaboration on Cancer Reporting
- National Cancer Registrars Association
- North American Association of Central Cancer Registries

Cancer PathCHART aims to improve cancer surveillance data quality by updating standards for tumor site, histology, and behavior code combinations and associated terminology.

This initiative involves a substantial, multifaceted review process of histology and behavior codes (and associated terminology) by tumor site that includes expert pathologists and tumor registrars. The results of these in-depth reviews are incorporated into the Cancer PathCHART database, and serve as all-new, single source of truth standards for tumor site, histology, and behavior coding across all standard setters. The 2024 Cancer PathCHART ICD-O-3 Site Morphology Validation List, output directly from the Cancer PathCHART database, is a comprehensive table that replaces both the ICD-O-3 SEER

Site/Histology Validation List, which serves as the basis of the Primary Site, Morphology-Type, Beh ICDO3 (SEER IF25), as well as the list of impossible site and histology combinations included in the Primary Site, Morphology-Imposs ICDO3 (SEER IF38) edit. The 2024 Cancer PathCHART ICD-O-3 Site Morphology Validation List is freely available to cancer registration software vendors and any other end users in easily consumed, computer-readable formats (e.g., Excel, CSV, XML).
Updated standards will be implemented as follows (see Implementation Timeline graph below).

- For cases diagnosed in 2023 and earlier, 2023 tumor site and morphology standards will be used; standards will not be applied retroactively, no review of cases diagnosed prior to 2024 will be required.
- For cases diagnosed in 2024 at topographical sites that have undergone the Cancer PathCHART review processes, updated 2024 standards will be used.
- For all other cases diagnosed in 2024 at topographical sites that have yet to be reviewed, 2023 tumor site and morphology standards will be used.



XML

The NAACCR XML Data Exchange Work Group continues to develop the *NAACCR Data Exchange Standard, XML Specifications for Cancer Registry Records*. The latest standard base dictionary, sample data, and software tools are available to registries and software vendors. The XML website provides links to these documents, changes been versions, and products.

Date Fields

In the original NAACCR fixed-width file format, column position and field length for each data item was explicitly defined to ensure that information from one item did not encroach into another. To maintain this structure, a strict set of rules were established with empty spaces used as placeholders to ensure correct positioning within a fixed-width record. The migration to eXtensible Markup Language (XML) removes the necessity for these strict column requirements. Instead, the XML format only restricts the maximum length of a variable.

NAACCR XML Data Items

Data items are populated with non-space characters from left to right, up to, but not exceeding the maximum length. In XML v24, left-to-right storage of data – without spaces – is the default for all variables except those involving free-form text or in rare cases where standard-setter requirements require alternative rules to conform with edits.

As example, the structure for all date fields in NAACCR XML is: 1. a maximum of eight (8) numeric characters/digits.

2. left justified

3. formatted from left to right as YYYYMMDD

This format is defined for transmission of cancer registry data using the NAACCR XML data exchange standard, it is not meant to inform how data should be stored in a registry database or viewed on a screen. The order of components - year, then month, then day - follows a left-to-right transmission priority which ensures that the minimum allowable information is listed first and to the left. With this structure, only valid portions of the date are transmitted while

missing/unknown portions of dates are not transmitted. Below are transmission examples for dates when only certain components are known:

- YYYYMMDD – when a date is complete, known, and valid, then all eight (8) numeric characters are transmitted from left-to-right as a 4-digit year, then 2-digit month, then 2-digit day.

- YYYYMM – when the year and month are known and valid, but the day is unknown, then the first 6 digits are transmitted.

- YYYY – when the year is known and valid, but the month and day are unknown, then the first 4 digits are transmitted.

- If the date is fully unknown, then the date field should not be filled with anything – this includes the space character (i.e., any whitespace such as the space bar entry). Such date fields are not included in a transmitted NAACCR XML file.

Updated Data Exchange Standard

The NAACCR Data Exchange Standard specification is updated to version 1.7. In this version, the "trim" data item attribute was retired. The default value of the "padding" data item attribute changes to "none", the other valid value is "leftZero", and the other values are retired.

XML Software Utilities

This section highlights several XML software tools. Software vendors should use a standard software tool or NAACCR XML library to validate XML files.

Registry Plus XML Exchange Plus software by NPCR is an aid for central registries that want to collect their own data items. It produces a valid user dictionary that can be distributed to cancer registry software vendors. XML Exchange Plus can be used for: 1) dictionary maintenance; 2) convert flag and NAACCR XML files; 3) produce flat and delimited files; 4) run EDITS, producing edit reports similar to GenEDITS Plus; 5) import, view, update, export NAACCR data; and 6) record validation.

File*Pro by SEER provides a variety of useful functions for central registries. It can be used to view, edit, and manage data in text files.

The NAACCR XML Dictionary Editor creates and validates XML dictionaries.

The NAACCR XML Utility Tool translates fixed-width NAACCR files to NAACCR XML files and back. It also validates XML files and creates and validates user-defined NAACCR XML dictionaries.

Other Considerations

Software that still requires some form of fixed-width format for software vendor needs or application tools should conform to the format described in the XML Specification v1.7 using the NAACCR XML ID as headers as explained in the *Guidelines for Creating a Delimited Data File from a NAACCR XML File (section 2.4.8)*. Users are strongly encouraged to migrate away from flat file considerations as these will not be supported indefinitely, though no end date is yet established.

Contact the NAACCR XML Data Exchange WG with any questions. Valerie Yoder (valerie.yoder@hsc.utah.edu) and Isaac Hands (isaac.hands@uky.edu) are the work group co-chairs.

XML Repository and Edits Clearinghouse

Refer to section 7 for XML updates. The NAACCR User Dictionary Clearinghouse allows central registries to upload their XML User Dictionary along with the MS Excel data items workbook describing their dictionary, or their decision not to create one.
Refer to section 8 for general EDITS information. The NAACCR Standards for Cancer Registries, Standard Data Edits, Volume IV (naaccr.org) Clearinghouse will be maintained to allow central registries to post their registry specific metafile and supporting documentation. Individuals will be able to register to get notifications from specific registries each time a new file is posted.

EDITS

V24 NAACCR Edits Metafile

A beta version of the v24 edits metafile was made available in mid-July. The beta version is available upon request (see contact info below). The initial release of the v24 metafile is scheduled to be made available online by August 31 at https://www.naaccr.org/standard-data-edits/

Changes to edits for cases diagnosed 2018 through 2023 address fixes to edit logic as well as updates to accommodate changes to existing data items for 2024. The NAACCR v24 Change Spreadsheet includes:

- "Corrections" page that lists corrected edits.
- "Updates" page that lists modifications to existing edits.
- "Updates-2024" page that list modifications to existing edits for 2024 changes
- "New Edits" page that lists all new edits for both existing and new data items.
- "Categories" page that groups new and changed edits by the types of changes that were made.
- "Pediatric" page that lists all new and existing edits for Pediatric Staging implemented by SEER.

Corrections to edits include changes to edit names, edit descriptions, and edit logic. Changes were prompted by problem reports from users as well as review of edits when considering required updates for 2024. Updates to existing edits were made in response to user requests, to enhance edit logic, or to improve edit performance.

The "Updates-2024" to edits respond to the following changes in data standards:

a) Retiring of data items: Birthplace; CRC CHECKSUM; LN Status Femoral-Inguinal, Para-aortic, Pelvic; Name-Maiden; Place of Death.
b) Change in data item length: SEER Site-Specific Fact 1, from 1 to 2 characters.
c) New codes for Brain Molecular Markers SSDI.
d) New data items: Brain Primary Tumor Location for Brain V9 schema (09721); Derived Summary Grade; RX Hosp--Recon Breast and RX Summ--Recon Breast for Primary Site C500C509. These last two data items use new A codes to record breast reconstruction that occurs at the same procedure as breast surgery. No edits have been developed for the other new data items: Geocoding Quality Code and Geocoding Quality Code Detail, derived data items from the geocoding process.
e) New format for AJCC ID for schemas with Version 9 staging: The AJCC IDs are numbered in publication order for Version 9 staging, starting with 9001 for Cervix Uteri, 9002 for Appendix, 9003 for Anus, 9004 for Brain, 9005 for Medulloblastoma, and 9006 through 9012 for the new Version 9 staging schemes released for 2024. Edits have been updated to accommodate these new AJCC IDs, and to use the 4-digit numeric values starting with "9" to identify cases staged in Version 9.
f) Version 9 staging is new for Vulva (9006, 09500), NET of Stomach (9007, 09290), NET of

Duodenum and Ampulla (9008, 09301, 09302), NET of Jejunum and Ileum (9009, 09310),

NET of Appendix (9010, 09320), NET of Colon and Rectum (9011, 09330), and NET of Pancreas (9012, 09340). There are some changes to staged histologies in all these schemas,

and changes to AJCC T and AJCC N values for Vulva. Edits have been updated to include the new AJCC IDs and Schema IDs where appropriate. p16 is a new SSDI for Vulva V9 in 2024.

g) New B surgery codes have been added for Colon, Pancreas, Lung, Breast, and Thyroid. B codes have been required for breast from COC facilities for 2022 and 2023, reported in custom data fields, but they will be standard for all reporting facilities starting with 2024. A code will continue to be used in the RX Hosp--Surg Prim Site 2023 and RX Summ--Surg Prim Site 2023 for all cases diagnosed before 2024 for these primary sites. Edits will enforce the use of A and B codes by diagnosis date.

h) The Cancer PathCHART initiative, supported and managed by NCI/SEER, will be the source for the validation of site/histology/behavior combinations, starting with 2024 diagnoses. Existing edits that check valid and impossible site/type combinations will remain in place for diagnoses through 2023. A new edit for 2024 will check valid and impossible combinations with reference to a single table imported from the PathCHART database. Combinations not found in the table are considered unlikely and will require review and an override if correctly coded. For sites and histologies where the PathCHART review has not been completed for 2024, the values from the existing site/type lists will be brought forward.

The “New” page lists all new fields, tables, and edits for this metafile. All new edits begin with “N7”.

The “Categories” page groups both new and existing edits according to their purpose or reason for modification or updating.

The “Pediatric” page lists all new data items and edits developed to support Pediatric Staging based on the Toronto Childhood Cancer Staging Guidelines. Pediatric Staging will be collected by some SEER registries for 2024. The data items use temporary NAACCR numbers 9600 through 9625; it is recommended that registries developing their own custom data items avoid these numbers if possible. Also, the edits use tags starting with “Ped” and in the 71XX range.

The v24 edits metafile was developed in EditWriter v5 (EW5) and will only be available in a .smf format.

Contact Jim Hofferkamp at jhofferkamp@naaccr.org with any questions or concerns about the NAACCR edits metafile. For NPCR EDITS technical support via email contact cancerinformatics@cdc.gov.

Running Edits on XML Files

Edits can be run directly on XML files using GenEDITS Plus and XML Exchange Plus. The Edit Engine 5.1 no longer requires the flat buffer with data items in fixed column positions for processing the v24 metafile. The NAACCR edit metafile will be published without the layout object that has been required for versions of the Edit Engine before 5.1.

Registries with defined local data items are instructed to add the local items to the user-defined data dictionary. To run edits on local data items, these same registry-specific data items must also be added to the Fields object when creating a customized edit metafile in EditWriter 5. It is very important that the same NAACCR item numbers are assigned in the user-defined dictionary and in a customized edit metafile. With the change to the Edit Engine 5.1 that no longer requires a layout, NAACCR item numbers are used to locate the data items instead of data item column positions.

Note that the current version of EditWriter 5 cannot edit XML files when running Edits to test Edit Sets and when using the Data Wizard within the Test Bench. The interactive testing tool known as the Test Bench within EditWriter 5 can still be used to test individual edits using the Test button with the user entering values for each of the fields involved in the edit to determine the test result.

CoC Reporting Requirements

Beginning with cases diagnosed January 1, 2024, and forward, all CoC accredited programs should follow the rules and instructions in STORE 2024. A summary of the STORE 2024 changes is included in the STORE Manual chapter “Summary of Changes”. Two new data items are added RX Hosp-Recon Breast
[751] and RX Summ-Recon Breast [1335] effective with diagnosis January 1, 2024. The Site-Specific Surgery Codes for Lung (C34), Pancreas (C25), Thyroid (C73), Colon (C18), and Breast (C50) are updated to align with the Synoptic Operative Report for cases diagnosed January 1, 2024, and forward.

The data item Location of Radiation Treatment [1550] was updated with wording definition to align with wording for radiation phases. In the label and definition of the code, the word administered has been changed to started.

CoC will no longer collect the CoC specific breast and reconstruction codes, RX Hosp-Surg Breast
[10104], Rx Summ-Surg Breast [10105], Rx Hosp-Recon Breast [10106], and Rx Summ-Recon Breast [20107] in the user defined data fields effective with cases diagnosed January 1, 2024, and forward.

CoC Accredited programs will collect the following SSDI effective with cases diagnosed January 1, 2024, and forward.

- p16 [3956] -Vulva V9

Questions related to STORE can be submitted to the CA Forum. The STORE Manual 2024 will be released to the NCDB Call for Data website in August 2023.

CDC NPCR Reporting Requirements

Beginning with cases diagnosed January 1, 2024, and forward, CDC-NPCR will adopt the new record format and data collection requirements as published in the Data Standards and Data Dictionary, Version 24. Refer to the CDC-NPCR requirements

Summary for Software Developers and Vendors

Until a state registry is fully converted to Data Standards and Data Dictionary, Version 24 software vendors will need to provide continued support for reporting and processing of records for 2023 and earlier diagnoses except where a facility's database has been converted to version 24 software structure.

Regarding 2024 data changes, software vendors will be responsible for identifying required software changes; accommodating new and changed data items; providing support for the implementation of revised staging systems; performing data conversions; and providing access to updated supplementary coding resources such as updated and new manuals. Vendors will also need to address testing and implementation issues, as well as technical support and training. Instructions to development staff should address the additions/updates needed to registry software.

Identify Software Changes

Each vendor will need to review published documentation of changes and generate appropriate specifications for their software, based on their user base (hospital or central registries; U.S. or Canadian registries), their software capabilities, and standard-setter requirements. Specifically, vendors will need to accommodate the following changes and additions documented in this guide:

Section #	Section Contents
2	New data items: Consider only displaying fields appropriate for the year of diagnosis. Brain Primary Tumor Location [3964] DX 2024+, Blank for < 2024 Derived Summary Grade 2018 [1975] DX 2018+, derived at the central registry. RX Hosp-Recon Breast [751] DX 2024+, Blank for < 2024 and non-breast cases RX Summ-Recon Breast [1335] DX 2024+, Blank for < 2024 and non-breast cases Geocoding Quality Code [86] Derived item used in Call for Data Geocoding Quality Code Detail [87] Derived item used in Call for Data
3	Revised items: • Location of Radiation [1550] Update to code 2 and 3 labels • IHS PRCDA [194] Verbiage change • Urban Indian Health Organization (UIHO) [284] Name change and correction to code 9. • UIHO City [285] Name change and correction to code 43 labels • Tobacco Use Smoking Status [344] Verbiage change • EDP MDE Link Date [530] Verbiage change • EDP MDE Link [531] Verbiage change • SSDI Brain Molecular Marker [3816] New codes added • SSDI p16 [3956] Added to Vulva V9 • SEER Site-Specific Fact 1 [3700] Verbiage change and added codes. Convert 2018+ data to new two-digit codes • Coding System Data Item updates for: ○ Morph Coding Sys-Current [470] and Original [480] o Schema ID Version current [2117] and Original [2118]

	○ AJCC Cancer Surveillance DLL Version Current [2158] and Original [2159] o AJCC API Version Current [2156] and Original [2157]
4	Five data items are being retired: • Birthplace [250] • Place of Death [1940] • Name-Maiden [2390] • LN Status Femoral-Inguinal, Para-aortic, Pelvic [3884] • CRC Checksum [2081]
5.1	ICD-O-3.2 changes
5.2	Site/Histology Validation List
5.3	Solid Tumor Rules
5.4	Reportability
5.5	Surgery codes. The new surgery codes for Breast, Colon, Lung, Pancreas, and Thyroid are being implemented. For cases diagnosed in 2023 (when the new surgery field was implemented), cases for these sites will have a surgery code that starts with “A”. For cases diagnosed in 2024 these cases will have a surgery code that starts with a B.
5.6	AJCC changes
5.8	EOD changes
5.9	Summary Stage 2018 changes
7	XML Standard 1.7
8	EDITS

Tracking Versions

Vendor software should store the Original and Current versions for any included components such as APIs or DLLs as system-generated fields (vendor-specific).

The SEER Staging APIs TNM and EOD versions are listed on the SEER*RSA website and can be acquired from the API. The AJCC Cancer Surveillance Staging DLL includes version fields for the DLL as well as for TNM and EOD. The AJCC API has a version field to designate whether the disease site is using 8th or V9. All three Original staging API/DLL version fields should be set when the case is initially collected and not changed thereafter. All three Current staging API version fields should be set to the current version of the API/DLL in use.

NAACCR Record Version [50] will have a new value of '240' meaning '2024 Version 24'.

Data Conversion

The CDC will provide a NorthCon 240 Registry Plus Utility Program conversion utility for the conversions provided in Appendix B and for the changes going from v23 to v24.

Staging

CoC (section 9.1), NPCR (section 9.2), and SEER (section 9.3) specified that hospital facilities are not required to submit derived stage groups. CoC requires physician AJCC staging.

Programming, Testing, and Implementation

Clear communication with standard setters, central cancer registries, and reporting facility customers is critical to avoid delays in delivering software that can meet the requirements for 2024 cases. Software vendors should provide programming instructions to their developers to support the necessary changes for the Data Standards and Data Dictionary, Version 24, as well as testing (if time allows beta site testing) and implementing the items listed elsewhere in this document. Software vendors, to the best of their ability, need to revise/develop, test, distribute, and install software prior to implementation dates set by standard setting organizations and central cancer registries.

Central cancer registries may require software vendors to submit test files prior to reporting in the Version 24 format. Testing should determine that appropriate values are validated within the software. Testing should also accommodate verification of revisions for data import and

export, revisions to the software interface, addition of lookups for new and changed data items where applicable, data entry verifications internal to the software (if available within the software), data item consolidation where applicable, data item conversion where applicable, and standard as well as ad hoc report writing. Any changes to the implementation timeline should be immediately reported to all involved parties. If there are delays to the standards or errata that have not yet been identified, the software vendor programs will be at risk of delay. States must communicate individual changes to state-specific data items, as well as correction record triggering fields, early in the coding and implementation period to accommodate the software release. State-specific edit metafiles which address the state-specific data items must be provided in a timely manner.

Help Files

Changes to any software's online help system (if available) will need to be made in conjunction with Data Standards and Data Dictionary, Version 24-related changes made to the software.

Technical Support and Training

Software vendors are expected to support the data changes in the Data Standards and Data Dictionary, Version 24 in the software and provide their clients with training and documentation appropriate to use the updated software. For reporting-facility-level applications, this will include instruction regarding export of records for transmission to their respective central registries in the correct format with correctly coded and error-free data, as well as import from their previously supported casefinding interface. Documentation to support the updated software may include information presented via the software's online help system and/or training or tutorial guides. Training and support on new coding rules should be referred to the appropriate standard setting organization.

Communication with Central Cancer Registries and Hospital Registries

Software vendors should provide a timeline to the central registries, as well as their registry clients, for plans to release registry software that is able to process and export NAACCR v24 case records in the XML format. Vendors and central registries need to communicate expectations for the delivery of statespecific changes in required data reporting including data fields, metafiles, and XML dictionaries for state-specific data items. Delays in providing state specific changes to vendors may result in delay of facility reporting capabilities. Vendors should work with central registries to accommodate test files in their state-specific export version as may be required by individual central registries. Central registries should be aware that delays in communication of this information from central registry clients to the software vendor may result in further delays in reporting 2024 cases.

Case Abstracting Considerations

Registrars should pay particular attention to the requirements of national standard setters, the state central registry to which they submit cases, and the Commission on Cancer (if applicable) for cases diagnosed January 1, 2024, and forward. Often these requirements will be similar, but occasionally data fields may be required by only one entity. Registrars should consult their reporting manuals and state central registry for instructions and updates on reportable and reportable-by-agreement cases. Hospital registries should also be aware of any completeness and timeliness guidelines established by their state central registry.

Communication with Central Cancer Registries and Software Vendors

Several new developments for 2024 will affect cancer reporting software requirements. New edits have been developed and updates to existing edits were necessitated by changes to data item names, changes in code structure in existing data items, and changes to coding instructions for the v24 NAACCR Edits Metafile. Use the v24 Edits Detail Report and the Changes Spreadsheet located on the NAACCR Volume IV (Standard Data Edits) webpage as a resource to resolve edits.

Registrars should maintain open communications with their software vendor and state central registry to ensure their registry software is up to date with current edit files and guidelines. Dates and timelines should be communicated to all parties. Registrars should include their IT departments in communications if needed.

Education and Training

Continuing education is necessary to maintain a high level of knowledge and skills in cancer registry practice. New data field requirements for 2024 and the implementation of these new fields will likely enhance the education and training opportunities for registrars. Registrars should register for standard setter ListServs including NAACCR, CoC, and NCI SEER. In addition to state and regional professional organizations, NAACCR, CoC, AJCC and NCRA, regularly post educational opportunities on their websites and notify members of upcoming events. Consider following these organizations on social media to be aware of current training opportunities. Registrars should also check with their state central registry for additional opportunities or make suggestions for needed subjects. Many organizations offer a great deal of online training.

Appendix A New Data Items

New Data Items for 2024					
Length	**Item #**	**Item Name**	**XML NAACCR ID**	**PARENT XML ELEMENT**	**Section**
1	86	Geocoding Quality Code	geocodingQualityCode	Tumor	Demographic
14	87	Geocoding Quality Code Detail	geocodingQualityCodeDetail	Tumor	Demographic
4	751	RX Hosp-Recon Breast	rxHospReconBreast	Tumor	Hospital Specific
4	1335	RX Summ-Recon Breast	rxSummReconBreast	Tumor	Treatment-1st Course
1	1975	Derived Summary Grade 2018	derivedSummaryGrade2018	Tumor	Stage/Prognostic Factor
1	3964	Brain Primary Tumor Location	brainPrimaryTumorLocation	Tumor	Stage/Prognostic Factor

Derived Summary Grade 2018

Derived Summary Grade [1975] will be calculated at the central registries for all cases with Date of Diagnosis is on or after January 1, 2018. The most severe grade based on Grade Clinical [3843] and Grade Pathological [3844] will be used. Breast is a special case because behavior affects priority. If grade is needed in the EOD 2018 Derived Stage Group Calculation, this value is also used in the calculations.

This logic will be added to NAACCR*Prep. You may choose to calculate the value via NAACCR*Prep and not store it in your database. In that case, you would not need to apply this calculation to your database. If you do wish to store the value in your database, the tables below can be used to set the Derived Summary Grade. No review is necessary.

This table is for all Schemas **excluding** Breast. The priority order, from BEST to WORST, is:

- S, 5, 4, 3, 2, 1, E, D, C, B, A, H, M, L, 9, blank

Grade Clin	Grade Path	Derived Grade
1, 2, 3, 4, 5, A, B, C, D, E, L, M, H, S, 9	S	Grade Path
S	1, 2, 3, 4, 5, A, B, C, D, E, L, M, H, 9	Grade Clin
1, 2, 3, 4, 5, A, B, C, D, E, L, M, H, 9	5	Grade Path
5	1, 2, 3, 4, A, B, C, D, E, L, M, H, 9	Grade Clin
1, 2, 3, 4, A, B, C, D, E, L, M, H, 9	4	Grade Path
4	1, 2, 3, A, B, C, D, E, L, M, H, 9	Grade Clin
1, 2, 3, A, B, C, D, E, L, M, H, 9	3	Grade Path
3	1, 2, A, B, C, D, E, L, M, H, 9	Grade Clin
1, 2, A, B, C, D, E, L, M, H, 9	2	Grade Path
2	1, A, B, C, D, E, L, M, H, 9	Grade Clin
1, A, B, C, D, E, L, M, H, 9	1	Grade Path
1	A, B, C, D, E, L, M, H, 9	Grade Clin
A, B, C, D, E, L, M, H, 9	E	Grade Path
E	A, B, C, D, L, M, H, 9	Grade Clin
A, B, C, D, L, M, H, 9	D	Grade Path
D	A, B, C, L, M, H, 9	Grade Clin
A, B, C, L, M, H, 9	C	Grade Path
C	A, B, L, M, H, 9	Grade Clin
A, B, L, M, H, 9	B	Grade Path
B	A, L, M, H, 9	Grade Clin
A, L, M, H, 9	A	Grade Path
A	L, M, H, 9	Grade Clin
L, M, H, 9	H	Grade Path
H	L, M, 9	Grade Clin
L, M, 9	M	Grade Path
M	L, 9	Grade Clin

L, 9	L	Grade Path
L	9	Grade Clin
9	9	Grade Path
<BLANK>	<BLANK>	<BLANK>

This table is specific to Breast cancer. The priority order, from BEST to WORST is:

- For Behavior /2: H, M, L, 3, 2, 1, D, C, B, A, 9, blank
- For Behavior /3: 3, 2, 1, H, M, L, D, C, B, A, 9, blank

Behavior	Grade Clin	Grade Path	Derived Summary Grade
2	1, 2, 3, L, M, H, A, B, C, D, 9	H	Grade Path
2	H	1, 2, 3, L, M, A, B, C, D, 9	Grade Clin
2	1, 2, 3, L, M, A, B, C, D, 9	M	Grade Path
2	M	1, 2, 3, L, A, B, C, D, 9	Grade Clin
2	1, 2, 3, L, A, B, C, D, 9	L	Grade Path
2	L	1, 2, 3, A, B, C, D, 9	Grade Clin
2	1, 2, 3, A, B, C, D, 9	3	Grade Path
2	3	1, 2, A, B, C, D, 9	Grade Clin
2	1, 2, A, B, C, D, 9	2	Grade Path
2	2	1, A, B, C, D, 9	Grade Clin
2	1, A, B, C, D, 9	1	Grade Path
2	1	A, B, C, D, 9	Grade Clin
2	A, B, C, D, 9	D	Grade Path
2	D	A, B, C, 9	Grade Clin
2	A, B, C, 9	C	Grade Path

2	C	A, B, 9	Grade Clin
2	A, B, 9	B	Grade Path
2	B	A, 9	Grade Clin
2	A, 9	A	Grade Path
2	A	9	Grade Clin
3	1, 2, 3, L, M, H, A, B, C, D, 9	3	Grade Path
3	3	1, 2, L, M, H, A, B, C, D, 9	Grade Clin
3	1, 2, L, M, H, A, B, C, D, 9	2	Grade Path
3	2	1, L, M, H, A, B, C, D, 9	Grade Clin
3	1, L, M, H, A, B, C, D, 9	1	Grade Path
3	1	L, M, H, A, B, C, D, 9	Grade Clin
3	L, M, H, A, B, C, D, 9	H	Grade Path
3	H	L, M, A, B, C, D, 9	Grade Clin
3	L, M, A, B, C, D, 9	M	Grade Path
3	M	L, A, B, C, D, 9	Grade Clin
3	L, A, B, C, D, 9	L	Grade Path
3	L	A, B, C, D, 9	Grade Clin
3	A, B, C, D, 9	D	Grade Path
3	D	A, B, C, 9	Grade Clin
3	A, B, C, 9	C	Grade Path
3	C	A, B, 9	Grade Clin
3	A, B, 9	B	Grade Path
3	B	A, 9	Grade Clin
3	A, 9	A	Grade Path
3	A	9	Grade Clin
2, 3	9	9	Grade Path
2, 3	<BLANK>	<BLANK>	<BLANK>

SEER Site Specific Fact 1 [3700]

The HPV Status is expanded from 1 digit to 2 digits to allow for more values and greater specificity. Automated changes are described below. No manual review will be necessary.

If Date of Diagnosis prior to January 1, 2018, set SEER Site Specific Fact 1 to blank.

Else if Date of Diagnosis is on or after January 1, 2018:

If Schema ID [3800] = 00071 (Lip), 00072 (Tongue Anterior), 00073 (Gum), 00074 (Floor of
Mouth), 00075 (Palate Hard), 00076 (Buccal Mucosa), 00077 (Mouth Other), 00112 (Hypopharynx), 00100 (Oropharynx HPV-Mediated (p16+)), 00111 (Oropharynx (p16-))

- If SEER Site Specific Factor 1 = 0 then set SEER Site Specific Factor 1 = 20
- Else If SEER Site Specific Factor 1 = 1 then set SEER Site Specific Factor 1 = 21 • Else If SEER Site Specific Factor 1 = 2 then set SEER Site Specific Factor 1 = 30 • Else If SEER Site Specific Factor 1 = 3 then set SEER Site Specific Factor 1 = 31 • Else If SEER Site Specific Factor 1 = 4 then set SEER Site Specific Factor 1 = 40 • Else If SEER Site Specific Factor 1 = 5 then set SEER Site Specific Factor 1 = 41 • Else If SEER Site Specific Factor 1 = 6 then set SEER Site Specific Factor 1 = 50
- Else If SEER Site Specific Factor 1 = 7 then set SEER Site Specific Factor 1 = 51

If Schema ID [3800] = 00071 (Lip), 00072 (Tongue Anterior), 00073 (Gum), 00074 (Floor of Mouth), 00075 (Palate Hard), 00076 (Buccal Mucosa), 00077 (Mouth Other), 00112 (Hypopharynx)

- If SEER Site Specific Factor 1 = 8 then set SEER Site Specific Factor 1 = 97
- Else If SEER Site Specific Factor 1 = 9 then set SEER Site Specific Factor 1 = 99

Else If Schema ID [3800] = 00100 (Oropharynx HPV-Mediated (p16+))

- If SEER Site Specific Factor 1 = 8 then set SEER Site Specific Factor 1 = 11
- Else If SEER Site Specific Factor 1 = 9 then set SEER Site Specific Factor 1 = 11

Else If Schema ID [3800] = 00111 (Oropharynx (p16-))

- If SEER Site Specific Factor 1 = 8 and Schema Discriminator 2 = 1 then set SEER Site Specific Factor 1 = 10
- Else If SEER Site Specific Factor 1 = 8 and Schema Discriminator 2 = 9 then set SEER Site Specific Factor 1 = 97

- Else If SEER Site Specific Factor 1 = 9 and Schema Discriminator 2 = 1 then set SEER Site Specific Factor 1 = 10
- Else If SEER Site Specific Factor 1 = 9 and Schema Discriminator 2 = 9 then set SEER Site Specific Factor 1 = 99

Derived EOD 2018 fields for In Situ schemas with no Tis

The calculation tables for the Derived EOD 2018 fields are updated so that In Situ cases, where AJCC does not define Tis, the table now derives 88 for the four Derived EOD 2018 fields. Logic is provided for those who cannot recalculate across their database.

For Date of Diagnosis on or after January 1, 2018

- If EOD Primary Tumor [772] = 000 and Derived EOD 2018 T [785] = 88 o Set Derived EOD 2018 N [815] = 88 o Set Derived EOD 2018 M [795] = 88 o Set Derived EOD 2018 Stage Group [818] = 88

No other changes are necessary. No review is necessary.

Staging API/DLL Version Current fields

The Version Current for the staging API/DLLs in use must be updated to the latest version as part of the NAACCR 24 updates. No manual review is necessary.

For Date of Diagnosis on or after January 1, 2018

- If Schema ID Version Current [2117] is not blank, set to v3.1
- If AJCC API Version Current [2156] is not blank, set to 09.02.00
- If AJCC Cancer Surveillance DLL Version Current [2158] is not blank, set to 09.02.00.0001

AJCC ID Version 9 Changes

AJCC ID [995]: there were changes to the V9 AJCC ID values to match the AJCC's new numbering scheme. Logic provided for those who CANNOT recalculate across their database.

- For the AJCC ID [995] within each specified Schema ID [3800], the new value is provided:
  - If AJCC ID = 52 and Schema ID = 09520 (Cervix Uteri) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2021, then set AJCC ID = 9001
  - If AJCC ID = 19 and Schema ID = 09190 (Appendix) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9002

- If AJCC ID = 21 and Schema ID = 09210 (Anus) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9003
- If AJCC ID = 72.1 and Schema ID = 09721 (Brain) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9004
- If AJCC ID = 72.1 and Schema ID = 09722 (CNS Other) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9004
- If AJCC ID = 72.1 and Schema ID = 09723 (Intracranial) and TNM Edition Number = 09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9004
- If AJCC ID = 72.1 and Schema ID = 09724 (Medulloblastoma) and TNM Edition Number =

  09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9004 o If AJCC ID = 72.2 and Schema ID = 09724 (Medulloblastoma) and TNM Edition Number =

  09 or blank and Date of Diagnosis Year >= 2023, then set AJCC ID = 9005

No other changes are necessary

Appendix C 2024 Source References

SEER Program Manual: https://seer.cancer.gov/tools/codingmanuals/

Questions regarding the SEER Program Coding and Staging Manual should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

AJCC 8th Edition and Version 9 Updates and Histologies: https://www.facs.org/qualityprograms/cancer-programs/american-joint-committee-on-cancer/

Questions regarding AJCC Cancer Staging should be directed to the CAnswer Forum at: http://cancerbulletin.facs.org/forums/

AJCC API: https://www.facs.org/quality-programs/cancer-programs/american-joint-committee-oncancer/cancer-staging-systems/application-programming-interface-api/

AJCC Cancer Staging Form Supplement: https://www.facs.org/quality-programs/cancerprograms/american-joint-committee-on-cancer/cancer-staging-systems/cancer-staging-formsupplement/

Cancer Surveillance DLL: AJCC licensees can request the licensed version of the library from Martin Madera, mmadera@facs.org. The version for unlicensed users will be available from the AJCC website, please contact Martin Madera (mmadera@facs.org) for access.

CAnswer Forum: http://cancerbulletin.facs.org/forums/help

Commission on Cancer STORE Manual: https://www.facs.org/quality-programs/cancer/ncdb/call-fordata/cocmanuals

Data Exchange Standard, XML Specifications for Cancer Registry Records: https://www.naaccr.org/xmldata-exchange-standard/

Data Standards and Data Dictionary: https://apps.naaccr.org/data-dictionary/

EDITS: https://www.naaccr.org/standard-data-edits/

Questions regarding the NAACCR edits metafile should be directed to Jim Hofferkamp at jhofferkamp@naaccr.org.

EOD 2018: https://seer.cancer.gov/tools/staging/rsa.html

Questions regarding EOD 2018 should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Grade Manual: https://apps.naaccr.org/ssdi/list/?_gl=1*1le7hp5*_ga*MjEwMDgwOTYwOC4xNjcxMDQxMTc3*_ga_V7J 8GWYK5P*MTY4ODc0MDAzMi4zNC4xLjE2ODg3NDEzMTguNjAuMC4w

Questions regarding the Grade Manual should be directed to the Canswer Forum at: http://cancerbulletin.facs.org/forums/

Hematopoietic and Lymphoid Neoplasm Database: https://seer.cancer.gov/tools/heme/

Questions regarding the SEER Hematopoietic and Lymphoid Neoplasm Database should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

ICD-O-3.2: http://www.iacr.com.fr/index.php?option=com_content&view=article&id=149:icd-o-3-2&catid=80:newsflashes&Itemid=545

Questions regarding ICD-O-3 Histology changes should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

ICD-O-3 SEER Site/Histology Validation List: https://seer.cancer.gov/icd-o-3/

Questions regarding the SEER Site/Histology Validation List should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

NPCR Northcon Registry Plus Utility Program:

https://www.cdc.gov/cancer/npcr/tools/registryplus/up.htm

NPCR Registry Plus Software: https://www.cdc.gov/cancer/npcr/tools/registryplus/index.htm

SEER API: https://api.seer.cancer.gov/

SEER Registrar Staging Assistant (SEER*RSA): https://seer.cancer.gov/tools/staging/rsa.html

Questions regarding SEER*RSA should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

SEER*Rx: https://seer.cancer.gov/tools/seerrx/

Questions regarding SEER*Rx should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Site-Specific Data Items Manual: https://apps.naaccr.org/ssdi/list/?_gl=1*1le7hp5*_ga*MjEwMDgwOTYwOC4xNjcxMDQxMTc3*_ga_V7J 8GWYK5P*MTY4ODc0MDAzMi4zNC4xLjE2ODg3NDEzMTguNjAuMC4w

Questions regarding SSDIs should be directed to the Canswer Forum at: http://cancerbulletin.facs.org/forums/

Solid Tumor Rules: https://seer.cancer.gov/tools/solidtumor/

Questions regarding the Solid Tumor Rules should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Summary Stage 2018: https://seer.cancer.gov/tools/ssm/

Questions regarding Summary Stage 2018 should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

National Cancer Registrars Association

Introducing Oncology Data Specialist - ODS

The National Cancer Registrars Association (NCRA) and its Council on Certification have updated the credential name of CTR, Certified Tumor Registrar, to ODS, Oncology Data Specialist. The new name better aligns with the evolving scope of practice of cancer registrars and current professional practice terminology. The use of the new credential began January 1, 2024; NCRA anticipates the adoption will take at least a full calendar year.

The Oncology Data Specialist (ODS) credential sets the standard for professional competence in the cancer registry field. It is nationally recognized in the recruitment and retention of registry personnel. NCRA's certification board - the Council on Certification - oversees the ODS exam administration and credential maintenance.

ODS Toolkit

NCRA has created an ODS Toolkit, available at the link below, to help credential holders, human resources departments, affiliated organizations, and NCRA-accredited education programs make the transition. Organized by audiences, the toolkit includes guidance, text, and graphics to help with the adoption of the ODS credential.

ODS Tool Kit (ncra-usa.org)

For other important NCRA updates and information use the links below:

CTR Exam Testing:

https://www.ncra-usa.org/CTR/Certification-Exam

CTR Maintenance and CE Credits:

https://www.ncra-usa.org/Certification/RecertificationSubmission

NCRA 2025 Annual Educational Conference:

https://www.ncra-usa.org/Conference/2025-NCRA-Annual-Conference

Become a Certified Tumor Registrar:

https://www.ncra-usa.org/About/Become-a-Cancer-Registrar

Contact NCRA:

https://www.ncra-usa.org/About/Staff

AIMS ePATH Reporting

The Virginia Cancer Registry has teamed up with the CDC and the Association of Public Health Laboratories (APHL) who are working to strengthen laboratory systems serving the public's health in the United States. APHL provides its users a secure, cloud-based environment that accelerates the implementation of health messaging by providing shared services to aid in the transport, validation, translation, transformation, and routing of electronic data.

The APHL Informatics Messaging Services (AIMS) system is a secure, cloud-based platform that accelerates the implementation of health messaging by providing shared services to aid in the visualization, interoperability, security, and hosting of electronic data.

AIMS Platform securely transports millions of messages on a monthly basis. Examples of data currently exchanged through AIMS include:

1. Electronic Case Reporting (eCR) between providers and jurisdictions across the US
2. National Quest ELR data to all jurisdictions
1. Aggregated Influenza test result data from public health laboratories to CDC
2. Vaccine-preventable disease reports from testing centers of excellence to CDC
3. Biological threat data from laboratories within the Laboratory Response Network to CDC
4. Immunization data exchange among several public health jurisdictions
5. Electronic laboratory reporting (ELR) between eligible hospitals and their respective jurisdictions
6. Next Generation Sequencing (NGS) through the Advanced Molecular Detection (AMD) program

VCR began working with the J. Michaels Group in 2021, who has been contracted by CDC to implement AIMS reporting for those labs who choose to use the platform for their ePath reporting to the state central cancer registries. We continue to work with J. Michaels Group on

this project. AIMS reporting partners currently include: ICMedicine, IDX Pathology, NeoGenomics Labs, PathGroup, Quest Diagnostics, and QDx Pathology

AIMS ePATH Reporting Contacts:

If your facility is interested in ePath reporting via the AIMS platform, please contact:

Temitope Alimi, PhD MPhil - nyj4@cdc.gov

Katmai Government Services
Cancer Surveillance Branch
Division of Cancer Prevention and Control
Centers for Disease Prevention and Control

Tim Longo - tlongo@jmichael-consulting.com

J Michael Consulting
www.jmichael-consulting.com

770-318-3160

If you are currently reporting via AIMS to Virgina Cancer Registry and have questions, please contact:

John LaDouceur – john.ladouceur@vdh.virginia.gov

Virgina Cancer Dashboard

The Virginia Cancer Dashboard is a new data visualization tool and can be accessed by clicking the link below. The dashboard demonstrates the burden of cancer incidence and mortality in Virginia. This new dashboard replaces the printed version of the Virgina Cancer Burden Report.

Virginia Cancer Dashboards

Data visualization is the graphical representation of information and data. Using interactive visual elements like charts and graphs, data visualization tools are better able to provide an accessible interpretation of patterns and trends in data. The Virginia Cancer Registry's web-based Interactive cancer dashboard visually organizes key cancer data contained within the VCR database and presents it in a visually appealing ,user friendly, online platform. Presenting

the cancer burden in Virginia this way allows users to have VCR cancer data at their fingertips 24/7, from anywhere in the world. The VCR cancer dashboard keeps users constantly informed and updated, just as an automobile dashboard keeps the driver informed.

The dashboard covers aggregate data for the years 2014 - 2018 for both incidence and mortality statistics of the following cancers: Cervix Uteri, Colorectal, Female Breast, Hodgkin Lymphoma, Kidney and Renal Pelvis, Leukemia, Liver and Intrahepatic Bile Duct, Lung & Bronchus, Melanoma of the Skin, Myeloma, Non-Hodgkin Lymphoma, Oral Cavity & Pharynx, Ovary, Pancreas, Prostate, and Thyroid.

The information included in the dashboards are an overview of incidence by sex, race, and stage at diagnosis, and of mortality by sex and race. Stage at diagnoses for all cancers listed are provided in a separate dashboard by health district. Case counts, rates, and percentages are also incorporated into the dashboard. Charts display incidence and mortality trends by year, and the accompanying text explains these trends in more detail. Maps displaying incidence and mortality by locality and health district areas are also included.

The cancers represented in the VCR dashboards are some of the most common cancers. They were selected because they occur often or are targets for screening and control for prevention. For most cancers, large differences exist between White and Black rates and between female and male rates. Disparities and inequities highlight the need for targeted prevention and control strategies. National organizations along with government at all levels review and update screening guidelines for cancer as needed and incidence rates can be affected by this. Virginia and national cancer incidence and mortality rates have been included which is the number of cases per 100,000 population. The rates are age-adjusted, which allows populations to be compared when age profiles are different. The tables rank cancers selected for this dashboard against other common cancer types. The tables also rank gender-specific cancers separately.

The following programs and offices in the Virginia Department of Health collaborated to produce the Virginia Cancer Dashboard:

1. Virginia Cancer Registry
2. Comprehensive Cancer Control Program
3. Epidemiology unit of the Division of Population Health Data
4. Office of Communications

Virginia Cancer Dashboard Contact:

If you would like more information regarding the Virginia Cancer Dashboard please contact:

Sravani Yakkanti – sravani.yakkanti@vdh.virginia.gov

Cancer Epidemiologist Evaluator
Virginia Cancer Registry
Division of Population Health Data | Office of Family Health Services

Virginia Web Plus

VCR has successfully implemented its Virginia Web Plus online reporting portal and it has now become one of the primary methods for reporting cancer cases in Virginia. Web Plus is a Web-based application that collects cancer data securely over the public Internet. It is ideal for most facility electronic reporting needs.

Web Plus supports three main functions: online abstracting, file upload and download, and follow-back efforts. Web Plus' online abstracting is ideal for reporting from physicians' offices and other low-volume reporting sources, while the file upload feature can be used for electronic submission of data from all other reporting sources, such as monthly hospital case files in NAACCR file format.

Although VCR is not currently utilizing the follow-back features in Web Plus, it gives us the capability and option to upload partially filled abstracts generated from death certificate and pathology lab files, and to notify reporting facilities via e-mail to log in and update the abstracts. We are currently exploring this option for future use.

Web Plus is hosted on a secure web server that has a digital certificate installed; the communication between the client and the server is encrypted with Secure Sockets Layer (SSL) technology.

All records entered into Web Plus are saved in a database at VCR, and cases entered by one facility or office are not visible to other facilities. VCR staff are included as users on the facility level for case review purposes and to provide support. Data are validated by the CDC EDITS engine running on a web server. Users, display types, and edit configurations are managed by the VCR Web Plus team.

The Virginia Web Plus login page is linked below:

Virginia Web Plus Login

Web Plus Support

Web Plus is fully supported by VCR and includes IT support, continuous training, and quarterly user group (WebPUG) videoconference meetings. The Virginia WebPUG meetings are held quarterly (January, April, July, and October) the third Wednesday of each month at 1:00 P.M. for all Virginia Web Plus users, or those considering using Web Plus in Virginia.

Web Plus Training

Web Plus training consists of one-on-one or group virtual trainings and learning modules contained in the Virginia FLccSC (Flossy) online learning portal.

Virginia FLccSC Learning Portal

You can access the Virginia FLccSC portal to request a new user account using the link below:

Virginia FLccSC (Flossy):

Once your account has been approved and created you will be emailed your secure login credentials.

If you have any questions regarding Virginia FLccSC please contact:

Danielle Quinn, CTR – danielle.quinn@vdh.virginia.gov

Virginia FLccSC Co-Administrator

Web Plus Monthly Hospital Submissions

If you have questions regarding your hospital's monthly NAACCR file submission please contact:

Tina Hall – tinahall1@vdh.virginia.gov

Cancer Data Analyst

Web Plus File Upload Questions:

you would like more information regarding Web Plus file upload, or training please contact:

John LaDouceur – john.ladouceur@vdh.virginia.gov

Virginia Web Plus Administrator
Virginia Cancer Registry

VCR/VDH Digitized File Initiative

Virginia Department of Health (VDH) and the Virginia Cancer Registry (VCR) continue to embrace technology and are in the process of digitizing paper files. Data file digitization is preparing or converting physical or paper files to an electronic format such as a .pdf.

Some of the benefits that file digitization provides reporting facilities and VCR:

- Easier file accessibility and transmission
- Better data security
- More efficient storage & recovery
- Cost reduction
- Increased productivity
- Environmentally friendly

***Important Note**

To assist in this effort VCR has discontinued the submission of cancer case reports via email, fax, and U.S. Mail, (considered “paper reporting”).

VCR Digitized File Questions:

If you have any questions regarding your case reporting via email, fax, or U.S. Mail please contact:

Cheryl Walker-Smith - chery.walker@vdh.virginia.gov

Data Manager
Virginia Cancer Registry

If you have questions regarding the VCR file digitization initiative for cancer case reporting contact:

John LaDouceur – john.ladouceur@vdh.virginia.gov
Web Plus Administrator

End of Summary of Changes

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VIRGINIA CANCER REGISTRY

USER MANUAL 2024

SECTION ONE

GENERAL INFORMATION REPORTING REQUIREMENTS

VCR MANUAL, 2024 EDITION

STATEMENT

This manual shall be used to submit reportable cases with a date of diagnosis on or after January 1, 2024, except where noted in each section/appendix. Please refer to the 2024 Summary of Changes and applicable appendices for cases diagnosed on or after January 1, 2024.

WHAT IS THE VCR ?

The Virginia Cancer Registry (VCR) is a population-based cancer incidence registry responsible for the collection of demographic, diagnostic, and treatment information on all cancer patients diagnosed and treated at hospitals, laboratories, and other health care facilities in Virginia with reportable cancer. Population-based cancer registries collect information on cancers among the entire population for which they are responsible.

The VCR is also defined as an incidence only cancer registry rather than a multi-purpose registry. Incidence only registries gather only the information necessary to determine the incidence of cancer by geographic areas, by demographic characteristics, and by stage at diagnosis for each type of cancer. Treatment information has also been added to the information collected.

The term *central cancer registry* is also used in referring to the VCR. Although a central registry does not have to be population-based, this term is frequently used to mean a statewide cancer registry. A central registry is designed to aggregate data from various sources. The contributing sources required to report to the VCR provide statewide coverage of the population.

WHY REPORT TO THE VCR?

The mission of the VCR is to collect and provide complete, accurate, and timely statewide incidence data for determination of cancer rates and trends in the population. To fulfill this mission, the VCR depends on complete ascertainment of cases and use of the data.

The Law and Regulations

Statewide collection and dissemination of data on cancer by the Virginia Department of Health is mandated in the *Code of Virginia* and Virginia Department of Health disease reporting regulations. The state laws include Chapter 2 (§32.1-70 *et seq.)* of Title 32.1 According to these statutes, each hospital, clinic, and independent pathology laboratory in the Commonwealth is required to report all cases of cancer, which are diagnosed or treated at the hospital, clinic, or

laboratory. Physicians are required to report when they know the case has not been reported by a hospital, clinic, or in-state laboratory. These cases are to be submitted in the format prescribed by the Virginia Cancer Registry. Regulations mandating reporting cancer cases by hospitals, clinics, laboratories, other health care facilities and health care practitioners appear Part VIII of the State Board of Health publication *Regulations for Disease Reporting and Control*.

1. Cancer Control

The ultimate value of the registry lies not in collection of the data but in the degree to which the data are used for cancer control. The basis for any successful cancer control program is a comprehensive registry system. Registry data provide answers to questions, the means to target limited cancer control resources, and the mechanism to evaluate cancer control activities.

HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY (HIPAA)

HIPAA allows for the reporting of identifiable cancer data to public health entities. Because the VCR falls under the definition of a public health entity, HIPAA allows you to report data to the VCR in compliance with Virginia state laws and regulations. Written informed consent from each cancer patient reported to public health entities is not required under HIPAA.

The VCR depends on reporting facilities to submit quality data. Through the dedicated efforts of these facilities, the VCR is able to provide accurate information used to establish and enhance cancer control programs, and thus improve the lives of present and future patients with cancer.

VCR REFERENCE DATE

Reference date refers to the start date after which all eligible records must be included in the registry. The VCR reference date is January 1, 1995. This means complete statewide cancer incidence data are available from the VCR for 1995 to the present.

**Note:* To assure complete case ascertainment, reference date is not used to determine what cases are reportable to the VCR.

VCR REPORTING SOURCES

The *Code of Virginia* mandates each hospital, clinic, physician, and laboratory in the Commonwealth shall report all cases of cancer which are diagnosed and/or treated at the above-designated facility. In addition, VCR has agreements with other states to exchange data.

Hospitals

The term *registry hospital* refers to hospitals with cancer registries functioning as an integral component of the hospital cancer program. They may or may not be accredited by the American College of Surgeons Commission on Cancer. Generally, the cancer registrar or cancer program manager at a registry hospital is delegated the responsibility of reporting to the VCR.

The term *non- registry hospital* refers to hospitals that do not have a cancer registry functioning as an integral component of a hospital cancer program. Generally, personnel in the Health Information Management (HIM) Dept are delegated the responsibility of reporting to the VCR.

Non-Hospital Sources

The Board of Health Regulations concerning the Regulations for Disease Reporting was revised in January 2002 to expand cancer reporting requirements to include additional non-hospital sources.
Part VIII, 12 VAC 5-90-170 requires hospitals, clinical laboratories, or other health care facilities providing screening, diagnostic or therapeutic services for cancer patients to report cases of cancer. Reporting by "other health care facilities" will be phased in as follows: 1) Radiation Centers; 2) Medical Oncology Centers/Clinics; 3) Hematology/Oncology Practices; and 4) Ambulatory Surgery Centers.

Laboratories

The addition of these cases provides the VCR data on cases never seen in the hospital setting, thereby increasing the overall completeness of VCR data. Required reporting of cases by hospital laboratories is performed by cancer registry or HIM personnel as described above. Reporting of cases by designated free-standing laboratories is required.

Data Exchange

The VCR has written agreements to exchange data with other cancer registries including all contiguous states. This ensures a resident of Virginia who was diagnosed and/or treated out of state will be included in the VCR database.

REPORTING METHODS

All reporting facilities *shall* submit all their cases electronically. Electronic reporting is the submission of reportable cases to the VCR via the Virginia Web Plus online reporting portal or eMaRC auto-reporting. Commercial and/or hospital-developed cancer reporting software and/or the Virginia Web Plus direct data entry online reporting portal must be utilized for all cancer case report submissions. Information on the CDC developed Web Plus can be found here: Registry Plus Software | NPCR | CDC

Registry hospitals are required to electronically report cases included in the hospital cancer registry using commercial or hospital-developed software. CTR's must abstract cases from Commission on Cancer accredited facilities. It is highly recommended that other hospitals consider hiring a CTR or utilize a contracting company to abstract cases.

VCR has phased out all facilities currently reporting on paper (via U.S. Mail, Fax, and email) If you are not utilizing Virginia Web Plus or eMaRC Plusat your facility or office, please contact the VCR.

REPORTABLE CONDITIONS

VCR List of Reportable Conditions

The Virginia Board of Health defines cancer and the reportable cancers in its Regulation for Disease Reporting and Control. VCR follows this standard as noted in the *VCR List of Reportable Conditions.* A casefinding list is found in the *VCR Manual Appendix N*. This section identifies diagnoses that must be reported to the VCR and can be used to develop a report called the Disease Index from your HIM data system IT department. Conditions are to be reported if the diagnosis includes the words *malignant, cancer, carcinoma,* and *lymphoma.* Most *leukemias* and *sarcomas* are reportable except when noted as exclusions on the listing. In addition, there are other conditions which do not include these particular terms but are reportable such as *Wilms tumor, blastoma, anemia* and *carcinoid*. It is therefore very important to refer to the *VCR List of Reportable Conditions* to make sure all reportable conditions are identified.

All primary intracranial and central nervous system (CNS) tumors are reportable. This includes benign, malignant, and borderline tumors for the following sites:

- Meninges (C70.0 - C70.9) • Other CNS (C72.8, C72.9)
- Brain (C71.0 - C71.9) • Pituitary gland (C75.1)
- Spinal Cord (C72.0) • Craniopharyngeal duct (C75.2)
- Cauda equina (C72.1) • Pineal gland (C75.3)
- Cranial nerves (C72.2 - C72.5)

Ambiguous Terminology

A patient has a reportable condition if a *recognized medical practitioner* says so. In most cases, the patient's record clearly presents the diagnosis by use of specific terms, which are synonymous with the diagnosis. However, the physician may not always be certain or the recorded language definitive. VCR rules concerning the usage of ambiguous terminology are as follows:

1. Terms That Constitute a Diagnosis - Interpret the following terms as a reportable diagnosis:

Ambiguous Terms that Constitute a Diagnosis	
Apparent(ly)	Presumed
Appears	Probable
Comparable with	Suspect(ed)
Compatible with	Suspicious (for)
Consistent with	Tumor* (beginning with 2004 diagnoses and only for C70.0–C72.9, C75.1–75.3)
Favors	Typical of
Malignant appearing	
Most likely	
Neoplasm* (beginning with 2004 diagnoses and only for C70.0–C72.9, C75.1–75.3)	

*additional terms for nonmalignant primary intracranial and central nervous system tumors only

EXCEPTION: If cytology is identified only with an ambiguous term, do not interpret it as a diagnosis of cancer.

- Abstract the case only if a positive biopsy or a physician's clinical impression of cancer supports the cytology findings.

Examples of Diagnostic Terms:

- The inpatient discharge summary documents a chest x-ray consistent with carcinoma of the right upper lobe. The patient refused further work-up or treatment. Consistent with carcinoma is indicative of cancer.

- The pathology report states suspicious for malignancy. Suspicious for malignancy is indicative of cancer.

2. Terms That *Do Not* Constitute a Diagnosis - Do not interpret the following terms as a diagnosis. Do not report patients who have a final diagnosis consisting only of these terms without additional information to support reportability:

Ambiguous Terms That *Do Not* Constitute a Diagnosis *without additional information*	
Cannot be ruled out	Questionable
Equivocal	Rule out
Possible	Suggests
Potentially malignant	Worrisome

Examples of Nondiagnostic Terms:

- The inpatient discharge summary documents a chest x-ray consistent with neoplasm of the right upper lobe. The patient refused further work-up or treatment. Consistent with neoplasm is not indicative of cancer. While "consistent with" can indicate involvement, "neoplasm" without specification of malignancy is not diagnostic except for non-malignant primary intracranial and central nervous system tumors.

- Final diagnosis is reported as possible carcinoma of the breast. Possible is not a diagnostic term for cancer.

Genetic findings in the absence of pathologic or clinical evidence of reportable disease are indicative of risk only and do not constitute a diagnosis.

3. Ambiguous Terms Describing Tumor Spread

If the wording in the patient record is ambiguous with respect to tumor spread, use the following guidelines only as a last resort:

Ambiguous Terms Describing Tumor Spread

Terms that Constitute Tumor Involvement or Extension		Terms that *Do Not* Constitute Tumor Involvement or Extension
Adherent	Into	Approaching
Apparent	Onto	Equivocal
Compatible with	Out onto	Possible
Consistent with	Probable	Questionable
Encroaching upon	Suspect	Suggests
Fixation, fixed	Suspicious	Very close to
Induration	To	

Refer to Ambiguous Terminology Lists: References of Last Resort for additional information.

Ambiguous Terminology Lists: References of Last Resort

This section clarifies the use of Ambiguous Terminology as listed in STORE 2018 for case reportability in Commission on Cancer (CoC)-accredited programs. When abstracting, registrars are to use the "Ambiguous Terms at Diagnosis" list with respect to case reportability, and the "Ambiguous Terms Describing Tumor Spread" list with respect to tumor spread . However, these lists need to be used correctly.

How to Use Ambiguous Terminology for Case Ascertainment

The first and foremost resource for the registrar for questionable cases is the physician who diagnosed and/or staged the tumor. The ideal way to approach abstracting situations when the medical record is not clear is to *follow up with the physician*. If the physician is not available, the medical record, and any other pertinent reports (e.g., pathology, etc.) should be read closely for the required information. The purpose of the Ambiguous Terminology lists is so that in the case *where wording in the patient record is ambiguous* with respect to reportability or tumor spread, and *no further information* is available ***from any resource***, registrars will make consistent decisions. When there is a clear statement of malignancy or tumor spread (i.e., the registrar can determine malignancy or tumor spread from the resources available), they should not refer to the Ambiguous Terminology lists. Registrars should only rely on these lists when the situation is not clear, and the case cannot be discussed with the appropriate physician/pathologist.
VCR recognizes that not every registrar has access to the physician who diagnosed and/or staged the tumor, as a result, the Ambiguous Terminology lists continue to be used in CoC accredited programs and maintained by CoC as "references of last resort".

a. In Situ and Invasive (Behavior codes /2 and /3)

i) If any of the reportable **ambiguous terms precede** a word that is **synonymous** with an in situ or invasive tumor (e.g., cancer, carcinoma, malignant neoplasm, etc.), the case is reportable.

Example 1: The pathology report says: Prostate biopsy with markedly abnormal cells that are typical of adenocarcinoma. Report the case.

Example 2: The final diagnosis on the outpatient report reads: Rule out leukemia. Do not report the case.

ii) Discrepancies: If one section of the medical record(s) uses a reportable term such as “apparently” and another section of the medical record(s) uses a nonreportable term such as “cannot be ruled out”, accept the reportable term and report the case.

Exception: Do not report a case based ***only*** on suspicious cytology. The case is reported only if proven by positive cytology or other diagnostic methods including a physician’s clinical diagnosis.

iii) Use these terms when **screening** diagnoses on pathology reports, operative reports, scans, mammograms, and other diagnostic testing other than tumor markers.

Note*:* If the ambiguous diagnosis is **proven to be not reportable** by biopsy, cytology, or physician’s statement, **do not report** the case.

Example: Mammogram shows calcifications suspicious for intraductal carcinoma. The biopsy of the area surrounding the calcifications is negative for malignancy. Do not report the case.

Benign and borderline primary intracranial and CNS tumors

a. Use the “Ambiguous Terms that are Reportable” list to identify benign and borderline primary intracranial and CNS tumors that are reportable.

b. If any of the reportable ambiguous terms precede either the word “**tumor”** or the word “**neoplasm**,” the case is reportable. Report the case.

Example: The mass on the CT scan is consistent with pituitary tumor. Report the case.

Discrepancies: If one section of the medical record(s) uses a reportable term such as "apparently" and another section of the medical record(s) uses a nonreportable term such as “cannot be ruled out”, accept the reportable term and accession the case.

Exception: Do not report a case based only on suspicious cytology. The case is reported only if proven by positive cytology or other diagnostic methods including a physician's clinical diagnosis.

i) Use these terms when **screening** diagnoses on pathology reports, scans, ultrasounds, and other diagnostic testing other than tumor markers.

Note: If the ambiguous diagnosis is proven to be not reportable by biopsy, cytology, or physician's statement, do not report the case.

c. Confirmation of an Ambiguous Diagnosis - Subsequent admissions for patients whose initial diagnosis contained ambiguous terminology must be reviewed. It is established practice to accept the information at the time of the latest admission, or the most complete or detailed information.

DO NOT USE AMBIGUOUS TO TERMINOLOGY STAGE THE TUMOR.

AJCC Cancer Staging does not recognize the use of ambiguous terminology to determine stage.

Emergency Room Admissions

If a patient comes to your emergency room and expires, and the death certificate has cancer listed in any of the first three causes of death, the case MUST be abstracted and submitted.

Reportable Diagnosis

A diagnosis is reportable to the VCR if it is included on the *VCR List of Reportable Conditions* The following guidelines provide further clarification for the specified conditions:

Basal and Squamous Cell Carcinomas

Basal and squamous cell carcinomas are reportable except when primary to the skin, C44.0-C44.9 (see *VCR Manual Part One, Exclusions*). Carcinomas originating in mucoepidermoid sites are reportable. These sites include: lip (C00.0-C00.9), anus (C21.0),vulva (C51.0-C51.9), vagina (C52.9), penis (C60.0- C60.9), and scrotum (C63.2). Basal and squamous cell carcinomas originating in the nasal cavity (C30.0) and middle ear (C30.1) are also reportable.

Class IV and Class V Cytologies

Cytology results of Class IV or Class V are reportable to the VCR.

Exception: If the terminology on the cytology report further defines the Class IV and Class V as *suspicious* then the record is not reportable. Report this record only if a positive biopsy or a physician's clinical impression of cancer supports the cytology findings.

**Note:* See VCR Manual Part Three, Data Item Instructions, Diagnostic Confirmation for clarification of histology and cytology using cell block and smear preparation of specimens.

a. Low Malignant Potential/Borderline Malignancy of Ovary or Peritoneum

Cystadenomas or tumors primary to the ovary or peritoneum qualified by the phrases *borderline malignancy* or *low malignant potential* are reportable only if diagnosed prior to January 1, 2001.

b. Intraepithelial Neoplasia

Patients with the following diagnoses of intraepithelial neoplasia **are** reportable:

- Vaginal intraepithelial neoplasia 3 (VAIN III)
- Vulvar intraepithelial neoplasia 3 (VIN III)
- Anal intraepithelial neoplasia 3 (AIN III)

All other intraepithelial neoplasia or squamous intraepithelial tumors ARE reportable to the VCR.

Reportable Situations

A case is reportable to the VCR if it is a condition included on the *VCR List of Reportable Conditions* (See *VCR Manual Appendix D, Reportable Conditions*) and meets the following criteria:

1. Patients diagnosed or treated in your inpatient or outpatient departments, emergency room, ambulatory care center, or other units included under your hospital license.

1. The reportable diagnosis has been made at your hospital. This diagnosis can be made on the basis of histology (including autopsy), hematology, cytology, endoscopy or other direct visualization, diagnostic radiology or clinical findings.

2. A “clinical diagnosis only” is a diagnosis based solely on clinical judgment; diagnostic procedures were not performed or did not confirm the diagnosis. Patients diagnosed clinically are reportable to the VCR.

3. The VCR requires patients receiving treatment, cancer-directed or non- cancer-directed, to be reported provided they have not been previously reported by your hospital.

The VCR recognizes the following definitions of treatment:

I. Cancer-Directed Treatment – Cancer-directed treatment is tumor directed, and its purpose is to modify, control, remove or destroy primary or metastatic cancer tissue. Physicians administer the therapy (ies) to remove or minimize the size of tumor or to delay the spread of disease.

II. Patients Diagnosed at Autopsy – Final autopsy reports containing reportable diagnoses or incidental findings of reportable conditions must be reported to the VCR.

2. Patients Diagnosed Elsewhere

Patients diagnosed elsewhere and newly admitted to your hospital for further diagnostic workup or treatment, cancer-directed or non-cancer-directed are to be reported. Although this may result in multiple records on one patient, it enables the VCR to assure complete statewide casefinding and to have the most comprehensive information on each patient. Because the VCR is a population-based registry, every attempt must be made to receive all cases diagnosed within Virginia to provide accurate statistical reports.

a) Recurrence - Recurrence refers to the same cancer arising in or from the same primary site where it appeared earlier. A recurrent diagnosis is reportable as instructed in the *Multiple Primary and Histology Coding Rules, January 01, 2007.*

b) Residual Tumor – The VCR requires all records in which the pathology report states "no residual tumor" to be reported. The re-excision is considered cancer-directed treatment.

Example: Outside the hospital setting, a patient has a biopsy and is diagnosed with a malignant melanoma. The patient is seen at your hospital for a wide excision. The tissue report from the excision states no residual tumor. This record is reportable to the VCR. Even though the cancer was diagnosed elsewhere, the patient's hospital visit was for cancer related treatment.

3. Private Outpatient Specimens (POP) (Path Only)

Private outpatient specimens (POP) are specimens submitted from a physician's office to be read by the hospital pathologist as part of the Pathology Department's regular course of business. The patient is not registered as an inpatient or outpatient at the hospital. POPs are reportable to the VCR as a Class of Case 43 and a Reporting Source code of 3.

Example: A physician performs a biopsy in the office and sends the specimen to your Pathology Department where a reportable diagnosis is made.

a) POP reports should be held for two to three months because many of these patients may return for treatment and more information can be obtained from these records.

b) If the patient does not return as an inpatient or hospital outpatient, abstract the record using all available information. Every effort must be made to obtain accurate information. This information can be found through hospital billing systems, clinical history, or if needed by contacting physician offices.

c) Data items should be completed as *unknown* only after further investigation does not provide more specific information.

4. Ambiguous Situations

When the distinction between a hospital department and a freestanding facility cannot readily be made, such as a radiation therapy group practice versus a hospital unit, the ownership of the medical record is used to determine whether or not a record must be reported by the owner of the record. If the medical record is the property of the institution, the record must be reported. If the hospital is part of a corporation, ownership of the record refers to the facility, not the corporation.

Non-Reportable Diagnosis

The following diagnoses are not reportable to the VCR:

Skin Cancers

a. The following site/histology combinations for skin cancers are not reportable:

8000-8005	Neoplasms malignant, NOS of the skin (C44.0 – C44.9
8010-8046	Epithelial carcinomas of the skin (C44.0-C44.9)
8050-8084	Papillary and squamous cell carcinomas of the skin (C44.0-C44.9)
8090-8110	Basal cell carcinomas of the skin (C44.0-C44.9)

i. ICD-O codes C44.0-C44.9 include skin of the lip, eyelid, external ear, face, nose, scalp, neck, trunk, perineum, (peri) anus, umbilicus, upper and lower limbs, shoulders, hips, and skin around ostomy sites.

Note: The above lesions are reportable when the primary tumor originates in a mucoepidermoid site (See *VCR Manual Part One, Reportable Records*).

ii. Basal and squamous cell carcinomas originating in the external nose (C44.3) are not reportable; however, those primary to the nasal cavity (C30.0) such as nostril, nasal septum, and nares are reportable.

iii. If the primary site is not reportable but the cancer has metastasized to other sites, the record is still not reportable.

Carcinoma-In-Situ of the Cervix (CIS)

The diagnosis carcinoma in situ of the cervix (CIS) is not reportable. Terms indicating in situ include: *noninvasive, preinvasive, intraepithelial,* and *FIGO Stage 0.* A diagnosis of carcinoma in situ with endocervical gland involvement is still considered in situ and is not reportable.

Note: Diagnoses of invasive carcinoma of the cervix are reportable. A diagnosis of carcinoma in situ of the cervix with microinvasion is considered invasive and is, therefore, reportable.

Intraepithelial Neoplasia

Patients with the following diagnoses of intraepithelial neoplasia are not reportable:

- Cervical intraepithelial neoplasia (CIN)
- Prostatic intraepithelial neoplasia (PIN)

Non-Reportable Situations

A case is ***not*** reportable to the VCR if it meets any of the following criteria:

1. Patients seen in consultation to provide a second opinion to confirm an established diagnosis or treatment plan are not reportable. Also, if the reporting institution provides services not available at the diagnosing or treatment facility, such as Computerized

Tomography (CT) scans or Magnetic Resonance Imaging (MRI) scans, the case is not reportable.

2. Records in which slides are sent to your hospital's pathologist for a second opinion are encouraged to be reported but are not required. Since the slide was already read by another pathologist, the facility requesting the slide review is required to report the final diagnosis as determined after the slide review.
3. Patients with a history of a reportable condition who are clinically free of disease are not reportable. If, however, the patient has received treatment during this admission the record must be reported. For example: if a patient is admitted for an unrelated condition, has a history of breast cancer and the hospital administers Tamoxifen during their admission, the case is reportable.

Exception: If a patient expires at your facility with a history of cancer, even though the patient was clinically disease free, the case **is** reportable.

4. Patients receiving transient care at the reporting institution to prevent interruption of the first course of treatment are not reportable. This only applies to patients vacationing or visiting in the area, or equipment failure at the primary treating institution which requires the
patient to temporarily receive treatment elsewhere.

***Exception*:** Cancer patients evacuated to other states due to natural disasters may receive diagnostic/treatment services in facilities in that state. If this occurs at your facility, consider these cases reportable to the Virginia Cancer Registry (VCR). They should not be excluded as transient care or consult only cases.
When abstracting these cases, please record the patient's usual residence when the tumor was diagnosed in the Address at Diagnosis fields. Do not enter the patient's current address if the patient was diagnosed prior to relocating permanently or temporarily to Virginia or other nearby state.

5. Recurrence is defined as the same cancer arising in or from the same primary site where it appeared earlier and is not considered a new primary cancer by the physician. Do not report a recurrent diagnosis when you have previously reported it.

***Exception*:** If an in-situ tumor is followed by an invasive cancer in the same site more than two months apart, report as two primaries even if stated to be a recurrence. The invasive primary should be reported with the date of the *invasive* diagnosis.

6. If a patient is readmitted and new or additional metastatic sites are diagnosed or documented, the record is not reportable provided it has already been reported for the

original primary site. Records of readmitted patients must be reviewed to determine if a new primary site has been diagnosed. Each new primary must be reported separately.

7. Metastatic Sites – Do not report the metastatic or secondary sites of a malignant neoplasm: however, check to make sure the primary site was previously reported. A diagnosis of metastatic cancer with an unknown primary site not previously reported should be submitted with the primary site documented or coded as unknown.

8. Special Units – Patients admitted to a skilled nursing unit or other separately licensed units are encouraged to be reported but are not required. These patients are either discharged from an acute care hospital unit and readmitted to a separately licensed unit or are admitted directly to the separately licensed unit.

CASE ELIGIBILITY

The VCR requires all reporting entities to accession, abstract and submit to VCR for required tumors diagnosed and/or treated at your facility. The tumors must meet the criteria for submission and all patients must be submitted.

Tumors required by the VCR to be accessioned, abstracted, and submitted to VCR:

Malignancies with an ICD-O-3 behavior code of 2 or 3 area required for all sites.

i. **Exception 1**: Juvenile astrocytoma, listed as 9421/1 in ICD-O-3, *is required* and should be recorded as 9421/3 in the registry.

ii. **Exception 2**: Effective in 2015, code 8240/1 for carcinoid tumor, NOS, of appendix (C18.1) becomes obsolete. Carcinoid tumors of the appendix must be coded to **8240/3.** Effective with 2015. This is required and must be coded with a behavior 3. Prior appendix primaries coded to 8240/1 are converted to 8240/3 by the implementation conversions for 2015.

iii. **Exception 3**: Malignant primary skin cancers (C44.*x*) with histology codes 8000 – 8110 *are not required* to be reported to the VCR. Skin primaries with those histologies diagnosed prior to January 1, 2003 were required to be abstracted if the AJCC stage group at diagnosis was II, III or IV. These cases should remain in the registry.

iv. **Exception 4:** Carcinoma in situ of the cervix (CIS), intraepithelial neoplasia grade III (8077/2) of the cervix **(CIN III)** and prostate **(PIN III) are** *not required by VCR*. Intraepithelial neoplasia of the vulva **(VIN III)**, vagina **(VAIN III),** anus **(AIN III)**, LARYNX

(LIN III), and SQUAMOUS INTRAEPITHELIAL NEOPLASIA GRADE III **(SIN III),** excluding those listed above, ***ARE reportable to the VCR***.

*Note: If a pathologist verifies a /0 (benign) or /1 (uncertain whether benign or malignant) behavior code tern in ICD-O as /2 (in situ) or /3 (malignant), these records are reportable.

DATE OF DIAGNOSIS

All reportable cases included in the VCR List of Reportable Conditions (See *VCR Manual Appendix C, List of Reportable Conditions*) diagnosed and/**or** treated at your facility are required to be reported to the VCR regardless of the Date of First Contact. This includes patients with an unknown date of initial diagnosis.

Exception: Conditions only reportable if diagnosed on January 1, 2001, and after (the conditions with**) are not reportable if the date of diagnosis is unknown.

Example 1: If a patient is admitted on January 3, 2022, and receives palliative care for bone metastasis from a breast primary diagnosed in 1990, the case is reportable.

Example 2: If a patient is admitted on January 3, 2022, and receives palliative care for bone metastasis from a breast primary for which a diagnosis date is not stated in the medical record, the case is required to be reported with a ***BLANK*** date of diagnosis and the appropriate *Date of Diagnosis Flag* is recorded.

Example 3: If a patient is admitted on January 3, 2004, and receives a blood transfusion for polycythemia vera, originally diagnosed in November 1999, the case is not
reportable per the VCR List of Reportable Conditions and Exception above.

MULTIPLE PRIMARY DETERMINATION

More Than One Cancer

If more than one primary is diagnosed, a separate record must be submitted on each primary.

Multiple Primary Cancers

The VCR, like most registries in the United States, follows the rules of the Surveillance, Epidemiology and End Results (SEER) Program for determination of multiple primary cancers. Beginning with cases diagnosed on January 1, 2007, the SEER rules for determining solid tumor multiple primary cancers are documented in the most current SEER *Multiple Primary and Histology Coding Rules.* For hematopoietic and lymphoid neoplasms diagnosed January 1, 2010, the most current *SEER Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the *Hematopoietic Database* must be used. For cases diagnosed prior to 2007, the SEER rules for determining multiple primary cancers are documented in the *VCR Manual Appendix D, Multiple Primary Determination.*

CONFLICTING STANDARDS

When standards of regulatory agencies differ, all reporters ***must*** implement procedures to comply with the Board of Health standards as designated in this document.

VCR REQUIRED DATA ITEMS

The VCR requires specific data items to be completed for each reportable case. These data items include demographic, cancer identification, treatment, hospital-specific and text information. A listing of the VCR Required Data Set is included in *VCR Manual Appendix L.* Instructions on completing each data item are provided in *VCR Manual Section Three, Data Item Instructions.*

All data items required for participation in the National Program of Cancer Registries (NPCR) are included in the VCR data set. VCR-required codes and definitions comply with national standards established by the North American Association of Central Cancer Registries (NAACCR) and American College of Surgeons Commission on Cancer (ACOS COC).

There are six (6) fields that are required to be collected and transmitted to the VCR by all reporting entities. These are fields that are specifically designated in the Code of Virginia. See VCR Manual, Appendix L for the fields and the instructions on how to code these fields.

CHANGING INFORMATION

A change includes updating or correcting previously submitted information.

Importance of Change/Deletion Procedure

The change procedure insures the most accurate information is available to users of VCR data by enabling reporting facilities to provide updated or corrected information after a record has been accessioned by the VCR.

Example 1: At the time a record was reported to the VCR, the primary site was unknown. On a subsequent admission, the primary site was documented as upper lobe of left lung. A change must be submitted to update the primary site, laterality, and stage (as was known during first course of treatment). Send an encrypted email with the patient's name and social security number with a reason for change. The VCR will update this information on the patient's record on the VCR data file.

Example 2: At the time a record was reported to the VCR, the patient's initial diagnosis was *probable carcinoma*. After further review, it was determined the patient does not have cancer. Such cases must be deleted. Send an encrypted email with the patient's name and social security number with a reason for deletion.

What to Change

1. Change any required data item when incorrect or unknown information was initially reported, and more specific/correct information is later available.

2. Change SEER Summary Stage 2000 only if additional information is available through completion of surgery(ies) in the first course of treatment or within four months of diagnosis in the absence of disease progression whichever is longer for cases diagnosed on or after January 1, 2001. Change SEER Summary Stage 1977 only if additional information is available within two months of diagnosis (four months for prostate primaries) for cases diagnosed prior to January 1, 2001.

3. Submit a change for name when incorrectly spelled on a record and when name is changed due to marital status or other reason. Clearly indicate previous and current name.

4. Do not submit changes to update address changes or admission/discharge dates when the patient is readmitted.

When to Submit Changes

Changes should be sent under a separate cover. Include *only* the changes that must be made, along with the patient identifier

How to Change Information

As corrections are made to records previously accessioned by the VCR, document the changes in your encrypted email with the submission. If you have more than five (5) changes, submit the changes in an excel spreadsheet, encrypt it and sent to the VCR.
Document number of changes in your email documentation.

***Note**: Corrections **may NOT** be transmitted as a *case* electronically. Email shall be the medium of transmission for any changes noted above.

VCR SUBMISSIONS

How to Report

Records containing all required data items must be submitted to the VCR electronically via the Virginia Web Plus online reporting portal. Detailed instructions for completing the required data items can be found in the *VCR Manual, Part Three: Data Item Instructions.* An electronic file must be created and submitted via Web Plus or cases must be directly abstracted into Web Plus.

It is suggested you keep a copy of your submission until your accession list has been cleared for the year.

Actual submission forms will no longer be required. However, an email must be sent that includes the
following:

- Facility name and Facility Identification Number (FIN). (Please contact VCR if you do not
- know your assigned FIN)
- Date of the transmission
- Number of records included in the transmission *by year*
- Denote if this is the last transmission of a submission year

<u>DO NOT</u> submit changes/corrections in this email. They MUST be sent in a separate email. An email must be sent every month, even if you have no records to submit. The email must designate there are not records to report for the given month.

Submission files for hospitals must be uploaded to Web Plus by the 5th of *every* month. Any submission uploaded after the 5th of the month will be held until the next month and your facility will be denoted as having missed a submission. Any submission returned for correction must be returned within three (3) business days. If the file is not returned in the designated time frame, your facility will be denoted as having missed a submission.

When to Report

1. **The VCR requires 90% of abstracts submitted by reporting facilities to be received within 180 days from Date of Diagnosis.**

2. **The first working day in July is the deadline for submitting all reportable cases from the previous year.** The months of May and June should be used to perform quality assurance procedures to ensure all cases have been identified and reported. These cases may fall into the 10% over 180 days. This is expected and acceptable. The timeliness requirement was established at 90% to provide a cushion of 10% to encourage late reporting of missed cases to assure reporting completeness.

3. When patients are hospitalized for a period of six (6) months or longer, records should be submitted 180 days from Date of Admission/1st Contact. Enter the current date in the Date of Discharge field. Date of Discharge may not be left blank and the exact Date of Discharge should be submitted later as a change. See VCR Manual Section One, Changing Information

Where to Report

The Virginia Web Plus online reporting portal. (Linked below)

Virginia Web Plus

Document Retention

There is no statute governing how long copies of the monthly submission files should be saved. It is strongly suggested, however, that submission files be retained until you have cleared the yearly accession list reconciliation.

VCR CONTACT LIST

General questions regarding the VCR use the central number: 804-864-7866 or:

Tina Hall, ODS-C..... 804-864-7187
tina.hall1@vdh.virginia.gov
John LaDouceur, MHA,ODS-C.....804-864-7857
john.ladouceur@vdh.virginia.gov
Chioke Murray, BA..... 804-864-7196
chioke.murray@vdh.virginia.gov
Mike Peyton, ODS-C..... 804-864-7885
michael.peyton@vdh.virginia.gov
Danielle Quinn, ODS-C..... 804-864-7856
danielle.quinn@vdh.virginia.gov
Latha T. Sundaram, ODS-C..... 804-864-7662
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Cheryl Walker-Smith, Data Manager.....804-864-7866
cheryl.walker@vdh.virginia.gov
Larry Kirkland, Data Systems Manager 804- 864-7859
larry.kirkland@vdh.virginia.gov
Laurel Gray, ODS-C, Quality Assurance Coordinator..... 804-864-7860
laurel.gray@vdh.virginia.gov
Sunney Wang,MPH,Senior Epidemiologist..... 804-864-7699
shuhui.wang@vdh.virginia.gov
Sravani Yakkanti,MPH, Cancer Epidemiologist Evaluator..... 804-864-7106
sravani.yakkanti@vdh.virginia.gov
Nikkia Ray, MPH, Director, Virginia Cancer Registry..... 804-864-7873
Nikkia.ray@vdh.virginia.gov

End of Section One

SECTION TWO:

CASEFINDING

CASEFINDING

Casefinding Procedures

Casefinding is a system for identifying patients with a reportable diagnosis. Because cancer incidence can be most accurately reflected only when every reportable diagnosis is identified and submitted to the central registry, effective casefinding procedures are essential.

Although casefinding procedures will vary among reporting facilities, the key to effective casefinding is the identification of reportable conditions in all areas where patients are diagnosed or treated in a routine and systematic manner. The following concepts should be considered when developing procedures to insure complete identification of cases reportable to Virginia Cancer Registry (VCR).

Reportable Conditions

The first step in establishing effective casefinding procedures is to know what conditions are reportable. These conditions are defined in the following references:

- List of Reportable Conditions - *VCR Manual Appendix C* provides documentation of all conditions reportable to the VCR. It is structured alphabetically by the main histologic term.

- ICD-10-CM Codes – *VCR Manual, Appendix N,* provides a list of ICD-10-CM codes used to identify reportable diagnoses. The appendix also includes a list you can provide to your Information Technology department to program a disease index you need to review for possible cases.

Casefinding Sources

The second step in establishing effective casefinding procedures is to identify all areas in the facility where these reportable conditions are either diagnosed or treated and the sources for casefinding in each area. The Health Information Management (HIM) Department and Pathology Department must be included as casefinding sources by all facilities; the remaining sources listed below should be included as applicable. Copies of reports forwarded for review to the person responsible for reporting to the VCR serve as a pending or tickler file to cross-reference with medical records flagged in the HIM Department.
The term “records” as used in the descriptions below refers to all patient records, i.e., inpatient, outpatient, Emergency Room, ambulatory care, short stay procedures, radiation therapy, chemotherapy. For each source, review all the following reports and records.

Health Information Management Department (HIM)

1. All records with a diagnosis included in *VCR Manual Appendix C* or *ICD-10-CM Codes* listed in *VCR Manual Section One, Reportable Codes,* should be flagged for the person responsible for VCR reporting.

2. Records assigned an ICD-10-CM code included on the list provided in *VCR Manual Section One; Reportable Codes* should be reviewed to identify reportable cases. In addition to casefinding, the disease index should also be used as a quality control measure to make sure all reportable diagnoses have been submitted. See also *VCR Manual Section Four, Quality Control: Reporting Facilities.*

    a) All discharge summaries with a reportable condition in the final diagnosis and operative reports bearing a post-operative reportable diagnosis should be copied and forwarded to the person responsible for reporting to VCR.

Pathology Department/Laboratory Medicine

Casefinding from Pathology Department/Laboratory Medicine must include identification of reportable diagnoses made on inpatient, outpatient, and private outpatient (POP) specimens.

1. Surgical pathology reports should be reviewed for a reportable diagnosis. If your Pathology Department screens the reports and forwards copies of those reports to the person responsible for VCR reporting, they must be provided with a copy of *VCR Manual Appendix C.* Surgical pathology reports showing "no residual malignancy (or tumor)" and reports resulting from orchiectomy or oophorectomy performed for prostate or breast malignancies or wide re-excisions for melanomas should be included in what is copied and forwarded to the person responsible for VCR reporting.

2. All cytology reports should be reviewed for a malignant diagnosis and, when identified, a copy forwarded to the person responsible for VCR reporting. An alternative would be to review a log of positive or abnormal cytologies.

3. Peripheral blood reports should be reviewed for a diagnosis of malignancy and, when identified, a copy forwarded to the person responsible for VCR reporting. Bone Marrow All bone marrow reports should be reviewed for a diagnosis of malignancy and, when identified, a copy forwarded to the person responsible for VCR reporting.

4. All final autopsy reports should be reviewed for reportable diagnoses including incidental findings and, when identified, a copy forwarded to the person responsible for VCR reporting. Reportable diagnoses on autopsy reports from coroner's cases

should also be identified. See *VCR Manual Section One, Patients Diagnosed at Autopsy.*

Outpatient Departments

1. Short Procedure/Same Day Surgery/Ambulatory Care Unit - A system must be implemented to routinely review all outpatient records maintained within or separate from the HIM Department for diagnoses. If reporting criteria are met, cases must be submitted to the VCR.

2. Emergency Room (ER) - Pathology and cytology reports from procedures performed in the ER should be screened and reported if a reportable diagnosis is made or if the patient expires with a history of a reportable disease.

Oncology Services

1. Radiation therapy records, appointment logs, or patient rosters must be reviewed. If reporting criteria are met, cases must be submitted to the VCR. Patients diagnosed elsewhere but treated at your facility must be reported.

2. Chemotherapy records, appointment logs, or patient rosters must be reviewed. If reporting criteria are met, cases must be submitted to the VCR. Patients diagnosed elsewhere but treated at your facility must be reported.

Other Areas

Records from other areas of the hospital where reportable conditions are either diagnosed or treated must be reviewed and submitted if a reportable diagnosis is made.

COMPLETENESS OF CASEFINDING

After all reportable diagnoses have been identified through routine casefinding procedures, the final step to effective casefinding is quality control. Procedures should be in place to verify all cases were identified and reported to the VCR. *VCR Manual Section Four, Quality Control* describes various quality control strategies to assure complete casefinding and reporting.

Most Effective Casefinding Procedure

The most effective approach to identifying all reportable diagnoses for reporting to the VCR should include the following:

1. Flag all inpatient and outpatient medical records with an ICD-10-CM diagnosis code as listed in *VCR Manual Section One, Reportable Codes.*

2. Review reports from all inpatient, outpatient, and private outpatient (POP) pathology, cytology bone marrow, hematology, and autopsy specimens analyzed at your facility.

3. Review records, appointment logs, or rosters of patients seen in the chemotherapy, radiation therapy, and any other area where reportable conditions are diagnosed or treated.

4. Review the ICD-10-CM disease index monthly to identify reportable diagnoses.

5. Perform quality control procedures to assure all reportable cases were identified and reported to the VCR.

End of Section Two

SectionThree

Data Item Instructions

GENERAL INFORMATION

Data Item Completion

Each case reported to the VCR must include all data items identified in *VCR Manual Appendix L, Required Data Set for Reporting Facilities.* These data items must be completed according to codes, definitions, and instructions specified for each item in this section. The codes and definitions for each required data item conform to national cancer registration standards as defined by NAACCR (North American Association of Central Cancer Registries), NPCR (National Program of Cancer Registries), and ACOS COC (American College of Surgeons Commission on Cancer).

Every effort *must* be made to obtain specific, complete, and accurate information for each required data item. Inpatient and outpatient health records, clinical history on pathology reports, hospital billing records, and contact with physician offices should be used as sources of information in completing data items.

Recording Unknown or Not Applicable Information

Data items should be recorded as *unknown* only after *all* efforts to obtain specific information prove unsuccessful.

Unknown, Text - When specific information is not available for any data item requiring an alphabetic entry, record the word *unknown* in the field as specified in the data item instructions in this section.

Unknown, Code 9 - When specific information is not available for any data item requiring a numeric entry, record the code for unknown, *9,* in the field as specified in the data item instructions in this section.

Unknown/Not Applicable, Blank - Since information for the following required data items may be unknown or not applicable; they are the only data items that may be left blank as specified in the data item instructions in this section:

- *Name - Suffix*
- *Name - Middle*
- *Name - Maiden*
- *Name - Alias*
- *Text - Usual Occupation for age < 14 (should be recorded as "child")*
- *Text - Usual Industry for age < 14 (should be recorded as "child")*

- *Place of Diagnosis when patient is diagnosed at reporting facility.*
- *Accession Number for Non-registry hospitals.*

Coding Dates

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date.

Interoperable dates are displayed in CCYYMMDD form, *with the unknown portions of the date filled with blank spaces*. If a *date is entirely blank, an associated date flag is used* to explain the missing date. The following table illustrates the relationship among these items for Date of Most Definitive Surgical Resection of the Primary Site, where each lower case 'b' represents a blank space. Flags are not used for software-generated dates.

Description	Traditional Date of Most Definitive Surgical Resection of the Primary Site	Interoperable Date of Most Definitive Surgical Resection of the Primary Site	Rx Date Most Defin. Surgical Flag
	Date entered in MMDDCCY sequence; unknown portions represented by 99 or 9999	*Date entered in CCYYMMDD sequence, leaving unknown portions blank (spaces); omit the date if the date is completely unknown or not applicable.*	
Full Date Known	**MMDDCCYY (example: 02182007)**	**CCYYMMDD (Example: 20070218)**	**bb**
Month And Year Known	**MM99CCYY (example: 02992007)**	**CCYYMMbb (example: 200702bb)**	**bb**
Year Only Known	**9999CCYY (example: 99992007)**	**CCYYbbbb (example: 2007bbbb)**	**bb**
Unknown If Any Surgery	**99999999 (example: 99999999)**	**bbbbbbbb (example: bbbbbbbb)**	**10**
No Surgery	**00000000 (example: 00000000)**	**bbbbbbbb (example: bbbbbbbb)**	**11**

Date Is Unknown	**99999999 (example: 00000000)**	**bbbbbbbb (example: bbbbbbbb)**	**12**

Allowable Values

Month		Day	Year
01 January	07 July	01	Use four-digit year
02 February	08 August	02	(example: 2020)
03 March	09 September	03	
04 April	10 October	….	
05 May	11 November	….	
06 June	12 December	12	

*Unknown (blank) is not valid for certain date fields; see "Unknown Dates, Exceptions," below.

Cancer Identification

The following instructions apply to *Primary Site* (NAACCR Item #400), *Laterality* (NAACCR Item #410, *Histology* (NAACCR Item #522), *Behavior* (NAACCR Item #523) and *Grade/Differentiation* (NAACCR Item #440)

Hematopoietic and Lymphoid Cancers

Beginning with cases diagnosed in 2010, the **Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual** is to be used for coding primary site, histology, and grade of hematopoietic and lymphoid tumors (M9590 – 9992) and to determine whether multiple conditions represent one or more tumors to be abstracted. *See Section One: General Instructions and Reporting Requirements.* For tumors diagnosed prior to January 1, 2010, use the rules applicable when the cancer was diagnosed. For tumors diagnosed after Jan. 1, 2018, see page B-17 of the *Summary of Changes* section of this manual.

Kaposi Sarcoma

Code Kaposi sarcoma to the site in which it arises. Code to Skin, NOS (C44.9) if Kaposi sarcoma arises simultaneously in the skin and another site orthe primary site is not identified.

Melanoma

Code to Skin, NOS (C44.9) if a patient is diagnosed with metastatic melanoma and the primary site is not identified.

Specific Tissues with Ill-Defined Sites

If any of the following histologies appears with only an ill-defined site description (ego, "abdominal" or "arm"), code it to the tissue in which such tumors arise rather than the ill-defined region (C76.*x*) of the body, which contains multiple tissues. Use the alphabetic index in **ICD-O-3** to assign the most specific site if only a general location is specified in the record.

HISTOLOGY	DESCRIPTION	CODE TO THIS SITE
8720–8790	Melanoma	C44._, Skin
8800–8811,8813–8830, 8840–8921	Sarcoma except periosteal fibrosarcoma and dermatofibrosarcoma	C49._, Connective, Subcutaneous and Other Soft Tissues
8990–8991	Mesenchymoma	C49._, Connective, Subcutaneous and Other Soft Tissues
9120–9170	Blood vessel tumors, lymphatic vessel tumors	C49._, Connective, Subcutaneous and Other Soft Tissues
9580–9582	Granular cell tumor and alveolar soft part sarcoma	C49._, Connective, Subcutaneous and Other Soft Tissues
9240–9252	Mesenchymal chondrosarcoma and giant cell tumors	C40._, C41._ for Bone and Cartilage C49._, Connective, Subq & Other Soft Tissue
8940–8941	Mixed tumor, salivary gland type	C07._ for Parotid Gland C08._ for Oth & Unspec Major Salivary Gland

Laterality NAACCR Item #410

*Laterality (*NAACCR Item #410) must be recorded for the following paired organs as 1 – 5 or 9. Organs that are not paired are coded to 0. Midline origins are coded 5. "Midline" in this context refers to the point where the "right" or "left" sides of paired organs come into direct contact and a tumor forms at that point. Most paired sites cannot develop midline tumors. For example, skin of the trunk can have a midline tumor, but the breasts cannot.

Paired Organ Sites

Paired Organ Sites	
ICD-O-3	**Site**
C07.9	Parotid gland
C08.0	Submandibular gland
C08.1	Sublingual gland
C09.0	Tonsillar fossa
C09.1	Tonsillar pillar
C09.8	Overlapping lesion of tonsil
C09.9	Tonsil, NOS
C30.0	Nasal cavity (excluding nasal cartilage and nasal septum)
C30.1	Middle ear
C31.0	Maxillary sinus
C31.2	Frontal sinus
C34.0	Main bronchus (excluding carina)
C34.1–C34.9	Lung
C38.4	Pleura
C40.0	Long bones of upper limb and scapula
C40.1	Short bones of upper limb
C40.2	Long bones of lower limb
C40.3	Short bones of lower limb
C41.3	Rib and clavicle (excluding sternum)
C41.4	Pelvic bones (excluding sacrum, coccyx, and symphysis pubis)
C44.1	Skin of eyelid
C44.2	Skin of external ear
C44.3	Skin of other and unspecified parts of face

Paired Organ Sites	
ICD-O-3	**Site**
C44.5	Skin of trunk
C44.6	Skin of upper limb and shoulder
C44.7	Skin of lower limb and hip
C47.1	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C47.2	Peripheral nerves and autonomic nervous system of lower limb and hip
C49.1	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C49.2	Connective, subcutaneous, and other soft tissues of lower limb and hip
C50.0–C50.9	Breast
C56.9	Ovary
C57.0	Fallopian tube
C62.0–C62.9	Testis
C63.0	Epididymis
C63.1	Spermatic cord
C64.9	Kidney, NOS
C65.9	Renal pelvis
C66.9	Ureter
C69.0–C69.9	Eye and lacrimal gland
C70.0	Cerebral meninges, NOS (excluding diagnoses prior to 2004)
C71.0	Cerebrum (excluding diagnoses prior to 2004)
C71.1	Frontal lobe (excluding diagnoses prior to 2004)
C71.2	Temporal lobe (excluding diagnoses prior to 2004)
C71.3	Parietal lobe (excluding diagnoses prior to 2004)
C71.4	Occipital lobe (excluding diagnoses prior to 2004)
C72.2	Olfactory nerve (excluding diagnoses prior to 2004)
C72.3	Optic nerve (excluding diagnoses prior to 2004)
C72.4	Acoustic nerve (excluding diagnoses prior to 2004)
C72.5	Cranial nerve, NOS (excluding diagnoses prior to 2004)
C74.0–C74.9	Adrenal gland
C75.4	Carotid body

Revising the Original Diagnosis

Data are gathered from multiple sources using the most recent and complete information available. Over time, the patient's records may contain new information such as tests, scans, and consults. Change the primary site, laterality, histology, grade, and stage as the information becomes more complete. If the primary site or histology is changed, it may also be necessary to revise site-specific staging and treatment codes. There is no time limit for making revisions that give better information about the original diagnosis or stage. However, if staging information is updated, it is important to adhere to the staging timeframe and criteria for the respective staging system applicable at the time of the original diagnosis. Most cases that require revision are unknown primaries.

Example 1

The institution clinically diagnoses a patient with carcinomatosis. The registry enters the case as an unknown primary (C80.9), carcinoma, NOS (8010/3), stage of disease unknown. Nine months later, a paracentesis shows serous cystadenocarcinoma. The physician says that the patient has an ovarian primary. Change the primary site to ovary (C56.9), histology to serous cystadenocarcinoma (8441/3), and diagnostic confirmation to positive cytologic study, no positive histology (code 2). If enough information is available that meets the AJCC time frame requirements for staging, change the stage from not applicable (88) to the appropriate staging classification, TNM categories, and stage group, or to unknown. If first course surgery was performed, the surgery codes should be reviewed. For cases diagnosed 2004-2015, update the Collaborative Stage input items and rerun the derivation program.

Example 2

A physician decides that a previously clinically diagnosed malignancy is a benign lesion. The patient is referred from a nursing home to the facility. The chest x-ray shows a cavitary lesion in the right lung. The family requests that the patient undergo no additional workup or treatment. Discharge diagnosis is "probable carcinoma of right lung." The registry abstracts a lung primary (C34.9). Two years later a chest x-ray shows an unchanged lesion. The physician documents "lung cancer ruled out." Delete the case from the database. Adjust the sequence number(s) of any other primaries the patient may have. If the deleted case is the patient's only primary, do not reuse the accession number.

Morphology: Grade

The word "grade" is used to indicate several distinct continual of cellular variability in cancer. Cancer registries have collected *Grade/Differentiation* (NAACCR Item #440) form many years, and in recent years, registrars have become familiar with other grade systems**. These are**

coding instructions for cases diagnosed 01/01/2018 and forward. For diagnoses prior to that date, consult the applicable VCR User Manual based on the date of diagnosis of the cancer.

Grade
The AJCC 8th Edition has specific grade tables listed for many chapters, some but not all of which follow the definitions of the historical standard grade data item Grade/Differentiation [440] as used in cancer registries, which was discontinued in 2018. Three new data items have been defined for collection of Grade Clinical, Pathological and Post Therapy [3843, 3844 and 3845, respectively]. New grade values were developed following the format of T, N, and M, where definitions differ based on the schema and use schema-specific grade tables. Each schema-specific grade table includes the standard grade definition for those cases where the schema-specific grading system is not available in the pathology report or other medical documentation. The SSDI TF has developed a Grade Manual to provide information and coding instructions on the new grade data items and site/schema-specific grade tables.

Hematopoietic & Lymphoid Neoplasms: Cell Indicator (Codes 5, 6, 7, 8, 9)

Cell indicator describes the lineage or phenotype of the cell. Codes 5, 6, 7, and 8 are used only for hematopoietic and lymphoid neoplasms. Code 9 indicates the cell type is not determined, not stated, or not applicable.

1. Determine the histology based on the current Hematopoietic and Lymphoid Neoplasm Manual
2. Determine the cell indicator by applying the "Grade of Tumor Rules" within the current Hematopoietic and Lymphoid Neoplasm Manual to code the grade. Grade codes for hematopoietic and lymphoid neoplasms.

Terminology	Grade Code
T-cell; T-precursor	5
B-Cell; Pre-B; B-precursor	6
Null cell; Non T-non B	7
NK cell (natural killer)	8
Grade unknown, not stated, or not applicable	9

Solid Tumors (Grade, Differentiation: Codes 1, 2, 3, 4, 9)

Pathologic examination determines the grade, or degree of differentiation, of the tumor. For these cancers, the grade is a measurement of how closely the tumor cells resemble the parent tissue (organ of origin). Well-differentiated tumor cells closely resemble the tissue from the organ of origin. Poorly differentiated and undifferentiated tumor cells are disorganized and abnormal looking; they bear little (poorly differentiated) or no

(undifferentiated) resemblance to the tissue from the organ of origin. These similarities/differences may be based on pattern (architecture), cytology, nuclear (or nucleolar) features, or a combination of these elements, depending upon the grading system that is used. Some grading systems use only pattern, for example, Gleason grading in prostate. Others use only a nuclear grade (usually size, amount of chromatin, degree of irregularity and mitotic activity). Fuhrman's grade for kidney is based only on nuclear features. Most systems use a combination of pattern and cytologic and nuclear features for example, Nottingham's for breast combines numbers for pattern nuclear size and shape, and mitotic activity. The information from this data item is useful for determining prognosis and treatment.

Pathologists describe the tumor grade using three systems or formats:

1. Two levels of similarity; also called a two-grade system.
2. Three levels of similarity; also called a three-grade system(code according to "coding for solid tumors."

    a. Grade I, well.
    b. Grade II, moderately.
    c. Grade III, poorly (undifferentiated carcinoma is usually separated from this system, since "poorly" bears some, albeit little, similarity to the host tissue, while "undifferentiated" has none, e.g., Undifferentiated carcinoma).

3. Four levels of similarity; also called a four-grade system. The four-grade system describes the tumor as:

    a. Grade I; also called well-differentiated.
    b. Grade II; also called moderately differentiated.
    c. Grade III; also called poorly differentiated.
    d. Grade IV; also called undifferentiated or anaplastic.

Breast and prostate grade my convert differently than other sites. These exceptions are noted in "Coding Solid Tumors, "# 7 and 8 below.

Coding for Solid Tumors

1. Systemic treatment and radiation can alter a tumor's grade. Therefore, it is important to code grade based on information prior to neoadjuvant therapy even if grade is unknown.

2. Code the grade from the primary tumor only.

a. Do NOT code grade based on metastatic tumor or recurrence. In the rare instance that tumor tissue extends contiguously to an adjacent site and tissue from the primary sit is not available, code grade from the contiguous site.

b. If primary site is unknown, code grade to 9.

3. Code the grade shown below (6th digit) for specific histologic terms that imply a grade:

   - Carcinoma, undifferentiated (8010/34)
   - Carcinoma, anaplastic (8021/34)
   - Follicular adenocarcinoma, well differentiated (8331/31)
   - Thymic carcinoma, well differentiated (8585/31)
   - Sertoli-Leydig cell tumor, poorly differentiated (8631/31)
   - Sertoli-Leydig cell tumor, poorly differentiated with heterologous elements (8634/33)
   - Undifferentiated sarcoma (8805/34)
   - Liposarcoma, well differentiated (8881/31)
   - Seminoma, anaplastic 9062/34)
   - Malignant teratoma, undifferentiated (9082/34)
   - Malignant teratoma, intermediate type (9083/32)
   - Intraosseous osteosarcoma, well differentiated (9787/31)
   - Astrocytoma, anaplastic (9041/34)
   - Oligodendroglioma, anaplastic (9481/34)
   - Retinoblastoma, differentiated (9511/31)
   - Retinoblastoma, undifferentiated (9512/34)

4. In situ and/or combined in situ/invasive components

   - If a grade is given for an in-situ tumor, code it. Do NOT code grade for dysplasia such as high-grade dysplasia.

   - If there are both in situ and invasive components, code only the grade for the invasive portion even if its grade is unknown.

5. If there is more than one grade, code the highest grade within the applicable system. Code the highest grade even if it is only a focus. Code grade in the following priority order using the first applicable system:

a. Special grade systems for the sites listed in Coding for Solid Tumors #6
b. Differentiation: use Coding for Solid Tumors#7: 2-, 3-, or 4-grade system
c. Nuclear grade: use Coding for Solid Tumors #7: 2-, 3-, or 4-grade system
d. If it is not clear whether it is a differentiation or a nuclear grade and a 2-, 3-, or 4-grade

e. system was used, code it Terminology (use Coding for Solid Tumors #8)

6. Use the information from the special grade systems first. If not special grade can be coded, continue with Coding for Solid Tumors #7 - 9

Special grade for solid tumors

Grade information based on CS Site-Specific factors for **breast, prostate, heart, mediastinum, peritoneum, retroperitoneum, soft tissue, and kidney parenchyma** is used to code grade. See *Special Grade System Rules* below for details on how to use this information to code grade.

CS Schema	Special grade system
Breast	Nottingham or Bloom-Richardson (BR) Score/Grade (SSF7)
Prostate	Gleason's score on core biopsy or TURP (SSF 8)
Prostate	Gleason's score on Prostatectomy/Autopsy (SSF 10)
Heart, Mediastinum	Grade for Sarcomas (SSF 1)
Peritoneum	Grade for Sarcomas (SSF 1)
Retroperitoneum	Grade for Sarcomas (SSF 1)
Soft Tissue	Grade for Sarcomas (SSF 1)
Kidney	Parenchyma Fuhrman Nuclear Grade (SSF 6)

*Do not use this table to code grade for any other groups including WHO (CNS Tumors), WHO/ISUP (bladder, renal pelvis) or FIGO (female gynecologic sites)

1.Use the Two-, Three- or Four-grade system information

a. Two-grade system

Term	Description	Grade code	Exception for Breast and Prostate Grade code
1/2; I/II	Low grade	2	1
2/2; II/II	High grade	4	3

In transitional cell carcinoma for bladder, the terminology high grade TCC and low grade TCC are coded in the two-grade system.

b. Three-grade system

Term	Description	Grade code	Exception for Breast and Prostate Grade code
1/3	Low grade	2	1

2/3	High grade	4	3
3/3	High grade	4	3

c. Four-grade system; Any four-grade system, including Edmondson & Steiner grade for liver.

Term	Description	Grade code
1/4	Grade I; Well differentiated	1
2/4	Grade II; Moderately differentiated	2
3/4	Grade III; Poorly differentiated	3
4/4	Grade IV; Undifferentiated	4

2. Terminology: Use the "Description" column or the "Grade" column to code grade. Breast and Prostate use the same grade code with a few noted exceptions.

Description	Grade	Assign Grade Code	Exception for Breast and Prostate Grade code
Differentiated, NOS	I	1	
Well, differentiated	I	1	
Only stated as "Grade I"	I	1	
Fairly well differentiated	II	2	
Intermediate differentiation	II	2	
Low grade	I - II	2	1
Mid differentiation	II	2	
Moderately differentiated	II	2	
Moderately well differentiated	II	2	
Partially differentiated	II	2	
Partially well differentiated	I - II	2	1
Relatively or generally well differentiated	II	2	
Only stated as "Grade II"	II	2	
Medium grade, intermediate grade	II - III	3	2
Moderately poorly differentiated	III	3	
Moderately undifferentiated	III	3	
Poorly differentiated	III	3	
Relatively undifferentiated	III	3	
Slightly differentiated	III	3	
Dedifferentiated	III	3	

Only stated as “Grade III”	III	3	
High grade	III - IV	4	3
Undifferentiated, anaplastic, not differentiated	IV	4	
Only stated as “Grade IV”	IV	3	
Non-high grade			

3. If no description fits or grade is unknown prior to neoadjuvant therapy, code as 9 (unknown)

Special Grade System Rules

Breast (site: breast, excluding lymphomas; CS schema: breast)

Use Bloom Richardson (BR) or Nottingham score/grade based on CSv2 SSF7 as stated below (VCR does NOT require coding SSF 7 for breast).

BR could be referred to as: Bloom-Richardson, modified Bloom-Richardson, BR, BR grading, Scarff-Bloom-Richardson, SBR grading, Elston-Ellis modification of Bloom-Richardson score, Nottingham modification of Bloom-Richardson score, Nottingham modification of Scarff-Bloom-Richardson, Nottingham-Tenovus grade, or Nottingham grade.

Code the tumor grade using the following priority order:

1. BR scores 3-9
2. BR grade (low, intermediate, high)

If only a grade of 1 through 4 is given with no information on the score and it is unclear if it is a Nottingham or BR Grade, do not use the table below. Continue with the next priority according to “coding for Solid Tumors” #7 above.

Code the highest score if multiple scores are reported (exclude scores from tests after neoadjuvant therapy began). Examples: different scores may be reported on multiple pathology reports for the same primary cancer; different scores may be reported for multiple tumors assigned to the same primary cancer.

CS Site Specific Factor 7		
Nottingham or Bloom Richardson (BR) Score/Grade		
130Description	CS Code	Grade Code

Score of 3	030	1
Score of 4	040	1
Score of 5	050	1
Score of 6	060	2
Score of 7	070	2
Score of 8	080	3
Score of 9	090	3
Low Grade; BR grade 1,score not given	110	1
Medium (Intermed grd); BR grade 2, score not given	120	2
High Grade; BR grade 3; score not given	130	3

Kidney Parenchyma (Site: kidney parenchyma excluding lymphomas; CS Schema: Kidney Parenchyma) : Fuhrman Nuclear Grade

The Fuhrman Nuclear Grade should be used to code grade for kidney parenchyma only based on CSv2 SSF6 (NOT required by VCR) as stated below. Do NOT use for kidney renal pelvis. Fuhrman nuclear grade is a four-grade system based on nuclear diameter and shape, the prominence of nucleoli, and the presence of chromatin clumping in the highest grade.

Description	CS Code	Grade Code
Grade 1	010	1
Grade 2	020	2
Grade 3	030	3
Grade 4	040	4

Soft Tissue (sites excluding lymphoma: soft tissue, heart mediastinum, peritoneum, and retroperitoneum; for CS users: Soft Tissue, Heart Mediastinum, Peritoneum, and Retroperitoneum schemas): Grade for Sarcomas

The Grade for Sarcomas should be used to code grade based on CSv2 SSF 1 (NOT require by VCR) as stated below. If your registry does not collect this SSF, use the description in the table to determine the grade. The grading system of the French Federation of Cancer Centers Sarcoma Group (FNCLCC) is the preferred system.
Record the grade from any three-grade sarcoma grading system the pathologist uses. For such terms such as “well differentiated” or “poorly differentiated,” go to Coding for Solid Tumors #8. In some cases, especially for needle biopsies, grade may be specified only as “low-grade” or “high grade.” The numeric grade takes precedence over “low grade” or “high-grade.”

Description	CS Code	Grade Code

Specified as Grade 1 (of 3)	010	2
Specified as Grade 2 (of 3)	020	3
Specified as Grade 3 (of 3)	030	4
Grade stated as low grade, NOS	100	2
Grade stated as high grade, NOS	200	4

Prostate (site: prostate, excluding lymphomas; CS Schema: prostate).

Use the highest Gleason score from the biopsy/TURP or prostatectomy/autopsy. Use a known value over an unknown value. Exclude results from tests performed after neoadjuvant therapy began.

This information is collected in CSv2 SSF 8 (NOT required by VCR) (Gleason score from biopsy/TURP) and SSF 10 (Gleason score from prostatectomy/autopsy) as stated below.

Use the table below to determine grade even if your registry does not collect these SSF's. Usually, prostate cancers are graded using Gleason score or pattern. Gleason grading for prostate primaries is based on a 5-component system (5 histologic patterns) Prostatic cancer generally shows two main histologic patterns. The primary pattern, the pattern occupying greater than 50% of the cancer, is usually indicated by the first number of the Gleason grade, and the secondary pattern is usually indicated by the second number. These two numbers are added together to create a pattern score, ranging from 2 to 10. If there are two numbers, assume that they refer to two pattern (the first number being the primary pattern and the second number the secondary pattern) and sum them to obtain the score. If only one number is given on a particular test, and it is less than or equal to 5 and not specified as a score, do not use the information because it could refer to either a score or grade. If only one number is given and it is greater than 5, assume that it is a score and use it. If the pathology report specifies a specific number out of a total of 10, the first number given is the score.

Example: The pathology report says Gleason 3/10. The Gleason score would be 3.

Gleason Score	**Description**					
	CS Code	**Grade Code**	**SEER 2003 - 2013**	**AJCC 7th ed**	**AJCC 6th ed**	**SEER prior to 2003**
2	002	1	G1	G1	G1	G1
3	003	1	G1	G1	G1	G1
4	004	1	G1	G1	G1	G1
5	005	1	G1	G1	G2	G2
6	006	1	G1	G1	G2	G2
7	007	2	G2	G2	G3	G2
8	008	3	G3	G3	G3	G3

9	009	3	G3	G3	G3	G3
10	101	3	G3	G3	G3	G3

Historical perspective on long term trends in prostate grade: The relationship of Gleason score to grade changed for 1/1/2014+ diagnoses to have the grade field in sync with the AJCC 7th edition. Analysis of prostate grade before 2014 based solely on the grade field is not recommended. In Collaborative Stage (CS), Gleason score was originally coded in CSv1 in one filed (SSF 6) and then it was split into two fields in CSv2 based on the tissue used for the test – needle biopsy/TURP in SSF 8 and prostatectomy/autopsy in SSF10. For trends using data back to 2004, if one collected the various CS Gleason scores, one could design a recode to have the same criteria as the data collected 2014+. The original grade field would NOT be changed, but for this analyses this recode could be based on the CS SSF's and the original grade code.

DATA ITEM INSTRUCTIONS

Patient Identification

Sequence Number – Hospital NAACCR Item #560

Record the sequence number representing the order of this primary. Sequence number counts the occurrence of *independent, malignant, and non-malignant neoplasms* except basal and squamous cell cancer of the skin during the patient's lifetime. Each neoplasm is assigned a different number. This number may change over the lifetime of the patient.
Codes 00-35 and 99 indicate neoplasms of in situ or malignant behavior (2 or 3). Codes 60-88 indicate neoplasms of non-malignant behavior (0, benign or 1, borderline).

Sequence Numbers for Malignant or In Situ Primaries

00 One malignant or in situ primary only in the patient's lifetime
01 First of two or more independent malignant or in situ primaries
02 Second of two or more independent malignant or in situ primaries
... (Actual sequence of this malignant or in situ primary)
35 Thirty-fifth of thirty-five independent malignant or in-situ primaries.
99 Unspecified malignant or in situ sequence number or unknown

Sequence Numbers for Non-Malignant Tumors

60 Only one non-malignant primary in the patient's lifetime
61 First of two or more independent non-malignant primaries
62 Second of two or more independent non-malignant primaries
... (Actual number of this primary)
87 Twenty-seventh of twenty-seven independent non-malignant primaries
88 Unspecified number of neoplasms in this category

Recording Sequence Number

1. Code 00 only if the patient has a single malignant primary.
2. If the patient develops a subsequent malignant primary or in situ primary tumor, change the sequence number for the first tumor from 00 to 01, and number subsequent tumors sequentially.

Example: In January 2001, the registry assigns sequence number 00 to a patient with malignant melanoma. The patient develops a second primary cancer of the lung in July 2002. Assign sequence number 02 to the second cancer (lung). Change the sequence number of the first cancer (malignant melanoma) to 01.

**Note*: Reporting institutions are not required to forward a change sheet to the VCR when changing sequence number from 00 to 01.

3. Code 60 only if the patient has a single non-malignant primary.
4. If the patient develops a subsequent non-malignant primary, change the sequence number of the first tumor from 60 to 61, and number subsequent non-malignant tumors sequentially.

**Note*: Reporting institutions are not required to forward a change sheet to the VCR when changing sequence number from 60 to 61.

5. If two or more malignant or in situ neoplasms are diagnosed at the same time, assign the lowest sequence number to the diagnosis with the worst prognosis. If no difference in prognosis is evident, the decision is arbitrary.

   Example 1: A patient enters the reporting institution with simultaneous carcinoma in situ of the breast and invasive adenocarcinoma of the colon. Assign sequence number 01 to the colon primary and sequence number 02 to the breast primary.

   Example 2: A patient has simultaneous adenocarcinoma in situ in a colon polyp and squamous cell carcinoma in situ in a vocal cord polyp. Assign sequence numbers in any order, since both primaries have similar prognoses.

6. If two or more non-malignant neoplasms are diagnosed at the same time, assign the lowest sequence number to the diagnosis with the worst prognosis. If no difference in prognosis is evident, the decision is arbitrary.

7. If an in-situ tumor is followed by an invasive cancer in the same site more than two months apart, report as two primaries even if stated to be a recurrence. The invasive primary should be reported with the date of the invasive diagnosis. Assign sequence numbers to both primaries with the in-situ cancer being the first of the two. Refer to the *Multiple Primary and Histology Coding Rules* for more specific information by site.

8. The sequence number counts the patient's independent, primary tumors regardless of the location(s) or institution(s) where those primaries were diagnosed and treated or the date of diagnosis.

   Example: The reporting institution diagnosed colon cancer. The patient has a history of kidney cancer diagnosed in 1980. The colon cancer is the second of this patient's primary cancers. Assign a sequence number 02 to colon cancer.

9. If the patient has a condition that was diagnosed prior to the condition being reportable do not count that condition when assigning sequence number.

   Example: A patient was diagnosed with refractory anemia on June 25, 1999 (not reportable until 2001) and then was later diagnosed with acute myelogenous leukemia on March 21, 2003 at your facility. Abstract only the acute myelogenous leukemia and assign a Sequence Number of 00.

10. Sequence numbers should be reassigned if the facility learns later of an un-accessioned tumor that affects the sequence.

11. The following sites/histologies are single primaries. Any reappearance of the original disease is documented as a recurrence. Assign a sequence number to the first disease occurrence. Do not assign another sequence number to any subsequent occurrences.

Examples:

Invasive transitional and papillary transitional cell carcinomas (8120-8130) of the bladder.
Invasive adenocarcinoma (8140) of the prostate
Kaposi sarcoma (9140/3) regardless of primary site
Non-malignant brain & CNS tumors of the same histology, same site, and same laterality.

12. Use the sequence number 99 when it is impossible to estimate whether the patient has been diagnosed with an earlier malignancy (primary). If more information becomes available, change the sequence number(s).

Example: A patient is diagnosed in the reporting facility with cancer of the colon. The medical record contains the statement "The patient recently had a salivary gland tumor removed. The patient does not know if the lesion was malignant." Assign a 99 sequence number to the colon primary. The patient returns to the reporting facility a year later for treatment of prostate cancer. The medical record says "The patient has a history of a malignant salivary gland tumor." Change the sequence number of the colon cancer from 99 to 02. Assign the sequence number 03 to the prostate cancer.

13. Do not enter fictitious sequence numbers. Fictitious sequence numbers harm the scientific integrity of the data.

Name – Last — NAACCR Item #2230

Record the patient's full last name. Do not leave blank.

Recording Name – Last

1. Truncate name if more than 40 letters long. Blank spaces, hyphens, and apostrophes are allowed. Do NOT use other punctuation.

2. Change To Name - This data item should be updated on the hospital abstract if the last name changes and the change must be submitted to the VCR. See *VCR Manual Part One, Changing Information*.

   Example: Janet White marries and becomes Janet Black. Change the last name to Black and record White in the maiden name field, forward the change to the VCR.

3. Suffixes and Prefixes Name suffixes when available must be entered in the field *Name - Suffix* and not included in the *Name - Last* field. Do not include name prefixes (e.g., Sister, Reverend, Brother, Dr) as part of the patient's last name. Name prefixes are not collected by the VCR and must not be included in any of the required name fields.

Name – First — NAACCR Item #2240

Recording Name-First

1. Truncate name if more than 40 letters long. Blanks, spaces, hyphens, and apostrophes are allowed. Do NOT use other punctuation.

Example: Mary Jane is entered as Mary Jane.

2. First Initial Only - If the patient uses the initial of their first name and their full middle name, enter the patient's first initial in the *Name - First* field. Record the middle name in the *Name - Middle* field.

   Example: Patient's name is M. John
   (*Name - First)* = M
   (*Name - Middle)* = John

3. Prefixes - Do not include name prefixes (e.g., Sister, Reverend, Brother, Dr) as part of the patient first name. Name prefixes are not collected by the VCR and must not be included in any of the required name fields.

Name – Middle NAACCR Item #2250

Record the patient's middle name.

Recording Name-Middle

1. Truncate name if more than 40 letters long. Blanks, spaces, hyphens, and apostrophes are allowed. Do NOT use other punctuation.

2. Leave this item blank if the patient does not have a middle name or initial, or if the middle name or initial is unknown. Do not record *not applicable*, *N/A,* or *unknown*.

3. Do not use *any* punctuation.

Name – Maiden NAACCR Item #2390

Record the maiden name of female patients who are or have been married. This item is useful for matching multiple records on the same patient.

Recording Name-Maiden

1. Truncate name if more than 40 letters long. Blanks, spaces, hyphens, and apostrophes are allowed. Do NOT use other punctuation.

2. Hyphens are allowed.

   Example: The last name is Green-Moss. Record as Green-Moss.

3. Leave this data item blank if the patient does not have a maiden name, information is not available, or it is not applicable to the patient as in the case of a male. Do not record, *not applicable*, *n/a,* or *unknown*.

Name – Alias NAACCR Item #2280

Record any alternate name or "AKA" (also known as) used by the patient, if known. This item is useful for matching multiple records on the same patient.

Recording Name-Alias

1. Truncate name if more than 40 letters long. Blanks, spaces, hyphens, and apostrophes are allowed. Do NOT use other punctuation.
2. Leave this data item blank if the patient does not have an alias or if the information is not available. Do not record, *not applicable*, *n/a* or *unknown*.

3. Do not record maiden name in this field. It should be recorded in the *Name-Maiden* field.

Guidelines for Recording Patient Address

The address is the home or residence named by the patient at the time he/she was diagnosed. Legal status and citizenship are not factors in residency decisions. Rules of residency are identical to, or comparable with, the rules of the United States Census Bureau whenever possible. Resolve residency questions by using the Census Bureau's definition "the place where he or she lives and sleeps most of the time or the place the person considers to be his or her usual home." Vital Statistic rules may differ from census rules. Do not record residence from the death certificate. Review each record carefully to determine correct residence. If address at diagnosis is unavailable, use current address.

Rules for Persons Without Apparent Residences:

Persons with More Than One Residence
(Summer and winter homes): Use the address the patient specifies if a usual residence is not apparent.

Persons with No Usual Residence

(Transients, homeless): Use the address of the place they were staying when the cancer was diagnosed. This could be a shelter or the diagnosing institution.

Persons Away at School
College students are residents of the school area. Boarding school children below college level are residents of their parents' home.

Persons in Institutions
The Census Bureau states "Persons under formally authorized, supervised care or custody" are residents of the institution. This includes the following:

1. Incarcerated persons.
2. Persons in nursing, convalescent, and rest homes.
3. Persons in homes, schools, hospitals, or wards for the physically disabled, mentally retarded, or mentally ill.
4. Long-term residents of other hospitals, such as Veterans Administration (VA) hospitals.
5. Persons in the Armed Forces and on Maritime Ships:

   Members of the armed forces are residents of the installation area. Use the stated address for military personnel and their family. Military personnel may use the installation address or the surrounding community's address. The Census Bureau has detailed residency rules for Naval personnel, Coast Guard, and maritime ships. Refer to the Census Bureau publications for these detailed rules.

Address at Diagnosis – No & Street NAACCR Item #2330

Record the number and street address of the patient's usual residence at the time the tumor was initially diagnosed. Patient address is used to provide census tract and other geocodes for incidence statistics and epidemiologic research. The VCR uses geocoding software for automated assignment of geocodes. To increase the rate of automated geocoding, improve the quality of residence data, and enhance the specificity of residence information available for research, addresses must conform to the following format rules.

Recording Addr At Dx - No & Street

1. Leave a blank between numbers and words if space permits.

2. *The use of capital letters is* **preferred**.

   Example: 103 First Avenue should be recorded as 103 1st AVE

3. If the patient has multiple tumors, the address may be different for each primary.

4. If no information is available on address at diagnosis, assume the current address was also address at time of original diagnosis.

5. If the patient's current address is not known, record UNKNOWN only after all efforts to obtain this information prove unsuccessful.

6. Do Not Update this data item if the patient's address changes over time.

7. Punctuation marks should be avoided, except when punctuation is necessary to convey the meaning.

a. Punctuation normally is limited to periods when the period carries meaning (e.g., 39.2 RD), slashes for fractional addresses (e.g., 101 ½ MAIN ST) and hyphens when the hyphen carries meaning (e.g., 289-01 MONTGOMERY AVE).

b. Pound signs- The use of pound signs (#) to designate address units should be avoided whenever possible. The preferred notation is as follows:

   Example: Address: 1234 Main St., Apartment Record as: 123 4 MAIN ST APT 12 If a pound sign is used, there must be a space between the pound sign and secondary number (e.g., 425 FLOWER BLVD # 72).

c. Do not use commas, semicolons, colons, dashes, question marks, exclamation points, apostrophes, parentheses, brackets, braces, quotation marks or asterisks (*) when recording address.

8. Abbreviations: Enter complete street names without abbreviation. Abbreviate only directional prefixes, directional suffixes and street type suffixes as included on the following VCR list, *Standardized Abbreviations for Street Address.* Use of abbreviations for these terms will enable the entire street address to be recorded.

   Examples: 101 W PINE ST RICHMOND 23234 is in Chesterfield County 101 W PINE WAY RICHMOND 23234 is in Richmond City

9. PO Box: Avoid using PO Box numbers in place of street address. Use of street address is necessary for more accurate geocoding.

   Example: Address: P.O. Box 20, 221 Springfield Rd Record as: 221 SPRINGFIELD RD

10. Postal Route Numbers: Avoid using postal route numbers in place of street address. Confirm the house number is not part of the postal route. Use of street address is necessary for more accurate geocoding.

11. Apartment Numbers or Letters: Enter apartment numbers or letters in *Address at DX Supplemental* field.

12. Intersections: Use one of the following formats when an intersection is used in place of a street number:

    Example: SMITH AND JONES ST (not Sts or Streets)
    SMITH ST AND JONES ST
    SMITH AT JONES

13. Nursing Home or Other Institution: If residence is a nursing home or other institution, enter the street address given in this field. The name of the institution should be entered in the *Address at DX Supplemental* field.

VCR Standard Abbreviations for Street Address

Directional Prefix or Suffix Abbreviations

Prefix/Suffix	Abb	Prefix/Suffix	Abb	Prefix/Suffix	Abb	Prefix/Suffix	Abb
North	N	East	E	Northeast	NE	Southeast	SE
South	S	West	W	Northwest	NW	Southwest	SW

Street Prefix Abbreviations

Prefix	Abb	Prefix	Abb	Prefix	Abb	Prefix	Abb
Avenue	AV,AVE	Camino	CMN	Paseo	PAS	Via	VIA
Boulevard	BLVD	Circulo	CIR	Place/Placita	PL	Vista	VISTA
Calle	CLL	Corte	CT	Plaza	PLZ		
Caminito	CMT	Drive	DR	Rue	RUE		

Street Suffix Abbreviations

Suffix	Abb	Suffix	Abb	Suffix	Abb	Suffix	Abb
Alley	AL	Crossing	G	Overpass	OVPS	Square	SQ
Alley	ALY	Drive	DR	Park	PARK	Street	ST
Arcade	ARC	Expressway	XWY	Parkway	PKWY	Terrace	TER
Avenue	AV,AVE	Expressway	XY	Parkway	PKY	Trafficway	FWY
Boulevard	BLVD	Freeway	FRWY	Pass	PASS	Throughway	THWY
Bypass	BYP	Freeway	FWY	Path	PATH	Trail	TRL
Calle	CLL	Gardens	GDNS	Pike	PKE	Turnpike	TPKE
Causeway	CSWY	Highway	HWY	Place	PL	Underpass	UNP
Center	CTR	Lane	LA	Plaza	PLZ	Walk	WALK
Circle	CIR	Loop	LOOP	Road	RD	Way	WY
Concourse	CONC	Mews	MEWS	Row	ROW		
Court	CT	Motorway	MTWY	Rue	RUE		
Crescent	CRES	Oval	OVAL	Skyway	SKWY		

Addr at DX – Supplemental NAACCR Item #2335

Record additional address information such as the name of a place or facility (e.g., a nursing home or name of an apartment complex) at the time of diagnosis.

Recording Addr at Dx – Supplemental

1. If additional address space is not needed, leave blank.

2. Do Not Update this data item if the patient's address changes over time. See *VCR Manual Section Three, Guidelines for Recording Patient Address* for detailed residency rules.

Addr at DX – City/Town NAACCR Item #70

Record the city or town of the patient's usual residence when the tumor was initially diagnosed. The address is a part of the patient's demographic data and has multiple uses. It will provide a referral pattern report and allow analysis of cancer clusters or environmental studies.

Recording Addr at DX-City

1. *Do Not Update* this data item if the patient's address changes over time. Changing this data item would destroy its usefulness. See *VCR Manual Section Three, Guidelines for Recording Patient Address* for detailed residency rules.
2. Rural area - If the patient resides in a rural area, record the name of the city or town used in his or her mailing address.
3. Punctuation - Do not use punctuation, special characters, or abbreviations.
4. Capital Letters- The use of capital letters is preferred.
5. Multiple Tumors- If the patient has multiple tumors, the address may be different for each primary.
6. Unknown- If the city is not known, record UNKNOWN only after all efforts to obtain this information prove unsuccessful.
7. No Information- If no information is available on address at time of diagnosis, use current address.

Addr at Dx – State NAACCR Item #80

Record the US postal service abbreviation for the state or Canadian province of the patient's usual residence when the tumor was diagnosed.

The address is part of the patient's demographic data and has multiple uses. It will provide a referral pattern report and allow analysis of cancer clusters or environmental studies. Do not update this data item if the patient's address changes over time – changing this data item would destroy its usefulness. See *VCR Manual Section Three, Guidelines for Recording Patient Address* for detailed residency rules.

Recording Addr at DX-State

1. Multiple Tumors- If the patient has multiple tumors, the address may be different for each primary.
2. *Do Not Update* this data item if the patient's address changes over time. Changing this data item would destroy its usefulness. See *VCR Manual Section Three, Guidelines for Recording Patient Address* for detailed residency rules.
3. Abbreviations- Only abbreviations on the following tables are acceptable.

Abbreviations - US States, Possessions, and Canadian Provinces

Code	Label	Code	Label	Code	Label
AL	Alabama	MB	Manitoba	PW	Palau
AK	Alaska	MH	Marshall Islands	PA	Pennsylvania
AB	Alberta	MD	Maryland	PE	Prince Edward Island
AS	American Samoa	MA	Massachusetts	PR	Puerto Rico
AA	APO/FPO Armed Services America	MI	Michigan	QC	Quebec
AE	APO/FPO Armed Services Europe	FM	Micronesia	ZZ	Residence unknown.
AP	APO/FPO Armed Services Pacific	MN	Minnesota	XX	Resident of a country other than the U.S. (including its territories, commonwealths, or possessions) or Canada and the country is *known*.

AZ	Arizona	MS	Mississippi	YY	Resident of a country other than the U.S. (including its territories, commonwealths, or possessions) or Canada and the country is *unknown*.
AR	Arkansas	MO	Missouri	CD	Resident of Canada and the province is *unknown*.
BC	British Columbia	MT	Montana	US	Resident of the U.S. (including its territories, commonwealths, or possessions) and the state is *unknown*
CA	California	NE	Nebraska	RI	Rhode Island
CD	Canada, province unknown	NV	Nevada	SK	Saskatchewan
CO	Colorado	NB	New Brunswick	SC	South Carolina
CT	Connecticut	NH	New Hampshire	SD	South Dakota
DE	Delaware	NJ	New Jersey	US	United States, state unknown
DC	District of Columbia	NM	New Mexico	TN	Tennessee
FL	Florida	NY	New York	TX	Texas
GA	Georgia	NL	Newfoundland and Labrador	UT	Utah
GU	Guam	NC	North Carolina	VT	Vermont
HI	Hawaii	ND	North Dakota	VI	Virgin Islands
ID	Idaho	NT	Northwest Territories	VA	Virginia
IL	Illinois	NS	Nova Scotia	WA	Washington
IN	Indiana	NU	Nunavut	WV	West Virginia
IA	Iowa	OH	Ohio	WI	Wisconsin
KS	Kansas	OK	Oklahoma	WY	Wyoming
KY	Kentucky	ON	Ontario	YT	Yukon
LA	Louisiana	OR	Oregon		
ME	Maine	UM	Outlying Islands		

Abbreviations - Other

Other Country or Unknown	Abbv
Resident of a country other than the US (including its territories, commonwealths, or possessions) or Canada and the country is known	XX
Resident of a country other than the US (including its territories, commonwealths, or possessions) or Canada and the country is unknown	YY
Resident of US, NOS (including its territories, commonwealths, or possessions);Canada, NOS; residence unknown	ZZ

Addr at Dx – Postal Code NAACCR Item #100

For US residents, record the patient's nine-digit extended postal (ZIP) code when the tumor was diagnosed. The address is a part of the patient's demographic data and has multiple uses. It will provide a referral pattern report and allow analysis of cancer clusters or environmental studies.

Example: The extended postal code 60611-2797 is recorded as 606112797.

Recording Addr At DX- Postal Code

1. Only Five-Digits Available – When the nine-digit extended code is unavailable, record the five digit postal code.
   Example: When only five digits, 60611, are available, record 60611_ _ _ _.

2. Canadian Residents – For Canadian residents, record the six-character postal code as noted below.

3. Hyphens – Do *not* record hyphens.

4. *Do Not Update* this data item if patient's address changes over time. Changing this data item would destroy its usefulness. See *VCR Manual Section Three, Guidelines for Recording Patient Address* for detailed residency rules.

5. Multiple Tumors – If the patient has multiple tumors, the postal code may be different for each primary.

6. Other countries – When available, record the postal code for other countries.

7. Unknown Postal Code – If the street address, city, and state are known, but the postal code is unknown, the following US Postal Service's Web site may be used to determine the correct postal code: http://www.usps.com/

8. Unknown Address – If Street address, city, state and postal code are unknown and the information cannot be obtained from any other sources, use codes noted below.

Codes and Definitions

Code	Definition
23219____	When the nine-digit extended US Zip code is not available, record the five-digit postal code, left justified, followed by four blanks
M6G2S8	The patient's six-character Canadian postal code left justified, followed by three blanks
888888888	Permanent address in a country other than Canada, United States or US possessions **and** postal code is unknown
999999999	Permanent address in Canada, United States, or US possession **and** postal code is unknown. Permanent address (street, city and state) is totally unknown

County at Diagnosis NAACCR Item #90

Record the county of the patient's usual residence when the tumor was diagnosed. Do not update this data item if the patient's county of residence changes.

Recording County at Dx

1. If the patient has multiple tumors, the county may be different for each primary.

2. This data item must contain the specific county at diagnosis. If the city and state are known, but the county is unknown, the following web site may be used to determine the correct county: http://www.melissadata.com/Lookups/addressverify.asp.

3. If the patient is a Virginia resident, the specific county *must* be recorded.
Record the county at diagnosis using county codes issued by the Bureau of Standards in the Federal Information Processing Standards (FIPS). The FIPS codes for Virginia counties

are listed in *VCR Manual Appendix F, Federal Information Processing Standards (FIPS)* and are generally incorporated into abstracting software.

4. If the patient resides in a state other than Virginia, in Canada, or in a US possession, the specific county is not required and should be coded to 998.

5. Record 999 when the patient is a non-US resident.

Medical Record Number — NAACCR Item #2300

Record the patient's medical record number. The medical record number is a patient identification number usually assigned by the reporting facility.

Recording Medical Record Number

1. This item is used to locate the medical record. It may also be used to link records and should be recorded exactly as it is recorded on your Disease Index.
2. If the medical record number is fewer than 11 characters, right justify the characters and allow leading blanks.

   Example: Medical record number 811234 would be recorded:

				8	1	1	2	3	4

3. Record standard abbreviations for departments that do not use medical record numbers.

   Examples: Radiation Therapy

								R	T

   One-day surgery clinic

							S	U

4. If the medical record number is unknown, record

						U	N	K

Social Security Number — NAACCR Item #2320

Record the patient's Social Security Number (SSN) without dashes.

Recording Social Security Number

1. Providing a social security is mandated by the Code of Virginia. See Appendix ### for

the Code.

2. When a patient does not have a Social Security Number, or the information is not available, record 999999999. DO NOT make up a social security number to denote unknown.

3. It is important to enter the correct Social Security Number since this data item is used for record linkage to match patients at the VCR as well as to match VCR information with the Social Security Number on the hospital's Disease Index. Verify entries for missing values and transpositions. Do not record Social Security Numbers that end with B or D. These are the spouse's Social Security Number.

4. According to how a Social Security Number is assigned by the Social Security Administration, the following are invalid entries:

   a. First three digits cannot = 000 or 666
   b. Fourth and Fifth digits cannot = 00
   c. Last four digits cannot = 0000
   d. First digit cannot = 8 or 9 unless entire SSN is unknown (999999999)

5. ***If a correction is made to the Social Security Number, a change sheet must be submitted to the VCR***. See *VCR Manual Section One, Changing Information*.

Birthplace – State NAACCR Item #252

Record the patient's place of birth. This data item is used to evaluate medical care delivery to special populations and to identify populations at special risk for certain cancers. It corresponds to

Recording Birth Place

1. State of Birth – If the patient was born in the United States, record the state of birth.
2. SEER Geo-codes – Record the patient's place of birth using the *VCR Manual Appendix G, SEER Geo-Codes*. These codes include states of the United States as well as foreign countries.

   a. Use the most specific code possible.
   b. These codes are generally incorporated in abstracting software.
   c. At the time SEER assigned geo-codes in the 1970's, the United States owned or controlled islands in the Pacific. Many of these islands are now independent. Some are controlled by countries other than the United States. The original codes are used for these islands to preserve historic

information. The names have been annotated to show the new political designation. The alphabetic list displays the correct code.

Codes and Definitions

Code	Definition
VA	If the state in which the patient was born is Virginia, then use the USPS code for the state of Virginia
XX	Born in a country other than the US (including its territories, commonwealths, or possessions) or Canada and the *country is known*
YY	Born in a country other than the US (including its territories, commonwealths, or possessions) or Canada and the *country is unknown*
US	Born in a country other than the US (including its territories, commonwealths, or possessions) and the state is *unknown*
CD	Born in Canada and the province is *unknown*
ZZ	Place of birth is unknown, not mentioned in the patient record

Birthplace – Country NAACCR Item #254

Record the country where the patient was born. The codes are based on International Organization for Standardization (ISO) -1 aplha-3country codes, with some custom codes.

1. This item corresponds to Birthplace – State.
2. Use the most specific code

Examples:

Code	Country
USA	United States
CAN	Canada
ZZU	Place of birth is unknown, not mentioned in patient record

Date of Birth NAACCR Item #240

Record the patient's date of birth

Recording Birth Date

1. Date Format – Record date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces and the day in the last two spaces. A zero must precede single- digit months and days. See *VCR Manual, Section Three, General Instructions* for allowable values.

   Example: Record June 30, 1906 as 19060630.

2. Date Unavailable, but Age Known – When age is known, estimate year of birth when further information is not available. It is better to estimate than to record as an unknown year.

   Example 1: The patient is 60 years old when diagnosed on June 15, 1996. The medical record does not have a birth date. Record unknown month (blank) and day (blank). Estimate the year as 1936 (----1936).

   Example 2: Record the patient's date of birth as ----1927 when the medical record contains only the year of birth (1927).

3. Unknown Month, Day and/or Year – If date is not known, leave the field blank. If only
   part of the date is known, record what is known and enter approximations for month and/or year if descriptions are available or blank for what is unknown. No approximation of day is acceptable. *Fictitious dates or default values are not acceptable to be entered for month, day, or year*.

   a. If the data of birth cannot be determined at all, record the reason *in Date of Birth Flag.*

4. Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, *with the unknown portions of the date filled with blank spaces*. If a *date is entirely blank, an associated date flag is used* to explain the missing date. Flags are not
   used for software-generated dates.

   a. For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates*

Date of Birth Flag NAACCR Item #241

This flag explains why there is no appropriate value in the corresponding date field, *Date of Birth.*

Recording Date of Birth Flag

1. Leave this item blank if *Date of Birth* has a full or partial date recorded.
2. Code 12 if the *Date of Birth* cannot be determined at all.
3. Registrars should enter this data item directly (when appropriate) even if the traditional form of data entry is used in the software.

The following table illustrates the use of the date flag and the traditional and interoperable date formats for coding *Date of Birth Flag.* ***In the table below, the lowercase letter "b" is used to represent each blank space.***

Description	**Traditional Date of Birth**	**Interoperable Date of Birth**	**Date of Birth Flag**
	Date entered in MMDDCCY sequence; unknown portions represented by 99 or 9999	*Date entered in CCYYMMDD sequence, leaving unknown portions blank (spaces); omit the date if the date is completely unknown or not applicable.*	
Full date known	MMDDCCYY (example: 02182007)	CCYYMMDD (example: 20070218)	bb
Month and year known	MM99CCYY (example: 02992007)	CCYYMMbb (example: 200702bb)	bb
Year only known	9999CCYY (example: 99992007)	CCYYbbbb (example: 2007bbbb))	bb
Date is unknown	99999999 (example: 99999999)	bbbbbbbb (example: bbbbbbbb)	12

Sex NAACCR Item #220

Record the patient's sex.

Codes and Definitions

Code	Definition
1	Male
2	Female
3	Other (Hermaphrodite)
4	Transsexual, NOS
5	Transsexual, natal male
6	Transsexual, natal female
9	Not stated/Unknown

Special Instructions

1. Sex **must** be documented in the PE Text field
2. Codes of 3 through 6 ***requires*** documentation in the PE Text field
3. These codes may be used in cases prior to 2015
4. Transsexual, NOS may be used for new cases if natal sex is unknown

Spanish/Hispanic Origin NAACCR Item #190

Record the Spanish/Hispanic origin. This item identifies persons of Spanish or Hispanic ethnicity. This code is used by VCR to identify whether or not the person should be classified as "Hispanic" for purposes of calculating cancer rates. Hispanic populations have different patterns of occurrence of cancer from other populations that may be included in the White category (01) of *Race 1* through *Race 5.*

Codes and Definitions

Code	Definition
0	Non-Spanish, Non-Hispanic
1	Mexican (includes Chicano)
2	Puerto Rican
3	Cuban
4	South or Central American (except Brazil)
5	Other specified Spanish/Hispanic origin (includes European)
6	Spanish, NOS; Hispanic, NOS; Latino, NOS; (There is evidence other than surname or maiden name that the person is Hispanic, but he/she cannot be assigned to any category of 1 – 5)
7	Spanish surname only (the only evidence of the person's Hispanic origin is surname or maiden name and there is no contrary evidence that the person is not Hispanic
8	Dominican Republic
9	Unknown whether Spanish or not

Recording Spanish/Hispanic Origin

1. A person of Spanish/Hispanic origin may be any race, but these categories are generally not used for Native Americans, Filipinos, or others who may have Spanish names.

2. Code 0 (Non-Spanish; non-Hispanic) for Portuguese and Brazilian persons.

3. If a patient has multiple tumors, all records should have the same code.

4. If this information is not available, reference **"*A Toolkit for Collecting Race, Ethnicity, and Primary Language Information from Patients*"** which was developed by the Health Research Educational Trust providing guidance on how to collect this information during patient registration. This resource is available at the following link and should be shared with personnel responsible for patient registration throughout your facilities: http://www.hretdisparities.org/

Race 1, Race 2, Race 3, Race 4, Race 5

Record the appropriate codes for the patient's race(s) in Race 1, Race 2, Race 3, Race 4, and Race 5. Race is coded separately from Spanish/Hispanic Origin.
Codes 08 – 13 became effective with diagnoses January 1, 1988, and after. Code 14 became effective with diagnoses January 1, 1994 and later. In 2010, code 09 w3as converted to the new code 15, and codes 16 and 17 were added. Codes 20 – 97 became effective with diagnoses on or after January 1, 1991.

Codes and Definitions

Code	Definition	Code	Definition
01	White	17	Pakistani
02	Black	20	Micronesian
03	American Indian, Aleutian, or Eskimo (*includes all indigenous populations of the Western hemisphere*)	21	Chamorro/Chamoru
04	Chinese	22	Guamanian, NOS
05	Japanese	25	Polynesian, NOS
06	Filipino	26	Tahitian
07	Hawaiian	27	Samoan
08	Korean	28	Tongan
09	Retired – **DO NOT USE**	30	Melanesian, NOS
10	Vietnamese	31	Fiji Islander
11	Laotian	32	New Guinean
12	Hmong	88	No further race documented (*Do **Not** use in Race 1)*
13	Kampuchean, includes Khmer & Cambodian	96	Other Asian, includes Asian NOS, & Oriental NOS
14	Thai	97	Pacific Islander, NOS
15	Asian Indian or Pakistani, NOS (*formerly code 09)*	98	Other
16	Asian Indian	99	Unknown

Recording Race

Race 1 is the field used to compare with race data on cases diagnosed prior to January 1, 2000. "Race" is analyzed with *Spanish/Hispanic Origin.* Both items must be recorded. All tumors for the same patient should have the same race code(s).

Single Race

1. If only one race is reported for the patient, in Race 1 enter the race code and in Race 2 through Race 5, enter 88.

2. A specific race code (other than 88 or 99) must not occur more than once.

   Example 1: If the patient's race is listed as white, in Race 1 enter 01 and in Race 2 through Race 5 enter 88. Do not code 01 in Race 1 signifying one parent and 01 again in Race 2 for other parent.

   Example 2: A patient was born in Mexico of Mexican parentage. Code Race 1 as 01 and Race 2 through Race 5 as 88.

Multiple Races

1. Code primary race(s) of the patient in fields Race 1, Race 2, Race 3, Race 4, and Race 5. The five race fields allow for the coding of multiple races consistent with the Census 2000. Rules 2-6 further specify how to code Race 1 through Race 5.

2. If less than five specific race codes apply for a patient, code 88 in the remaining race fields.

   Example: A patient has a Hawaiian father, black mother, Japanese grandfather, and Korean grandmother. Code Race 1 as 07 Hawaiian, Race 2 as 02 Black, Race 3 as 05 Japanese, Race 4 as 08 Korean, and Race 5 as 88.

3. If a person's race is a combination of white and any other race(s), code the appropriate other race(s) first and code white in the next race field.

4. If a person's race is a combination of Hawaiian and any other race(s), code Race 1 as 07 Hawaiian and code the other races in Race 2, Race 3, Race 4, and Race 5 as appropriate.

   Example: Patient is described as Japanese and Hawaiian. Code Race 1 as 07, Hawaiian, Race 2 as 05 Japanese, and Race 3 through Race 5 as 88.

5. If the person is not Hawaiian, code Race 1 to the first stated non-white race (02-98).

   Example: Patient is stated to be Vietnamese and Black. Code Race 1 as 10

Vietnamese, Race 2 as 02 Black, and Race 3 through Race 5 as 88.

6. If the patient's race is determined based on the races of relatives, there is no priority to coding race, other than to list the non-white race(s) first.

   Example: The patient is described as Asian-American with Korean parents. Code race as 08 Korean because it is more specific than 96 Asian, NOS. Code Race 2 through 5 as 88.

No Race Stated

1. If no race is stated in the medical record, or if the stated race cannot be coded, review the documentation for a statement of race category.

   Example 1: Patient described as a black female in the physical exam, consultation or nursing notes, Code Race 1 as 02 Black and Race 2 through Race 5 as 88.

   Example 2: Patient describes herself as multi-racial (nothing more specific) and nursing notes say 'African American.' Code Race 1 as 02 Black and Race 2 through Race 5 as 88.

   Example 3: Patient states she has a Polynesian mother and Tahitian father. Code Race 1 as 25 Polynesian, Race 2 as 26 Tahitian and Race 3 through Race 5 as 88.

2. If race is unknown, not stated in the medical record, or not stated specifically, refer to the race-specific guidelines below. If none apply, code Race 1 through Race 5 as unknown (99). Do not use patient name in determining race.

Race-Specific Guidelines

1. White (01) includes Mexican, Puerto Rican, Cuban, and all other Caucasians.

2. Black (02) includes the designations Negro or African American.

3. Native American (03) should be used for any person stated to be Native American or [western hemisphere] Indian, whether from North, Central, South, or Latin America.

4. is based on birthplace information when place of birth is given as China, Japan, or the Philippines and race is reported only as Asian, Oriental, or Mongolian.

Example: If the patient's race is recorded as Asian and the place of birth is recorded as Japan, code Race 1 as 05 Japanese and Race 2 through Race 5 as 88.

5. Do not code Asian in a subsequent race field if a specific Asian race has already been coded.

Use of Code 88 (No further race documented)

1. Code 88 is valid for Race 2 through Race 5; it is not valid for Race 1.

2. If Race 2 is coded to 88, then Race 3 through Race 5 must be coded to 88.

Use of Code 99 (Unknown)

1. If the patient's race is unknown, enter 99 in Race 1 through Race 5.

2. If any race equals 99 then all race codes (Race 1, 2, 3, 4, and 5) must equal 99.

Special Instructions

Race must be recorded in the PE Text field. If race is unknown, it should be recorded as such in the text field.

Reference

"*A Toolkit for Collecting Race, Ethnicity, and Primary Language Information from Patients*" is a reference developed by the Health Research Educational Trust providing guidance on how to collect this information during patient registration. This resource is available at the following link and should be shared with personnel responsible for patient registration throughout your facilities:

http://www.hretdisparities.org/

Primary Payer at Diagnosis NAACCR Item #630

Record the patient's primary payer/insurance carrier at the time of initial diagnosis and/or treatment.

This item is used in financial analysis and as an indicator for quality and outcome analyses. Joint Commission on Accreditation of Healthcare Organizations (*JCAHO) requires* the patient admission page to document the type of insurance or payment structure that will cover the patient while being cared for at the facility.

Recording Primary Payer at Diagnosis

1. If the patient is diagnosed at the reporting facility, record the payer at the time of Diagnosis.

2. If the patient is diagnosed elsewhere or the payer at the time of diagnosis is not known, record the payer when the patient is initially admitted for treatment.

3. Record the type of insurance reported on the patient's admission page.

4. Codes 21 and 65 – 68 are to be used for patients diagnosed on or after January 1, 2006

5. If more than one payer or insurance carrier is listed on the patient's admission page,record the first.

6. If the patient's payer or insurance carrier changes, do not change the initially recorded code.

Codes and Definitions

Code	Definition
01	*Not Insured*- Patient has no insurance and is declared a charity write-off.
02	*Not Insured, Self-Pay*- Patient has no insurance and is declared responsible for charges.
10	*Insurance, NOS*- Type of insurance is unknown or other than types listed in codes 20, 21, 31, 35, 60-68.
20	*Private Insurance: Managed Care, HMO, or PPO*- An organized system of prepaid care for a group of enrollees usually within a defined geographic area. Generally formed as one of four types: a group model, an independent physician association (IPA), a network, or a staff model. "Gatekeeper- model" is another term for describing this type of insurance.
21	*Private Insurance: Fee-for-Service*- An insurance plan that does not have a negotiated fee structure with the participating facility. Type of insurance plan not coded as 20
31	*Medicaid*- State government administered ins for persons who are uninsured, below poverty level, or covered under entitlement programs. Medicaid other than described in code 35.
35	*Medicaid-Administered through a Managed Care plan*- Patient is enrolled in Medicaid through a Managed Care program (e.g. HMO or PPO). The managed care plan pays for incurred costs.
60	*Medicare without supplement, Medicare, NOS*- Federal government funded insurance for persons who are 62 years of age and older, or are chronically disabled (SOCIAL SECURITY insurance eligible). Not described in codes 61, 62, or 63.
61	*Medicare with supplement, NOS* – Patient has Medicare and another type of unspecified insurance to pay costs not covered by Medicare.
62	*Medicare-Administered through a Managed Care Plan*- Patient is enrolled in Medicare through a Managed Care plan (e.g. HMO or PPO). The Managed Care plan pays for all incurred costs.
63	*Medicare with private supplement*- Patient has Medicare and private insurance to pay costs not covered by Medicare.
64	*Medicare with Medicaid eligibility*- Federal government Medicare with State Medicaid administered supplement.
65	*TRICARE*- Department of Defense program providing supplementary civilian-sector hospital and medical services beyond a military treatment facility to military dependents, retirees, and their dependents Formerly CHAMPUS (Civilian Health and Medical Program of the Uniformed Services)
66	*Military*- Military personnel or their dependents who are treated at a military facility.
67	*Veterans Affairs*- Veterans who are treated in Veterans Affairs facilities.
68	*Indian/Public Health Service*- Patient who receives care at an Indian Health Service facility or another facility, and the costs are reimbursed by the Indian Health Service. Patient receives care at a Public Health Service facility or at another facility, and medical costs are reimbursed by the Public Health Service.
99	*Insurance Status Unknown*- It is unknown from the patient's medical record whether or not the patient is insured.

Text – Usual Occupation NAACCR Item #310

Record the patient's usual occupation, the kind of work performed during most of the patient's working life before diagnosis of this tumor.

This data item is used to identify new work-related health hazards, serves as an additional measure of socioeconomic status, and identifies occupational groups in which cancer screening or prevention activities may be beneficial.

Usual occupation is defined identically as on death certificates and conforms to the 1989 revision of the US Standard Certificate of Death *Recording Text-Usual Occupation*

1. **Do not record retired.**

2. If *usual* occupation is not available or is unknown, record the patient's current or most recent occupation or any known occupation.

3. Update this data item if better information is obtained as to the usual occupation of the patient. However, it is not the responsibility of facility abstractors to update abstracts with information provided on death certificates. Comparison with death certificate information is the function of the VCR.

4. If the patient was a housewife/househusband and worked outside the home most of her/his adult life, record the usual occupation outside the home. If the patient was a housewife/ househusband and did not work outside the home for most of her/his adult life, record *housewife* or *househusband*.

5. If the patient is not a student or housewife and never worked, record *never worked* as the usual occupation.

6. If no information is available, record *unknown*.

7. This data item cannot be blank unless the patient is under 14 years old. It applies only to patients who are 14 years or older at the time of diagnosis. For patients under the age of 14, leave blank.

8. The patient's occupation may be found on the face sheet, nursing assessment, history and physical or consult reports in the medical record.
9.

Text – Usual Industry **NAACCR Item #320**

Record the primary type of activity carried on by the business/industry where the patient was employed for the greatest number of years before diagnosis of this tumor.

Both occupation and business/industry are required to accurately describe an individual's occupation. These data items are used to identify new work-related health hazards, serve as

an additional measure of socioeconomic status and identify occupational groups in which cancer screening or prevention activities may be beneficial.

Usual industry (also known as "kind of business/industry") is defined identically as on death certificates and conforms to the 1989 revision of the US Standard Certificate of Death.

Recording Text-Usual Industry

1. Be sure to distinguish among *manufacturing*, *wholesale*, *retail*, and *service* components of an industry that performs more than one of these components.

2. If the primary activity carried on at the location where the patient worked is unknown, it may be sufficient to record the name of the company (with city or town) for which the patient performed his/her usual occupation. In these situations, if resources permit, the VCR may be able to use the employer's name and city/town to determine the type of activity conducted at that location.

3. If current or most recent occupation, rather than usual occupation was recorded, record the patient's current or most recent business/industry.

4. Update this data item if better information is obtained as to the usual industry of the patient. However, it is not the responsibility of facility abstractors to update abstracts with industry information provided on death certificates. Comparison with death certificate information is the function of the VCR.

5. There must be an entry for usual industry when any occupation is reported. If no information is available regarding the industry in which the reported occupation was carried out or the occupation is unknown, record *unknown*.

6. This data item cannot be blank unless the patient is under 14 years old. It applies only to patients who are 14 years or older at the time of diagnosis. For patients under the age of 14, leave blank.

Cancer Identification

Class of Case — NAACCR Item #610

Class of Case divides cases into two groups. Analytic cases (codes 00 – 22) are those that arerequired by CoC to be abstracted because of the program's primary responsibility in managing the cancer. Analytic cases are grouped according to the location of diagnosis and first course of treatment. Nonanalytic cases (codes 30 – 49 and 99) must be abstracted for

submission to the VCR. Nonanalytic cases are grouped according to the reason a patient who received care at the facility is nonanalytic. Use January 1, 1990, as the reference date. (See *VCR Manual Section One, Reference Date*)

Recording Class of Case

1. Code the Class of Case that most precisely describes the patient's relationship to the facility.

2. Code 00 applies only when it is known the patient went elsewhere for treatment. If it is not known that the patient went somewhere else, code Class of Case to 10.

3. It is possible that information for coding Class of Case will change during the patient's first course of care. If that occurs, change the code accordingly.

4. Use class of case 34 or 36 to report benign CNS tumors prior to 1995 and to report SIL's.

5. "In-transit" care is given to a patient who is temporarily away from the patient's usual practitioner for continuity of care. These cases do NOT have to be reported to the VCR.

6. If a patient presents to your ER and expires and the physician writes a diagnosis of cancer as the principle or secondary cause of death, code as active disease. This MUST be sent to the VCR.

Codes and Definitions

Analytic Classes of Case	
	Initial Diagnoses at Reporting Facility
00	Initial diagnosis at reporting facility AND all treatment or a decision not to treat was done elsewhere
10	Initial diagnosis at the reporting facility or in an office of a physician with admitting privileges AND part or all of 1st course treatment was at the reporting facility, NOS
11	Initial diagnosis in an office of a physician with admitting privileges AND part of 1st course treatment was done at reporting facility
12	Initial diagnosis in an office of a physician AND part of first course treatment or a decision not to treat was done at the reporting facility
13	Initial diagnosis at the reporting facility AND part of 1st course treatment was done at the reporting facility; part of first course treatment was done elsewhere
14	Initial diagnosis at the reporting facility AND all 1st course treatment or a decision not to treat was done at the reporting facility
	Initial diagnosis Elsewhere

20	Initial diagnosis elsewhere AND all or part of 1st course treatment was done at reporting facility, NOS
21	Initial diagnosis elsewhere AND part of 1st course treatment was done at reporting facility; part of 1st course treatment was done elsewhere
22	Initial diagnosis elsewhere AND all 1st course treatment or decision not to treat was done at the reporting facility

Class of Case REQUIRED TO BE REPORTED BY VCR	
	Patient appears in person at the reporting facility
30	Initial diagnosis and all 1st course treatment elsewhere AND reporting facility participated in diagnostic workup (for example: consult only, treatment plan only, staging workup after initial diagnosis elsewhere)
31	NOT reportable
32	Diagnosis AND all 1st course treatment provided elsewhere AND patient presents at reporting facility with disease recurrence or persistence (active disease)
33	Diagnosis AND all 1st course treatment provided elsewhere AND patient presents at reporting facility with disease history only
34	Type of case required by VCR to be accessioned (for example: squamous intraepithelial lesions – SIL) AND initial diagnosis AND part or all of 1st course treatment by reporting facility
35	Case diagnosed before program's reference date but after VCR reference date of January 1, 1995 AND all or part of 1st course treatment by reporting facility
36	Type of case required by VCR to be accessioned (for example: high grade intraepithelial neoplasia) AND initial diagnosis
37	Case diagnosed before program's reference date but after VCR reference date of January 1, 1995 AND all or part of 1st course treatment by facility
38	Initial diagnosis established at autopsy at the reporting facility, cancer NOT suspected prior to death
	Patient does not appear in person at reporting facility
40	Diagnosis AND all 1st course treatment given at the same staff physician office
41	Diagnosis AND all 1st course treatment given in two or more different offices of physicians with admitting privileges
42	Non-staff physician or non-COC accredited clinic or facility, not part of reporting facility
43	Pathology or other lab specimens only
49	Death certificate only (DCO)
99	Nonanalytic case of unknown relationship to facility

Examples:

a. Patients from an unaffiliated, free-standing clinic across the street that

hospital voluntarily abstracts with its cases because many physicians work at the clinic and the hospital, code to 42.

b. After treatment failure, patient was admitted to your facility for supportive care, code to 32.

c. Patient is diagnosed with a high-grade dysplasia of the colon in your facility; code to 34.

Casefinding Source NAACCR Item #501

Record the earliest source of identifying information. For cases identified by a source other than reporting facilities (such as through death clearance or as a result of an audit), this variable codes the type of source by which the tumor was first identified. This data item cannot be used by itself as a data quality indicator. The timing of the casefinding processes (e.g., death linkage) varies from registry to registry, and the coded value of this variable is a function of that timing.

This data item will help facilities in prioritizing their casefinding activities. It provides more detail than "Type of Reporting Source."

	Case first identified at reporting facility
10	*Reporting hospital, NOS*
20	*Pathology department review (surgical pathology reports, autopsies, or cytology reports)*
21	*Daily discharge review*
22	*Disease index review (review of report from Medical Records Department)*
23	*Radiation Therapy Department/ Center*
24	*Laboratory reports (other than pathology reports, code 20)*
25	*Outpatient chemotherapy*
26	*Diagnostic imaging/Radiology (other than radiation therapy, code 23;includes nuclear medicine)*
27	*Tumor Board*
28	*Hospital rehabilitation service or clinic*
29	*Other hospital source (including clinic, NOS or outpatient department, NOS)*
	Case first identified by source other than a reporting facility covered In codes 10-29
30	*Physician-initiated case*
50	*Independent (non-hospital) pathology/laboratory report*
60	*Nursing home initiated case*
75	*Managed care or insurance records*
85	*Out of state case sharing*

90	*Other non-reporting hospital source*
95	*Quality Control (QC) review (case initially identified by QC activities such as casefinding, audit of central registry. NOTE: This includes cases reported as a result of reconciliation and quality assessment audits.*
99	*Unknown*

Recording Casefinding Source

1. Record the source where the tumor was first identified during routine casefinding procedures using the codes under 'Case first identified at a reporting facility'. Code the earliest source (based on patient or specimen contact at the facility) of identifying information.

   Example: A reportable case is identified while reviewing path reports during routine casefinding. Code *Casefinding Source* to 20 Pathology Department Review.

2. If the tumor was first identified by a source other than the reporting facility, select the most appropriate code to identify the source from the list of codes under 'Case 1st identified by source other than a reporting facility covered' in the Codes above. One specific use of these codes will be to indicate previous unreported tumors identified because of QC procedures by the VCR (e.g. reconciliation, audit, death clearance).

   Example: During VCR reconciliation, a tumor on the list of cases to be reconciled is determined to be reportable. The facility abstracts the case & enters code 95.

Type of Reporting Source NAACCR Item #500

This data item is intended to indicate the source of documents available to the abstractor. Record the code identifying the source documents used to abstract the majority of information on the condition being reported. This may be different than the source used for the original casefinding.

Codes and Definitions

Code	Definition
1	Hospital inpatient; Managed health plans with comprehensive, unified medical records
2	Radiation Treatment Centers or Medical Oncology Centers (hospital-affiliated or independent)
3	Laboratory only (hospital-affiliated or independent)
4	Physician's office/private medical practitioner
5	Nursing/convalescent home/hospice
6	Autopsy
7	Death certificate only **(VCR use only)**
8	Other hospital outpatient units/surgery centers (independent)

Recording Type of Reporting Source

Code in the following priority order: 1, 2, 8, 4, 3, 5, 6, 7. This is a change to reflect the addition of codes 2 and 8 and to prioritize laboratory reports over nursing home reports. The source facilities included in the previous code 1 (hospital inpatient and outpatient) are split between codes 1, 2, and 8.

This data item is intended to indicate the completeness of information available to the abstractor. Reports from health plans (e.g., Kaiser, Veterans Administration, military facilities) in which all diagnostic and treatment information is maintained centrally and is available to the abstractor are expected to be at least as complete as reports for hospital inpatients, which is why these sources are grouped with inpatients and given the code with the highest priority.

Sources coded to 2 usually have complete information on the cancer diagnosis, staging, and treatment.

Sources coded to 8 would include, but would not be limited to, outpatient surgery and nuclear medicine services. A physician's office that calls itself a surgery center should be coded as a physician's office. Surgery centers are equipped and staffed to perform surgical procedures under general anesthesia. If a physician's office calls itself a surgery center, but cannot perform surgical procedures under general anesthesia, code as a physician office.

> *Example:* The patient was first found through your pathology department as a private outpatient specimen (Code 3). The patient was admitted as an inpatient to your hospital a month later for surgery. The inpatient record is used for abstracting (Code 1). Code this data item to ***1***.

Date of First Contact NAACCR Item #580

Record the date of first patient contact, as inpatient or outpatient, with the reporting facility for the diagnosis and/or treatment of the tumor. The date may represent the date of an outpatient visit for a biopsy, x-ray, scan or laboratory test.

When pathology-specimen-only tumors are collected (Class of Case 43, Type of Reporting Source 3), the date of specimen collection form the pathology report should be used as the Date of 1st Contact. If a pathology-specimen-only case is followed by patient contact with a facility for diagnosis and/or treatment of the respective tumor, the hospital should change the Date of 1st Contact to reflect the date the patient first registered at the facility. VCR will retain the earliest date in the consolidated file.

When Autopsy Only (Class of Case 38, Type of Reporting Source 6) tumors are collected, the date of death should be used as the Date of 1st Contact.

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, *with the unknown portions of the date filled with blank spaces*. If a *date is entirely blank, an associated date flag is used* to explain the missing date. Flags are not used for software-generated dates.

- For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates*

Date of First Contact Flag NAACCR Item #581

This flag explains why there is no appropriate value in the field *Date of First Contact.* As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Codes and Definitions

Code	Description
12	A proper value is applicable but is not known. (*Date of 1st Contact* is not known)
(blank)	A valid date value is provided in the item *Date of First Contact*

Recording Date of First Contact Flag

1. Leave this item blank if *Date of 1st Contact* has a full or partial date recorded.

2. Code 12 if *Date of 1st Contact* cannot be determined at all.

Date of Initial Diagnosis NAACCR Item #390

Record the date a physician diagnosed the tumor being reported. Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, *with the unknown portions of the date filled with blank spaces*. If a *date is entirely blank, an associated date flag is used* to explain the missing date. Flags are not used for software-generated dates.

- For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates*

Recording Date of 1st Contact

1. Use the first date of diagnosis whether clinically or histologically established.

   Example 1: The patient was diagnosed with cystic pancreatic endocrine neoplasm (CPEN) August 24, 2016. The patient presents to the reporting institution for treatment of the CPEN on November 5, 2001. This case would be reportable with a Date of Diagnosis of 20160824.

   Example 2: The patient has a history of breast cancer diagnosed September 10, 2014. The patient now presents to the reporting institution with metastasis from the breast. This case would be reportable with a Date of Diagnosis of 20140910.

Example 3: A March 12, 2016, mammogram reveals a mass in the upper-outer quadrant of a patient's right breast compatible with carcinoma. On March 20, 2016, the patient has an excisional breast biopsy that confirms infiltrating ductal carcinoma. Date of Diagnosis is 20160312.

Example 4: A physician notes a prostate nodule possible for cancer during a May 12, 2016 physical exam. On June 15, 2016, a needle biopsy of the prostate histologically confirms adenocarcinoma. Date of Diagnosis is 20160615 because "possible for cancer" does not constitute a reportable diagnosis.

2. If the physician states that, in retrospect, the patient had cancer at an earlier date, use the earlier data as the date of diagnosis.

   Example 1: A patient has a total abdominal hysterectomy for endometriosis in January 2014. The patient is admitted to the hospital with abdominal pain in November, 2016. An omental biopsy shows metastatic cystadenocarcinoma. Pathologists review the 2010 histology specimen. They identify and area of cystadenocarcinoma in the left ovary. Date of diagnosis is 201401--.

3. Refer to the list of "Ambiguous Terms" Part One: General Information and Reporting Requirements for language that represents a diagnosis of cancer.

4. Use the date treatment was started as the date of diagnosis if the patient receives a first course of treatment before a diagnosis is documented.

5. Use the actual date of diagnosis for and *in utero* diagnosis for cases diagnosed on January 1, 2009, or later.

6. If the year of diagnosis cannot be identified, it must be approximated. Record what is known and enter approximation for month and/or year if descriptions are available or blank for what is unknown. Approximation of day is acceptable. Refer to *VCR Manual, Section Three: Data Item Instructions, General Information, Dates* for instructions regarding Approximating Dates and Unknown Dates. Fictitious dates or default values are not acceptable to be entered for month, day, or year.

   Note for hospitals: When a patient is diagnosed elsewhere prior to entering the reporting facility and the Date of Diagnosis is unknown, the cases must be reported to the VCR with an unknown Date of Diagnosis (blank).

   Example 1: The patient has a history of breast cancer. The patient presents to the reporting facility July 5, 2016, and receives Tamoxifen for breast cancer. The original Date of Diagnosis is unknown. The correct Date of Diagnosis is blank.

Example 2: Patient receives palliative treatment for breast cancer diagnosed in June 2016. The correct Date of Diagnosis is 201606-- (where "-" equals a blank space). Do not record 20070615 where 15 is a default value for day.

Example 3: Documentation in the patient's record from a June 2016 admission indicates the patient was diagnosed 'last year'. The correct Date of Diagnosis is 2015bbbb. Do not record 20150101 where 0101 are default values for month and day.

Example 4: Patient is admitted on January 15, 2016, with severe flank pain with history of lung cancer diagnosed five years ago. The correct Date of Diagnosis is 2011bbbb. Do not record unknown when descriptive information can be used to approximate the year.

7. If a patient is diagnosed with a non-reportable condition that later transforms into a reportable condition, record the date the patient was diagnosed with the reportable condition.

   Example: The patient was diagnosed with myelodysplastic syndrome on May 1, 2000 (not reportable until 2001) and it transforms into acute myelogenous leukemia on June 15, 2012. Abstract as acute myelogenous leukemia with a Date of Diagnosis of 20120615.

   The date of death is the Date of Diagnosis for a case diagnosed at autopsy.

Date of Diagnosis Flag — NAACCR Item #391

This flag explains why there is no appropriate value in the field *Date of Diagnosis*. As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non dated information that had previously been transmitted in date fields.

Codes and Definitions

Code	Description
12	A proper value is applicable but is not known. (for example, diagnosis was confirmed in a note, but the actual date is unknown).
(blank)	A valid date value is provided in the item *Date of Diagnosis*

Recording Date of Diagnosis Flag

1. Leave this item blank if *Date of Diagnosis* has a full or partial date recorded.

2. Code 12 if *Date of Diagnosis* cannot be determined, but the patient does have a diagnosis of cancer.

Primary Site NAACCR Item #400

This data item records the topography code for the primary site of the cancer/tumor condition being reported using ICD-O-3 or ICD-O-2 (*International Classification of Diseases for Oncology, Third or Second Edition* published by the World Health Organization).

1. Cases Diagnosed on or after January 1, 2001 **-** Code according to ICD-O-3.

2. Cases Diagnosed prior to January 1, 2001 **-** Code according to ICD-O-2.

3. Cases with Unknown *Date of Diagnosis*- If the *Date of Diagnosis* is unknown and cannot be estimated, the *Date of 1st Contact* should be used to determine the correct coding manual to use. Code according to ICD-O- 3 when the *Date of 1st Contact* is on or after January 1, 2001. Code according to ICD-O-2 when the *Date of 1st Contact* is prior to January 1, 2001. Newly reportable conditions for 2001 and 2004 are not reportable when Date of Diagnosis is unknown.

Recording Primary Site

1. Record the IDC-O-3 topography for the site of origin.

2. Consult the physician to identify the primary site or the most definitive site code if the medical record does not contain that information.

3. Topography codes are indicated by a “C” preceding the three-digit code number. Do not record the decimal point.

4. Follow the instruction in *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the Hematopoietic and Lymphoid Neoplasms Database (Hematopoietic DB) for assigning site for lymphomas, leukemias and other hematopoietic neoplasms.

5. Lymphomas may arise in lymph nodes, lymphatic tissue such as tonsils, spleen, Waldeyer's ring, or thymus, or in extranodal sites. Distinguishing between nodal and extranodal origin is important because extranodal lymphomas have a better prognosis. Do NOT record the biopsy site as the primary site unless it has been confirmed as the primary site. Do not record a metastatic site as the primary site.

a. The primary site for a lymphoma involving multiple lymph node regions should list the nodal regions involved in the *Text-Primary Site Title* field and coded to C77.8

6. Use subcategory 8 for single tumors that overlap the boundaries of two or more sub-sites and the point of origin is unknown.

   Example 1: Overlapping lesion of oropharynx. Code overlapping lesion when a large tumor involves both the lateral wall of the oropharynx (C10.2) and the posterior wall of the oropharynx (C10.3) and the point of origin is not stated.

   Example 2: Overlapping lesion of the bladder. Code overlapping lesion of the bladder when a single lesion involves the dome (C67.1) and the lateral wall (C67.2) and the point of origin is not stated.

7. Use subcategory 9 for multiple tumors that originate in different subsites of one organ.
   Example 1: Colon, NOS. Code familial polyposis with carcinoma throughout the transverse colon (C18.4) and descending colon (C18.6) would be one primary and coded to colon, NOS (C18.9)

8. If the patient is diagnosed with metastatic melanoma and the primary site is not identified, the primary site is *skin, NOS* (C44.9).

9. The primary site for Kaposi Sarcoma is the site in which it arises. The primary site is *skin, NOS* (C44.9) if the Kaposi Sarcoma arises simultaneously in the skin and another site and the primary site is not identified.

10. The primary site for Waldenstrom Macroglobulinemia is *blood* (C42.0).

11. If the primary site is not known, use the following guidelines and the guidelines listed above to assign a primary site. Do NOT record a metastatic site as the primary.

a. Osteosarcoma is recorded as *bone, NOS* (C41.9)

b. Sarcoma is recorded as *soft tissue, NOS* (C49.9)

Text

Text to support this data item must be recorded in the specific text field. See *VCR Manual Section Three, Data Item Instructions, Text-Primary Site Title.* This text field is used by the VCR to validate ICD-O topography and laterality codes reported.

Laterality NAACCR Item #410

This identifies the side of a paired organ or the side of the body on which the reportable tumor originated. This applies to the primary site only. Laterality supplements staging and extent of disease information and defines the number of primaries involved.

***NOTE**: Although STORE and FORDS allows you to code laterality for a non-paired organ ("Non paired sites may be coded right or left, if appropriate. Otherwise, code non-paired sites 0"), the VCR will **NOT** accept non-paired organ laterality.*

Codes and Definitions

Code	Definition
0	Not a paired organ
1	Right: origin of primary
2	Left: origin of primary
3	Only one side involved, right or left origin unspecified
4	Bilateral involvement at time of diagnosis, lateral origin unknown for a single primary; or both ovaries involved simultaneously, single histology; bilateral retinoblastomas; bilateral Wilms tumors
5	Paired site: midline tumor
9	Paired site, but lateral origin unknown; midline tumor

Recording Laterality

1. Code laterality for all paired sites (see *Part Three: Data Item Instructions; General*

Instructions – Laterality)

2. Do not code metastatic sites as bilateral involvement.

3. If both lungs have nodules or tumors and the lung of origin is not known, assign code 4.

4. Where the right and left sides of paired site are contiguous (come into contact) and the lesion is at the point of contact of the right and left sides, use code 5, midline. Note that "mid-line of the right breast is coded 1, right; midline in this usage indicates the primary site is C50.8 (overlapping sites).]

5. Code non-paired site 0

Text

Text to support this data item must be recorded in the specific text field. See *VCR Manual Section Three, Data Item Instructions, Text-Primary Site Title.*

Histology NAACCR Item #522

This data item records the code for histologic type of the cancer/tumor being reported using ICDO-3 or ICD-O-2 (*International Classification of Diseases for Oncology, Third* or *Second Edition* published by the World Health Organization). Histology is a basis for staging and the determination of treatment options. It also affects the prognosis and course of the disease.

1. Cases Diagnosed on or after January 1, 2001- Code according to ICD-O-3.

2. Cases Diagnosed prior to January 1, 2001- Code according to ICD-O-2.

3. If the *Date of Diagnosis* is unknown and cannot be estimated, the *Date of 1st Contact* should be used to determine the correct coding manual to use.

Coding Histology

1. ICD-O-3 identifies the morphology codes with an "M" preceding the code number. Do not record the "M"

2. Record histology using the ICD-O-3 codes in the numeric Lists/Morphology section (ICDO-3, pp 69 – 104) and in the Alphabetic Index (ICD-O-3, pp 105 – 218)

3. Follow the coding rules outlined on pages 20 through 40 of ICD-O-3

4. Use the current *Multiple Primary and Histology Coding Rules* when coding the histology for all reportable solid tumors. These rules are effective for cases diagnosed January 1, 2007 and later. Do not use these rules to abstract cases diagnosed prior to January 1, 2007. Use the rules of the 2018 Sollid Tumor Manual for cases diagnosed after January 1,2018 and the 2022 rules for cases diagnosed after January 1,2022.

   Example 1: Final pathologic diagnosis is non-small cell carcinoma, most likely adenocarcinoma. The phrase *most likely adenocarcinoma* is an important component of the complete histologic diagnosis and impacts the proper ICD-O code assignment. This should be coded to adenocarcinoma (8140)

   Example 2: Final pathologic diagnosis is adenocarcinoma of the lung vs. mesothelioma. The diagnosis on the discharge summary was mesothelioma. The complete histologic diagnosis is *mesothelioma,* code 9050.

5. Review all pathology reports.

6. Code the **final** pathologic diagnosis for solid tumors.

   a. At times, the final diagnosis is *Not Otherwise Specified* (carcinoma, NOS, melanoma,
   NOS; sarcoma, NOS; lymphoma, NOS; or malignant tumor, NOS). Use the histology form the addenda or comment if it identifies a more specific histologic type such as adenocarcinoma, amelanotic melanoma or spindle cell sarcoma.

   Example: Final pathologic diagnosis is *ductal carcinoma, NOS* of the breast. Comment states the histology is *ductal carcinoma, mucinous type*; code as 8523.

7. For lymphomas, leukemias and other hematopoietic tumors, follow the instructions in *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the Hematopoietic and Lymphoid Neoplasms Database (hematopoietic DB)

8. The codes for cancer, NOS (8000) and carcinoma, NOS (8010) are **NOT** interchangeable. If the physician says that the patient has carcinoma, then code it as carcinoma, NOS (8010)

9. In the absence of pathologic confirmation, use a physician statement to assign a histology code. Cancer, NOS and carcinoma, NOS are not interchangeable. If the physician states the patient has carcinoma, code to 8010/3, Carcinoma, NOS. If the statement is that the patient has cancer, record the histology as 8000/3, Cancer, NOS.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text-DX Proc-Path* and *Text-Histology Title.* These text fields are used by the VCR to validate ICD-O histology codes reported.

Behavior Code NAACCR Item #523

This data item records the behavior of the tumor being reported. The fifth digit of the morphology code is the behavior code. This is used by pathologists to describe whether the tissue samples are benign (0), borderline (1), in situ (2), or invasive (3).
The ICD-O-3 behavior code for juvenile astrocytoma (9421/1) is coded as 3 by agreement of North American registry standard-setters. Gastrointestinal stromal tumors (GIST) and thymomas are frequently non-malignant. However, they must be abstracted and assigned a behavior code of 3 if they are noted to have multiple foci, metastasis, or positive lymph nodes.

Coding Behavior

1. The VCR requires the reporting of /2 (in situ) and /3 (malignant) tumors.

2. If the only specimen is from a metastatic site, the behavior is malignant.

3. Primary intracranial and central nervous system tumors with a behavior code of /0 or /1 (benign and borderline or "non-malignant") is reportable regardless of histologic type for the sites listed below:

   - Meninges (C70.0 - C70.9)
   - Brain (C71.0 - C71.9)
   - Spinal Cord (C72.0)
   - Cauda equina (C72.1)
   - Cranial nerves (C72.2 - C72.5)
   - Other CNS (C72.8, C72.9)
   - Pituitary gland (C75.1)
   - Craniopharyngeal duct (C75.2)
   - Pineal gland (C75.3)

4. The following terms are synonymous with in situ (behavior code 2):

- Adenocarcinoma in an adenomatous polyp with no invasion of stalk
- Bowen's disease
- Clark's level 1 for melanoma (limited to epithelium)
- Comedocarcinoma, noninfiltrating
- Confined to epithelium
- Hutchinson's melanotic freckle, NOS
- Intracystic, noninfiltrating
- Intraductal
- Intraepidermal, NOS
- Intraepithelial, NOS
- Involvement up to but not including the basement membrane
- Lentigo maligna
- Lobular neoplasia, grade III (LN3)
- Lobular, noninfiltrating
- Noninfiltrating
- Noninvasive
- No stromal involvement
- Papillary, noninfiltrating or intraductal
- Precancerous melanosis
- Pre-invasive
- Queyrat's erythroplasia
- Stage 0
- Vaginal epithelial neoplasia, grade 3 (VAIN III)
- Vulvar epithelial neoplasia, grade 3 (VIN III)

5. Record behavior as /3 (malignant) if any invasion is present, no matter how limited.

Example: The pathology report reads *intraductal carcinoma* (8500/2) *with focal areas of invasion.* The phrase *with focal areas of invasion* is an important component in determining behavior and impacts the proper ICD-O code assignment. The histologic type must include the invasive component, *intraductal carcinoma with focal areas of invasion* (8500/3).

6. If your facility considers the terminology of severe dysplasia or high-grade dysplasia of the colon as synonymous with carcinoma in-situ, use the following guidelines for reporting colon cases to the VCR:

a. Obtain a statement from your pathologists that outlines the terminology policy of their Department.

b. Submit the statement to the appropriate medical staff committee for approval. Registry hospitals would normally submit the statement to the Cancer Committee.

c. Document a policy that states colon sites diagnosed with severe dysplasia and/or high-grade dysplasia will be abstracted as carcinoma in-situ.

d. Add the policy to your Policy and Procedure Manual attaching the approved statement from your pathologists.

e. Forward a copy of the policy and statement to the VCR to keep on permanent file.

f. Abstract all colon cases diagnosed with severe dysplasia and/or high-grade dysplasia as carcinoma in-situ. In the text for each case, document the final pathologic diagnosis along with the statement “in-situ per pathologist”.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text-DX Proc-Path* and *Text-Histology Title.* For registry hospitals, these text fields are used by the VCR to validate ICD-O behavior codes reported.

Grade/Differentiation NAACCR Item #440

This data item describes the tumor’s resemblance to normal tissue. Well-differentiated (Grade 1)is the most like normal tissue, and undifferentiated (Grade 4) is the least like normal tissue. Grades 5 – 8 define particular cell lines for lymphoma and leukemias. It is useful in prognosis.

Grade/differentiation records the code for grade or differentiation of the cancer/tumor being reported using ICD-O-3.2 or ICD-O-2 (*International Classification of Diseases for Oncology, Third* or *Second Edition* published by the World Health Organization).

Codes and Definitions

Code	Definition
1	*Grade I* - Well differentiated, differentiated NOS
2	*Grade II* - Moderately differentiated, moderately well differentiated, Intermediate differentiation
3	*Grade III* - Poorly differentiated, dedifferentiated
4	*Grade IV* - Undifferentiated, anaplastic
5	*T Cell* - For lymphomas and leukemias only, T cell, T precursor
6	*B Cell* - For lymphomas and leukemias only, B cell, Pre B, B precursor
7	*Null Cell* - For lymphomas and leukemias only, null cell, non T, non B
8	*N K Cell* - For lymphomas and leukemias only, Natural killer cell
9	*Grade Unknown* - Grade/cell type not determined, not stated, not applicable

Assigning Grade/Differentiation

See Virginia Cancer Registry Manual, *Section Three: Data Item Instructions, General Instructions – Morphology: Grade for cases diagnosed prior to 2018. For 2018 diagnosis dates and later refer to the Summary of Changes at the beginning of this manual.*

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text-DX Proc-Path* and *Text-Histology Title.* These text fields are used by the VCR to validate ICD-O grade codes reported; for non-registry hospitals, these text fields are used to assign the ICD-O grade codes.

Lymph-Vascular Invasion NAACCR Item #1182

This data item indicates the presence or absence of tumor cells in lymphatic channels (not lymph nodes) or blood vessels within the primary tumor as noted microscopically by the pathologist. Lymph-vascular invasion is an indicator of prognosis.

Lymph-vascular invasion is defined as the presence of tumor cells found inside small blood vessels or lymphatic channels within the tumor and surrounding tissues in the primary site. The tumor cells have broken free of the primary tumor and now have the capability to float

throughout the body. Other names for lymph-vascular invasion are LVI, lymphovascular invasion, vascular invasion, blood vessel invasion, and lymphatic invasion. Vascular invasion is not the same as direct tumor extension from the primary tumor into adjacent blood vessels; LVI cells are not attached to or growing into the wall of the blood vessel. Lymphatic invasion is not the same as involvement of regional lymph nodes. Lymph-vascular invasion does not include perineural invasion.

Codes and Descriptions

Code	Description
0	Lymph-vascular invasion not present (absent)/Not identified
1	Lymph-vascular invasion present/Identified
8	Not applicable
9	Unknown if lymph-vascular

Recording Lymph-Vascular Invasion

1. Code the absence or presence of lymph-vascular invasion as described in the pathology report.

a. The primary sources of information about lymph-vascular invasion are the pathology check lists (synoptic reports) developed by the College of American

   Pathologists. If the case does not have a checklist or synoptic report, code from the pathology report or a physician's statement, in that order.

b. Do not code perineural invasion in this field.

c. Information to code this field can be taken from any specimen from the primary tumor.

d. If lymph-vascular invasion is identified anywhere in the resected specimen, it should be coded as present/identified.

e. For cases with benign or borderline behavior, code the lymph-vascular invasion documented (negative or positive) and, if not documented, code unknown.

f. For cases treated with neoadjuvant therapy refer to table below in order to code this field. However, if documentation in the medical record indicated information that conflicts with this table, code lymph-vascular invasion with the documentation

in the medical record.

2. Use code 0 when the pathology report indicates that there is no lymph-vascular invasion.

3. Use code 1 when the pathology report or a physician's statement indicates that lymph-vascular invasion (or one of its synonyms) is present in the specimen.

4. Use code 8 for cases that have no microscopic examination of a primary specimen and for the following primary sites:

a. Hodgkin and non-Hodgkin lymphoma
b. Leukemias
c. Hematopoietic and reticuloendothelial disorders
d. Myelodysplastic syndromes including refractory anemias and refractory cytopenia's.
e. Myeloproliferative disorders

5. Use code 9 when it is not possible to determine whether lymph-vascular invasion is present.

Diagnostic Confirmation NAACCR Item #490

Record the diagnostic confirmation that specifies whether a diagnosis was confirmed microscopically at any time during the disease course.

Codes and Definitions - solid tumors

Code	Label	Definition
1	*Positive histology*	Histologic confirmation (tissue microscopically examined)
2	*Positive cytology*	Cytologic confirmation (no tissue microscopically examined; fluid cells microscopically examined)
4	*Positive microscopic confirmation, method not specified*	Microscopic confirmation is all that is known. It is unknown if the cells were from histology or cytology
5	*Positive laboratory test/marker study.*	A clinical diagnosis of cancer is based on laboratory tests/marker studies which are clinically diagnostic for cancer. Examples include alpha-fetoprotein for liver primaries. Elevated PSA is not diagnostic of cancer; however, if the physician uses the PSA as a basis for diagnosis prostate cancer with no other workup, record as 5
6	*Direct visualization without microscopic confirmation.*	The tumor was visualized during a surgical or endoscopic procedure only with no tissue resected for microscopic examination
7	*Radiography and other imaging techniques without microscopic confirmation.*	The malignancy was reported by the physician form an imaging technique report only
8	*Clinical diagnosis only, other than 5, 6, or 7*	The malignancy was reported by the physician in the medical record
9	*Unknown whether or not microscopically confirmed*	A statement of malignancy was reported in the medical record, but there is no statement of how the cancer was diagnosed

Recording Diagnostic Confirmation – Solid Tumors

1. This is an hierarchical coding scheme with code 1 taking precedence. A lower number take priority over all higher numbers.

2. This data item is dynamic and must be changed to the lower code if a more definitive method confirms the diagnosis at any time during the course of the disease. See *VCR Manual Section One, Changing Information* on how to submit a change.

   Example: A patient is admitted on 11/28/2021. A chest x-ray dated 12/1/2021 diagnoses a probable lung cancer. The patient refuses a diagnostic workup. The

registry codes the diagnostic confirmation to radiography (7). The patient consents to a lymph node biopsy on 2/3/2022. The biopsy confirms small cell carcinoma. Change the diagnostic confirmation code to positive histology (1). Send change to VCR.

3. Assign **code 1** when the microscopic diagnosis is based on:

    a. Tissue specimens from biopsy, frozen section, surgery, autopsy, or D&C
    b. Bone marrow specimens (aspiration and biopsy)
    c. For leukemia only, positive hematologic findings including peripheral blood smears, CBCs and WBCs

4. Assign **code 2** when the microscopic diagnosis is based on:

    a. Examination of cells (rather than tissue) including but not limited to: sputum smears, bronchial brushings, bronchial washings, prostatic secretions, breast secretions, gastric fluid, spinal fluid, peritoneal fluid, pleural fluid, urinary sediment, cervical smears and vaginal smears.

    b. Paraffin block specimens from concentrated spinal, pleural, or peritoneal fluid

5. Assign **code 4** when there is information that the diagnosis of cancer was microscopically confirmed, but the type of confirmation is unknown.

6. Assign **code 5** when the diagnosis of cancer is based on laboratory tests or marker studies that are clinically diagnostic for that specific cancer.

    Example 1: The presence of alpha-fetoprotein for liver cancer

    Example 2: An abnormal electrophoretic spike for multiple myeloma or Waldenstrom macroglobulinemia.

    Example 3: If the workup for a prostate cancer patient is limited to a highly elevated PSA and the physician diagnoses and/or treats the patient based only on that PSA, code the diagnostic confirmation to 5.

7. Assign **code 6** when the diagnosis is based only on:

    a. The surgeon's operative report from a surgical exploration or endoscopy such as colonoscopy, mediastinoscopy, or peritonectomy and no tissue was examined.

    b. Gross autopsy findings (no tissue or cytologic confirmation).

8. Assign **code 7** when the only confirmation of malignancy was diagnostic imaging such as computerized axial tomography (CT scans), magnetic resonance imaging (MRI scans), or ultrasounds/ sonography.

9. Assign **code 8** when the case was diagnosed by any clinical method not mentioned in preceding codes. The diagnostic confirmation is coded 8 when the only confirmation of disease is a physician's clinical diagnosis.

Assign **code 9** if it is unknown if the diagnosis was confirmed microscopically and for Death certificate only cases.

Codes and Definitions – Hematopoietic and Lymphoid Neoplasms

Code	Label	Definition
1	Positive histology	Histologic confirmation (tissue microscopically examined)
2	Positive cytology	Cytologic confirmation (no tissue microscopically examined; fluid cells microscopically examined)
3	Positive histology PLUS Positive immunophenotyping AND/OR Positive genetic studies	Histology is positive for cancer, and there are also positive immunophenotyping and/or genetic test results. For example, bone marrow examination is positive for acute myeloid leukemia (9861/3). Genetic testing shows AML with inv(16)(p13.1q22) (9871/3)
4	Positive microscopic confirmation, method not specified	Microscopic confirmation is all that is known. It is unknown if the cells were from histology or cytology
5	Positive laboratory test/marker study	A clinical diagnosis of cancer is based on laboratory test/marker studies which are clinically diagnostic for cancer
6	Direct visualization without microscopic confirmation	The tumor was visualiz3ed during a surgical or endoscopic procedure only with no tissue resected for microscopic examination.
7	Radiography and other imaging techniques without microscopic confirmation	The malignancy was reported by the physician from an imaging technique report only
8	Clinical diagnosis only, other than 5, 6, or 7	The malignancy was reported by the physician in the medical record
9	Unknown whether or not microscopically confirmed	A statement of malignancy was reported in the medical record, but there is no statement of how the cancer was diagnosed

Recording Diagnostic Confirmation – Hematopoietic and Lymphoid Neoplasms

1. There is not priority hierarchy for coding Diagnostic Confirmation for hematopoietic an lymphoid tumors. Most commonly, the specific histologic type is diagnosed by immunophenotyping or genetic testing. See the Hematopoietic Database (DB) for information of the definitive diagnostic confirmation for specific types of tumors.

2. Assign Code **1** when the microscopic diagnosis is based on tissue specimens from biopsy, frozen section, surgery, or autopsy or bone marrow specimens from aspiration or biopsy.

1. For leukemia only, code **1** when the diagnosis is based only on the complete blood count (CBC), white blood count (WBC) or peripheral blood smear. Do not use code 1 if the diagnosis was based on immunophenotyping or genetic testing using tissue, bone marrow, or blood.

3. Assign code **2** when the microscopic diagnosis is based on cytologic examination of cells (rather than tissue) including but not limited to spinal fluid, peritoneal fluid, pleural fluid, urinary sediment, cervical smears, and vaginal smears, or from paraffin block specimens from concentrated spinal, pleural, or peritoneal fluid. These methods are rarely used for hematopoietic or lymphoid tumors.

4. Assign code **3** when there is a histology positive for cancer AND positive immunophenotyping and/or positive genetic testing results. Do not use code 3 for neoplasms diagnosed prior to January 1, 2010.

5. Assign code **5** when the diagnosis of cancer is based on laboratory tests or marker studies which are clinically diagnostic for that specific cancer, but no positive histologic confirmation.

6. Assign code **6** when the diagnosis is based only on the surgeon's report from a surgical exploration or endoscopy or from gross autopsy findings without tissue or cytological findings.

7. Assign code **8** when the case was diagnosed by any clinical method that cannot be coded as 6 or 7. A number of hematopoietic and lymphoid neoplasms are diagnosed by tests of exclusion where the tests for the disease are equivocal and the physician makes a clinical diagnosis based on the information from the equivocal tests and the patient's clinical presentation.

Text

Text to support this data item must be recorded in the specific text fields. See VCR Manual Section Three, Data Item Instructions, Text-DX Proc-Path. For registry hospitals, these text fields are used by the VCR to validate ICD-O grade codes reported; for non-registry hospitals, these text fields are used to assign the ICD-O grade codes.

Regional Nodes Positive NAACCR Item #820

Record the exact number of regional lymph nodes examined by the pathologist and found to contain metastasis. This data item is necessary for pathologic staging, and it serves as a quality measure for pathology reports and the extent of the surgical evaluation and treatment for the patient.

Codes and Definitions – Regional Nodes Positive

Code	Description
00	All nodes examined negative
01 - 89	1 to 89 nodes positive (code exact number of nodes positive)
90	90 or more nodes positive
95	Positive aspiration or core biopsy of lymph node(s). *See Rule 8.*
97	Positive nodes - number unspecified. *See Rule 9.*
98	No nodes examined. *See Rule 10.*
99	Unknown whether nodes are positive; not applicable; not documented in patient record.

Recording Regional Nodes Positive

1. **Regional lymph nodes only.** Record information about only regional lymph nodes in this field.

2. This field is based on pathologic information only. This field is to be recorded regardless of whether the patient received preoperative treatment.

3. True in situ cases cannot have positive lymph nodes, so the only allowable codes are 00 (negative) or 98 (not examined). Codes 01-97 and 99 are not allowed.

4. **Cumulative nodes positive.** Record the total number of regional lymph nodes removed and found to be positive by pathologic examination.

   A. The number of regional lymph nodes positive is cumulative from all procedures that remove lymph nodes through the completion of surgeries in the first course of treatment.

   B. Do not count a positive aspiration or core biopsy of a lymph node in the same lymph node chain removed at surgery as an additional node in Regional Nodes Positive when there are positive nodes in the resection. In other words, if there are positive regional lymph nodes in a lymph node dissection, do not count the core needle biopsy or the fine needle aspiration if it is in the same chain. See also Use of Code95 below.

   Example: Lung cancer patient has a mediastinoscopy and positive core biopsy of a hilar lymph node. Patient then undergoes right upper lobectomy that yields 3 hilar and 2 mediastinal nodes positive out of 11 nodes dissected. Code Regional Nodes Positive as 05 and Regional Nodes Examined as 11 because the core biopsy was of a lymph node in the same chain as the nodes dissected.

Example: Positive right cervical lymph node aspiration followed by right cervical lymph node dissection showing 1 of 6 nodes positive. Code Regional Nodes Positive as 01 and Regional Nodes Examined as 06.

C. If the positive aspiration or core biopsy is from a node in a different node region, include the node in the count of Regional Nodes Positive.

Example: Breast cancer patient has a positive core biopsy of a supraclavicular node and an axillary dissection showing 3 of 8 nodes positive. Code Regional Nodes Positive as 04 and Regional Nodes Examined as 09 *because the supraclavicular lymph node is in a different, but still regional, lymph node chain.*

D. If the location of the lymph node that is core-biopsied or aspirated is not known, assume it is part of the lymph node chain surgically removed, and do not include it in the count of Regional Nodes Positive.

Example: Patient record states that core biopsy was performed at another facility and 7/14 regional lymph nodes were positive at the time of resection. Code Regional Nodes Positive as 07 and Regional Nodes Examined as 14.

5. **Priority of lymph node counts.** If there is a discrepancy regarding the number of positive lymph nodes, use information in the following priority: final diagnosis, synoptic report (also known as CAP protocol or pathology report checklist), microscopic, gross.

6. **Positive Nodes in Multiple Primaries in Same Organ**. If there are multiple primary cancers with different histologic types in the same organ and the pathology report just states the number of nodes positive, the registrar should first try to determine the histology of the metastases in the nodes and code the nodes as positive for the primary with that histology. If no further information is available, code the nodes as positive for all primaries.

   Example: A breast cancer has two separate primaries as determined by the SEER multiple primary rules. the pathology report states "3 of 11 lymph nodes positive for metastasis" with no further information available. Code Regional Nodes Positive as 03 and Regional Nodes Examined as 11 for both primaries.

7. **Isolated tumor cells (ITCs) in lymph nodes.** For all primary sites except cutaneous melanoma and Merkel cell carcinoma of skin, count only lymph nodes that contain micro-metastases or larger (metastases greater than 0.2 millimeters in size). Do not include in the count of lymph nodes positive any nodes that are identified as

containing isolated tumor cells (ITCs). If the path report indicates that nodes are positive, but the size of metastasis is not stated, assume the metastases are larger than 0.2 mm and count the lymph node(s) as positive.

a. **For cutaneous melanoma and Merkel cell carcinoma,** count nodes with ITCs as positive lymph nodes.

8. **Use of Code 95.** Use code 95 when the only procedure for regional lymph nodes is a needle aspiration (cytology) or core biopsy (tissue).

   a. Use code 95 when a positive lymph node is aspirated and there are no surgically resected lymph nodes.

      Example: Patient with esophageal cancer. Enlarged mid-esophageal node found on CT scan, which is aspirated and found to be positive. Patient undergoes radiation therapy and no surgery*. Code Regional Nodes Positive as 95 and Regional Nodes Examined as 95.*

   b. Use code 95 when a positive lymph node is aspirated, and surgically resected lymph nodes are negative.

      Example: Lung cancer patient has aspiration of suspicious hilar mass, which shows metastatic squamous carcinoma in lymph node tissue. Patient undergoes preoperative radiation therapy followed by lobectomy showing 6 negative hilar lymph nodes. Code Regional Nodes Positive as 95 and Regional Nodes Examined as the 06 nodes surgically resected. (Code Lymph Nodes Eval as 5.)

9. **Definition of Code 97.** Use code 97 for any combination of positive aspirated, biopsied, sampled, or dissected lymph nodes if the number of involved nodes cannot be determined on the basis of cytology or histology. Code 97 includes positive lymph nodes diagnosed by either cytology or histology.

   Example: Patient with carcinoma of the pyriform sinus has a mass in the mid neck. Fine needle aspiration (FNA) of one node is positive. The patient has neoadjuvant chemotherapy, then resection of the primary tumor and a radical neck dissection. In the radical neck dissection “several” of 10 nodes are positive; the remainder of the nodes show chemotherapy effect. Code Regional Nodes Positive as 97 because the total number of positive nodes biopsied and removed is unknown, and code Regional Nodes Examined as 10.

   Note: For primary sites where the number of involved nodes must be known in order to map to N1, N2, etc., code 97 maps to N1 and therefore should be avoided.

Note: If the aspirated node is the only one that is microscopically positive, use code 95.

Note: Avoid using Regional Nodes Positive code 97, if possible, even if this means slightly undercounting the number of nodes positive.

10. **Use of Code 98.** Code 98 may be used in several situations.

    a. When the assessment of lymph nodes is clinical only.
    b. When no lymph nodes are removed and examined.
    c. When a "dissection" of a lymph node drainage area is found to contain no lymph nodes at the time of pathologic examination.
    d. If Regional Nodes Positive is coded as 98, Regional Nodes Examined is usually coded 00.

11. **Use of code 99**. Use code 99 if it is unknown whether regional lymph nodes are positive.

12. **Primary sites always coded 99**. For the following primary sites and histologies, the Regional Nodes Positive field is always coded as 99:

    - Placenta
    - Brain and Cerebral Meninges
    - Other Parts of Central Nervous System
    - Intracranial Gland
    - Hodgkin and non-Hodgkin Lymphoma
    - Hematopoietic, Reticuloendothelial, Immunoproliferative and Myeloproliferative
    - Neoplasms
    - Myeloma and Plasma Cell Disorders
    - Other and Ill-Defined Primary Sites
    - Unknown Primary Site

Text

Text to support this data item must be recorded in the specific text fields. *See VCR Manual Part Three, Data Item Instructions, Text-Path.*

This field records the total number of regional lymph nodes that were removed and examined by the pathologist. Beginning with cases diagnosed on or after January 1, 2004, this item became a component of the Collaborative Staging System (CS). In 2016, use of CS was discontinued; however, this data item continued to be required

Codes and Description – Regional Nodes Examined

Code	Description
00	No nodes examined
01 - 89	1 to 89 nodes examined (code exact number of nodes examined)
90	90 or more nodes positive
95	No regional nodes removed, but aspiration or core biopsy of regional nodes performed *See Rule 8*.
96	Regional lymph node removal documented as a sampling, and the number of nodes unknown/not stated. *See Rule 7 and Rule 8*.
97	Regional lymph node removal documented as dissection, and the number of nodes unknown/not stated. *See Rule 9 and Rule 10*.
98	Regional lymph nodes surgically removed, but number of lymph nodes unknown/not stated and not documented as sampling or dissection; nodes examined, but the number unknown. *See Rule 4e*.
99	Unknown whether nodes were examined; not applicable; not documented in patient record.

Recording Regional Nodes Examined

1. Record information about only regional lymph nodes in this field.

2. This field is **based on pathologic information only**. This field is to be recorded regardless of whether the patient received preoperative treatment.

3. Code 00 may be used in several situations, as noted below:

    a. When the assessment of lymph nodes is clinical.
    b. When no lymph nodes are removed and examined.
    c. When a "dissection" of a lymph node drainage area is found to contain no lymph nodes at the time of pathologic examination.
    d. If Regional Nodes Examined is coded 00, Regional Nodes Positive is coded as 98.

4. Record the total number of regional lymph nodes removed and examined by the pathologist.

    a. The number of regional lymph nodes examined is cumulative from all procedures that removed lymph nodes through the completion of surgeries in the first course of treatment except for aspiration or core biopsies coded to 95.

b. Do not count a positive aspiration or core biopsy of a lymph node in the same lymph node chain removed at surgery as an additional node in Regional Nodes Examined.
Example: Lung cancer patient has a mediastinoscopy and positive core biopsy of a hilar lymph node. Patient then undergoes right upper lobectomy that yields 3 hilar and 2 mediastinal nodes positive out of 11 nodes dissected. Code Regional Nodes Positive as 05 and Regional Nodes Examined as 11 because the core biopsy was of a lymph node in the same chain as the nodes dissected.

c. If the positive aspiration or core biopsy is from a node in a different node region, include the node in the count of Regional Nodes Examined.

Example: Breast cancer patient has a positive core biopsy of a supraclavicular node and an axillary dissection showing 3 of 8 nodes positive. Code Regional Nodes Positive as 04 and Regional Nodes Examined as 09 because the supraclavicular lymph node is in a different, but still regional, lymph node chain.

d. If the location of the lymph node that is aspirated or core-biopsied is not known, assume it is part of the lymph node chain surgically removed, and do not include it in the count of Regional Nodes Examined.

Example: Patient record states that core biopsy was performed at another facility and 7/14 regional lymph nodes were positive at the time of resection. Code Regional Nodes Positive as 07 and Regional Nodes Examined as 14.

e. When neither the type of lymph node removal procedure nor the number of lymph nodes examined is known, use code 98.

5. **Priority of lymph node counts.** If there is a discrepancy regarding the number of lymph nodes examined, use information in the following priority: final diagnosis, synoptic report (also known as CAP protocol or pathology report checklist), microscopic, gross.

6. **Use of code 95.** Use code 95 when the only procedure for regional lymph nodes is a needle aspiration (cytology) or core biopsy (tissue).

Example: Patient with esophageal cancer. Enlarged mid-esophageal node found on CT scan, which is aspirated and found to be positive. Patient undergoes radiation therapy and no surgery. Code Regional Nodes Positive as 95 and Regional Nodes Examined as 95.

7. **Lymph node biopsy.** If a lymph node biopsy was performed, code the number of nodes removed, if known. If the number of nodes removed by biopsy is not known, use code 96.

8. **Definition of "sampling" (code 96).** A lymph node "sampling" is removal of a limited number of lymph nodes. Other terms for removal of a limited number of nodes include lymph node biopsy, berry picking, sentinel lymph node procedure, sentinel node biopsy, selective dissection. Use code 96 when a limited number of nodes are removed but the number is unknown.

9. **Definition of "dissection" (code 97).** A lymph node "dissection" is removal of most or all the nodes in the lymph node chain(s) that drain the area around the primary tumor. Other terms include lymphadenectomy, radical node dissection, lymph node stripping. Use code 97 when more than a limited number of lymph nodes are removed, and the number is unknown.

10. **Multiple lymph node procedures.** If both a lymph node sampling and a lymph node dissection is performed and the total number of lymph nodes examined is unknown, use code 97.

11. **Use of Code 99.** If it is unknown whether nodes were removed or examined, code as 99.

12. **Primary sites always coded 99.** For the following schemas, the Regional Nodes

    Examined field is always coded as 99:

    - Placenta
    - Brain and Cerebral Meninges
    - Other Parts of Central Nervous System
    - Intracranial Gland
    - Hematopoietic, Reticuloendothelial, Immunoproliferative and Myeloproliferative
    - Neoplasms
    - Hodgkin and non-Hodgkin Lymphoma
    - Myeloma and Plasma Cell Disorders
    - Other and Ill-Defined Primary Sites
    - Unknown Primary Site

Stage of Disease at Initial Diagnosis

Tumor Size Summary — NAACCR Item #756

This data item records the most accurate measurement of a solid primary tumor, usually measured in the surgical resection specimen. Tumor size is one indication of the extent of disease. As such, it is used by both clinicians and researchers. Tumor size that is independent of stage is also useful for quality assurance efforts.

Codes and Descriptions

Code	Description
000	No mass/tumor found
001	1mm or described as less than 1mm
002 – 988	Exact size in millimeters (2mm to 988mm)
989	989 millimeters or larger
990	Microscopic focus or foci only and no size of focus is given
998	SITE-SPECIFIC CODES: Alternate descriptions of tumor size for specific sites: Familial/multiple polyposis: Rectosigmoid and rectum (C19.9 and C20.9) If no size is documented: Circumferential: Esophagus (C15.0 – C15.5, C15.8 – C15.9) Diffuse; widespread: ¾ or more; linitis plastica: Stomach and Esophagus GE Junction (C16.0 – C16.6, C16.8 – C16.9) Diffuse, entire lung, or NOS: Lung and mainstem bronchus (C34.0 – C34.3, C34.8 – C34.9) Diffuse: Breast (C50.0 – C50.6, C50.8 – C50.9)
999	Unknown; size not stated Not documented in patient record Size of tumor cannot be assessed Not applicable (see section 13 below)

Recording Tumor Size Summary

All measurements are in millimeters (mm).
Record size in specified order:

1. Size measured on the surgical specimen, when surgery is administered as the first definitive treatment: i.e., no pre-surgical treatment administered.
   a. If there is a discrepancy among tumor size measurements in the various sections of the pathology report, code the size from the synoptic report (also known as CAP

protocol or pathology report checklist). If only a test report is available, use the following in the prescribed order:

i. Final diagnosis
ii. Microscopic
iii. Gross examination

Example 1: Chest x-ray shows 3.5cm mass; the pathology report from the surgery states that the same mass is malignant and measures 2.8cm. Record the size as 028 (28mm).

Example 2: Pathology report states lung carcinoma is 2.1 x 3.2 x1.4cm. Record tumor size as 032 (32mm).

2. If neoadjuvant therapy follows by surgery, do not record the size of the pathologic specimen. Code the largest siz3e of tumor prior to neoadjuvant treatment; if unknown, code size as 999.

   Example: The patient has a 2.2cm mass in the oropharynx; fine needle aspiration of mass confirms squamous cell carcinoma. The patient receives a course of neoadjuvant combination chemotherapy. Pathologic size after total resection is 2.8cm. Record tumor size as 022 (22mm).

3. If there is no surgical resection, then record the largest measurement of the tumor from physical exam, imaging, or other diagnostic procedures prior to any other form of treatment (See Coding Rules below).

4. If 1, 2, and 3 do not apply, the largest size from all information available within four months of the date of diagnosis, in the absence of disease progression.

Coding Rules

1. Tumor size is the **diameter** of the tumor, ***not* the depth or thickness** of the tumor.

2. Recording **less than/greater than Tumor Size:**
   a. If tumor size is reported as less than *x* mm or less than *x* cm, the reported size should be 1mm less; for example, if size is <10mm, code size as 009. Often, these are given in cm such as < 1cm which is coded to 009, <2cm is coded as 019, <3cm is coded as 029, etc. If stated as less than 1mm, use code 001.

b. If tumor size is reported as more than *x* mm or more than *x* cm, code size as 1mm more; for example, if size is >10mm, size should be coded as 011. Often, these are given in cm such as >1cm, which is coded to 011, >2cm is coded as 021, etc. If stated as anything greater than 989mm (98.9cm), code to 989.

c. If tumor size is reported to be between two sizes, record tumor size as the midpoint between the two: i.e., add the two sizes together, then divide by two (between 2 and 3cm would be coded as 025).

3. **Rounding**

Round the tumor size only if it is described in fractions of millimeters. If the largest dimension of a tumor is less than 1 millimeter (between 01. And 0.9mm), record the size as 001 (do not round down to 000). If tumor size is greater than 1 millimeter, round tenths of millimeters in the 1 – 4 range down to the nearest whole millimeter, and round tenths of millimeters in the 5 – 9 range up to the nearest whole millimeter. Do not round tumor size expressed in centimeters to the nearest centimeter (rather, move the decimal point one space to the right, converting the measurement to millimeters).

Example 1: Breast cancer described as 6.5mm in size. Round up *Tumor Size* to 007.

Example 2: Cancer in a polyp described as 2.3mm in size. Round down *Tumor Size* to 002.

Example 3: Focus of cancer described as 1.4mm in size. Round down *Tumor Size to 001.*

Example 4: There is a 5.2mm breast cancer described in the pathology report. Round down to 5mm and code as 005.

4. **Priority of imaging/radiographic techniques**

Information on size from imaging/radiographic techniques can be used to code size when there is no more specific size information from a pathology or operative report, but it should be taken as low priority, over a physical exam.

5. **Tumor size discrepancies among imaging and radiographic reports**

   If there is a difference in reported tumor size among imaging and radiographic techniques, unless the physician specifies which imaging is most accurate, record the largest size in the record, regardless os which imaging technique reports it.

6. **Always code the size of the primary tumor**

   Do not code the size of the polyp, ulcer, cyst, or distant metastasis. However, if the tumor is described as a "cystic mass," and only the size of the entire mass is given, code the size of the entire mass since the cysts are part of the tumor itself.

7. **Record the size of the invasive component, if given.**

   a. If both in situ and invasive components are present and the invasive component is measured, record the size of the invasive component, even if it is smaller.

      Example: Tumor is mixed in situ and invasive adenocarcinoma, total size of 3.7cm of which 1.4cm is invasive. Record tumor size as 014.

   b. If the size of the invasive component is not given, record the size of the entire tumor from the surgical report, pathology report, radiology report, or clinical examination.

      Example 1: A breast tumor with infiltrating duct carcinoma with extensive in situ component; total size 2.3cm. Record tumor size as 023.

      Example 2: Duct carcinoma in situ measuring 1.9cm with an area of invasive ductal carcinoma. Record size as 019.

8. **Record the largest dimension or diameter of tumor**.

   Whether it is from an excisional biopsy specimen or the complete resection of the primary tumor.

   Example: Tumor is described as 2.4 x 5.1 x 1.8cm in size. Record tumor size as 051.

9. **Record the size as stated for purely in situ lesions.**

10. **Disregard microscopic residual or positive surgical margins when coding tumor size.**

    Microscopic residual tumor does not affect overall tumor size.

11. **Do not add the size of pieces or chips together to create a whole tumor**.

    They may not be from the same location, or they may represent only a very small portion of a large tumor. However, if the pathologist states an aggregate or composite size (determined by fitting the tumor pieces together and measuring the total size). Record that size. If the only measurement describes pieces or chips, record tumor size as 999.

12. **Multifocal/multicentric tumors.**

    If the tumor is multi-focal or if multiple tumors are reported as a single primary, code the size of the largest invasive tumor or if all the tumors are in situ, code the size of the largest in situ tumor.

13. **Tumor size code 999 is used when the size is unknown or not applicable.**

    Hematopoietic, Reticuloendothelial, and Myeloproliferative neoplasms (histology codes 9590 – 9992)

    - Kaposi Sarcoma
    - Melanoma Choroid
    - Melanoma Iris

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text-Path, Text-DX Proc-X-ray/Scans, Text-DX Proc-OP, and Text-DX Proc-Scopes*.

AJCC Prognostic Staging

AJCC Prognostic Stage is determined at key time points in a patient's care based on criteria including the clinical examination, imaging, operative procedures, and pathologic assessment of the anatomic extent of disease – plus additional prognostic factors as required – and is used

to make appropriate treatment decisions, determine prognosis, and measure end results. Use the rules in the current AJCC Cancer Staging Manual to assign AJCC T, N, M, required prognostic factor(s), and Stage Group values. The following general rules apply to AJCC staging of all sites.

Clinical staging includes any information obtained about the extent of cancer before initiation of definitive treatment (surgery, systemic or radiation therapy, active surveillance, or palliative care) or within four months after the date of diagnosis, whichever is shorter, as long as the cancer has not clearly progressed during that time frame. This stage classification is designated as cTNM.

Pathological staging includes any information obtained about the extent of cancer through completion of definitive surgery as part of first course treatment or identified within 4 months after the date of diagnosis, whichever is longer, as long as there is no systemic or radiation therapy initiated, or the cancer has not clearly progressed during that time frame. This stage classification is designated as pTNM.

Post therapy clinical staging (post-neoadjuvant therapy staging) includes any information obtained about the extent of cancer after completion of neoadjuvant therapy and before the planned surgery, and the time frame should be such that the post neoadjuvant therapy staging occurs within a time frame that accommodates disease specific circumstances. This stage classification is designated as ycTNM. Registrars are only required to complete yc staging when the planned surgery following neoadjuvant therapy has been cancelled.

Post therapy pathological staging (post-neoadjuvant therapy staging) includes any information obtained about the extent of cancer after completion of neoadjuvant therapy followed by surgery,
and the time frame should be such that the post neoadjuvant surgery and staging occur within a time frame that accommodates disease specific circumstances. This stage classification is designated as ypTNM.

• If a patient has multiple primaries, stage each primary independently.

• If the stage group cannot be determined from the recorded categories, then record it as unknown.

• When a patient with multiple primaries develops metastases, a biopsy may distinguish the source of distant disease. Stage both primaries as having metastatic disease if the physician is unable to conclude which primary has metastasized. If, at a later time, the physician identifies which primary has metastasized, update the stage(s) as appropriate.

• If pediatric staging is used and AJCC staging is not applied, code 88 for clinical and pathological T, N, and M as well as stage group. If either clinical, pathological or post therapy staging was applied for a pediatric tumor, enter the appropriate codes and do not code 88.

• If a site/histology combination is not defined in the AJCC Manual code 88 for clinical, pathological and post therapy T, N, and M as well as stage group.

• For in situ tumors that are considered as "impossible diagnoses" in the AJCC manual code 88 for clinical and pathological T, N, and M as well as stage group.

• For additional information on AJCC's general staging rules, download Chapter 1: Principles of Cancer Staging from www.cancerstaging.org.

**Note: For cases diagnosed after Jan. 1, 2021, please refer to page B-8 of the Summary of Changes section of this manual and Appendix K, for AJCC Version 9 information.*

Ambiguous Terminology

If the wording in the patient record is ambiguous with respect to tumor spread, use the following guidelines only as a last resort:

Ambiguous Terms Describing Tumor Spread

Terms that Constitute Tumor Involvement or Extension		**Terms that *Do Not* Constitute Tumor Involvement or Extension**
Adherent	Into	Approaching
Apparent	Onto	Equivocal
Compatible with	Out onto	Possible
Consistent with	Probable	Questionable
Encroaching upon	Suspect	Suggests
Fixation, fixed	Suspicious	Very close to
Induration	To	

Refer to Ambiguous Terminology References of Last Resort below for additional information.

Ambiguous Terminology References of Last Resort

This section clarifies the use of Ambiguous Terminology as listed in STORE 2018 for case reportability and staging in Commission on Cancer (CoC)-accredited programs.

When abstracting, registrars are to use the “Ambiguous Terms at Diagnosis” list with respect to case reportability, and the “Ambiguous Terms Describing Tumor Spread” list with respect to tumor spread for staging purposes. However, these lists need to be used correctly.

The first and foremost resource for the registrar for questionable cases is the physician who diagnosed and/or staged the tumor. The ideal way to approach abstracting situations when the medical record is not clear is to follow up with the physician. If the physician is not available, the medical record, and any other pertinent reports (e.g., pathology, etc.) should be read closely for the required information.

The purpose of the Ambiguous Terminology lists is so that in the case where wording in the patient record is ambiguous with respect to reportability or tumor spread and no further information is available from any resource, registrars will make consistent decisions. When there is a clear statement of malignancy or tumor spread (i.e., the registrar can determine malignancy or tumor spread from the resources available), they should not refer to the Ambiguous Terminology lists.

Registrars should only rely on these lists when the situation is not clear and the case cannot be discussed with the appropriate physician/pathologist.

The CoC recognizes that not every registrar has access to the physician who diagnosed and/or staged the tumor, as a result, the Ambiguous Terminology list delineated above must be used in CoC-accredited programs as "references of last resort.”

Coding Instructions

Clinical T **NAACCR Item #940**

This field evaluates the primary tumor (T) and reflects the tumor size and/or extension of the tumor prior to the start of therapy

1. The clinical T staging data item must be recorded for all cases.

2. Code clinical T as documented by the first treating physician or the managing physician in the medical record.

3. If the managing physician has not recorded clinical T, registrars ***will*** code this item based on the best available information, without necessarily requiring additional contact with the physician.

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.

5. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

6. For lung, occult carcinoma is coded to cTx.

7. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Part Three, Data Item Instructions, Text – Staging*

Clinical N NAACCR Item #950

This field identifies the absence or presence of regional lymph node (N) metastasis and describes the extent of regional lymph node metastasis.

Beginning in 2016, new T, N, and M categories were implemented for the AJCC T, N, and M data items. These new categories have been generated by adding the prefixes of "c" and "p" to existing valid clinical and pathological T, N, and M categories respectively, and modifying, adding and deleting specific categories. The new categories enable registrars to comply with AJCC clinical and pathological staging/classification timeframe rules while abstracting. The new categories will be used for cases of all diagnosis years abstracted using NAACCR version 16-compliant (and later) software.

Coding Instructions

1. The clinical N must be recorded for all cases.

2. Record clinical N as documented by the first treating physician or the managing physician in the medical record.

3. If the managing physician has not recorded clinical N, registrars ***will*** code this item based on the best clinical information, without necessarily requiring additional contact with the physician.

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.

5. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

6. For lung, occult carcinoma is coded to cTx.

7. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Part Three, Data Item Instructions, Text – Staging*

Clinical M NAACCR Item #960

This data item identifies the presence or absence of distant metastasis (M) of the tumor known prior to the start of any therapy.
Beginning in 2016, new T, N, and M categories were implemented for the AJCC T, N, and M data items. These new categories have been generated by adding the prefixes of "c" and "p" to existing valid clinical and pathological T, N, and M categories respectively, and modifying, adding and deleting specific categories. The new categories enable registrars to comply with AJCC clinical and pathological staging/classification timeframe rules while abstracting. The new categories will be used for cases of all diagnosis years abstracted using NAACCR version 16-compliant (and later) software.

Coding Instructions

1. The clinical M must be recorded for all cases.

2. Record clinical M as documented by the first treating physician or the managing physician in the medical record.

3. If the managing physician has not recorded clinical M, registrars ***will*** code this item based on the best clinical information, without necessarily requiring additional contact with the physician.

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.

5. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

6. For lung, occult carcinoma is coded to cTx.

7. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text – Staging*

Clinical Stage Group NAACCR Item #970

This field identifies the anatomic extent of disease based on the T, N, and M data items know prior to the start of any therapy.

The VCR requires that AJCC TNM staging be assigned on all cases. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

1. Record the clinical stage group as documented by the first treating physician in the medical record.

2. If the managing physician has not recorded the clinical stage, registrars ***will*** code this data item based on the best available information, without necessarily requiring additional contact with the physician.

3. If a site/histology combination is not defined in the AJCC manual, code 88 for clinical and pathological T, N, M as well as stage group.

4. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

5. To assign stage group when some, but not all T, N, and/or M components can be determined, interpret missing components as “x.”

6. Convert all Roman numerals to Arabic numerals and use upper-case (capital letters)

only.

7. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Part Three, Data Item Instructions, Text – Staging*

Clinical Stage (Prefix/Suffix) Descriptor NAACCR Item #980

This identified the AJCC clinical stage descriptors of the tumor prior to the start of any therapy. Stage descriptors identify special cases that need separate analysis. The descriptors are adjuncts to and do not change the stage group.

The VCR requires that AJCC TNM staging be assigned on all cases. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Codes and Definitions

Code	Label	Description
0	None	There are no prefix or suffix descriptors that would be used for this case
1	E-Extranodal, lymphomas only	A lymphoma case involving an extranodal site
2	S-Spleen, lymphomas only	A lymphoma case involving the spleen
3	M-Multiple primary tumors in a single site	This is one primary with multiple tumors in the primary site at the time of diagnosis
5	E and S - Extranodal & spleen, lymphomas only	A lymphoma case with involvement of both an extranodal site and the spleen
9	Unknown, not stated in patient record	A prefix or suffix would describe this stage, but it is not known which would be correct

Coding Instructions

1. Record the clinical stage descriptor as documented by the first treating physician or the managing physician in the medical record.

2. If the managing physician has not recorded the descriptor, registrars ***will*** code tis item based on the best available information, without necessarily requiring additional contact with the physician.

3. If the tumor is not staged according to the AJCC manual, leave this item blank.

4. If the tumor is not staged according to the AJCC manual, leave this data item blank.

5. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text – Staging*

Staged By (Clinical Stage) **NAACCR Item #990**

This data item identifies the person who assigned the clinical AJCC staging data items and the Stage Group.

The VCR requires that AJCC clinical TNM staging be recorded in the abstract beginning in 2015. Data captured in this data item can be used to evaluate the accuracy and completeness of staging recorded in the registry and form the basis for quality management and improvement studies.

In 2016, this data item was expanded to two (2) characters and additional categories were added to document additional, more detailed sources of staging assignment and help in targeting training. The implementation of the new codes included data conversion and redefinition of "unknown" from "unknown stage" to unknown who assigned the stage ("9-Unknown; not stated in patient record" was converted to "99 – Staged but unknown who assigned stage").

Codes and Definitions

Code	Label	Description
00	Not staged	Clinical staging was not assigned; no information was found in the medical record to assign clinical stage
10	Physician, NOS, or physician type not specified in codes 11 – 15	Clinical staging assigned by a physician not described under codes 11 – 15)i.e.: cancer committee chair, cancer liaison physician or registry physician advisor)
11	Surgeon	Clinical staging assigned by the surgeon only
12	Radiation Oncologist	Clinical staging assigned by the radiation oncologist only
13	Medical Oncologist	Clinical staging assigned by the medical oncologist only
14	Pathologist	Clinical staging by the pathologist only
15	Multiple Physicians; Tumor Board, etc	Clinical staging assigned by multiple physicians such as during a tumor board meeting
20	Cancer Registrar	Clinical staging assigned by the Cancer Registrar only
30	Cancer Registrar and physician	Clinical staging assigned by the Cancer Registrar and any of the physicians specified in codes 10 – 15. This would include the Cancer Registrar assigning the stage and a physician approving it
40	Nurse, physician assistant, or other non-physician medical staff	Clinical staging assigned by medical non-physician staff such as a nurse or a physician assistant (PA)
50	Staging assigned at another facility	Clinical staging assigned at another facility, person's role is unknown
60	Staging by Central Registry including consolidation of multiple sources	Clinical staging assigned by Central Registry personnel based on information from one facility or multiple facilities
88	Case is not eligible for staging	The site/histology combination is not defined in the AJCC Manual
99	Staged but unknown who assigned stage	A stage was found in the medical record but it is unknown who assigned it

Coding Instructions

1. Record the role of the person who documented the clinical AJCC staging data items and the Stage Group

2. If code 10 – 20 is used, then all the staging elements (T, N, and M) and Stage Group must be assigned by the same person.

3. If the tumor was not staged, or stage is unknown, use code 00.

4. If the physician who assigned the stage cannot be identified as a surgeon, radiation oncologist, or medical oncologist use code 10. Other physicians can include, but are not limited to dentist, gynecologist, or urologist.

5. If it is clear from the treatment provided that the physician providing the stage information is a surgeon, use code 11.

Example: Urologist provides stage information for surgical resection of tumor; code as surgeon – 11

6. If a pathologist assigns T and/or N, and the registrar determines M and determines the stage group from other portions of the record, use code 30.

7. If staging was obtained from outside the facility, code the role of the person who staged it if known (codes 10 – 40); otherwise, use code 50.

8. If applicable, the Staging Elements (T, N, M) and the Stage Group must be recorded. *Exception*: lymphoma does not have TNM elements, only assigning Stage Group is applicable.

9. The staging source may be different for clinical vs. pathological stage.

   Example 1: Initial staging is assigned by the Primary Care General Practitioner – Code as 10

   Example 2: During tumor conference, after discussion among pathologist, radiologist and surgeon, the facilitator announces the final TNM and Stage Group – Code as 15

   Example3: The only information on staging in the medical record states, 'T1, nodes negative', registrar enters the listed T, N0 and add the M and stage group in the abstract – Code as 30

   Example 4: Nurse practitioner documents all staging elements – code as 40

   Example 5: Staging is entered into the medical record by a physician assistant (PA) – Code as 40

   Example 6: Patient transfers to your facility, there is a completed staging form in the chart copies received from the transferring facility, but the staging form is not signed, Code as 50.

   Example 7: Uploaded data to central registry from two facilities; there is no documentation listing staging: just a comment saying the patient has a late stage cancer. The central registry enters the TNM and Stage Group based on the consolidated record from the two facilities – Code as 60

   Example 8: A child is diagnosed with a Neuroblastoma – code as 88

Pathological T NAACCR Item #880

This field evaluates the primary tumor (T) and reflects the tumor size and/or extension of the tumor following the completion of surgical treatment.

Beginning in 2016, new T, N, and M categories were implemented for the AJCC T, N, and M data items. These new categories have been generated by adding the prefixes of “c” and “p” to existing valid clinical and pathological T, N, and M categories respectively, and modifying, adding and deleting specific categories. The new categories enable registrars to comply with AJCC clinical and pathological staging/classification timeframe rules while abstracting. The new categories will be used for cases of all diagnosis years abstracted using NAACCR version 16-compliant (and later) software.

Coding Instructions

1. The pathological T staging data item must be recorded for all cases.

2. Code pathological T as documented by the treating physician or the managing physician in the medical record.

3. If the managing physician has not recorded clinical T, registrars ***will*** code this item based on the best available information, without necessarily requiring additional contact with the physician.

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.

5. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

6. Truncate the least significant subdivision of the category from the right as needed.
7. For lung, occult carcinoma is coded Tx.

8. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Part Three, Data Item Instructions, Text – Staging*

Pathological N NAACCR Item #890

This field identifies the absence or presence of regional lymph node (N) metastasis and describes the extent of regional lymph node metastasis.

Beginning in 2016, new T, N, and M categories were implemented for the AJCC T, N, and M data items. These new categories have been generated by adding the prefixes of "c" and "p" to existing valid clinical and pathological T, N, and M categories respectively, and modifying, adding and deleting specific categories. The new categories enable registrars to comply with AJCC clinical and pathological staging/classification timeframe rules while abstracting. The new categories will be used for cases of all diagnosis years abstracted using NAACCR version 16-compliant (and later) software.

Coding Instructions

1. The pathological N must be recorded for all cases.

2. Record pathological N as documented by the first treating physician(s) or the managing physician in the medical record.

3. If the managing physician has not recorded pathological N, registrars ***will*** code this item based on the best information, without necessarily requiring additional contact with the physician

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.

5. For in situ tumors that are considered as "impossible diagnoses" in the AJCC Manual, code 88 for clinical and pathological T, N, and M as well as stage group

6. Use of the new category of cN0 for tis data item is limited only to in situ tumors beginning in 2016

7. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text – Staging*

Pathological M NAACCR Item #900

This data item identifies the presence or absence of distant metastasis (M) of the tumor known following the completion of surgical treatment.

Beginning in 2016, new T, N, and M categories were implemented for the AJCC T, N, and M data items. These new categories have been generated by adding the prefixes of "c" and "p" to existing valid clinical and pathological T, N, and M categories respectively, and modifying, adding and deleting specific categories. The new categories enable registrars to comply with AJCC clinical and pathological staging/classification timeframe rules while abstracting. The new categories will be used for cases of all diagnosis years abstracted using NAACCR version 16-compliant (and later) software.

Coding Instructions

1. The pathological M must be recorded for all cases.

2. Record clinical M as documented by the treating physician(s) or the managing physician in the medical record.

3. If the managing physician has not recorded pathological M, registrars ***will*** code this item based on the best clinical information, without necessarily requiring additional contact with the physician

4. If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group

5. For in situ tumors that are considered as "impossible diagnoses" in the AJCC Manual, code 88 for clinical and pathological T, N, and M as well as stage group.
6. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text – Staging*

Pathological Stage Group NAACCR Item #910

This field identifies the anatomic extent of disease based on the T, N, and M data items known following the completion of surgical treatment.

The VCR requires that AJCC TNM staging be assigned on all cases. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

1. Record the pathological stage group as documented by the treating physician(s) or the managing physician in the medical record.

2. If the managing physician has not recorded the pathological stage, registrars ***will*** code this data item based on the best available information, without necessarily requiring additional contact with the physician.

3. If a site/histology combination is not defined in the AJCC manual, code 88 for clinical and pathological T, N, M as well as stage group.

4. For in situ tumors that are not staged according to the AJCC manual, code 88 for clinical and pathological T, N, and M as well as stage group.

5. To assign stage group when some, but not all T, N, and/or M components can be determined, interpret missing components as "x."

6. If pathological M is coded as blank and clinical M is coded as 0, 1, 1A, 1B, or 1C, then the combination of staging items pT, pN, and cM may be sued to complete the pathological stage group.

7. If the value does not fill all four (4) characters, then record the value to the left and leave the remaining spaces blank.

8. Convert all Roman numerals to Arabic numerals and use upper-case (capital letters) only.

9. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Section Three, Data Item Instructions, Text – Staging*

Pathological Stage (Prefix/Suffix) Descriptor NAACCR Item #920

This identified the AJCC clinical stage descriptors known following the completion of surgical treatment. Stage descriptors identify special cases that need separate analysis. The descriptors are adjuncts to and do not change the stage group.

The VCR requires that AJCC TNM staging be assigned on all cases. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Codes and Definitions

Code	Label	Description
0	None	There are no prefix or suffix descriptors that would be used for this case
1	E-Extranodal, lymphomas only	A lymphoma case involving an extranodal site
2	S-Spleen, lymphomas only	A lymphoma case involving the spleen
3	M-Multiple primary tumors in a single site	This is one primary with multiple tumors in the primary site at the time of diagnosis
5	E and S - Extranodal & spleen, lymphomas only	A lymphoma case with involvement of both an extranodal site and the spleen
9	Unknown, not stated in patient record	A prefix or suffix would describe this stage, but it is not known which would be correct

Coding Instructions

1. Record the pathological stage descriptor as documented by the treating physician(s) or the managing physician in the medical record.
2. If the managing physician has not recorded the descriptor, registrars ***will*** code tis item based on the best available information, without necessarily requiring additional contact with the physician.
3. If the tumor is not staged according to the AJCC manual, leave this item blank.
4. Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Text

Text to support this data item must be recorded in the specific text fields. See *VCR Manual Part Three, Data Item Instructions, Text – Staging*

Staged By (Pathological Stage) NAACCR Item #930

This data item identifies the person who assigned the clinical AJCC staging data items and the Stage Group.

The VCR requires that AJCC clinical TNM staging be recorded in the abstract beginning in 2015.

Data captured in this data item can be used to evaluate the accuracy and completeness of staging recorded in the registry and form the basis for quality management and improvement studies.

In 2016, this data item was expanded to two (2) characters and additional categories were added to document additional, more detailed sources of staging assignment and help in targeting training. The implementation of the new codes included data conversion and redefinition of "unknown" from "unknown stage" to unknown who assigned the stage ("9-Unknown; not stated in patient record" was converted to "99 – Staged but unknown who assigned stage").

Codes and Definitions

Code	Label	Definition
00	Not staged	Clinical staging was not assigned; no information was found in the medical record to assign clinical stage
10	Physician, NOS, or physician type not specified in codes 11 – 15	Clinical staging assigned by a physician not described under codes 11 – 15)i.e.: cancer committee chair, cancer liaison physician or registry physician advisor)
11	Surgeon	Clinical staging assigned by the surgeon only
12	Radiation Oncologist	Clinical staging assigned by the radiation oncologist only
13	Medical Oncologist	Clinical staging assigned by the medical oncologist only
14	Pathologist	Clinical staging by the pathologist only
15	Multiple Physicians; Tumor Board, etc	Clinical staging assigned by multiple physicians such as during a tumor board meeting
20	Cancer Registrar	Clinical staging assigned by the Cancer Registrar only
30	Cancer Registrar and physician	Clinical staging assigned by the Cancer Registrar and any of the physicians specified in codes 10 – 15. This would include the Cancer Registrar assigning the stage and a physician approving it
40	Nurse, physician assistant, or other non-physician medical staff	Clinical staging assigned by medical non-physician staff such as a nurse or a physician assistant (PA)
50	Staging assigned at another facility	Clinical staging assigned at another facility, person's role is unknown
60	Staging by Central Registry including consolidation of multiple sources	Clinical staging assigned by Central Registry personnel based on information from one facility or multiple facilities
88	Case is not eligible for staging	The site/histology combination is not defined in the AJCC Manual
99	Staged but unknown who assigned stage	A stage was found in the medical record but it is unknown who assigned it

Coding Instructions

1. Record the role of the person who documented the pathological AJCC staging data items and the Stage Group.

2. If the case does not meet the criteria for pathologic staging, the tumor was not staged, or stage is unknown, use code 00.

3. 3. If code 10 – 20 is used, then all the staging elements (T, N, and M) and Stage Group must be assigned by the same person

4. If the physician who assigned the stage cannot be identified as a surgeon, radiation oncologist, or medical oncologist use code 10. Other physicians can include, but are not limited to dentist, gynecologist or urologist.

5. If it is clear from the treatment provided that the physician providing the stage information is a surgeon, use code 11.

   Example: Urologist provides stage information for surgical resection of tumor; code as surgeon – 11.

6. If a pathologist assigns T and/or N, and the registrar determines M and determines the stage group from other portions of the record, use code 30.

7. If staging was obtained from outside the facility, code the role of the person who staged it if known (codes 10 – 40); otherwise, use code 50.

8. If applicable, the Staging Elements (T, N, M) and the Stage Group must be recorded. *Exception*: lymphoma does not have TNM elements, only assigning Stage Group is applicable.

9. The staging source may be different for clinical vs. pathological stage

   Example 1: Initial staging is assigned by the Primary Care General Practitioner – Code as 10.
   Example 2: During tumor conference, after discussion among pathologist, radiologist and surgeon, the facilitator announces the final TNM and Stage Group – Code as 15

Example3: The only information on staging in the medical record states, 'T1, nodes negative', registrar enters the listed T, N0 and add the M and stage group in the abstract – Code as 30.

Example 4: Nurse practitioner documents all staging elements – code as 40

Example 5: Staging is entered into the medical record by a physician assistant (PA) – Code as 40

Example 6: Patient transfers to your facility, there is a completed staging form in the chart copies received from the transferring facility, but the staging form is not signed – Code as 50

Example 7: Uploaded data to central registry from two facilities; there is no documentation listing staging; just a comment saying the patient has a late-stage cancer. The central registry enters the TNM and Stage Group based on the consolidated record from the two facilities – Code as 60

Example 8: A child is diagnosed with a Neuroblastoma – code as 88

SEER Summary Stage 2000 NAACCR Item #759

This field if for summary stage at the initial diagnosis or treatment of the reportable tumor. Summary stage should include all information available through completion of surgery(ies) in the first course of treatment or within four (4) months of diagnosis in the absence of disease progression, whichever is longer. Stage information is important when evaluating the effects of cancer control programs. It is crucial in understanding whether changes over time in incidence rates or outcomes are due to earlier detection of the cancers. In addition, cancer treatment cannot be studied without knowing the stage at diagnosis.

Summary staging is the most basic way of categorizing how far a cancer has spread from its point of origin. Summary staging uses all information available in the medical record; in other words, it is a combination of the most precise clinical and pathological documentation of the extent of disease.

Codes and Definitions

Code	Label
0	In situ
1	Localized
2	Regional, direct extension only
3	Regional, regional lymph nodes only
4	Regional, direct extension and regional lymph nodes
5	Regional, NOS
7	Distant
8	Not applicable
9	Unstaged

Coding Instructions

1. Use code 8 for benign and borderline brain/CNS cases.

2. In situ (Code 0) diagnosis can only be made microscopically, because a pathologist must identify the basement membrane and determine that it has not been penetrated.

    a. Other ways of describing in situ: non-invasive, pre-invasive, non-infiltrating, intraepithelial, Stage 0, intraductal, Intracystic, no stromal invasion, no penetration below the basement membrane

3. Localized (Code 1) cancer has spread no farther than the organ in which it started; there is infiltration past the basement membrane into the functional part of the organ, but there is no spread beyond the boundaries of the organ.

    a. It is important to know and recognize the names of different structures within the organ – lamina propria , myometrium, muscularis, for example – so that a description of invasion or involvement of these structures will not be interpreted as regional spread.

    b. Be sure to read pathology and operative reports as Summary Stage is based on both clinical and pathological information.

4. Regional stage (Codes 2 – 5) when the cancer has spread beyond the limits of the organ of origin.

    a. Regional by direct extension (Code 2) is invasion through entire wall of origin into surrounding and/or adjacent tissues.
    b. Invasion to regional lymph nodes (Code 3) means the tumor has invaded the walls of lymphatics where cells can travel through lymphatic vessels to nearby lymph nodes where they are “filtered” our and begin to grow in the nodes
    c. Code 4 is a combination of positive regional lymph nodes and direct extension of the tumor.
    d. Regional, NOS (code 5) is used when it is unclear whether the tissue are involved by direct extension or when the other categories are not applicable.

        I. Staging for non-Hodgkin or Hodgkin lymphomas would use this code when there is more than one lymph node chain is involved.

e. Code only regional nodes – not distant nodes – in this category. Check the *SEER Summary Staging Manual 2018* for lists of regional nodes. Do NOT use AJCC TNM listing of regional nodes to code this field.

5. Distant metastasis (Code 7) is when tumor cells have broken away from the main tumor and travelled to other parts of the body and have begun to grow at the new location.

    a. May also be called remote, diffuse, disseminated, metastatic or secondary disease.

    b. Cancer cells travel from the primary in four (4) ways:
        i. Extension from primary organ beyond adjacent tissue into next organ
        ii. Lung through the pleura into bone
        iii. Travel in lymph channels beyond the first (regional) drainage area
        iv. Hematogenous or blood-borne metastasis due to invasion of blood vessels within the primary tumor (veins are more susceptible to invasion than thicker walled arteries) allows escape of tumor cells or tumor emboli which are transported through the blood stream to another part of the body.
        i. Spread through fluids in a body cavity.

            1) Malignant cells rupture the surface of the primary tumor and are released into the thoracic or peritoneal cavity.
            2) This spread is also called implantation or seeding metastasis.
            3) Some tumors form large quantity of fluid called ascites.

c. The most common sites of distant spread are liver, lung, brain and bone

Collaborative Stage Site-Specific Factors

See *CS Data Collection System Coding Instructions, Part I, Section 2, Version 02.05* for values and specific coding instructions, located at:

https://cancerstaging.org/cstage/schema/Pages/version0205.aspx

Site Specific Factor 1 **NAACCR Item #2880**

VCR Required for Mycosis Fungoides, Placenta, Prostate, Brain/CNS Other/Intracranial Gland, and Breast.

- Mycosis Fungoides – Peripheral Blood Involvement
- Placenta – Prognostic Scoring Index

- Prostate – PSA Value
- Brain/CNS Other/Intracranial Gland – WHO (World Health Organization) Grade Classification
- Breast – Estrogen Receptor (ER) Assay

Site Specific Factor 2 **NAACCR Item #2890**

VCR Required for Breast

- Breast – Progesterone Receptor (PR) Assay

Site Specific Factor 5 **NAACCR Item #2920**

VCR Required for GIST Peritoneum

- GIST Peritoneum – Mitotic Count

Site Specific Factor 6 **NAACCR Item #2930**

VCR Required for GIST Esophagus, GIST Small Intestine, GIST Stomach

- GIST Esophagus – Mitotic Count
- GIST Small Intestine – Mitotic Count
- GIST Stomach – Mitotic Count

Site Specific Factor 8 **NAACCR Item #2862**

VCR Required for Prostate and Breast

- Prostate – Gleason's Primary Pattern & Secondary Pattern Values on Needle Core
- Biopsy/Transurethral Resection of Prostate
- Breast – HER2: Immunohistochemistry (IHC) Lab Value

Site Specific Factor 9 **NAACCR Item #2863**

VCR Required for Breast

- Breast – HER2: Immunohistochemistry (IHC) Test Interpretation

Site Specific Factor 10 **NAACCR Item #2864**

VCR Required for GIST Peritoneum and Prostate

- GIST Peritoneum – Location of Primary Tumor
- Prostate – Gleason's Score on Prostatectomy/Autopsy

Site Specific Factor 11 **NAACCR Item #2865**

VCR Required for Breast

- Breast – HER2: Fluorescence In Situ Hybridization (FISH) Test Interpretation

Site Specific Factor 13 **NAACCR Item #2867**

VCR Required for Testis and Breast

- Testis – Post Orchiectomy Alpha Fetoprotein (AFP) Range
- Breast – HER2: Chromogenic In Situ Hybridization (CISH) Test Interpretation

Site Specific Factor 14 **NAACCR Item #2868**

VCR Required for Breast

- Breast – HER2: Result of Other or Unknown Test

Site Specific Factor 15 **NAACCR Item #2869**

VCR Required for Testis and Breast

- Testis – Post Orchiectomy Human Chorionic Gonadotropin (hCG) Range
- Breast – HER2: Summary Result of Testing

Site Specific Factor 16 **NAACCR Item #2870**

VCR Required for Testis and Breast

- Testis – Post Orchiectomy Lactate Dehydrogenase (LDH) Range
- Breast – Combination of ER, PR, and HER2 Results

Site Specific Factor 25 **NAACCR Item #2879**

VCR Required for Bile Ducts Distal, Bile Ducts Perihilar, Cystic Duct, Esophagus GE Junction, Lacrimal Gland, Lacrimal Sac, Melanoma Ciliary Body, MelanomaIris, Nasopharynx, Pharyngeal Tonsil, Stomach

- Bile Ducts Distal – Schema Discriminator: Bile Ducts Distal/Bile Ducts Perihilar/Cystic Duct
- Bile Ducts Perihilar – Schema Discriminator: Bile Ducts Distal/Bile Ducts Perihilar/Cystic Duct
- Cystic Duct - Schema Discriminator: Bile Ducts Distal/Bile Ducts Perihilar/Cystic Duct
- Esophagus GEJ unction – Schema Discriminator: Esophagus GE Junction (EGJ)/Stomach
- Lacrimal Gland – Schema Discriminator: Lacrimal Gland/Lacrimal Sac
- Lacrimal Sac – Schema Discriminator: Lacrimal Gland/Lacrimal Sac
- Melanoma Ciliary Body – Schema Discriminator: Melanoma Ciliary Body/MelanomaIris
- MelanomaIris – Schema Discriminator: Melanoma Ciliary Body/MelanomaIris
- Nasopharynx – Schema Discriminator: Nasopharynx/Pharyngeal Tonsil
- Pharyngeal Tonsil – Schema Discriminator: Nasopharynx/Pharyngeal Tonsil
- Stomach – Schema Discriminator: Esophagus GE Junction (EGJ)/Stomach

First Course of Treatment

Guidelines for Recording First Course of Treatment

First course of treatment includes all methods of cancer-directed therapy recorded in the treatment plan and administered to the patient before disease progression or recurrence. Never code treatment unless you know it has been administered at your facility or any other facility; record as none, 00 or 0.

No therapy is a treatment option (the patient refused therapy; the family/guardian refused therapy, the patient expired before therapy started, the physician recommended no therapy, or the patient is on active surveillance/watchful waiting). Therefore, first course of treatment may be no treatment. Use the date the decision was made not to treat as *Date of 1st Course Rx*.

All modalities of treatment are included regardless of sequence or degree of completion of any component method.

Treatment Plan

A treatment plan describes the cancer-directed treatment intended to modify, control, remove or destroy proliferating cancer cells. The documentation confirming a treatment plan may be fragmented. It is frequently found in several different sources, e.g., medical or clinic records, consultation reports, and outpatient records. All cancer-directed therapies specified in the physician(s) treatment plan are a part of the first course of treatment. When a treatment plan is not available or unclear, consult a physician.

A discharge plan may contain part or all the treatment plan.

A treatment plan may specify one or more modalities of therapy (surgery, radiation, chemotherapy, hormone therapy, immunotherapy, or other therapy). A treatment "regimen" may include combinations of concurrent or adjuvant therapies.

Example: A patient had a transurethral resection diagnostic of bladder cancer. Resection was followed by Cobalt-60 radiation, ileal loop diversion, and a complete cystectomy with node dissection. Code as follows:

Data Items and Treatment Codes

Data Item	Treatment Code
Cancer-directed surgery	50 - Complete cystectomy
Radiation Regional RX Modality	22- Cobalt-60 radiation
Chemotherapy	00 - None
Hormone Therapy	00 - None
Immunotherapy	00 - None
Other treatment	0 - No other cancer-directed therapy

Guidelines for Determining *First Course of Treatment*

First course of treatment includes all cancer-directed therapy planned and administered by the physician(s) during or after the first diagnosis of cancer. Planned treatment may include multiple modes of therapy and may encompass intervals of a year or more.

Time Period Rules for First Course of Treatment for Malignancies except Leukemias (in order of precedence).

1. If there is a documented, planned first course of treatment, first course ends at the completion of this treatment plan, regardless of the duration of the treatment plan.

2. If the patient is treated according to a facility's standards of practice (established protocol),first course ends at the completion of the treatment.

3. If there is no documented treatment plan, established protocol, or management guidelines, and consultation with a physician is not possible, use the principle: "initial treatment must begin within four months of the date of initial diagnosis."
4. If the patient refuses all treatment modalities, then changes his/her mind and the treatment is initiated, consult a physician to determine if this is part of first course of treatment.

Special Rules for Leukemias

The first course of definitive treatment is related to the first *remission* as follows:

1. If a remission, complete or partial, is achieved during the first course of therapy for the leukemic process, include:

2. All definitive therapy considered as *remission-inducing* for the first remission.

3. All definitive therapy considered as *remission-maintaining* for the first remission (maintenance chemotherapy or irradiation to the central nervous system).

4. Disregard all treatment administered to the patient after the relapse of the first remission.

5. If no remission is attained during the first course of therapy, record all treatment attempted to induce the remission. Disregard all treatment administered to the patient as a subsequent attempt to induce remission.

Watchful Waiting

If a treatment plan is given for symptoms/disease progression after period of *watchful waiting*, this treatment is not considered part of first course. For example, if physician and patient choose a *wait and watch* approach to prostate cancer and the patient becomes symptomatic, consider the symptoms to be an indication the disease has progressed, and any further treatment is not part of first course.

Treatment Failure

Treatment failure or disease progression may prompt the physician to stop therapy before the full course has been completed. Any therapy administered after the discontinuation of first course must be considered as secondary or subsequent treatment.

Treatment for Recurrence or Progression

Treatment for recurrence or progression of disease includes all cancer-directed therapies administered after the first course of treatment is complete.
If the patient does not respond or if the disease progresses, a physician may stop the first course of treatment before it is complete. Therapy administered after the first course ends is not recorded as first course of treatment.

Non Cancer-Directed Treatment

Non cancer-directed treatments prolong the patient's life, alleviate pain, make the patient comfortable, or prepare the patient for cancer-directed therapy. They are not meant to destroy or control the tumor or delay the spread of disease. Non-cancer-directed procedures include diagnostic tests and supportive care (treatments designed to relieve symptoms and minimize the effects of the cancer). Surgical procedures performed to diagnose/stage disease (exploratory) or for relief of symptoms (palliative) are non-cancer directed surgery. **Non-cancer directed therapies should not be coded as treatment.**

Examples of non-cancer directed therapies include:

1. Diagnostic procedures:

    a. Incisional biopsies
    b. Exploratory procedures/surgery with or without biopsies, such as celiotomy, laparotomy, cystotomy, nephrotomy, gastrotomy, thoracotomy
    c. Brushings, washings, aspiration of cells, and hematologic findings (peripheral blood smears) are not surgical procedures.

2. Palliative procedures:

    a. Colostomy
    b. Nephrostomy
    c. Esophagostomy
    d. Tracheostomy

e. Gastrostomy

3. Supportive care/relieving symptoms:

   a. Pain medication
   b. Oxygen
   c. Antibiotics administered for an associated infection
   d. Intravenous therapy to maintain fluid or nutritional balance
   e. Laser therapy directed at relieving symptoms

   Exception: Treatment for hematopoietic diseases can be supportive care, observation, or any treatment that does not meet the usual definition in which treatment "modifies, controls, removes, or destroys proliferating cancer tissue". See *VCR Manual, Part Three, RX Summ-Other).*

Cancer-Directed Treatment

Cancer-directed treatment is tumor directed, and its purpose is to modify, control, remove, or destroy primary or metastatic cancer tissue. Physicians administer the therapy(ies) to remove or minimize the size of tumor or to delay the spread of disease. Record all cancer-directed therapy administered to the patient. For complete treatment information, record therapies given in other institutions and failed treatments (the patient did not respond).

Example 1: A patient is diagnosed with stage IV small cell carcinoma of the lung. The treatment plan recommends radiation to shrink the metastatic tumor and alleviate the pain caused by rib metastases. The reporting institution delivers beam radiation. The data item *Rad--Reg RX Modality* is coded 22, beam radiation, NOS.

Example 2: A patient with breast cancer enters the reporting institution for a lumpectomy. The physician's treatment plan specifies radiation therapy to the breast following surgery. It is unknown if the patient had radiation. Code the data item *RX Summ - Surg Prim Site* to a partial or less than total mastectomy (22). Record the data item *Rad--Regional RX Modality* as (00), none. If additional follow-up information reveals the patient did receive radiation, change to the appropriate radiation code.

Date of First Course of Treatment NAACCR Item #1270

Records the date on which treatment (surgery, radiation, systemic, or other therapy) of the patient began at any facility. It is important to be able to measure the delay between diagnosis and the onset of treatment. A secondary use for this date is as a starting point for survival statistics (rather than using the diagnosis date). This date cannot be calculated from the respective first course treatment modality dates if no treatment was given. Therefore,

providing the date on which active surveillance is chosen, a physician decides not to treat a patient, or a patient's family or guardian declines treatment is important.

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date.
Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates*

Recording Date 1st Course of Treatment

1. Record the earliest of the following dates: *Date of First Surgical Procedure*, *Date Radiation Started*, *Date Systemic Therapy Started*, or *Date Other Treatment Started*.

2. If active surveillance or watchful waiting is selected as the first course of treatment (*RX Summ–Treatment Status* = 2) record the date this decision is made.

3. In cases of no treatment (*RX Summ–Treatment Status* = 0), in which a physician decides not to treat a patient or a patient's family, or guardian declines all treatment, the date of first course of treatment is the date this decision was made.

4. Leave this item blank if the cancer was diagnosed at autopsy and not suspected prior to that.

5. Unknown Month, Day, and/or Year - If only part of the date is known record what is known and leave blank what is unknown. Approximation is acceptable; refer to *VCR Manual, Part Three: Data Item Instructions, General Information, Dates* for instructions regarding approximating dates and unknown dates. Fictitious dates or default dates are not acceptable.

Date 1st Course Rx Flag — NAACCR Item #1271

This flag explains why there is no appropriate value in the corresponding date field, *Date of*

First Course of Treatment.

As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Codes and Descriptions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any treatment was given).
11	No proper value is applicable in this context. (for example, autopsy only).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (for example, treatment was given but the date is unknown).
(blank)	A valid date value is provided in the item *Date of 1st Course of Treatment*.

Recording Date 1st Course Rx Flag

1. Leave this item blank if *Date of 1st Course of Treatment* has a full or partial date recorded.

2. Code 12 if *Date of 1st Course of Treatment* cannot be determined, but the patient did receive first course treatment.

3. Code 12 if a decision not to treat was made, but the date is totally unknown.

4. Code 10 if it is unknown whether any treatment was administered.

5. Code 11 if no proper value is applicable in this context (e.g., autopsy only case) Code Description 10

RX Summ – Treatment Status NAACCR Item #1285

This item documents active surveillance (watchful waiting) and eliminates searching each treatment modality to determine whether treatment was given. It is used in conjunction with *Date of First Course of Treatment* to document whether treatment was or was not given, it is unknown if treatment was given, or treatment was given on an unknown date.

Codes and Descriptions

Code	Description
0	No treatment given
1	Treatment given
2	Active surveillance (watchful waiting)
9	Unknown if treatment was given

Instructions for Coding

1. This item may be left blank for cases diagnosed prior to 2010.

2. Treatment given after a period of active surveillance is considered subsequent treatment and it not coded in this item.

3. Use code 0 when treatment is refused, or the physician decides not to treat for any reason such as the presence of comorbidities

Example 1: Patient is expected to have radiation, but it has not occurred yet: code as 0

Example 2: Treatment plan for a lymphoma patient is active surveillance: code as 2

Example 3: Patient and physician opt for watchful waiting for the patient's prostate cancer: *code as 2*

Date of First Surgical Procedure NAACCR Item #1200

Record the earliest date on which the patient had cancer-directed surgery for this primary or metastatic site. This includes *RX Summ-Surg Prim Site, RX Summ-Scope Reg LN Surg, and RX Summ-Surg Oth Reg/Dis*. This item is used to measure the lag time between diagnosis and the most definitive surgery of the primary site. Formerly called "Date of Cancer-Directed Surgery."

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date.

Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Section Three: Data Item Instructions, General Information, Coding Dates Recording RX Date-Surgery*

1. Record the date of cancer-directed surgery in month, day, year format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

2. This data item may contain a date even when surgery to the primary site equals 00 (none).
   Example: Patient has excision of a brain lesion on January 15, 2003; final pathology *diagnosis is metastatic lung carcinoma. Patient refuses further work-up.*

   - *RX Summ - Surg Prim Site* code = 00
   - *RX Date - Surgery* = 01152003
   - *RX Summ - Surg Oth Reg/Dis* = 4

3. Collecting the dates for each treatment modality allows sequencing of multiple treatments and aids evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence). The date in this data item may be the same as that in *Date of Most Definitive Surgical Resection of the Primary Site.*

4. Unknown dates:

   a. Blank spaces are used for unknown trailing portions of the date or where a date is not applicable.
   b. If the exact date of cancer-directed surgery is not available, record an approximate date. Refer to *VCR Manual Section Three, General Information*.

Special Instructions

If you can record multiple surgery dates, make sure the data item transmitted to the VCR *as RX Date-Surgery* reflects the earliest date of cancer-directed surgery.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery.*

RX Date – Surgery Flag NAACCR Item #1201

This flag explains why there is no appropriate value in the corresponding date field, *RX Summ-Surg Prim Site.*

As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Codes and Descriptions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any surgery was performed).
11	No proper value is applicable in this context. (for example, no surgery performed).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (for example, surgery was performed but the date is unknown).
(blank)	A valid date value is provided in the item *RX Summ-Surg Prim Site*.

Recording Date 1st Course Rx Flag

1. Leave this item blank if *RX Summ-Surg Prim Site* has a full or partial date recorded.
2. Code 12 if *RX Summ-Surg Prim Site* cannot be determined, but the patient did receive first course surgery.
3. Code 10 if it is unknown whether any surgery was performed.
4. Code 11 if no surgical procedure was performed.

RX Summ – Surgical Procedure of Primary Site NAACCR Item #3170

Record the most invasive, definitive cancer-directed procedure performed to the primary site as part of the first course of treatment. Cancer-directed surgery modifies, controls, removes, or destroys proliferating cancer tissue. This item can be used to sequence multiple treatment modalities and to evaluate the time intervals between treatment.

Recording Surgery to Primary Site

1. An excisional biopsy is cancer-directed surgery.

Example: The surgeon states the procedure is an excisional biopsy, but the pathology report shows microscopic involvement of the margins. Record the code for an excisional biopsy as *Rx Summ - Surg Prim Site*.

**Note:* Biopsies that remove all gross tumor or leave only microscopic margins should be coded to surgery of the primary site.

2. If no cancer-directed surgery was performed, code to 00.

3. If it is unknown if cancer-directed surgery was performed, code to 99.

4. Use the best information in the operative/pathology reports to determine the operative procedure. Do not depend on the name of the procedure since it may be incomplete. If the operative report is unclear as to what was excised or if there is a discrepancy between the operative and pathology reports, use the pathology report, unless there is reason to doubt its accuracy.

5. Site-Specific Surgery Codes**-** Refer to *VCR Manual Appendix I* for surgical codes.

   a. For codes 00 through 79, the descriptions of the surgical procedures are hierarchical. Last- listed responses take precedence over earlier-listed responses. (regardless of code or numeric value). Code 98 takes precedence over all other codes values.

      i. Codes 10 through 18 are site-specific descriptions of tumor-destruction procedures that do not produce a pathologic specimen.
      ii. Codes 20 through 80 are site-specific descriptions of resection procedures.

   b. Numeric Code Sequence – To the extent possible, codes and their definitions are the same as those assigned in *Fords Manual 2004*. As a result of added and modified codes however, the numeric code sequence may deviate from the order in which descriptions of the surgical procedures are listed.

      Example: A rectosigmoid primary surgically treated by polypectomy with electrocautery, which is listed after polypectomy alone, is coded 22.

      20 Local tumor excision, NOS
      26 Polypectomy
      27 Excisional biopsy Combination of 20
      or 26-27 WITH
      21 Photodynamic therapy (PDT)
      22 Electrocautery

23 Cryosurgery
24 Laser ablation

c. Special Code 98 applies to specific tumors that cannot be clearly defined in terms of primary or nonprimary site. Surgical Procedure of Primary Site should be coded 98 for *Unknown and Ill-defined Primary Sites and Hematopoietic/ Reticuloendothelial/ Immunoproliferative/Myeloproliferative Disease (*See *VCR Manual, Part Three, General Information* for a list of these sites and conditions). The item *RX Summ--Surg Oth Reg/Dis Site* is used to indicate whether surgery was performed for these tumors.

6. Total Resection – If a surgical procedure removes the remaining portion of an organ which had been partially resected previously for any condition, code as total removal of the organ. If none of the primary organ remains, the code should indicate this is the case.

   Example 1: Resection of a stomach which had been partially excised previously is coded as total removal of stomach.

   Example 2: Removal of a cervical stump is coded as total removal of uterus.

   Example 3: Lobectomy of a lung with a previous wedge resection is coded as total removal of lobe.

7. Biopsies that remove all the tumor and/or leave only microscopic margins are to be coded in this item.

8. Extranodal Lymphomas – Surgery for extranodal lymphomas should be recorded using the scheme for the extranodal site.

   Example: Use the scheme for the stomach to record a gastrectomy for a primary lymphoma of the stomach.

9. Surgery for Multiple Primaries – If multiple primaries are treated by a single surgical event, code the appropriate surgical items for each primary.

   Example 1: If a total abdominal hysterectomy was done for a patient with two primaries, one of the cervix and one of the endometrium, code each as having had a total abdominal hysterectomy.

Example 2: If a total colectomy was done for a patient with multiple primaries in several segments of the colon, code total colectomy for each of the primary segments.

10. Regional tissue or organs – Surgery to remove regional tissue or organs is coded in this item only if the tissue/organs are removed in continuity with the primary site, except where noted in the *VCR Manual, Appendix I*.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery.*

RX Summ – Scope of Regional Lymph Node Surgery NAACCR Item #1292

Record the removal, biopsy, or aspiration of regional lymph node(s) at the time of surgery of the primary site or during a separate surgical event. This data item can be used to compare and evaluate the extent of surgical treatment.

Use the operative report as the primary source document to determine whether the operative procedure was a sentinel lymph node biopsy (SLNBx) or a more extensive dissection of regional lymph nodes, or a combination of both sentinel lymph node biopsy and regional lymph node dissection (LND). The pathology report may be used to complement the information appearing in the operative report, but the operative report takes precedence when attempting to distinguish between SLNBx and LND or a combination of the two procedures.

Codes and Definitions

Code	Definition	Additional Notes Specific to Breast (C50.x)
0	*None*- No regional lymph node surgery. No lymph nodes found in pathologic specimen. Diagnosed at autopsy.	
1	*Biopsy or aspiration of regional lymph node, NOS* - Biopsy or aspiration of regional lymph node(s) regardless of the extent of involvement of disease. • Review the operative report to confirm whether an excisional biopsy or aspiration of regional lymph nodes was actually performed. If additional procedures were performed on the lymph nodes, use the appropriate code 2 – 7.	Excisional biopsy or aspiration of regional lymph nodes for breast cancer is uncommon. Review the operative report to confirm whether an excisional biopsy or aspiration of regional lymph nodes was actually performed; it is highly possible that the procedure is a SLNBx (code 2) instead. If additional procedures were performed on the lymph nodes, such as axillary LND, use the appropriate code 2 – 7.
2	*Sentinel lymph node biopsy- Biopsy of the first lymph node or nodes that drain a defined area of tissue within the body. Sentinel node(s) are identified by the injection of a dye or radio label at the site of the primary tumor.* • *The operative report states that a SLNBx was performed.* • *Code 2 SLNBx when the operative report describes a procedure using injection of a dye, radio label, or combination to identify a lymph node(s) for removal/examination.* • *When a SLNBx is performed, additional non-sentinel nodes can be taken during the same operative procedure. These additional non-sentinel nodes may be discovered by the pathologist tor selectively removed (or harvested) as part of the SLNBx procedure by the surgeon. If review of the operative report confirms that a LND followed the SLNBx, code these cases as 6.*	• If a relatively large number of lymph nodes – generally more than 5 – are pathologically examined, review the operative report to confirm the procedure was limited to a SLNBx and did not include an axillary lymph node dissection (ALND) • Infrequently, a SLNBx is attempted and the patient fails to map(i.e. no sentinel lymph nodes are identified by the dye and/or radio label injection) and no sentinel nodes are removed. Review the operative report to confirm that an axillary incision was made and a node exploration was conducted. Patients undergoing SLNBx who fail to map will often undergo ALND. Code these cases as 2 if no ALND was performed, or 6 when the ALND was performed during the same operative event.

Code	Definition	Additional Notes Specific to Breast (C50.x)
3	*The operative report states that a LND was performed (a SLNBx was not done during this procedure or in a prior procedure).* *Number of regional nodes removed unknown or not stated; regional lymph nodes removed NOS- Sampling or dissection of regional lymph node and the number of nodes removed is unknown or not stated. The procedure is not specified as sentinel node biopsy.* • *Check the operative report to ensure this procedure is not a SLNBx only (code 2), or a SLNBx with LND (code 6 or 7).*	Generally, ALND removes at least 7 – 9 nodes. However, it is possible for these procedures to remove or harvest fewer nodes. Review the operative report to confirm that there was not a SLNBx in addition to a more extensive LND during the same procedure (code 6 or 7).
4	*1–3 regional lymph nodes removed- Sampling or dissection of regional lymph node(s) with fewer than four lymph nodes found in the specimen. The procedure is not specified as sentinel node biopsy.* • *This should be used infrequently. Review the operative report to ensure the procedure was not a SLNBx only.*	
5	*4 or more regional lymph nodes removed- Sampling or dissection of regional lymph nodes with at least four lymph nodes found in the specimen. The procedure is not specified as sentinel node biopsy.* • *If a relatively small number of lymph nodes was examined pathologically, review the operative report to confirm the procedure was not a SLNBx only (code 2). If a relatively large number of nodes was examined pathologically, review the operative report to confirm that there was not a SLNBx in addition to a more extensive LND during the same, or separate, procedure (code 6 or 7).* • *Infrequently, a SLNBx is attempted and the patient fails to map (i.e. no sentinel lymph nodes are identified by the dye and/or radio label injection). When mapping fails, the surgeon usually performs a more extensive dissection of regional lymph nodes. Codes these cases as 2 if no further dissection of regional nodes was undertaken, or 6 when regional lymph nodes were dissected during the same operative event.*	

Code	Definition	Additional Notes Specific to Breast (C50.x)
6	*Sentinel node biopsy and code 3, 4,or 5 at same time, or timing not stated- Code 2 was performed in a single surgical event with code 3, 4, or 5. Or, code 2 and 3, 4, or 5 were performed, but timing was not stated in patient record.* • *SLNBx and LND (code 3, 4, or 5) during the same surgical event, or timing is not known.* • *Generally, SLNBx followed by a LND sill yield a relatively large number of nodes. However, it is possible for these procedure to harvest only a few nodes.* • *If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only.* • *Infrequently, a SLNBx is attempted and the patient fails to map (i.e. no sentinel lymph nodes are identified by the dye and/or radio label injection). When mapping fails, the surgeon usually performs a more extensive dissection of regional lymph nodes. Code these cases as 6*	• Generally, SLNBx followed by ALND will yield a minimum of 7 – 9 nodes. However, it is possible for these procedures to harvest fewer (or more) nodes. • If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx, or whether a SLNBx plus an ALND was performed.
7	*Sentinel node biopsy and code 3, 4, or 5 at different times- Code 2 was followed in a subsequent surgical event by procedures coded as 3, 4, or 5.* • *SLNBx and LND (codes 3, 4, or5) in separate surgical events.* • *Generally, SLNBx followed by a regional LND will yield a relatively large number of nodes. However, it is possible for these procedure to harvest only a few nodes.* • *If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only*	• Generally, SLNBx followed by ALND will yield a minimum of 7 – 9 nodes. However, it is possible for these procedures to harvest fewer (or more) nodes. • If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx, or whether a SLNBx plus an ALND was performed.
9	*Unknown or not applicable-* It is unknown whether regional lymph node surgery was performed; death certificate-only; for lymphomas with a lymph node primary site; an unknown or ill-defined primary; or for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease.	

Recording Scope of Regional Lymph Node Surgery

1. Refer to *VCR Manual Appendix I* for site-specific regional lymph node listings. All other nodes not listed are considered distant sites and must be coded in the data item *RX Summ - Other Regional Site(s), Distant Site(s) or Distant Lymph Node(s).*
2. Record surgical procedures which aspirate, biopsy, or remove regional lymph nodes in aneffort to diagnose or stage disease in this data item.

3. There is no minimum number of nodes that must be removed; code to the farthest regional lymph nodes removed regardless of involvement with disease (e.g., the biopsy of contralateral lung lymph nodes).

4. Codes 0 – 7 are hierarchical; code the procedure that is numerically higher

   a. *Example 1:* There was an attempt at sentinel lymph node dissection but no lymph nodes were found in the pathological specimen: Code 2

   b. *Example 2:* Aspiration of a regional node for a pharynx primary to confirm histology of widespread metastasis: Code 1

   c. *Example 3:* Patient has a melanoma of the back; a sentinel lymph node dissection was done with the removal of one lymph node with the node confirmed to be negative: Code 2

   d. *Example 4:* Sentinel lymph node biopsy (SLNBx) of right axilla followed by right axillary lymph node dissection (ALND) during the same surgical procedure: Code 6

   e. *Example 5:* SLNBx of left axilla followed by a second procedure 5 days later by a left ALND: Code 7

5. Of two or more surgical procedures of regional lymph nodes are performed, the codes entered in the registry for each subsequent procedure must include the cumulative effect of all preceding procedures. Do not rely on software to determine the cumulative code.

   Example: A sentinel lymph node biopsy followed by a regional lymph node dissection at a later time is coded as 7.

6. For primaries of the meninges, brain, spinal cord, cranial nerves and other parts of the central nervous system (C70.0- C70.9, C71.0-C71.9, C72.0-C72.9), code to 9.
7. For lymphomas with a lymph node primary site, code 9. For extranodal lymphomas, refer to the site-specific codes for the primary site.

8. Unknown or ill-defined primary site or for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease, code to 9. See *VCR Manual, Part Three, General Information* for a list of these sites and conditions.

9. This data item may not be blank. If no regional lymph nodes were removed or no surgery was performed, record 0.

   Example 1: Aspiration of regional lymph node of a pharynx primary to confirm histology of widely metastatic disease is coded to 1.

   Example 2: A patient with a breast primary has a sentinel lymph node biopsy of the right axilla, followed by right axillary lymph node dissection during the same surgical event, code to 6.

10. Do not code *distant* lymph nodes removed during surgery to the primary site for this data item. Distant nodes are coded in the data field *Surgical Procedure/Other Site*

11. Refer to the current *AJCC Cancer Staging Manual* for site-specific identification of regional lymph nodes.

12. If the procedure coded in this item was provided to prolong a patient's life by controlling symptoms, to alleviate pain, or to make the patient more comfortable, then also record this surgery in the item *Palliative Care*

Special Instructions

If you can record multiple surgical procedures in your registry software, make sure the data item transmitted to the VCR as *RX Summ - Scope Reg LN Surg* reflects most extensive code.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery.*

RX Summ – Surgical Procedure/Other Site NAACCR Item #1294

Record the surgical removal of *distant lymph nodes* or other tissue(s) or organ(s) removed beyond the primary site. The removal of nonprimary tissue documents the extent of surgical treatment and is useful in evaluating the extent of metastatic involvement.

Codes and Definitions

Code	Definition
0	*None,* No surgical procedure of nonprimary site was performed. Diagnosed at autopsy.
1	*Nonprimary surgical procedure performed-* Nonprimary surgical resection to other site(s), unknown if the site(s) is regional or distant.
2	*Nonprimary surgical procedure to other regional sites-* Resection of regional site.
3	*Nonprimary surgical procedure to distant lymph node(s)-*Resection of distant lymph node(s)
4	*Nonprimary surgical procedure to distant site-* Resection of distant site.
5	*Combination of codes-* Any combination of surgical procedures 2, 3, or 4.
9	*Unknown-* It is unknown whether any surgical procedure of a nonprimary site was performed. Death certificate only.

Recording Surgery to Other Sites

1. If other tissue or organs are removed during primary site surgery that are not specifically defined by the site-specific *Surgical Procedure of the Primary Site* code, assign the highest numbered code that describes the surgical resection of other tissue or organs beyond the primary site surgical code.

2. Assign the highest numbered code that describes the surgical resection of other tissue or organs beyond the primary site surgical code.

3. Assign the highest numbered code that describes the surgical resection of *distant lymph node(s).*

4. Incidental removal of tissue or organs is not a "Surgical Procedure/Other Site."

5. *Surgical Procedure/Other Site* is collected for each surgical event even if surgery of the primary site was not performed.

6. Code 1 if any surgery is performed to treat tumors of unknown or ill-defined primary sites (C76.0–76.8, C80.9) or for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease (C42.0, C42.1, C42.3, C42.4 or M-9727, 9733, 9741-9742, 9764-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992).

7. If the procedure coded in this item was provided to prolong a patient's life by controlling symptoms, to alleviate pain, or to make the patient more comfortable, then also record this surgery in the item *Palliative Care.*

Special Instructions

If you can record multiple surgical procedures in your registry software, make sure the data item transmitted to the VCR as *RX Summ - Surg Oth Reg/Dis* reflects the most extensive (numerically highest) code.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery.*

Reason for No surgery of Primary Site — NAACCR Item #1340

Record the reason for no Surgery of Primary Site. Codes 1-9 are valid only when *RX Summ – Surg Prim Site* is coded 00. This data item provides information related to the quality of care and describes why primary site surgery was not performed.

Codes and Definitions

Code	Definition
0	Surgery of the primary site was performed.
1	Surgery of the primary site was not performed because it was not part of the planned first course treatment.
2	Surgery of the primary site was not recommended/performed because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.)
5	Surgery of the primary site was not performed because the patient died prior to planned or recommended surgery.
6	Surgery of the primary site was not performed; it was recommended by the patient's physician, but was not performed as part of the first course of therapy. No reason was noted in patient record.
7	Surgery of the primary site was not performed; it was recommended by the patient's physician, but this treatment was refused by the patient, the patient's family member, or the patient's guardian. The refusal was noted in patient record.
8	Surgery of the primary site was recommended, but it is unknown if it was performed. Further follow-up is recommended.
9	It is unknown whether surgery of the primary site was recommended or performed. Diagnosed at autopsy or death certificate only.

Recording Reason for No Surgery of Primary Site

1. Code 1 if the treatment plan offered multiple options and the patient selected treatment that did not include surgery of the primary site, or if the option of "no treatment" was accepted by the patient.

2. If *Surgical Procedure of Primary Site* is coded 98, code *Reason for No Surgery* to 1.

3. If the patient refused recommended surgical treatment, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended, code to 7.
4. If the treatment plan offered multiple choices, but it is unknown which treatment, if any, was provided, code to 9.

   Example 1: A patient with a primary tumor of the liver is not recommended for surgery due to advanced cirrhosis, code to 2.

   Example 2: A patient is referred to another facility for recommended surgical resection of a gastric carcinoma, but further information from the facility to which the patient was referred is not available, code to 8.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery.*

Date Radiation Started NAACCR Item # 1210

Record the date radiation started. It is important to be able to sequence the use of multiple treatment modalities and to evaluate the time intervals between the treatments. For some diseases, the sequence of radiation and surgical therapy is important when determining the analytic utility of pathologic stage information.

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank,

an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates Recording RX Date- Radiation*

1. Record the date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

   Example: Record February 12, 2022, as 20220212.

2. Collecting dates for each treatment modality allows sequencing of multiple treatments and evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence).

   Example: A patient enters your facility for interstitial radiation boost for prostate cancer that is performed on August 6, 2015. Just prior to this, the patient had external beam therapy to the lower pelvis that was stated on June 2, 2015, at another facility. Record the date as 20150603.

3. If the date radiation started is unknown, leave blank. If any part of the date is unknown, leave that part blank in the field.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Radiation (Beam)* or *RX Text - Radiation Other.*

RX Date – Radiation Flag **NAACCR Item #1211**

This flag explains why there is no appropriate value in the corresponding date field, *RX Date - Radiation.* As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Codes and Definitions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any radiation was given).
11	No proper value is applicable in this context. (for example, no radiation given).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, radiation was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, radiation therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up)
(blank)	A valid date value is provided in the item *RX Date - Radiation.*

Recording RX Date – Radiation Flag

1. Leave this item blank if *RX Date - Radiation* has a full or partial date recorded.

2. Code 12 if *RX Date - Radiation* cannot be determined, but the patient did receive first course radiation.

3. Code 10 if it is unknown whether any radiation was given

4. Code 11 if no radiation is planned or given.

5. Code 15 if radiation is planned but has not yet started and the start date is not yet available. Follow this patient for radiation treatment and update this item, *Date Radiation Started*, and all other radiation items.

Regional Treatment Modality NAACCR Item #1570

Record the dominant modality of radiation therapy used to deliver the most clinically significant regional dose to the primary volume of interest during the first course of treatment.

Codes and Definitions

Code	Label	Definition
00	No radiation treatment	Radiation therapy was not administered to the patient. Diagnosis at autopsy
20	External beam, NOS	The treatment is known to be by external beam, but there is insufficient information to determine the specific modality.
21	Orthovoltage	External beam therapy administered using equipment with a maximum energy of less than one (1) million volts (MV). Orthovoltage energies are typically expressed in units of kilovolts (kV).
22	Cobalt-60, Cesium-137	External beam therapy using a machine containing either a Cobalt- 60 or Cesium-137 source. Intracavitary use of these sources is coded 50 or 51.
23	Photons (2–5 MV)	External beam therapy using a photon producing machine with a beam energy in the range of 2–5 MV.
24	Photons (6–10 MV)	External beam therapy using a photon producing machine with a beam energy in the range of 6–10 MV.
25	Photons (11–19 MV)	External beam therapy using a photon producing machine with a beam energy in the range of 11–19 MV.
26	Photons (>19 MV)	External beam therapy using a photon producing machine with a beam energy of more than 19 MV.
27	Photons (mixed energies)	External beam therapy using more than one energy over the course of treatment.
28	Electrons	Treatment delivered by electron beam.
29	Photons & electrons mixed	Treatment delivered using a combination of photon and electron beams.
30	Neutrons, w/ or w/o photons/electrons	Treatment delivered using neutron beam.
31	IMRT	Intensity modulated radiation therapy, an external beam technique that should be clearly stated in patient record.
32	Conformal or 3-D therapy	An external beam technique using multiple, fixed portals shaped to conform to a defined target volume. Should be clearly described as conformal or 3-D therapy in patient record.

Code	Label	Definition
40	Protons	Treatment delivered using proton therapy.
41	Stereotactic radiosurgery, NOS	Treatment delivered using stereotactic radiosurgery, type not specified in patient record.
42	Linac radiosurgery	Treatment categorized as using stereotactic technique delivered with a linear accelerator.
43	Gamma Knife	Treatment categorized as using stereotactic technique delivered using a Gamma Knife machine.
50	Brachytherapy, NOS	Brachytherapy, interstitial implants, molds, seeds, needles, radioembolization, or intracavitary applicators of radioactive materials not otherwise specified.
51	Brachytherapy, Intracavitary, LDR	Intracavitary (no direct insertion into tissues) radio-isotope treatment using low dose rate applicators and isotopes (Cesium-137, Fletcher applicator).
52	Brachytherapy, Intracavitary,	Intracavitary (no direct insertion into tissues) radioisotope treatment using high dose rate after-loading applicators and isotopes.
53	Brachytherapy, Interstitial, LDR	Interstitial (direct insertion into tissues) radioisotope treatment using low dose rate sources.
54	Brachytherapy, Interstitial, HDR	Interstitial (direct insertion into tissues) radioisotope treatment using high dose rate sources.
55	Radium	Infrequently used for low dose rate (LDR) interstitial and intracavitary therapy
60	Radioisotopes, NOS	Iodine-131, Phosphorus-32, etc.
61	Strontium-89	Treatment primarily by intravenous routes for bone metastases.
62	Strontium-90	
80*	Combination modality, specified*	Combination of external beam radiation and either radioactive implants or radioisotopes* **This is a converted code and should not be coded for cases diagnosed on or after 1/1/2003.**
85*	Combination modality, NOS*	Combination of radiation treatment modalities not specified in code 80.* **This is a converted code and should not be coded for cases diagnosed on or after 1/1/2003.**
98	Other, NOS	Radiation therapy administered, but the treatment modality is not specified or is unknown.
99	Unknown	It is unknown whether radiation therapy was administered. Death certificate only

Recording Radiation Regional Treatment Modality

1. Radiation treatment modality will typically be found in the radiation oncologist's summary letter for the first course of treatment. Segregation of treatment components into regional and boost and determination of the respective treatment modality may require assistance from the radiation oncologist to ensure consistent coding.

2. Radiation treatment is frequently delivered in two or more phases which can be summarized as "regional" and "boost" treatments.

a. Regional Radiation is directed at the cancer site and a larger area of surrounding tissue.
b. Boost Radiation is a supplemental radiation dose targeted directly to the tumor site (or site of the original tumor). It is provided to a smaller area within the same volume as regional, to enhance the effect of the regional treatment.

Note The VCR only requires Regional Radiation to be reported for cases diagnosed January 1, 2018, and after.*

3. If only one radiation treatment modality is delivered to a patient and it is not specified as either regional or boost treatment, assume it is regional treatment and code accordingly.

4. In the event multiple radiation therapy modalities were employed in the treatment of the patient, record only the dominant modality.

5. In some circumstances, the boost treatment may precede the regional treatment.

   Example 1: A patient treated with breast conserving surgery has an interstitial boost at the time of the excisional biopsy. The implant uses Ir-192 and is left in place for three days. This is followed by 6 MV photon treatment of the entire breast. The boost was given before the regional treatment; code to 24.

6. For purposes of this data item, photons and x-rays are equivalent.

   Example 1: Patient receives 15 MV external pelvic treatment to 4,500 cGy for cervical carcinoma, and then receives two Fletcher intracavitary implants is coded to 25.

   Example 2: A patient with carcinoma of the parotid receives daily treatments of which 60% are delivered by 15 MV photons and 40% of the dose is delivered by 16 MV electrons is coded to 29.

7. Code IMRT or conformal 3D whenever either is explicitly mentioned.

8. Code radioembolization as brachytherapy.

9. Code PUVA (psoralen and long-wave ultraviolet radiation) *Other Treatment (*NAACCR Item #1420, Code 1)

10. A patient who is treated with I-125 seeds is coded as low dose brachytherapy (Code 53)

11. A patient who is treated with 4500cGy using 15 MV external pelvic radiation, then receives two Fletcher intracavitary implants: code to the external beam (Code 25)

12. A patient with prostate carcinoma receives pelvic irradiation at the reporting facility, then is referred to another facility for experimental proton therapy boost; code to External Beam, NOS (Code 20)

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Radiation (Beam) or RX Text - Radiation Other.*

Radiation/Surgery Sequence **NAACCR Item # 1380**

Record the sequencing of radiation and surgical procedures given as part of first course of treatment.

The sequence of radiation and surgical procedures given as part of first course of treatment cannot always be determined using the date on which each modality was started or performed.

This data item can be used to evaluate the timing of delivery of treatment more precisely to the patient.

Codes and Definitions

Code	Definition
0	*No radiation therapy and/or surgical procedures*- No radiation therapy given; and/or no surgery of the primary site; no scope of regional lymph node surgery; no surgery to other regional site(s), distant site(s), or distant lymph node (s). Diagnosed at autopsy. *Example*: Due to other medical conditions surgery was not performed.
2	*Radiation therapy before surgery*- Radiation therapy given before surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A patient has a large lung lesion and received radiation therapy prior to resection.
3	*Radiation therapy after surgery*- Radiation therapy given after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A patient received a wedge resection of a right breast mass with axillary lymph node dissection followed by radiation to the right breast.
4	*Radiation therapy both before and after surgery*- Radiation therapy given before and after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: Preoperative radiation was given to a large, bulky vulvar lesion and was followed by lymph node dissection. This was then followed by radiation therapy to treat positive lymph nodes.
5	*Intraoperative radiation therapy*- Intraoperative therapy given during surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A cone biopsy of the cervix is followed by intracavitary implant for IIIB cervical
6	*Intraoperative radiation therapy with other therapy administered before or after surgery* – Intraoperative radiation therapy given during surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node (s) with other radiation administered before or after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s).
9	*Sequence unknown*- Administration of radiation therapy and surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed and the sequence of the treatment is not stated in the patient record.

Recording Radiation/Surgery Sequence

1. Surgical procedures include:

    a. *RX Summ-Surg Prim Site* (surgery of the primary site)
    b. *RX Summ-Scope LN Surg* (scope of regional lymph node surgery)
    c. *RX Summ-Surg Oth Reg/Dis* (surgery to other regional site, distant site, or distant lymph node)
2. If all surgery procedures listed above are coded to 0, then this item should be coded to 0.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery, RX Text - Radiation (Beam) and RX Text - Radiation Other.*

Reason for No Radiation NAACCR Item #1430

This field records the reason that no regional radiation therapy was administered. When evaluating the quality of care, it is useful to know the reason that various methods of therapy were not used, and whether the failure to provide a given type of therapy was due to the physician's failure to recommended that treatment or due to the refusal of the patient, a family member or the patient's guardian.

Codes and Definitions

Code	Definition
0	Radiation therapy was administered
1	Radiation therapy was not administered because it was not part of the planned first course treatment; diagnosed at autopsy
2	Radiation therapy was not recommended/administered because it was contraindicated due to other patient risk factors (comorbid conditions, advanced age, progression of tumor prior to planned radiation, etc)
5	Radiation therapy was not administered because the patient died prior to planned or recommended therapy
6	Radiation therapy was not administered; it was recommended by the patient's physician, but was not administered as part of first course treatment. No reason was noted in patient's record
7	Radiation therapy was not administered; it was recommended by the patient's physician, but this treatment was refused by the patient, the patient's family member, or the patient's guardian. The refusal was noted in patient's record.
8	Radiation therapy was recommended but it is unknown whether it was administered,
9	It is unknown if radiation therapy was recommended or administered; Death certificate cases only

Recording Reason for No Radiation

1. If *Regional Treatment Modality* (NAACCR Item #1570) is coded 00, then record the reason based on documentation in patient record.

2. Code 1 if the treatment plan offered multiple alternative treatment options and the patient selected treatment that did not include radiation therapy.

3. Code 7 if the patient refused radiation therapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.

4. Code 8 if it is known that a physician recommended radiation treatment, but no further documentation is available yet to confirm its administration.

5. Code 8 to indicate referral to a radiation oncologist was made and the registry should follow to determine whether radiation was administered. If follow-up to the specialist or facility determines the patient was never there and no other documentation can be found, code 1.

    a. Cases coded to 8 should be followed and updated to a more definitive code as appropriate.

6. Code 9 if the treatment plan offered multiple alternative treatment options, but it is unknown which treatment, if any, was provided.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Surgery, RX Text - Radiation (Beam) and RX Text - Radiation Other.*

Date Chemotherapy Started NAACCR Item #1220

Record the date chemotherapy started. It is important to be able to sequence the use of multiple treatment modalities and to evaluate the time intervals between the treatments. Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates Recording Date Chemotherapy Started*

1. Record the date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

    Example: Record February 12, 2022, as 20220212.

a. Record the first or earliest date on which chemotherapy was administered. This date corresponds to administration of the agents coded in *Chemotherapy* (NAACCR Item #1390)

2. Collecting dates for each treatment modality allows sequencing of multiple treatments and evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence).

   Example: A patient enters your facility for radiation therapy for breast cancer that is performed on August 6, 2022. Just prior to this, the patient had two courses of Taxotere that was stated on June 2, 2022, at another facility. Record the date as 20220603.

3. If the date radiation started is unknown, leave blank. If any part of the date is unknown, leave that part blank in the field.

   a. If the exact date chemotherapy started is not available, record an approximate date; refer to *VCR Manual Part Three, General Instructions*

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, Chemo Text*

RX Date – Chemo Flag NAACCR Item #1221

This flag explains why there is no appropriate value in the corresponding date field, *RX Date - Chemo.*As part of an initiative to standardize date fields, date flag fields were introduced toaccommodate non-date information that had previously been transmitted in date fields.

Codes and Definitions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any chemotherapy was given).
11	No proper value is applicable in this context (for example, no chemotherapy given).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, chemotherapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, chemotherapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up)
(blank)	A valid date value is provided in the item *RX Date - Chemo*

Coding Instructions

1. Leave this item blank if *RX Date - Chemo* has a full or partial date recorded.

2. Code 12 if *RX Date - Chemo* cannot be determined, but the patient did receive first course chemotherapy.

3. Code 10 if it is unknown whether any chemotherapy was given.

4. Code 11 if no chemotherapy is planned or given.

5. Code 15 if chemotherapy is planned but has not yet started and the start date is not yet available. Follow this patient for chemotherapy treatment and update this item, *Date Chemo Started*, and all other chemotherapy items.

Chemotherapy NAACCR Item #1390

Record the type of chemotherapy administered as first course of treatment at your institution and at all other institutions. If chemotherapy was not administered, then this item records the reason it was not administered to the patient. Chemotherapy consists of a group of anti-cancer drugs that inhibit the reproduction of cancer cells by interfering with DNA synthesis and mitosis.

Systemic therapy may involve the administration of one or a combination of agents. This data item allows for the evaluation of the administration of chemotherapeutic agents as part of the first course of therapy. In addition, when evaluating the quality of care, it is useful to know the reason if chemotherapy is not administered.

Codes and Definitions

Code	Definition
00	None- chemotherapy was not part of the planned first course of therapy. Diagnosed at autopsy.
01	Chemotherapy NOS- Chemotherapy administered as first course therapy, but the type and number of agents is not documented in patient record.
02	Single-agent chemotherapy administered as first course therapy
03	Multiagent chemotherapy administered as first course therapy.
82	Chemotherapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Chemotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Chemotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Chemotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Chemotherapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a chemotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only

Recording Chemotherapy

1. If chemotherapy was not administered to the patient, and it is known it is not usually administered for this stage of cancer or type of condition, code to 00.

2. If the treatment plan offered multiple options and the patient selected treatment that did not include chemotherapy or if the patient selected no treatment, code to 00.

3. If it is known chemotherapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

4. If the patient refused recommended chemotherapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended, code to 87.

5. If it is not known whether chemotherapy is usually administered for this type and stage of cancer and there is no mention in the patient record whether it was recommended or administered, code to 99.

6. Code 88 if it is known that a physician recommended the patient receive chemotherapy but no further documentation is yet available to confirm its administration.

7. Chemo embolization should be coded to 01, 02, or 03, depending on the number of chemotherapeutic agents administered.

8. If chemotherapy was given as a radiosensitizer or radioprotectant, DO NOT code as chemotherapy.

9. If the managing physician changes one of the agents in a combination regimen, and the replacement agent belongs to a different group (See *VCR Manual, Part Three, Chemotherapy Group Classifications*) than the original agent, the new regimen represents the start of subsequent therapy, and *only the original agent or regimen is recorded as first course therapy*.

   Example: The physician documents a multimodality treatment plan that includes a combination regimen of chemotherapy. Velban is one of the drugs in the chemotherapy regimen. After two cycles of chemotherapy, the physician says the Velban will be replaced with Oncovin, and the chemotherapy will continue as planned. This is a continuation of the planned first course of therapy since they are in the same group.

10. If chemotherapy is given to prolong the patient's life by controlling symptoms, alleviating pain, or to make the patient more comfortable, then also record the chemotherapy administered in the item Palliative Care (NAACCR Item #3270)

11. Use *SEER RX* to determine if a drug is a chemotherapy agent. *SEER RX* is an interactive antineoplastic drug database, and it can be downloaded from this website: http://seer.cancer.gov/seertools/seerrx

12. The six drugs listed below were previously classified as chemotherapy are now classified as BRM/Immunotherapy. **This change is effective for cases diagnosed January 1, 2013 and forward.** For cases prior to 2013, the drugs should continue to be recorded as chemotherapy.

a. Alemtuzumab/Campath
b. Bevacizumab/Avastin
c. Rituximab
d. Trastuzumab/Herceptin
e. Pertuzumab/Perjeta
f. Cetuxumab/Erbitux

*Note: According to the standard set by *SEER RX Interleukin* are considered chemotherapy drugs, ***not*** immunotherapy.

Methods of Administration

Method	Definition
Intravenous (IV) Infusion	A small plastic needle is inserted into a vein. Chemotherapy flows from the IV bag/bottle, through the needle and catheter into the bloodstream.
Orally	Medication taken in the form of either a pill or liquid taken by mouth.
Intrathecal	Administered directly into the cerebrospinal fluid through a lumbar puncture needle into an implanted access device (e.g., Ommaya reservoir).
Pleural/pericardial	Injected directly into pleural or pericardial space to control malignant effusions.
Intraperitoneal	Injected into the peritoneal cavity.
Hepatic artery	Injected into a catheter inserted into artery that supplies blood to liver.

Clarification of Terms

Term	Definition
Adjuvant chemotherapy	Chemotherapy given after other methods have destroyed the clinically detectable cancer cells. Chemotherapy given to destroy micrometastases (undetectable cancer cells). The intent is to prevent or delay a recurrence. *Example:* The patient has breast cancer with positive nodes. The patient is clinically free of disease after a modified radical mastectomy. The patient is treated with adjuvant chemotherapy to prevent or delay disease recurrence.
Multimodality therapy Combined modality therapy Concurrent therapy	Chemotherapy given before, during, or after other treatment modalities (surgery, radiation) as a part of the treatment plan.
Neo-adjuvant therapy	Given prior to surgical resection or radiation therapy to reduce the bulk of a locally advanced primary cancer. *Example*: A patient with locally advanced breast cancer receives chemotherapy to reduce tumor size. Chemotherapy is followed by a modified radical mastectomy.
Treatment cycles	Chemotherapy agents are administered in treatment cycles, either singly or in a combination regimen of two or more chemotherapy drugs. The interval of a treatment cycle varies and chemotherapy may be administered for several weeks or several years.

Chemotherapy Group Classifications

Group	Subgroup	Example
Alkylating agents	Nitrogen mustard	Mechlorethamine (Mutagens), phenylalanine mustard (Memphians),
	Ethylenimine derivatives	Triethylene-thiophosphoramide (Thio-TEPA)
	Alkyl sulfonates	Busulfan (Myleran)
	Nitrosoureas	Carmustine (Lomustine)
	Triazines	DTIC (Dacarbazine)
Antimetabolites	Folic acid analogues	Methotrexate (Amethopterin, MTX)
	Pyrimidine analogues	5-fluorouracil (5-FU)
	Purine analogues	6-mercaptopurine (6-MP)
Natural products	Anti-tumor	Dactinomycin (Actinomycin D), doxorubicin (Adriamycin), daunorubicin (Daunomycin), bleomycin (Blenoxane), mitomycin C (Mutamycin)
	Plant alkaloids	Vinblastine (Velban, VBL), vincristine (Oncovin, VCR)
	Enzymes	l-asparaginase (Elspar)
Miscellaneous		Cis-diammine dichloroplatinum II (Cisplatin), hydroxyurea (Hydrea), procarbazine (Matulane)

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Chemo.*

Date Hormone Started NAACCR Item #1230

Record the date hormone therapy started. It is important to be able to sequence the use of multiple treatment modalities and to evaluate the time intervals between the treatments. Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date.

Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates*

Recording Date Hormone Therapy Started

1. Record the date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

   Example: Record February 12, 2022, as 20220212.

   a. Record the first or earliest date on which hormones were administered. This date corresponds to administration of the agents coded in *Hormone* (NAACCR Item #1400

2. Collecting dates for each treatment modality allows sequencing of multiple treatments and evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence).

3. If the date hormones started is unknown, leave blank. If any part of the date is unknown leave that part blank in the field.

a. If the exact date hormone therapy started is not available, record a partial date; refer to *VCR Manual Part Three, General Instructions*

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, Chemo Text*

Rx Date – Hormone Flag NAACCR Item #1231

This flag explains why there is no appropriate value in the corresponding date field, *Date Hormone Started (*NAACCR Item # 1230).

Codes and Definitions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any hormone therapy was given).
11	No proper value is applicable in this context (for example, no hormone therapy given).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, hormone therapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, hormone therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up)
(blank)	A valid date value is provided in the item *RX Date - Hormone*

Recording RX Date – Hormone Flag

1. Leave this item blank if *RX Date – Hormone* has a full or partial date recorded.

2. Code 12 if *RX Date - Hormone* cannot be determined, but the patient did receive first course hormone therapy.

3. Code 10 if it is unknown whether any hormone therapy was given

4. Code 11 if no hormone therapy is planned or given.

5. Code 15 if hormone therapy is planned but has not yet started and the start date is not yet available. Follow this patient for hormone therapy treatment and update this item, *Date Hormone Started*, and all other hormone therapy items.

Hormone Therapy (Hormone/Steroid Therapy) NAACCR Item #1400

Record the type of hormone therapy the patient received as a part of first course of treatment at your institution and all other institutions. If hormone therapy was not administered, then this item records the reason it was not administered to the patient. Hormone therapy consists of a group of drugs that may affect the long-term control of a cancer's growth. It is not usually used as a curative measure.

Hormone therapy achieves its effect on cancer tissue through change of the hormone balance. Included are the administration of hormones, agents acting via hormonal mechanisms, antihormones, and steroids.

Codes and Definitions

Code	Definition
00	None, hormone therapy was not part of the planned first course of therapy. Diagnosed at autopsy.
01	Hormone therapy administered as first course therapy.
82	Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Hormone therapy was not administered because the patient died prior to planned or recommended therapy.
86	Hormone therapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Hormone therapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Hormone therapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a hormonal agent(s) was recommended or administered because it is not stated in patient record. Death certificate only

Recording Hormone Therapy

1. Hormones, agents acting via hormonal mechanisms, and antihormones (cancer-directed only) are to be coded for all sites (primary and metastatic).

2. Prednisone

a. Record prednisone as hormonal therapy when administered in combination with chemotherapy, such as MOPP (mechlorethamine, vincristine, procarbazine, prednisone) or COPP (cyclophosphamide, vincristine, procarbazine, prednisone).

b. Do not code prednisone as hormone therapy when it is administered for reasons other than cancer treatment.
Example 1: A patient has advanced lung cancer with metastases to the brain. The physician orders Decadron to reduce the edema in the brain and relieve the neurological symptoms. Decadron is not coded as hormone therapy.

Example 2: A patient with advanced disease is given prednisone to stimulate the appetite and improve nutritional status. Do not code the prednisone as hormone therapy.

3. Tumor involvement or treatment may destroy hormone-producing tissue. Hormone replacement therapy will be given if the hormone is necessary to maintain normal metabolism and body function. Do not code hormone replacement therapy as part of first course therapy.

   Example: Patients with breast cancer may be treated with aminoglutethimide (Cytadren, Elipten), which suppresses the production of glucocorticoids and mineralocorticoids. These patients must take glucocorticoid (hydrocortisone) and may also need a mineralocorticoid (Florinef) as a replacement therapy. Code Rx Summ- Hormone to 00, None.

4. If hormone therapy was not administered to the patient, and it is known it is not usually administered for this type and stage of cancer, code to 00.

5. If the treatment plan offered multiple options, and the patient selected treatment that did not include hormone therapy, code to 00.

6. Code 01 for thyroid replacement therapy which inhibits TSH (thyroid stimulating hormone). TSH is a product of the pituitary gland that can stimulate tumor growth.

7. If it is known hormone therapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

8. If the patient refused recommended hormone therapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended, code to 87.

9. If it is not known whether hormone therapy is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered, code to 99.

10. Use *SEER RX* to determine if a drug is a hormonal agent. *SEER RX* is an interactive antineoplastic drug data base and it can be downloaded from this website: http://seer.cancer.gov/seertools/seerrx/

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Hormone.*

Date Immunotherapy (BRM) Started NAACCR Item #1240

Record the date immunotherapy started. It is important to be able to sequence the use of multiple treatment modalities and to evaluate the time intervals between the treatments. Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date.

Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates.*

Recording Date Immunotherapy Started

1. Record the date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

Example: Record February 12, 2024, as 20240212.

a. Record the first or earliest date on which immunotherapy were administered. This date corresponds to administration of the agents coded in *Immunotherapy* (NAACCR Item #1240)

2. Collecting dates for each treatment modality allows sequencing of multiple treatments and evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence).

3. If the date Immunotherapy started is unknown, leave blank. If any part of the date is unknown, leave that part blank in the field.

b. If the exact date Immunotherapy started is not available, record a partial date; refer to *VCR Manual Part Three, General Instructions*

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, BRM Text*

Rx Date – BRM Flag NAACCR Item #1241

This flag explains why there is no appropriate value in the corresponding date field, *Date Immunotherapy Started (*NAACCR Item # 1240).

Codes and Definitions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any immunotherapy was given).
11	No proper value is applicable in this context (for example, no immunotherapy given).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, immunotherapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, immunotherapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up)
(blank)	A valid date value is provided in the item *RX Date - BRM*

Recording RX Date Immunotherapy Flag

1. Leave this item blank if *RX Date – Immunotherapy* has a full or partial date recorded.

2. Code 12 if *RX Date - Immunotherapy* cannot be determined, but the patient did receive first course hormone therapy.

3. Code 10 if it is unknown whether any immunotherapy was given

4. Code 11 if no immunotherapy is planned or given.

5. Code 15 if immunotherapy is planned, but has not yet started and the start date is not yet available. Follow this patient for immunotherapy treatment and update this item, *Date Immunotherapy Started*.

Immunotherapy (BRM) NAACCR Item #1410

Record the immunotherapy (biological response modifier, BRM) the patient received as a part of first course of treatment at the reporting institution and all other institutions. If immunotherapy was not administered, then this item records the reason it was not administered to the patient. Immunotherapy consists of biological or chemical agents that alter the immune system or change the host's response to the tumor cells.

Codes and Definitions

Code	Definition
00	None, immunotherapy was not part of the planned first course of therapy. Diagnosed at autopsy.
01	Immunotherapy administered as first course therapy.
82	Immunotherapy was not recommended/administered because it was contra-indicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Immunotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Immunotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Immunotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Immunotherapy was recommended, but it is unknown if it was administered.
99	It is unknown whether an immunotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.

Recording Immunotherapy

1. If immunotherapy was not administered to the patient, and it is known that it is not usually administered for this type and stage of cancer, code to 00.

2. If the treatment plan offered multiple options, and the patient selected treatment that did not include immunotherapy, code to 00.

3. If it is known immunotherapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

4. If the patient refused recommended immunotherapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended, code to 87.

5. If it is not known whether immunotherapy is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered, code to 99.

6. Use *SEER RX* to determine if a drug is an immunotherapy agent. *SEER RX* is an interactive antineoplastic drug database, and it can be downloaded from this website: http://seer.cancer.gov/tools/seerrx/

7. Immunotherapy includes:

Allogeneic cells	**Herceptin (Trastuzumab)***	**Perjeta(Pertuzumab)***
Avastin (bevacizumab)*	Interferon	Pyran copolymer
BCG	LAK cells	**Rituximab***
Campath (Alemtuzumab)*	Levamisole	Thymosin
Erbitux (Cetuxumab)*	MVE - 2	Vaccine therapy
		Virus therapy

**** changed for cases diagnosed 1/1/2013 and forward from chemotherapy***
Note: According to the standard set by *SEER RX* **Interleukin** is considered chemotherapy drugs, not immunotherapy.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - BRM.*

Hematologic Transplant and Endocrine Procedures NAACCR Item #3250

Record the systemic therapeutic *procedures* administered as part of the first course of treatment at this and all other facilities. If none of these *procedures* were administered, then this item records the reason they were not performed. These include bone marrow transplants, stem cell harvests, surgical and/or radiation endocrine therapy.

Codes and Definitions

Code	Definition
00	No transplant procedure or endocrine therapy was administered as part of first course therapy. Diagnosed at autopsy.
10	A bone marrow transplant procedure was administered, but the type was not specified.
11	Bone marrow transplant- autologous.
12	Bone marrow transplant- allogeneic.
20	Stem cell harvest and infusion.
30	Endocrine surgery and/or endocrine radiation therapy.
40	Combination of endocrine surgery and/or radiation with a transplant procedure. (Combination of codes 30 and 10, 11, 12, or 20.)
82	Hematologic transplant and/or endocrine surgery/radiation was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Hematologic transplant and/or endocrine surgery/radiation was not administered because the patient died prior to planned or recommended therapy.
86	Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Hematologic transplant and/or endocrine surgery/radiation was recommended, but it is unknown if it was administered.
99	It is unknown whether hematologic transplant and/or endocrine surgery/radiation was recommended or administered because it is not stated in patient record. Death certificate only.

Recording Hematologic Transplant and Endocrine Procedures

1. Bone marrow transplants should be coded as either autologous (bone marrow originally taken from the patient) or allogeneic (bone marrow donated by a person other than the patient). For cases in which the bone marrow transplant was syngeneic (transplanted marrow from an identical twin), the item is coded as allogeneic.

2. Stem cell harvests involve the collection of immature blood cells from the patient and the reintroduction by transfusion of the harvested cells following chemotherapy or radiation.

3. Endocrine irradiation and/or endocrine surgery

    a. Procedures that suppress the naturally occurring hormonal activity of the patient and thus alter or effect the long-term control of the cancer's growth.

    b. These procedures must be bilateral to qualify as endocrine surgery or endocrine radiation. If only one gland is intact at the start of treatment, surgery and/or radiation to that remaining gland qualifies as endocrine surgery or endocrine radiation.

4. Code 00 if a transplant or endocrine procedure was not administered to the patient, and it is known these procedures are not usually administered for this type and stage of cancer.

5. Code 00 if the treatment plan offered multiple options, and the patient selected treatment that did not include a transplant or endocrine procedure.

6. It is known a transplant or endocrine procedure is usually administered for this type and stage of cancer, but was not administered to patient, use code 82, 85, 86, or 87 to record reason why it was not.

7. If the patient refused a recommended transplant or endocrine procedure, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended, code to 87.

8. Use code 88 if a bone marrow or stem cell harvest was undertaken but was not followed by a rescue or reinfusion as part of the first course treatment.

9. If the hematologic transplant or endocrine procedure coded in this item was provided to prolong a patient's life by controlling symptoms, to alleviate pain, or to make the patient more comfortable, then also record the hematologic transplant or endocrine procedure.

10. provided in the item *Palliative Care* (NAACCR Item #3270)

11. If it is not known whether a transplant or endocrine procedure is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered, code to 99.

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text – Other*

Systemic/Surgery Sequence NAACCR Item#1639

Record the sequencing of systemic therapy and surgical procedures given as part of first course of treatment. The sequence of systemic therapy and surgical procedures given as part of first course of treatment cannot always be determined using the date on which each modality was started or performed. This data item can be used to more precisely evaluate the timing of delivery of treatment to the patient.

Codes and Definitions

Code	Definition
0	*No systemic therapy and/or surgical procedures*- No systemic therapy given; and/or no surgery of the primary site; no scope of regional lymph node surgery; no surgery to other regional site(s), distant site(s), or distant lymph node(s). Diagnosed at autopsy. *Example*: Due to other medical conditions surgery was not performed.
2	*Systemic therapy before surgery*- Systemic therapy given before surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A patient with prostate cancer received hormone therapy prior to radical prostatectomy.
3	*Systemic therapy after surgery*- Systemic therapy given after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A patient underwent a colon resection followed by a 5-FU based chemotherapy regimen.
4	*Systemic therapy both before and after surgery*- Systemic therapy given before and after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: A patient with breast cancer receives pre-operative chemotherapy followed by postoperative Tamoxifen.
5	*Intraoperative systemic therapy*- Intraoperative systemic therapy given during surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: Patient with an intracranial primary undergoes surgery at which time a glial wafer is implanted into the resected cavity

6	*Intraoperative systemic therapy with other therapy administered before or after surgery-* Intraoperative systemic therapy given during surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node (s) with other systemic therapy administered before or after surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s). *Example*: Patient with metastatic colon cancer receives intraoperative chemotherapy to the liver and postoperative 5-FU and leucovorin with irinotecan.
9	*Sequence unknown-* Administration of systemic therapy and surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed and the sequence of the treatment is not stated in the patient record. It is unknown if systemic therapy was administered and/or it is unknown if surgery of the primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed. Death Certificate only. *Example:* An unknown primary of the head and neck was treated with surgery and chemotherapy prior to admission, but the sequence is unknown.

Recording RX Summ-Systemic Sur Seq

1. *Systemic/Surgery Sequence* id used for patients diagnosed on or after January 1, 2006.

2. Surgical procedures include surgery of the primary site, scope of regional lymph node surgery, and surgery to other regional site, distant site, or distant lymph nodes.

3. If all surgery procedures listed above are coded to 0, then this item should be coded to 0.

4. If multiple first course treatment episodes were given such that both codes 4 and 7 seem to apply, use the code that defines the first sequence that applies.

   Example: The sequence: chemo then surgery then hormone therapy then surgery. This would be coded 4: Chemo then surgery then hormones.

Text

Text to support this data item must be recorded in specific text field. See *VCR Manual Part Three, Data Item Instructions, RX Text – Surgery; RX Text – Chemo; RX Text – BRM;* and *RX Text – Hormone.*

Date Other Treatment Started NAACCR Item #1250

Record the date on which other treatment started. It is important to be able to sequence the use of multiple treatment modalities and to evaluate the time intervals between the treatments.

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates.*

Recording Date Other Treatment Started

1. Record the date in year, month, day format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single-digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

   Example: Record February 12, 2022 as 20220212.

   a. Record the first or earliest date on which immunotherapy were administered. This date corresponds to administration of the agents coded in *Immunotherapy* (NAACCR Item #1240)

2. Collecting dates for each treatment modality allows sequencing of multiple treatments and evaluation of time intervals (from diagnosis to treatment and from treatment to recurrence).

3. If the date when *Other Treatment* started is unknown, leave blank. If any part of the date is unknown, leave that part blank in the field.

   1. If the exact date *Other Therapy* started is not available, record a partial date; refer to *VCR Manual Part Three, General Instructions*

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text: Other*

RX Date –Other Flag NAACCR Item #1251

This flag explains where there is no appropriate value in the corresponding date field, *Date Other Treatment Started*

Codes and Definitions

Code	Description
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any *Other Treatment* was given).
11	No proper value is applicable in this context (for example, no Other Treatment was given).
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, Other Treatment was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, Other Treatment is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up)
(blank)	A valid date value is provided in the item *RX Date - BRM*

Recording RX Date – Immunotherapy Flag

1. Leave this item blank if *RX Date – Other Treatment* has a full or partial date recorded.

2. Code 12 if *RX Date – Other Treatment* cannot be determined, but the patient did receive first course Other Treatment.

3. Code 10 if it is unknown whether any Other Treatment was given

4. Code 11 if no Other Treatment is planned or given.

5. Code 15 if Other Treatment is planned but has not yet started and the start date is not yet available. Follow this patient for immunotherapy treatment and update this item, *Date Immunotherapy Started*.

Other Treatment NAACCR Item #1420

Record other cancer-directed therapy received by the patient as part of the first course of treatment at the reporting institution and all other institutions. Other treatment includes therapies designed to modify or control the cancer cells that are not defined in *Surgery, Radiation,* or *Systemic Therapy* fields.

Codes and Definitions

Code	Label	Definition
0	None	All cancer treatment was coded in other treatment fields (surgery, radiation, systemic therapy). Patient received no cancer treatment. Diagnosed at autopsy.
1	Other	Cancer treatment that cannot be appropriately assigned to specified treatment data items (surgery, radiation, systemic). Use this code for treatment unique to hematopoietic diseases (see next page).
2	Other-Experimental	This code is not defined. It may be used to record participation in institution based clinical trials.
3	Other-Double Blind	A patient is involved in a double-blind clinical trial. Code the treatment actually administered when the double-blind trial code is broken.
6	Other-Unproven	Cancer treatments administered by nonmedical personnel.
7	Refusal	Other treatment was not administered. It was recommended by the patient's physician, but this treatment (which would have been coded 1, 2, or 3) was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the patient record.
8	Recommended; unknown if administered	Other treatment was recommended, but it is unknown whether it was administered.
9	Unknown	It is unknown whether other treatment was recommended or administered, and there is no information in the medical record to confirm the recommendation or administration of other treatment. Death certificate only.

Recording Other Treatment

1. Treatment for reportable hematopoietic diseases can be supportive care, observation, or any treatment that does not meet the usual definition in which treatment "modifies, controls, removes, or destroys proliferating cancer tissue." Such treatments include phlebotomy, transfusions, and aspirin, and should be coded 1.

    a. Phlebotomy may be called blood removal, bloodletting, or venesection.
    b. Transfusions may include whole blood, RBCs, platelets, plateletpheresis, fresh frozen plasma (FFP), plasmapheresis, and cryoprecipitate.

c. Aspirin (also known as ASA, acetylsalicylic acid, or by a brand name) is used as a treatment for essential thrombocythemia. Record ONLY aspirin therapy to thin the blood for symptomatic control of thrombocythemia.
    i. To determine whether aspirin is administered for pain, cardiovascular protection, or thinning of platelets in the blood, use the following general guideline:

d. Pain control is approximately 325–1000 mg every 3–4 hours.
e. Cardiovascular protection starts at about 160 mg/day.
f. Aspirin treatment for essential thrombocythemia is low dose, approximately 70-100 mg/day.

2. Do not code presurgical embolization that given for a purpose to shrink the tumor.

    a. Code 1 for embolization using alcohol as an embolizing agent.
    b. Code 1 for embolization to a site other than the liver where the embolizing agent is unknown.

3. Do not code ancillary drugs in this field. There is no coding scheme for ancillary drugs.

    Examples: Aredia, Allopurinol, G-CSF (growth stimulating factors), Epogen, Nupogen/Neupogen, Leucovorin

**Note:* This is a partial list. See *SEER RX* to determine if a drug is an ancillary drug. *SEER RX* is an interactive antineoplastic drug database, and it can be downloaded from this website: http://seer.cancer.gov/seertools/seerrx/

Text

Text to support this data item must be recorded in specific text fields. See *VCR Manual Part Three, Data Item Instructions, RX Text - Other.*

Guidelines for Reporting Text

Text Requirements

The VCR requires all records to include text information to support specified fields. The purpose of text is quality control. Text is used to validate data items, verify potential errors identified through standard edits, document clarifications, determine multiple primaries, and reconcile data item discrepancies when the same patient is submitted by several facilities.

Defensive abstracting, as this documentation is often called, is an absolute necessity for quality data.
Cancer abstracting software must include specific fields designed to document text as defined by NAACCR fields. These fields must be transmitted to the VCR in addition to the other required data items when electronic shipments are prepared.

Completion of Text Fields

Text should be complete and concise. The text fields must summarize all cancer information recorded in the medical record. Text must be completed for primary site, laterality, histology, grade, and collaborative stage or summary stage on every record. Text should be completed for pathology and other diagnostic and treatment text fields as appropriate for studies performed and treatment provided. If information is missing from the record, state that it is missing. The text fields should be used to document information that will support the accuracy of data so anyone reviewing the abstract will be able to justify the coded information.

Amount of Text

Quality of text is more important than amount or quantity of text. The most useful text is brief, concise, and addresses pertinent issues. Often it is necessary to use abbreviations to provide adequate descriptions within the limited size of the text fields. Use standard medical abbreviations whenever possible. Refer to *VCR Manual Appendix J* for a list of VCR acceptable abbreviations. Include dates (month, day, and year) when appropriate.

Note the maximum field lengths for each text field. These lengths indicate how many characters will be transmitted to the VCR. Since your abstracting software may provide you with more characters in each of these fields, make sure the most **important information is documented at the beginning** of the text field. Additional comments can be continued in empty text fields, including Remarks.

For text documentation that is continued from one text field to another, use asterisks or other symbols to indicate the connection with preceding text. Do not include irrelevant information. *Do not repeat information from other text fields*.

Text – DX Proc/PE NAACCR Item #2520

Information documenting the disease process should be entered manually from the medical record. Record text information from the history/physical examination that supports the diagnosis and history of the tumor as applicable. If information is missing from the record, state that it is missing. **Do not include irrelevant information.**

Source Records

The history/physical examination findings may be found in, but are not limited to, the following source records:

1. History and Physical Report
2. Consultation Reports
3. Progress Notes

Suggestions for Text

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date of physical exam
2. **Age, sex, race/ethnicity**
3. History that relates to cancer diagnosis.
4. Primary site.
5. Histology (if diagnosis prior to this admission).
6. Tumor location.
7. Tumor size.
8. Palpable lymph nodes.
9. Record positive and negative clinical findings. Record positive results first.
10. Impression (when stated and pertains to cancer diagnosis).
11. Treatment plan.

Data Item(s) to be verified using the text entered in this field:

1. Date of 1st Contact
2. Date of Diagnosis
3. Age at Diagnosis
4. Race 1 – 5
5. Spanish Hispanic Origin
6. Sex

Text – Dx Proc - X-Rays/Scans NAACCR Item #2530

Information documenting the disease process should be entered manually from the medical record. Record text information from diagnostic imaging reports as applicable. Document both

positive and negative findings and the date(s) of the imaging result(s). If information is missing from the record, state that it is missing. Do not include irrelevant information.

Source Records

The diagnostic imaging findings may be found in, but are not limited to, the following source records:

1. All Diagnostic X-ray reports including mammograms and CT scans.
2. History and Physical Report
3. Consultation Reports
4. Discharge Summary

Suggestions for Text

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date(s) of X-ray/Scan(s)
2. Age, sex, race/ethnicity (when given)
3. Primary site
4. Histology (if given)
5. Tumor location
6. Tumor size
7. Lymph nodes
8. Record positive and negative clinical findings. Record positive results first.
9. Distant disease or metastasis

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of Diagnosis
2. Primary Site
3. Laterality
4. Collaborative Stage variables
5. SEER Summary Stage 2000

Text – Dx Proc – Scopes NAACCR Item #2540

Information documenting the disease process should be entered manually from the medical record. Record text information from endoscopic examinations as applicable. Document both

positive and negative findings and the date(s) of the scope(s). If information is missing from the record, state that it is missing. Do not include irrelevant information.

Source Records:

The endoscopic examination findings may be found in, but are not limited to, the following source records:

1. Endoscopy Reports (i.e. Bronchoscopy, Colonoscopy, Laryngoscopy, Esophagoscopy)
2. History and Physical Report
3. Discharge Summary
4. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date(s) of endoscopic exam(s)
2. Primary site.
3. Histology (if given).
4. Tumor location.
5. Tumor size.
6. Lymph nodes.
7. Record positive and negative clinical findings. Record positive results first.

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of Diagnosis
2. Primary Site
3. Laterality
4. Histology
5. Collaborative Stage variables
6. SEER Summary Stage 2000
7. Surg Prim Site

Text – Dx Proc – Lab Tests NAACCR Item # 2550

Information documenting the disease process should be entered manually from the medical record. Record information from laboratory tests or marker studies other than

cytology/histopathology that are clinically diagnostic of cancer as applicable. Document pertinent positive and negative findings and the result(s) and date(s) of these test(s). If information is missing from the record, state that it is missing. Do not include irrelevant information.

Source Records:

The laboratory examination findings may be found in, but are not limited to, the following source records:

1. Laboratory Reports
2. History and Physical Reports
3. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Type of laboratory test/tissue specimen(s).
2. Record both positive and negative findings. Record positive test results first.
3. Information can include tumor markers, serum and urine electrophoresis, special studies, etc.
4. Date(s) of laboratory test(s).
5. Tumor markers included, but are not limited to:

a. Breast Cancer: Estrogen Receptor Assay (ERA), Progesterone Receptor Assay (PRA), Her2/neu.
b. Prostate Cancer: Prostatic Specific Antigen (PSA).
c. Testicular Cancer: Human Chorionic Gonadotropin (hCG), Alpha Fetoprotein (AFP), Lactate Dehydrogenase (LDH).

Data Item(s) to be verified/validated using the text entered in this field:

1. Primary Site
2. Grade
3. Diagnostic Confirmation
4. Collaborative Stage variables
5. Date of Diagnosis

Text – Dx Proc – Op NAACCR Item #2560

Information documenting the disease process should be entered manually from the medical record. *Record text information from all surgical procedures that provide information for staging*. Document both positive and negative findings and the date(s) of the procedure(s). If information is missing from the record, state that it is missing. Do not include irrelevant information.

Source Records:

The operative findings may be found in, but are not limited to, the following source records:

1. Operative Reports
2. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Dates and descriptions of biopsies and all other surgical procedures from which staging information was derived.
2. Information gained from "exploration" of tumor area, especially observations that indicate metastases but are not biopsied
3. Tissue removed
4. Size of tumor removed.
5. Documentation of residual tumor.
6. Number of lymph nodes removed.
7. Evidence of invasion of surrounding areas.
8. Evidence of invasion of surrounding areas
9. Evidence of metastases
10. Reason primary site surgery could not be completed

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of Diagnosis
2. RX Summ--Dx/Stg Proc
3. Diagnostic Confirmation

4. Primary Site
5. RX Summ--Surg Prim Site
6. Collaborative Stage SSF's
7. SEER Summary Stage 2000
8. Clinical and/or Pathological TNM and Stage
9. Reason for No Surgery

Text – Dx Proc – Path NAACCR Item #2570

Record text from cytology and histopathology reports to support the final pathologic diagnosis. Include all descriptive terms from the histology or cytology report to describe the specific diagnosis including nouns, adjectives, and phrases. Also include differential diagnoses, documentation to support unusual site/histology combinations, notes, comments, addenda, and results of consults and second opinions. Record the final diagnosis from slide reviews if applicable.

Either *Text-Histology Title* or *Text-Dx Proc-Path* must be completed on each record. Information to support the exact diagnosis has to appear in one of these two fields. *Text-Histology Title* is a 100 character field generally used to record clinical or other non-pathologic diagnoses; *Text-Dx Proc- Path* is a 1000 character field generally used to record histologically and cytologically confirmed diagnoses from pathology reports.

This field should also include text to support multiple primaries diagnosed simultaneously and discrepancies between pathology reports. For example, if a definitive surgery pathology report has a more specific or differing diagnosis than the biopsy report, document the physician's final diagnosis. Include text to clarify site and/or histology information for cases discussed at Cancer Conference, especially if the site was unknown.

Terminology

If the reporting facility considers the terminology of severe dysplasia or high-grade dysplasia of the colon as synonymous with carcinoma in-situ, follow the procedure described in *VCR Manual Part Three, Behavior*. Include text in this field to support the final pathologic diagnosis along with the statement "in-situ per pathologist". If any colon cases diagnosed with severe dysplasia and/or high-grade dysplasia are submitted to the VCR without the text documentation "in-situ per pathologist", the cases will either not be entered in the VCR database or they will be deleted since the terminology alone is not reportable.

Mixed or multiple histologies may have documentation of various phrases describing the tumor. When documenting the description of the tissue, include the terminology type in the description. These terms are important because they impact the ICD-O code assignment.

1. **Principal Tumor Type** - Phrases such as “predominantly” and “with features of” are often used to identify the principal tumor type. Use this information when recording text to support the histologic diagnosis.

2. **Non-Principal Tumor Type** - The phrases “with foci of”, “areas of” or “elements of” do not describe most of the tumor. These terms should be included in text even though they are not used to code the histologic type.

Source Records*:*

The pathology findings may be found in, but are not limited to, the following source records:

1. Pathology and Cytology Reports
2. Slide Consultation Reports
3. Autopsy Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date(s) of procedure(s)
2. Anatomic source of specimen
3. Type of tissue specimen(s)
4. Tumor type and grade (include all modifying adjectives [i.e., predominantly, with features of, with foci of, elements of, etc.])
5. Gross tumor size
6. Extent of tumor spread.
7. Involvement of resection margins
8. Number of lymph nodes involved and examined.
9. Record both positive and negative findings. Record positive test results first.
10. Note if pathology report is a slide review or a second opinion from an outside source (i.e., AFIP, Mayo, etc.)
11. Record any additional comments from the pathologist, including differential diagnoses considered and any ruled out or favored.

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of Diagnosis
2. Primary Site

3. Laterality
4. Histologic Type ICD-O-3
5. Grade
6. Collaborative Stage SSF's
7. Diagnostic confirmation
8. Surg Prim Site
9. Scope Reg LN Sur
10. Surg Oth Reg/Dis
11. SEER Summary Stage 2000
12. Clinical and/or Pathological TNM and Stage
13. Regional Nodes Positive
14. Regional Nodes Examined
15. RX Date—Surgery
16. Reason for No Surgery
17. Surg/Rad Seq
18. Systemic/Sur Seq

Text – Primary Site Title NAACCR Item #2580

Record text describing the primary site including subsite information. Always document laterality when the site is paired. Refer to the listing of Paired Sites in *VCR Manual Part Three, Laterality. Text-Primary Site Title* must be completed on each record. Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information.

Source Records:

The primary site and laterality may be found in, but are not limited to, the following source records:

1. Pathology Report
2. Operative Report
3. X-rays/Scans
4. Discharge Summary
5. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Include information on the location of the primary site of the tumor.
2. Include available information on tumor laterality.

Data Item(s) to be verified/validated using the text entered in this field:

1. Primary site
2. Laterality

Text – Histology NAACCR Item #2590

Information documenting the disease process should be entered manually from the medical record. Record text to support the patient's final diagnosis: clinical, other non-pathologic diagnosis, or histologic diagnosis including cell type, behavior, and grade (differentiation). If information is missing from the record, state that it is missing. Do not include irrelevant information.

Either *Text-Histology Title* or *Text-Dx Proc-Path* must be completed on each record. Information to support the exact diagnosis must appear in one of these two fields. *Text Histology Title* is a 100-character field generally used to record clinical or other non-pathologic diagnoses; *Text-Dx Proc- Path* is a 1000 character field generally used to record histologically and cytologically confirmed diagnoses from pathology reports.

Source Records:

The histologic diagnosis may be found in, but is not limited to, the following source records:

1. Pathology and Cytology Reports
2. History and Physical Report
3. Discharge Summary
4. Consultation Reports
5. Slide Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Information on histologic type and behavior.

2. Information on differentiation from scoring systems such as Gleason's Score, Bloom-Richardson, Grade, etc.

Data Item(s) to be verified/validated using the text entered in this field:

1. Histologic Type ICD-O-3
2. Behavior Code ICD-O-3
3. Grade

Text – Staging **NAACCR Item #2600**

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record text to support any Collaborative Stage SSF's not already supported in other text fields. This field is to record the T, N, M and Stage as either documented in the medical record or as assigned by a Cancer Registrar.

Example: The only information available is the TNM stage, record *Physician stated this case is a T1N1MO*.

For cases diagnosed prior to Jan. 1, 2016, record text information to support the Summary Stage code assigned according to SEER Summary Stage 2000 (SS2000.) For cases diagnosed after Jan. 1, 2018, Use Summary Stage 2018 .

Document the extension of the disease that justifies the Summary Stage based on imaging studies, lab tests, scopes, and operative procedures performed. Also include both positive and negative findings and appropriate dates not already recorded in other *Text-DX* fields. If information is not sufficient to support a specific Summary Stage code, record *unknown* in this field.

Source Records:

Information to determine Collaborative Stage data items and Summary Stage may be found in, but is not limited to, the following reports:

- Pathology Reports
- Operative procedures
- X-Rays/Scans
- Scopes
- Lab Tests
- Discharge Summary
- Consultations

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date(s) of procedure(s), including clinical procedures that provided information for assigning stage.
2. Organs involved by direct extension.
3. Size of tumor.
4. Status of margins.
5. Number and sites of positive lymph nodes.
6. Site(s) of distant metastasis.
7. Physician's specialty and comments.

Data Item(s) to be verified/validated using the text entered in this field:

1. RX Date--DX/Stg Proc
2. Collaborative Stage variables
3. SEER Summary Stage 2000
4. Regional Nodes Positive
5. Regional Nodes Examined
6. Surg Prim Site
7. Scope Reg LN Sur
8. Surg Oth Reg/Dis
9. Mult Tum Rept as One Prim
10. Laterality

Examples:

1. Work up and initial treatment for prostate primary included lung scan, bone scan, and CT/Pelvis. Based on these procedures, the Summary Stage is determined to be *Distant,* code 7. Document the following in the appropriate text fields:

   Text-Dx Proc-X-ray/Scan: Bone Scan 1/15/16 mets to pelvis; Lung scan 1/20/16 no evidence of metastatic disease; CT/Pelvis-1/15/16-positive iliac adenopathy.

   Text-Staging: Pelvic bone mets

2. Diagnosis of lymphoma and workup included CT scans and a bone marrow biopsy. Based on these procedures, the Summary Stage is determined to be *Regional NOS*, code Document the following in the appropriate text fields:

   Text-Dx Proc-X-ray/Scan: CT scans 1/15/16 - mediastinal and axillary LN suspicious for lymphoma, no pelvic or retroperitoneal adenopathy.
   Text-Dx Proc-Path: Bone marrow 2/01/16 negative.

   Text-Staging: Multiple LN regions above diaphragm

3. If the only documentation is that the patient was diagnosed two years ago and now is admitted in January 2022 for treatment of recently discovered bone metastases, record:

   Text-Staging: unknown at initial dx, bone mets 1/22

RX Text – Surgery NAACCR Item #2610

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. *Record all surgical procedures, including dates, performed as first course of treatment as applicable. Surgical procedures used to treat regional lymph nodes and other regional and/or distant sites as first course of treatment should be documented*. If applicable, text should also be included to describe the number of regional lymph nodes examined as part of the first course of treatment.

Source Records:

The surgical procedure information may be found in, but is not limited to, the following source records:

1. Operative Reports
2. Discharge Summary
3. Consultation Reports
4. History and Physical Report

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date of each procedure
2. Facility where each procedure was performed.
3. Type(s) of surgical procedure(s), including excisional biopsies and surgery to other and distant sites.
4. Regional tissues removed.

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX
2. RX Date Surgery
3. Surg Prim Site
4. Scope Reg LN Sur
5. Surg Oth Reg/Dis
6. Reason for No Surgery
7. Surgical Margins
8. Palliative Proc
9. Text-Place of Diagnosis
10. Surg/Rad Seq
11. Systemic/Sur Seq

RX Text – Radiation (Beam) NAACCR Item #2620

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record all beam radiation, including dates, given as first course of treatment as applicable.

Source Records:

The radiation information may be found in, but is not limited to, the following source records:

1. Radiation Records or treatment letters
2. Discharge Summary
3. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields. Prioritize entered information in the order of the fields listed below:

1. Date when radiation treatment began
2. Where treatment was given (e.g., at this facility, at another facility)

3. Type(s) of beam radiation (e.g., Orthovoltage, Cobalt 60, MV X-rays, Electrons, Mixed modalities)
4. Other treatment information (e.g., patient discontinued after five treatments; unknown if radiation was given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX
2. Radiation
3. Surg/Rad Seq
4. RX Date-Radiation
5. Rad Regional RX Modality
6. RX Date Radiation Ended
7. Rad Treatment Volume
8. Rad Location of RX

RX Text – Radiation Other NAACCR Item #2620

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record all other radiation, including dates, given as first course of treatment as applicable.

Source Records:

The other radiation treatment may be found in, but is not limited to, the following source records:

1. Radiation treatment letters
2. Discharge Summary
3. Consultation Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date treatment was started.
2. Where treatment was given (e.g., at this facility, at another facility)
3. Type(s) of non-beam radiation (e.g., High Dose rate brachytherapy, seed implant, Radioisotopes [I-131])
4. Other treatment information (e.g., unknown if radiation was given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX
2. Radiation
3. Surg/Rad Seq
4. RX Date-Radiation
5. Rad Regional RX Modality
6. RX Date Radiation Ended
7. Rad Treatment Volume
8. Rad Location of RX
9. Rad Boost RX Modality

RX Text – Chemo NAACCR Item #2640

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record all chemotherapy, including dates, administered as first course of treatment as applicable.

Source Records:

The chemotherapy treatment information may be found in, but is not limited to, the following source records:

1. Chemotherapy logbooks or treatment letters
2. Discharge Summary
3. Consultation Reports
4. History and Physical Report

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date when chemotherapy began
2. Where treatment was given (e.g., at this facility, at another facility)
3. Type of chemotherapy (e.g., name of agent(s) or protocol)
4. Other treatment information (e.g., treatment cycle incomplete, unknown if chemotherapy was given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX—CoC
2. RX Chemo
3. RX Date—Systemic
4. RX Date—Chemo
5. RX Summ--Systemic/Sur Seq

RX Text – Hormone NAACCR Item #2650

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record all hormone therapy, including dates, administered as first course of treatment as applicable.

Source Records:

The hormone therapy information may be found in, but is not limited to, the following source records:

- Discharge Summary
- Consultation Reports
- History and Physical Report

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date treatment was started.
2. Where treatment was given (e.g., at this facility, at another facility)
3. Type of hormone or antihormone (e.g., Tamoxifen)
4. Type of endocrine surgery or radiation (e.g., orchiectomy)
5. Other treatment information (e.g., treatment cycle incomplete; unknown if hormones were given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX—CoC
2. RX –Hormone
3. RX Date—Systemic

4. RX Date—Hormone
5. RX Summ--Systemic/Sur Seq

RX Text – BRM NAACCR Item # 2660

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record biological- response modifier treatment, including dates, administered as first course of therapy for cancer as applicable. This is also referred to as immunotherapy.

Source Records:

The biological-response modifier treatment information may be found in, but is not limited to, the following source records:

1. Discharge Summary
2. Consultation Reports
3. History and Physical Report

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date treatment began.
2. When treatment was given (e.g., at this facility, at another facility)
3. Type of BRM agent (e.g., Interferon, BCG)
4. BRM procedures (e.g., bone marrow transplant, stem cell transplant)
5. Other treatment information (e.g., treatment cycle incomplete; unknown if BRM was given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Course RX – CoC
2. RX--BRM
3. RX Date--BRM
4. RX -- Date Systemic
5. RX --Transplant/Endocrine RX --BRM
6. RX Summ--Systemic/Sur Seq

RX Text – Other NAACCR Item #2670

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information. Record all other treatment, including dates, performed as first course of treatment as applicable.

Source Records:

Other treatment may be found in, but is not limited to, the following source records:

1. Discharge Summary
2. Consultation Reports
3. History and Physical Reports

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Date treatment was started.
2. Where treatment was given (e.g., at this facility, at another facility)
3. Type of other treatment (e.g., blinded clinical trial, hyperthermia)
4. Other treatment information (e.g., treatment cycle incomplete; unknown if other treatment was given)

Data Item(s) to be verified/validated using the text entered in this field:

1. Date of 1st Crs RX
2. RX Date—Other
3. RX--Other

Text – Remarks NAACCR Item #2680

Information documenting the disease process should be entered manually from the medical record. If information is missing from the record, state that it is missing. Do not include irrelevant information.

1. Record text information not elsewhere provided for or as an overflow from other text fields. The following information should be included in this field as applicable to the case:

    a. Document the site, laterality if applicable, histology, and date of diagnosis for all known previous primaries.

    b. Document text to explain any unusual or potentially questionable entry on the abstract. This will reduce the need to re-pull medical records at a later date.

    c. Document text to note particular issues or clarifications that were resolved prior to completion of the abstract. For example, clarifications made with a physician through quality assurance studies.

Source Records*:*

Information for this field may be found in, but is not limited to, the following source records:

1. History and Physical Report
2. Pathology Reports
3. Discharge Summary
4. Consultation Reports
5. Cancer Conference Documentation

Suggestions for Text:

VCR-approved abbreviations should be utilized. Do not repeat information from other text fields.

Prioritize entered information in the order of the fields listed below:

1. Personal and family history of cancer.
2. Smoking, alcohol history
3. Comorbidities.
4. Information on sequence numbers if a person was diagnosed with another cancer out-of-state or before the registry's reference date.
5. Place of birth
6. Justification for unusual site/histology combinations.
7. Information clarifying anything unusual such as reason for reporting a case seemingly not reportable for that facility or reason for coding numerous fields as "unknown."

VIRGINIA SPECIFIC FIELD – DIOXIN EXPOSURE

Record the incidence of exposure to Agent Orange/Dioxin.

Codes and Definitions

CODE	DEFINITION
0	No evidence of dioxin exposure
1	Evidence of dioxin exposure
8	NA; patient is not a Viet Nam Veteran
9	Unknown if any dioxin exposure

Recording Dioxin Exposure

The Viet Nam war ended in 1972, with no further soldiers sent to Viet Nam. Therefore, if the patient is born after 1954, you may assume the patient is not a veteran of that war; code to 8.

VIRGINIA SATE SPECIFIC FIELD – VIET NAM VETERAN

Record the patient's Viet Nam service status.

Codes and Definitions

Code	Definition
0	Patient is not a Viet Nam veteran
1	Patient is a Viet Nam Veteran
8	NA; Patient was born after 12/31/1954
9	Unknown if the patient is a Viet Nam veteran

Recording Viet Nam Veteran

The Viet Nam war ended in 1972, with no further soldiers sent to Viet Nam. Therefore, if the patient is born after 1954, you may assume the patient is not a veteran of that war; code to 8.

VIRGINIA STATE SPECIFIC FIELD – TOBACCO HISTORY

Record the patient's history of tobacco use.

Codes and Definitions

CODE	DEFINITION
0	Never used
1	Cigarette smoker, current
2	Cigar/pipe smoker, current
3	Snuff/chew/smokeless, current
4	Combination use, current
5	Previous use
9	Unknown

Recording Tobacco History

1. If the patient has smoked in the past year, document the patient as a current smoker.
2. More than one year without having smoked is coded as 5 – Previous use.

VIRGINIA STATE SPECIFIC FIELD – NUMBER OF YEARS SMOKED

Record the number of pack years for the patient's smoking history.

Codes and Definitions

Code	Definition
000	Never used any tobacco products
001 - 249	Actual number of pack years between 1 and 249
250	>/= 250 pack years
995	Combination tobacco user
996	Cigar/pipe smoker
997	Smokeless tobacco user
998	Smoked, number of pack years unknown/not stated
999	Unknown if patient ever used tobacco products

Recording Number of Years Smoked

1. To calculate pack years, multiply the number of packs (of cigarettes) the patient smokes by the number of years the patient has smoked.

   Example 1: The patient states he has smoked 2 packs of cigarettes a day for 40 years. Code Number of Years smoked to 080.

   Example 2: The patient states he has smoked 2 cigars plus 1 pack of cigarettes perday for 50 years. Code to 995 – Combination tobacco user
   Example 3: The patient states he is not a smoker but he does chew tobacco. Code to 997 – Smokeless tobacco user.

   Example 4: The patient states he uses vapor cigarettes. Code to 997 – Smokeless tobacco user.

VIRGINIA STATE SPECIFIC FIELD – ALCOHOL USE HISTORY

Record the patient's alcohol use.

Codes and Definitions

Code	Definition
0	Patient never drank alcohol
1	Social drinker, 1-2 drinks/day
2	Social drinker, >2 drinks/day
3	Social drinker, NOS
4	Previous use of alcohol
9	Unknown if patient drinks alcohol

Recording Alcohol History

1. Document any information regarding the use of alcohol, including beer, wine and other alcoholic beverages.

   Example 1: The patient states he only drinks 2 or 3 beers per day on weekends. Code to 2 – drinks more than 2 drinks/day.

   Example 2: The patient states she drinks a glass of wine with dinner every day. Code to 1 – Social drinker.

   Example 3: The patient states he is a social drinker without further information. Code to 3, Social drinker, NOS.

2. The patient must be alcohol free for at least one year before they can be coded as previous use of alcohol.

VIRGINIA STATE SPECIFIC FIELD – FAMILY HISTORY

Record any information regarding family history of cancer.

Codes and Definitions

CODE	DEFINITION
0	No family history of cancer
1	Positive family history of cancer, NOS
2	Family history of this cancer
3	Family history of other cancer
4	Family history of this AND other cancer
9	Unknown if patient has a family history of cancer

Outcomes

Date of Last Contact or Death

NAACCR Item # 1750

Record the date of last contact or the date of death.

Beginning in 2010, the way dates are transmitted between facility registries and central registries was changed to improve the interoperability or communication of cancer registry data with other electronic record systems. Registry software may display dates in the traditional manner or in the interoperable format. Traditional dates are displayed in MMDDCCYY form, with 99 representing unknown day or month portions, and 99999999 representing a completely unknown date. Interoperable dates are displayed in CCYYMMDD form, with the unknown portions of the date filled with blank spaces. If a date is entirely blank, an associated date flag is used to explain the missing date. Flags are not used for software-generated dates.

For more information regarding dates, please see *Virginia Cancer Registry Manual, Part Three: Data Item Instructions, General Information, Coding Dates.*

Recording Date of Last Contact

1. Record date in month, day and year format (CCYYMMDD). Record the year in the first four spaces, the month in the fifth and sixth spaces, and the day in the last two spaces. A zero must precede single- digit months and days. See *VCR Manual Part Three, General Instructions* for allowable values.

2. Unknown (99) or approximation of month, day, century, or year is not acceptable when reporting to the VCR. Fictitious dates or default values are also not acceptable.

Exception: If a patient is known to have expired after discharge from your facility, the month and/or day may be reported as blank if the exact month and/or day is not known.

3. If the last contact with a patient is an inpatient admission, record the date of discharge.

4. If the last contact with the patient was an outpatient visit, record the outpatient date.

5. If the patient receives treatment after discharge record the date of the treatment.

   Example: The patient is admitted on November 1, 2022, and is discharged on November 3, 2022 and then starts his radiation treatment on December 1, 2022. The date of last contact is 20221201.

6. If a patient has multiple primaries, all records should have the same date of last contact.

7. If the patient is deceased, record the date of death.

**Note*: *Date of Last Contact* does not have to be submitted as a change or update if the patient is readmitted or expires after the initial record was submitted.

Date of Last Contact Flag NAACCR Item # 1751

This flag explains why there is no appropriate value in the corresponding date field, *Date of Last Contact or Death.*

As part of an initiative to standardize date fields, date flag fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Codes and Definitions

Code	Description
12	A proper value is applicable but is not known. This event occurred but the date is unknown (that is, the date of last contact is unknown).
(blank)	A valid date value is provided in the item *Date of Last Contact.*

Recording Date of Last Contact Flag

1. Leave this item blank if *Date of Last Contact* has a full or partial date recorded.
2. Code 12 if *Date of Last Contact* cannot be determined.

Vital Status — NAACCR Item #1760

Record the appropriate code for the patient's vital status as of the date recorded in data item *Date of Last Contact*. Use the most accurate information available.

Codes and Definitions

Code	Definition
0	Dead
1	Alive

Notes on Vital Status

1. Failure to find a patient on a list of deceased individuals does not constitute evidence that the patient is alive. *Vital Status* is not changed, but is neither the *Date of Last Contact or Death* changed. Unless more information is located, follow up of this patient has failed.

2. Vital Status does not have to be submitted as a change or update if the patient expires after the initial record was submitted.

3. The VCR periodically matches records on the VCR database against Virginia death certificate files. As a result of this match, ***the VCR will send to each hospital on a yearly basis a list of its reported patients who have expired.***

Follow Up Source — NAACCR Item #1790

This data item records the source from which the latest follow-up was obtained. It is used by registries to identify the most recent follow-up source.

Codes and Definitions

Code	Label	Definition

0	Reported Hospitalization	Hospitalization at another institution/hospital or fist admission to the reporting facility
1	Readmission	Hospitalization or outpatient visit at the reporting facility
2	Physician	Information from a physician
3	Patient	Direct contact with the patient
4	Department of Motor Vehicles	The Department of Motor Vehicles confirmed the patient has a current license
5	Medicare/Medicaid file	The Medicare or Medicaid office confirmed the patient is alive
7	Death Certificate	Information from the death certificate only
8	Other	Friends, relatives, employers, other registries, or any sources not covered by other codes
9	Unknown; not stated in the patient record	The follow-up source is unknown or not stated in the patient record

Case Administration

Abstracted By — NAACCR Item #570

Record the initials of the individual completing the abstract.

Special Instructions

1. Record the initials or assigned code of the individual who abstracted this record. Do not code the data entry person unless that person is also the abstractor.

Reporting Hospital/Facility Identification Number — NAACCR Item #540

Record the reporting facility identification (ID) number as described under special instructions below.

Special Instructions

1. For facilities with seven-digit FINs in the range of 6020009 – 6953290 that were assigned by the CoC before January 1, 2001, the coded FIN with consist of three leading zeros followed by the full seven-digit number.

2. For facilities with eight-digit FIN's greater than or equal to 10000000 that were assigned by the CoC after January 1, 2001, the coded FIN will consist of two leading zeros followed by the full eight-digit number.

3. Facilities that are part of an Integrated Network Cancer Program (INCP) *must* use the hospital-specific FIN in their data submission to the VCR.

4. Facilities that are not part of the CoC accreditation program may still have a FIN number; please see *Appendix XXX* for information.

Override Site/TNM Stage Group NAACCR Item #1989

This is used with the EDITS software to override the edits of the type *Primary Site, AJCC Stage Group*. This override flag allows identification of pediatric cancers that were staged according to a system other than the AJCC staging manual if they are not also AJCC staged. In that situation an otherwise stageable case may be coded 88 (not applicable) for all AJCC items. *For*

Edits of the type, *Primary Site, AJCC Stage Group*, check that the pathologic and clinical AJCC stage group codes are valid for the site and histology group according to the applicable *AJCC Cancer Staging Manual*, using the codes described for the items *Clinical Stage Group* (NAACCR Item #970) and *Pathological Stage Group* (NAACCR Item #910). Combination of site and histology not represented in any AJCC schema must be coded 88. Unknown codes must be coded to 99. Blanks are not permitted.

Since pediatric cancers whose sites and histologies have an AJCC scheme may be coded according to a pediatric scheme instead, use *Override Site/TNM-Stage Group* to indicate the case was coded according to a pediatric staging system if it was not also coded according to the AJCC manual. Pediatric stage groups should not be recorded in the *Clinical Stage Group* or *Pathological Stage Group* items. When neither clinical nor pathological AJCC staging is used for pediatric cases, code all AJCC items to 88. When any AJCC component is used to stage a pediatric case, follow the instructions for coding AJCC items and leave *Override Site/TNM Stage Group* blank.

Codes and Definitions

Code	Definition
Blank	Not reviewed; reviewed and corrected
1	Reviewed and confirmed as reported

Recording Override Site/TNM Stage Group

1. Leave bland if the EDITS program does not generate an error message for the edits.
2. Leave blank and correct any errors for the case if an item is discovered to be incorrect.
3. Code 1 if the case if confirmed to be a pediatric case that was coded using a pediatric coding system.

Override Age/Site/Morph — NAACCR Item # 1990

This is used with the EDITS software to override edits of the type: *Age, Primary Site, Morphology; Age, Primary Site Morph ICDO3-Adult,* and *Age, Primary Site, Morph IDCO3-Pediatric*

If the code combination generates an error message and review of the case indicates that the codes are correct for the case, then the override flag is used to skip the edit on future runs of the EDITS program.

Edits of the type *Age, Primary Site, Morphology; Age, Primary Site Morph ICDO3-Adult,* and *Age, Primary Site, Morph IDCO3-Pediatric* require review if a site-morphology combination occurs in an age group for which it is extremely rare or if the cancer was diagnosed in utero.

If the edit generates an error or warning message, check that the primary site and histologic type are coded correctly and that the age, date of birth, and date of diagnosis are correct.

Codes and Definitions

Code	Definition
Blank	Not reviewed; reviewed and corrected
1	Reviewed; age, site and morphology combination confirmed as reported
2	Reviewed; diagnosis in utero
3	Reviewed; both conditions apply

Recording Override Age/Site/Morph

1. Leave blank if the EDITS program does not generate an error message.
2. Leave blank and correct any errors for the case if an item is discovered to be incorrect.
3. Code 1 for an unusual occurrence of a particular age/site/histology combination for a give age has been confirmed by review to be correct.
4. Code 2 if the case was diagnosed in utero.
5. Code 3 if both conditions apply.

Override Surg/DX Conf — NAACCR Item # 2020

This item is used with EDITS software to override the edits *RX Summ-Surg Prim Site, Diag Conf (SEER IF76); RX Summ-Surgery Type, Diag Conf (SEER IF46);* and/or the edit *RX Summ – Surg Site 98-02, Diag Conf (SEER 106).*

If the code combination generates an error message and review of the case indicates that the codes are correct for the case, then the override flag is used to skip the edit on future runs of the EDITS program.

Edits of the type, *RX Summ – Surg Prim Site, Diag Conf,* check that cases with a primary site surgical procedure coded 20 – 90 are histologically confirmed. If the patient had a surgical procedure, most likely there was a microscopic examination of the cancer.

Codes and Definitions

Code	Definition
Blank	Not reviewed; reviewed and corrected
1	Reviewed and confirmed as reported

Recording Override Surg/DX Conf

1. Verify the surgery and diagnostic confirmation codes and correct any errors. Sometimes there are valid reasons why no microscopic confirmation is achieved with the surgery, for example, the tissue removed may be inadequate for evaluation.

2. Leave blank if the EDITS program does not generate an error message for edits of the type, *RX Summ-Surg Prim Site, Diag Conf*

3. Leave bland and correct any errors for the case if an item was discovered to be incorrect

4. Code 1 if review of all item in the error or warning message confirms that all are correct

System Codes (Electronic Reporting Only)

System codes reflect types of coding systems used, record processing dates, and other information regarding how the data were collected. These codes are required to be transmitted on cases submitted electronically. System codes are added to cases submitted on the VCR Report Form at the time of data entry at the VCR.

1. Registry hospitals using commercial or hospital-developed software are responsible for making sure the correct system codes are submitted. Since most are computer generated, the registrar must communicate problems in complying with VCR code requirements to software vendors or facility Information Systems personnel.

Required Codes and Definitions

Required Data Item	NAACCR Item #	VCR Specific Instructions
Record Type	10	Must always contain "**A**" for *Full case abstract type, including text data item;* length=22824.
Registry Type	30	Allowable codes: "**2**" for central registry or hospital consortium (not population based); and "**3**" for single hospital/freestanding center.
FIN Coding System	35	Must always contain "**2**" for COC FIN 10-digit codes.
NAACCR Record	50	Must always contain "**160**" for 2016 version (Version V16).
Race Coding Sys— Current	170	Must always contain "**7**" indicating 2000+ SEER & COC(added codes 15,16,17; removed 09)
Site Coding Sys— Current	450	Cases diagnosed on or after 01/1/2001 must always contain "**5**" for ICD-O-3; cases diagnosed before 1/1/2001 must always contain "**4**" for ICD- O-2; cases with an unknown *Date of Diagnosis* (99999999) and *Date of 1st Contact* on or after 01/01/2001 must always contain **"5"** for ICD-O-3; cases with an unknown *Date of Diagnosis* (99999999) and *Date of 1st Contact* prior to 01/01/2001 must always contain **"4"** for ICD-O-2.
Morph Coding Sys— Current	470	Cases diagnosed on or after 01/1/2001 must always contain "8" for ICD-O-3 plus 2008 WHO hematopoietic/lymphoid new terms used for conditions diagnosed 1/1/2010 and later; cases diagnosed before 1/1/2001 must always contain "**6**" for ICD- O-2 plus REAL and FAB codes; cases with an unknown *Date of Diagnosis* (99999999) and *Date of 1st Contact* on or after 01/01/2001 must always contain **"7"** for ICD-O-3; cases with an unknown *Date of Diagnosis* (99999999) and *Date of 1st Contact* prior to 01/01/2001
RX Coding Sys— Current	1460	Must always contain "**06**" for *Treatment data coded according to FORDS.*
Date Case	2090	Must contain the date abstract first passed all edits applied. Blank is not acceptable in any portion of the date.
Date Case Last	2100	Contains the latest date the case was modified after completion at the reporting facility.
Date Case Report Exported	2110	Must contain the date the reporting facility exported the electronic abstract to a file for transmission to the central registry. Blank is not acceptable in any portion of the date.
ICD-O-3 Conversion Flag	2116	Cases diagnosed on or after 1/1/2001 must contain "**0**" for *Primary site and morphology originally coded in ICD-O-3.*
COC Coding Sys— Current	2140	Cases diagnosed on or after 1/1/2003 must contain "**08**" for *FORDS.* Cases diagnosed prior to 1/1/2003 must contain "**07**" for *ROADS and 1998 supplement.*
Vendor Name	2170	*Commercial Software*: name and version number must always be included; *Hospital-Developed Software*: must always enter "HOSP" for name followed by version number or month/year system was developed or last modified; *AbstractPlus*: will contain name and version number as specified by the VCR.

Section Four

QUALITY CONTROL

Quality Control

The purpose of cancer data collection varies with the type and goals of the registry. The primary goal of hospital- based cancer registries is the improvement of patient care, and the primary goal of non-registry hospitals is to provide data to the central cancer registry. The primary objective of the central or population-based incidence registries is the determination of cancer rates and trends in the population. Whether data are reported to the Virginia Cancer Registry (VCR) or reported by the VCR, there is a universal need for the data collected in any type of registry to be of the highest quality.

Quality can be defined as fitness for use. To assure data are of sufficient quality for use in meeting registry goals, quality control must be an integral component of the data collection system. Quality control involves the systematic execution of a carefully planned set of activities to monitor data quality and take appropriate action to positively affect future quality.

Activities and procedures to assure data quality should focus on three areas: completeness, accuracy and timeliness. Completeness refers to both case ascertainment and data collection. Accuracy refers to how well the abstracted data reflect the patient's diagnosis and treatment. Timeliness measures how the abstracting and reporting process are accomplished according to an expected schedule.

Evaluation of completeness, accuracy, and timeliness is the first step in quality control. To be effective, the registry's quality control plan must also involve a continuous loop of monitoring, communication, and feedback.

The following two sections describe various strategies used by reporting facilities and the VCR to assure data are as complete, accurate and timely as possible. The activities described for reporting facilities will enhance compliance to VCR reporting standards. Since communication and feedback are essential to the success of any quality control program, the major quality control procedures used by the VCR are described in order for hospital contacts to more fully understand the rationale for VCR requirements as well as verbal and written requests and questions made by the VCR.

Quality Control: Reporting Facilities

Reporting facilities must ensure cancer data collected and submitted to the VCR are complete, accurate, and timely. Although some facilities may incorporate additional activities to assure quality, at a minimum, all facilities must include the following procedures to meet VCR reporting requirements and standards.

Completeness

1. All areas where cancer patients are diagnosed or treated must be included in the casefinding system. This includes outpatient treatment areas, e.g., Radiation Therapy, Chemotherapy, Same Day Surgery Units, and Emergency Room. Review of pathology reports including private outpatient specimens and autopsy reports should also be included in casefinding.

2. Review of a Disease Index should be performed to verify all reportable cases are submitted to the VCR. If performed monthly, this review will simplify the annual reconciliation procedure (See *VCR Manual Part Four, Quality Control: VCR*) and aid in timeliness of reporting.

3. Facilities should check completeness of transmissions as follows:

    a. Check Totals: Verify the number of cases transmitted equals the number received by the VCR as indicated on the report *Records Accessioned by the Virginia Cancer Registry,* which is the report facilities receive back after the VCR has processed a shipment.

    b. Compare Listings: Compare the names on the report *Records Accessioned by the Virginia Cancer Registry* against your transmit list. If the lists differ, resolve the discrepancies, or contact the VCR.

    c. Maintain Listings: Keep all copies of the *Records Accessioned by the Virginia Cancer Registry* as verification of records received by the VCR. Retention for at least five years is strongly recommended; however, if space is limited, maintaining copies until your facility has had a VCR Quality Assessment Review for that specific year would be an acceptable alternative.

4. All data items required by the VCR must be submitted for each record. For a listing of these items, refer to *VCR Manual Appendix K, Required Data Set for Reporting Facilities.* Entries for each required data item must include specific demographic, diagnostic and treatment information that accurately reflects what is documented in the health record.

Accuracy

1. The *Required Data Set for Reporting Facilities* includes text fields. The reason for requiring text is to enhance data accuracy. These fields give hospitals the ability to convey information to validate data items, document clarifications, reconcile data item discrepancies, support unusual site/histology combinations, provide history of previous cancers/reportable tumors, and explain any unusual or potentially questionable entry on the abstract. Required text information must be recorded in the designated text fields.

2. Computer edits should be an integral component of any electronic abstracting system. These edits should check for completion of all required fields, allowable values and ranges, and inter-field consistency. Edit checks should be performed on each completed abstract. Abstracts should be re-edited if any changes are made. Abstract Plus includes the VCR required edits. A copy of the VCR edits is also provided to the cancer registry software vendors.

3. The completed abstract should be visually reviewed to identify errors not detectable by the computer. Inconsistencies among data items could be identified when comparing text to coded items, e.g., stage coded to local with text indicating lymph node involvement.

4. Physicians should serve as resources to the abstractor. They should be consulted when questions arise during abstracting. Physician input may assist in identifying a primary site or provide clarification of conflicting statements or reports in the health record. Documentation of the physician input should be included in the text to support abstracted data.

Timeliness

1. 90% of the records must be received by the VCR within 180 days from *Date of Inpatient Disch* if an inpatient *or Date of 1st Contact* if an outpatient.

2. The first working day in July is the deadline for submitting all reportable cases seen at the reporting facility during the previous year.

3. This schedule should be followed to assure abstracts are received by the VCR within the required 180 days.

Cases with a Date of Inpatient Disch/Date of 1st Contact in:	Submit on or before the 1st of:
January	June of same year
February	July of same year
March	August of same year
April	September of same year
May	October of same year
June	November of same year
July	December of same year
August	January of following year
September	February of following year
October	March of following year
November	April of following year
December	May** of following year

Example 1: All cases with a Date of Inpatient Disch/Date of 1st Contact on or between January 1 and January 31, 2006, must be mailed by June 1, 2006.

Example 2: All cases with a Date of Inpatient Disch/Date of 1st Contact on or between December 1 and December 31, 2006, should be mailed by June 1, 2007

** The VCR deadline has not changed. The four weeks between June 1st and July 1st should be used to perform Quality Assurance procedures to ensure all cases for the year have been identified and reported. These cases may fall into the 10% over 180 days. This is expected and acceptable.

Note: This schedule should be used by reporting facilities as a guideline to assess timeliness of reporting but will not be used by the VCR to determine exact timeliness rates for reporting facilities. Reports provided by the VCR will show specific timeliness rates based on the number of days from *Date of Inpatient Disch* or *Date of 1st Contact* and the date the abstract was received by the VCR.

4. At a registry hospital, after identifying a potential case for the registry from a casefinding source, cases unable to be completely abstracted may be placed in an electronic suspense file. At a non-registry hospital using Abstract Plus software, incomplete abstracts may be saved as incomplete creating an electronic suspense file. A system should be in place to monitor these cases, so they are completed and reported

to the VCR in a timely manner. A case will not export out of Abstract Plus if it is incomplete.

5. Review the Disease Index monthly using the reporting schedule as a guide to verify all reportable cases have been submitted within the 180-day timeframe.

Quality Control – VCR

Quality control activities are conducted by the VCR to assure data in the central registry are complete, accurate, and timely. These activities fall into three categories: 1) internal procedures as data are processed, 2) on-site quality assessment reviews, and 3) trainings conducted by VCR staff or in conjunction with other organizations. These three major aspects of the VCR quality control program are described below.

Internal Quality Control Procedures

The quality control procedures described below are performed by the VCR routinely to enhance the quality of cancer data in the central cancer registry.

1. Completeness

    1. The VCR establishes reporting from sources required to report and reporting through state data exchange agreements to assure all reportable cases are received. The VCR reporting sources include the following:

        i. Acute Care Hospitals
        ii. Laboratories
        iii. Non-Hospital Sources
        iv. States with Data Exchange Agreements

    2. All hospitals, laboratories, outpatient care centers, and physicians are required to submit on the 1st of every month or the last working day before the 1st if the 1st falls on a weekend or holiday. A listing of hospitals that have not submitted for two consecutive months is generated monthly at the VCR. A VCR Representative will contacts hospitals appearing on this list and appropriate action is taken.

    3. An annual comparison is made of each hospital's Disease Index with the VCR database to assure all cases have been reported. Each hospital receives a listing of cases identified as not being reported to the VCR with instructions to review each record to determine if the case is reportable. Cases missed, but now identified, must be reported. Cases that are not reportable must have justification documented on

the listing explaining why the case is not reportable. Missed cases and listings must be returned to the VCR by the specified deadline.

4. VCR conducts a Death Clearance procedure annually. This process involves identifying Virginia Death Certificates with a reportable cause of death and matching them to the VCR files. Non-matched death certificates are potentially missed cases. Hospital contacts receive a listing of non-matched patients who expired at their hospital to determine if they were reportable. Missed cases must be reported. Cases that were not reportable must have justification documented on the listing. Missed cases and listings must be returned to the VCR by a specified deadline. At the conclusion of this process, the remaining non-matched cases are reviewed and may be abstracted at the VCR from the death certificates and defined as Death Certificate Only (DCO) cases. A DCO percentage (The number of DCO cases divided by the total number of incidence cases for that year) is computed. The VCR DCO percentage is measured against the North American Association of Central Cancer Registries (NAACCR) DCO standard, which states a registry should have fewer than 5% DCO's in a given year of incidence cases.

2. Accuracy

   a. Computer edits are performed on 100% of abstracts and consolidated records. The VCR utilizes a combination of North American Association of Central Cancer Registries (NAACCR), Surveillance, Epidemiology and End Results Reporting Program (SEER), and Commission on Cancer (COC) edits from the NAACCR metafile with VCR-developed edits added. These edits check for completion of all required fields, allowable ranges, allowable values, and interfield consistency. They check for invalid entries such as impossible site/histology combinations or flag unusual entries for review. VCR Field Representatives follow-up with hospital contacts and provide feedback on errors found.
   b. Records are reviewed for consistency between coded data items and text documentation. This type of review is performed to detect discrepancies not detectable by the computer. VCR Field Representatives provide hospital contacts with feedback on these reviews.

   c. The frequency of *"unknown"* or code for unknown in data items, such as age at diagnosis, sex, race, state, and county is monitored and follow-up is performed to eliminate as many unknowns as possible.

   d. To assure accuracy of incidence statistics, an incidence file containing all cases for a specified time period is created and a report is generated listing all cases alphabetically by last name. Cases with the same name are identified. Those

determined to be the same person are then reviewed manually to determine whether they represent multiple primaries or duplications. While cases determined to be duplicates are deleted from the file, source records are retained and attached to the appropriate tumor in the VCR database.

3. Timeliness

    a. VCR Timeliness Standard - At least 90% of the records must be received by the VCR within 180 days from *Date of Inpatient Disch* if an inpatient or *Date of 1st Contact* if an outpatient.

    b. The first working in July is the deadline for submitting all reportable cases diagnosed/treated in the prior year.

    c. Hospitals are notified annually of the closeout deadline and requested to notify the VCR when they anticipate closing out. Failure to meet the July deadline results in referral of the hospital to the Department of Health, Bureau of Facility Licensure and Certification.

On-Site Quality Assessment Review

Quality Assessment Reviews are routinely conducted at hospitals. Hospitals are scheduled for a review when certain criteria are met, such as unsatisfactory results from previous review, inability to perform annual reconciliation, reporting problems, and time lapse since last review. The reviews are designed to determine the quality of reporting to the VCR. During the review, casefinding completeness, data quality and timeliness of reporting are evaluated by VCR.

1. Hospitals receive a scheduling letter one month prior to the date of review. The scheduling letter includes:

    a. Date and time of the review.

    b. *Hospital Index Verification* list of patients included on the hospital's Disease Index not reported to the VCR (Index from previous year's reconciliation is used)

    c. Request to have autopsy reports from the year being reviewed available the day of the review.

    d. *Data Quality Evaluation* list of randomly selected cases reported to the VCR within the last twelve months that will be re-abstracted by a VCR Field Representative

e. Request for private area with adequate workspace for the VCR Field Representative

**Note:* If a hospital did not submit a Disease Index during the reconciliation procedure, they will receive their scheduling letter two months prior to the review. The hospitals have three weeks from the date of the letter to submit a Disease Index to the VCR.

2. Hospitals must have the following available the day of the review:

   a. Health records for the patients on the *Hospital Index Verification* list. The patient's complete health record must be pulled including all inpatient and outpatient records.

   b. Autopsy reports for the year being reviewed.

   c. Health records and copies of corresponding abstracts for all the cases on the *Data Quality Evaluation* list. All admissions used to abstract the case must be pulled. *Note*: Additional health records may be requested on the day of review.

3. The VCR Representative will evaluate the following during their visit:

   a. The first component of the quality assessment review is the casefinding audit. The audit is a review and evaluation of the effectiveness of a facility's casefinding mechanisms used in submitting reportable cases to the VCR. The objective of the audit is to determine whether all reportable records are being identified and submitted to the VCR to ensure VCR data accurately reflect cancer incidence in Virginia.

      The VCR Representative reviews the health records (and/or cancer registry files, if applicable) from the *Hospital Index Verification* list to determine if these records are reportable and to identify any weaknesses or trends in a hospital's casefinding procedures. The autopsy reports are reviewed to ensure all autopsy reports with a reportable condition have been reported to the VCR, including incidental findings.

      If not included in the Disease Index, pathology, cytology, autopsy, chemotherapy, radiation therapy, and other outpatient clinic information and related health records are reviewed to insure the reporting of eligible records from these sources.

      The results of the casefinding audit are defined in terms of a completeness rate. The completeness rate indicates the percentage of reportable records submitted by the hospital to the VCR. The VCR acceptable completeness rate is 97 to 100%.

b. The second component of the quality assessment review is a reabstracting study to evaluate data quality. Reabstracting compares the information in the health record to the previously abstracted data to determine the accuracy and completeness of the data. The VCR Representative re-abstracts the cases on the Data Quality Evaluation list to identify any inaccurate information or misunderstandings of reporting guidelines.

   The results of the reabstracting study are defined in terms of an accuracy rate. The accuracy rate indicates the percentage of data items reported correctly. The VCR standard for data quality is an accuracy rate of 97 to 100%.

c. The third component of the quality assessment review is timeliness of reporting. For the VCR to provide timely statistics and reports, facilities must submit data in a timely manner.

   The timeliness standard established by the VCR to monitor hospital reporting requires at least 90% of the hospital's records be received by the VCR within 180 days from *Date of Inpatient Disch* if an inpatient or *Date of 1st Contact* if an outpatient. To evaluate timeliness, the VCR Field Representative uses reports generated by the VCR and assessment of cases currently being abstracted based on the reporting schedule (See *VCR Manual, Quality Control, VCR Reporting Schedule*).

d. At the conclusion of the review, the VCR Field Representative discusses findings and recommendations with appropriate hospital personnel during a summation conference. This provides the VCR Field Representative the opportunity to provide feedback relative to areas of compliance and concern. It also enables hospital personnel to be aware of the results of the review and ask questions regarding the findings and recommendations.

e. The VCR sends a written report documenting findings, problems, recommendations, and rates to the hospital. A listing of missed records identified as reportable to the VCR and a listing of data items requiring correction are included in the report.

f. Hospital staff must submit the missed records and corrections to the VCR within 30 days of when they receive the report.

g. Upon completion of the Quality Assessment Review Report, completeness and accuracy rates by year review performed are entered into a tracking system at the VCR. This information provides a concise summary of review results for use in determining a hospital's performance over time and in identifying hospitals requiring more intense follow up.

APPENDIX A:

CODE OF VIRGINIA

Code of Virginia

Sections from the *Code of Virginia* related to reporting cancer to the Virginia Cancer Registry

The entire *Code* can be accessed at:
http://law.lis.virginia.gov/vacode/32.1-70/

§ 32.1-70. Information from hospitals, clinics, certain laboratories and physicians supplied to Commissioner; statewide cancer registry.

A. Each hospital, clinic and independent pathology laboratory shall make available to the Commissioner or his agent's information on patients having malignant tumors or cancers. A physician shall report information on patients having cancers unless he has determined that a hospital, clinic, or in-state pathology laboratory has reported the information. This reporting requirement shall not apply to basal and squamous cell carcinoma of the skin.

Such information shall include the name, address, sex, race, diagnosis, and any other pertinent identifying information regarding each such patient and shall include information regarding possible exposure to Agent Orange or other defoliants through their development, testing or use or through service in the Vietnam War. Each hospital, clinic, independent pathology laboratory, or physician shall provide other available clinical information as defined by the Board of Health.

B. From such information the Commissioner shall establish and maintain a statewide cancer registry. The purpose of the statewide cancer registry shall include but not be limited to:

1. Determining means of improving the diagnosis and treatment of cancer patients.

2. Determining the need for and means of providing better long-term, follow-up care of cancer patients.

    a. Conducting epidemiological analyses of the incidence, prevalence, survival, and risk factors associated with the occurrence of cancer in Virginia.

3. Collecting data to evaluate the possible carcinogenic effects of environmental hazards including exposure to dioxin and the defoliant, Agent Orange.

4. Improving rehabilitative programs for cancer patients.

5. Assisting in the training of hospital personnel.

6. Determining other needs of cancer patients and health personnel.

§ 32.1-70.2. Collection of cancer case information by the Commissioner.

A. Using such funds as may be appropriated therefore, the *Commissioner or his designee may perform on-site data collection of the records of patients having malignant tumors or cancers at those consenting hospitals, clinics, independent pathology laboratories and physician offices required to report information of such patients pursuant to the reporting requirements of § 32.1- 70, in order to ensure the completeness and accuracy of the statewide cancer registry.*

B. The selection criteria for determining which consenting hospitals, clinics, independent pathology laboratories and physician offices may be subject to on-site data collection under the provisions of this section shall include but shall not be limited to: (i) expected annual number of cancer case reports, (ii) historical completeness and accuracy of reporting rates, and (iii) whether the facility maintains its own cancer registry.

C. The Board of Health shall promulgate regulations necessary to implement the provisions of this section.

§ 32.1-71. Confidential nature of information supplied; publication; reciprocal data-sharing agreements.

A. The Commissioner and all persons to whom information is submitted in accordance with § 32.1-70 shall keep such information confidential. Except as authorized by the Commissioner in accordance with the provisions of § 32.1-41, no release of any such information shall be made except in the form of statistical or other studies which do not identify individual cases.

B. The Commissioner may enter into reciprocal data-sharing agreements with other cancer registries for the exchange of information. Upon the provision of satisfactory assurances for the preservation of the confidentiality of such information, patient-identifying information may be exchanged with other cancer registries which have entered into reciprocal data-sharing agreements with the Commissioner.

§ 32.1-40. Authority of Commissioner to examine medical records.

Every practitioner of the healing arts and every person in charge of any medical care facility shall permit the Commissioner or his designee to examine and review any medical records

which he has in his possession or to which he has access upon request of the Commissioner or his designee during investigation, research or studies of diseases or deaths of public health importance. No such practitioner or person shall be liable in any action at law for permitting such examination and review.

§ 32.1-41. Anonymity of patients and practitioners to be preserved in use of medical records. The Commissioner or his designee shall preserve the anonymity of each patient and practitioner of the healing arts whose records are examined pursuant to § 32.1-40 except that the Commissioner, in his sole discretion, may divulge the identity of such patients and practitioners if pertinent to an investigation, research or study. Any person to whom such identities are divulged shall preserve their anonymity.

§ 32.1-27. Penalties, injunctions, civil penalties, and charges for violations.

A. Any person willfully violating or refusing, failing, or neglecting to comply with any regulation or order of the Board or Commissioner or any provision of this title shall be guilty of a Class 1 misdemeanor unless a different penalty is specified.

B. Any person violating or failing, neglecting, or refusing to obey any lawful regulation or order of the Board or Commissioner or any provision of this title may be compelled in a proceeding instituted in an appropriate court by the Board or Commissioner to obey such regulation, order or provision of this title and to comply therewith by injunction, mandamus, or other appropriate remedy or, pursuant to § 32.1-27.1, imposition of a civil penalty or appointment of a receiver.

C. Without limiting the remedies which may be obtained in subsection B of this section, any person violating or failing, neglecting or refusing to obey any injunction, mandamus or other remedy obtained pursuant to subsection B shall be subject, in the discretion of the court, to a civil penalty not to exceed $25,000 for each violation, which shall be paid to the general fund, except that civil penalties for environmental pollution shall be paid into the state treasury and credited to the Water Supply Assistance Grant Fund created pursuant to § 32.1-171.2. Each day of violation shall constitute a separate offense.

D. With the consent of any person who has violated or failed, neglected or refused to obey any regulation or order of the Board or Commissioner or any provision of this title, the Board may provide, in an order issued by the Board against such person, for the payment of civil charges for past violations in specific sums, not to exceed the limits specified in § 32.1-27.1 and subsection C of this section. Such civil charges shall be instead of any appropriate civil penalty which could be imposed under § 32.1-27.1 and subsection C of this section.

APPENDIX B:

REGULATIONS FOR DISEASE REPORTING AND CONTROL

VIRGINIA BOARD OF HEALTH

Board of Health Regulations

The Board of Health Regulations as they pertain to the Virginia Cancer Registry can be found online at:

http://www.vdh.virginia.gov/surveillance-and-investigation/commonwealth-of-virginiastate-board-of-health/

END OF APPENDIX B

APPENDIX C:

REPORTABLE CONDITIONS

Reportable Conditions

This *List of Reportable Conditions* provides documentation of all conditions reportable to the Virginia Cancer Registry (VCR). It is structured alphabetically by the main histologic term. Qualifiers and/or adjectives associated with the main term are included only if needed to specify when the condition is reportable. The abbreviation "NOS" means "Not Otherwise Specified."

Determining Reportable Conditions Using Histologic Terms

Conditions are to be reported if the diagnosis includes the terms cancer, carcinoma, malignant, and lymphoma. Most leukemias and sarcomas are reportable except as noted as exclusions on the listing. Other reportable conditions not containing these terms (i.e., refractory anemia, stromal endometriosis, Ewing tumor, carcinofibroma) are also included in this listing.

All primary intracranial and central nervous system (CNS) tumors are reportable. This includes benign, malignant, and borderline tumors for the following sites:

Intracranial and Central Nervous System Sites	
Meninges (C70.0 - C70.9)	Other CNS (C72.8, C72.9)
Brain (C71.0 - C71.9)	Pituitary gland (C75.1)
Spinal Cord (C72.0)	Craniopharyngeal duct (C75.2)
Cauda equina (C72.1)	Pineal gland (C75.3)
Cranial nerves (C72.2 - C72.5)	

Determining Reportable Conditions Using *ICD-O* Behavior Codes

All cases with a behavior code of **/2** (in situ) or **/3** (malignant) in the *International Classification of Diseases for Oncology* (*ICD-O*), are reportable neoplasms. In addition, juvenile or pilocytic astrocytoma with a behavior code of **/1** (uncertain/borderline) in ICD-*O, Third Edition* is also reportable using a behavior code of **/3**.

Note: If a pathologist verifies a neoplasm with an ICD-O behavior code of **/0** (benign) or **/1** (uncertain) as "in situ" or "malignant", these cases are reportable.
Cases diagnosed with primary intracranial and central nervous system tumors with a behavior code of
/0 or **/1** (benign and borderline or "non-malignant") regardless of histologic type for sites listed above under *Intracranial and Central Nervous System Sites* are reportable

Exclusions

Conditions that are not to be reported to the VCR if the diagnosis includes:

1. Cancers primary to the skin (C44.0-C44.9) with the following histologies:

    a. Neoplasms, malignant, NOS of the skin
    b. Epithelial carcinomas of the skin
    c. Squamous cell carcinomas (SCC) of the skin
    d. Basal cell carcinomas (BCC) of the skin

Note: These lesions ***are*** reportable for squamous and basal cell cancers originating in mucoepidermoid sites: lip, anus, vulva, vagina, penis or scrotum (*ICD-O* codes C00.0- C00.9, C21.0, C51.0-C51.9, C52.9, C60.0-60.9 & C63.2).

2. Cervical intraepithelial neoplasia (CIN)

3. Prostatic intraepithelial neoplasia (PIN)

4. The following conditions are *only reportable if diagnosed* **prior to January 1, 2001**:

a. Cystadenoma

    i. Mucinous, borderline malignancy
    ii. Papillary, borderline malignancy
    iii. Papillary mucinous, borderline malignancy
    iv. Papillary pseudo mucinous, borderline malignancy
    v. Papillary serous, borderline malignancy
    vi. Pseudo mucinous, borderline malignancy
    vii. Serous, borderline malignancy

b. Tumor

    i. Mucinous, of low malignant potential
    ii. Papillary mucinous, of low malignant potential
    iii. Papillary serous, of low malignant potential
    iv. Serous, NOS, of low malignant potential
    v. Serous, papillary, of low malignant potential

c. Squamous cell intraepithelial neoplasia, grade 3 (SIN, gr III)

    i. All SIN, gr III are reportable with the exceptions noted in 1. a-d above

Legend for List of Reportable Conditions

Use the legend below to interpret special designations used on the following list of currently reportable conditions:

1. **Bold Print-** Benign and borderline behaviors of these conditions are only reportable if the primary site is listed under *Intracranial and Central Nervous System Sites*

2. (Single asterisk)- Not reportable if primary to skin as specified under Exclusions.

3. ** (Double asterisk) - Reportable only if the date of diagnosis is on or after January 1, 2001.

4. ***Bold Italic print*** are for conditions reportable beginning in 2016

Continued on Next Page

List of Reportable Conditions

Adamantinoma (long bones, malignant, tibial only
Adenoacanthoma
Adenocarcinofibroma**
Adenocarcinoma
Adenofibroma (malignant endometrioid only)
Adenoma
Adenosarcoma
AIN III (anal intraepithelial neoplasia, grade III)**
ALK positive large B-cell lymphoma
Ameloblastoma (malignant only)
Androblastoma (malignant only)
Anemia, refractory**
Angioendotheliomatosis
Angiolipoma
Angiomyosarcoma
Angiosarcoma
Argentaffinoma (malignant only)
Arrhenoblastoma (malignant only)
Astroblastoma
Astrocytoma
Astroglioma
Blastoma
Cancer*
Carcinoid (Exclude stromal; argentaffin tumor, NOS; Enterochromaffin-like cell, NOS; & tubular
Carcinofibroma**
Carcinoma*
Carcinomatosis*
Carcinosarcoma
CASTLE (carcinoma showing thymus-like element
Chloroma
Cholangiocarcinoma
Chondroblastoma (malignant only)
Chondrosarcoma
Chordoma
Cholangiocarcinoma
Chondroblastoma (malignant only)
Chondrosarcoma
Chordoma
Choriocarcinoma
Chorioepithelioma
Chorionepithelioma
Class IV cytology
Class V cytology
Comedocarcinoma
CPNET (central primitive neuroectodermal, NOS)**
Cystenadenocarcinofibroma**
Cystadenocarcinoma
Cystadenofibroma (malignant endometrioid only)
Cystosarcoma phyllodes (malignant only)
Cytopenia, refractory w/multilineage dysplasia**
Dermatofibrosarcoma
Diktyoma(malignant only)**
DIN III (ductal intraepithelial neoplasia, grade III)**
Disease – include:
- Alpha heavy chain
- Bowen*
- D Guglielmo
- Franklin
- Gamma heavy chain
- Heavy chain, NOS**
- Hodgkin
- Immunoproliferative (NOS & small intestine only)
- Letterer-Siwe
- Mast Cell, systemic tissue
- Mu heavy chain
- Myeloproliferative, chronic**
- Padget* (exclude of bone)
- Sezar

Disorder, myeloproliferative, chronic**
Disorder, primary cutaneous DC30+ T-cell lymphoproliferative**
Dysgerminoma
Ectomesenchymoma**
Endometriosis, stromal**
Enteroglucagonoma (malignant only)**
Ependymoblastoma
Ependymoma
Epithelioma*(NOS, basal cell, malignant & squamous Cell only)
Erythremia (acute and chronic only)
Erythroleukemia
Erythroplasia, Queyrat*
Esophageal squamous intraepithelial neoplasia, gr III
Esophageal intraepithelial dysplasia, grade III
Esthesioneuroblastoma
Esthesioneruoepithelioma
Fibroblastic reticular cell tumor
Fibrochondrosarcoma
Fibrodentinosarcoma**
Fibroepithelioma, of Pinkus type or NOS*/**
Fibrolipoma

Craniopharyngioma
Cylindroma (exclude eccrine dermal & skin)
Cyst, dermoid (w/malignant transformation only or w/ Secondary tumor**, **NOS**
Fibrosarcoma
Fibroxanthoma (malignant only)
Gangliocytoma
Ganglioglioma (anaplastic**)
Ganglioneuroblastoma
Ganglioneuroma
Gastrinoma (malignant only)
Gemistocytoma
Germinoma
GIST-Gastrointestinal stromal tumor (malig only)**
Glioblastoma
Gliofibroma
Glioma, astrocytic, malignant, NOS, **chordoid, Subependymal**
Gliomatosis cerebri
Gliosarcoma
Glomangiosarcoma
Glucagonoma (malignant only)
Granuloma (Hodgkin only)
Hemangioblastoma
Hemangioendothelioma
Hemangiopericytoma
Hemangiosarcoma
Hepatoblastoma
Hepatocarcinoma
Hepatocholangiocarcinoma
Hepatoma (malignant only)
Hepatosplenic T-cell lymphoma
Hidradenocarcinoma**
Hidradenoma (malignant only)**
Histiocytoma (malignant fibrous only)
Histiocytosis (malig & acute progressive X only)
Histiocytosis, Langerhans cell, disseminated or generalized only**
Hutchinson melanotic freckle (melanoma in only)
Hydroa vacciniforme-like lymphoma
Hypernephroma
Immunocytoma
Insulinoma (malignant only)
Intraductal papillary mucinous neoplasm with high grade dysplasia
Intravascular large B-cell lymphoma
Langerhans cell histiocytosis
Large B-cell lymphoma arising in HHV8 associated Multicentric Castleman disease
Fibroliopsarcoma
Fibroma, NOS
Fibromyxosarcoma
Fibro-odontosarcoma**
Leiomyosarcoma
Lentigo maligna
Leukemia (exclude granular lymphocytic)
Linitis plastica
Lipoma (atypical or NOS)
Liposarcoma (exclude well differentiated liposarcoma, Superficial)
LN III, LN3 (of breast, also called lobular neoplasia Grade 3 only)
Lymphangioendothelioma (malignant only)
Lymphangiosarcoma
Lymphoblastoma
Lymphoepithelioma*
Lymphoma
Lymphosarcoma
Macroglobulinemia, Waldenstrom
Malignancy*
Malignant*
MANEC
Mastocytoma (malignant only)
Mastocytosis (malignant only)
Medulloblastoma
Medulloepithelioma
Medullomyoblastoma
Melanocytosis, diffuse
Melanocytoma, meningeal
Melanoma (except juvenile)
Melanomatosis, meningeal**
Melanosis (precancerous only)
Meningioma (anaplastic, papillary, rhabdoid**)
Meningiomatosis (NOS)
Mesenchymoma (malignant only)
Mesenchymoma (malignant only)
Mesonephroma (exclude benign)
Mesothelioma (exclude benign and cystic)
Metaplasia, agnogenic myeloid**
Microglioma
Micropapillary carcinoma, NOS
Mixed adenoendocrine carcinoma (MANEC)
Mixed pancreatic endocrine & exocrine tumor, Malignant
Mixed Islet cell & exocrine adenocarcinoma
Mixed acinar-endocrine-ductal carcinoma
MPNST, NOS (malig peripheral nerve sheath tumor)**
Mycosis fungoides

LCIS, NOS (lobular carcinoma in situ)**
Leiomyoma (NOS)
Leiomyomatosis (NOS)
Myeloma
Myelomatosis
Myelosclerosis (megakaryocytic, acute, malignant, or With myeloid metaplasia)**
Myelosis
Myoblastoma (malignant granular cell only)
Myoepithelioma (malignant only)**
Myosarcoma
Myosis, stromal NOS or endolymphatic stromal**
Myxoliposarcoma
Myxosarcoma
Neoplasia, ductal intraepithelial, grade 3 (of breast - Also called DIN III)**
Neoplasia, Intratubular germ cell**
Neoplasia, lobular grade 3 only of breast (also called LN III, LN3)
Neoplasia, squamous intraepithelial, grade 3
Neoplasm
Nephroblastoma
Nephroma (exclude mesoblastic)
Neurilemmoma
Neurilemmosarcoma
Neurinomatosis
Neuroblastoma
Neurocytoma (olfactory**)
Neuroendocrine tumor, grade 2
Neuroendocrine carcinoma
Neuroepithelioma
Neurofibroma
Neurofibromatosis (NOS)
Neurofibrosarcoma
Neuroma (NOS)
Neurosarcoma
Neurothekoma
Nevus (malignant blue only)
Odontosarcoma
Oligoastrocytoma, mixed
Oligodendroblastoma
Oligodendroglioma
Orchioblastoma
Osteochondrosarcoma
Osteosarcoma
Pancreatic endocrine tumor, malignant
Myelofibrosis (acute, chronic idiopathic, w/myeloid dysplasia** or as a result of myeloproliferative disease**only)
Papillary neoplasm, pancreatobillary type w/high grade intraepithelial neoplasia
Pancreatobilliary type carcinoma
Papilloma
Papulosis, lymphomatoid**
Paraganglioma
Paragranuloma, Hodgkin
Perineural MPNST**
Perineurioma (malignant**)
Pheochromoblastoma
Pheochromocytoma (malignant only)
Pilomatrixoma* (malignant only)
Pinelanoma (NOS)
Pineoblastoma
Pineocytoma
Plasmablastic lymphoma
Plasmacytoma
PNET (primitive neuroectodermal tumor)**
Pneumoblastoma
Polycythemia (proliferative, rubra vera, or vera)**
Polyenbryoma
Polyposis (malignant, lymphomatous only)
Porocarcinoma**
Poroma, eccrine (malignant only)**
PPNET (peripheral primitive neuroectodermal tumor)**
Preleukemia**
Primary cutaneous gamma-delta T-cell lymphoma
Prolactinoma
Pseudomyxoma peritonei
Queyrat erythroplasia*
Refractory neutropenia
Refractory thrombocytopenia
Reticuloendotheliosis
Reticulosarcoma
Reticulosis (histiocytic medullary, malignant, pagetoid** and polymorphic only)
Rhabdomyoma (NOS)
Rhabdomyosarcoma
Sarcoma (exclude well differentiated liposarcoma, superficial)
Sarcomatosis (meningeal only)
Schwannoma (malignant only)

Pancreatoblastoma
Panmyelosis, acute only
Pancreatic endocrine tumor, malignant
Pancreatoblastoma
Panmyelosis, acute only
Spermatocytoma
Spiradenoma (malignant only)**
Spongioblastoma (polar or malignant only)**
Spongioneuroblastoma
Squamous intraepithelial neoplasia, grade III (SIN III)
Stromatosis, endometrial**
Struma (malignant ovarii & Wuchernde Langhans only)
Subependymoma
Sympathicoblastoma
Syndrome:
- 5q deletion w/myelodysplastic syndrome**
- Hypereosinophilic**
- Myelodysplastic**
  - NOS**
  - w/ 5q deletion syndrome**
  - therapy-related, NOS**
  - therapy-related, alkylating agent related**
  - therapy-related, epidopophyllotoxin related**
  - Preleukemic**
  - Sezary

Synovioma (NOS and malignant only)**
Systemic EBV positive T-cell lymphoproliferative disease of childhood
Teratoblastoma, malignant
Teratocarcinoma
Teratoma
Thecoma (malignant only)
Thrombocythemia (essential, essential hemorrhagic, idiopathic, or idiopathic hemorrhagic)
Tumor – include only:
- adenocarcinoid
- adrenal cortical (malignant only)
- alpha cell (malignant only)
- Askin
- Bednar
- beta cell (malignant only)
- Brenner (malignant only)
- Burkitt
- carcinoid, NOS
- carcinoid (malignant only)
- **cells**
- desmoplastic small round cell
- Seminoma
- SETTLE (spindle epithelial tumor w/thymus-like element)**
- ***Serrated adenocarcinoma***
- Somatostatinoma (malignant only)**

Tumor – include only, *continued*
- **fibrous, solitary** (malignant**)
- follicular dendritic cell**
- fusiform cell type* (malignant only)
- G cell (malignant only)
- gastrin cell (malignant only)
- gastrointestinal stromal (malignant only)**
- germ cell
- giant cell (malignant only)
- glomus (malignant only)**
- **granular cell**
- granulosa cell (malig or sarcomatoid** only)
- Grawitz
- interstitial cell (malignant only)
- intravascular bronchial alveolar**
- Klatskin
- Krukenberg
- Leydig cell (malignant only)
- mast cell (malignant only)
- Merkel cell
- mesenchymal (malignant only)
- mesodermal, mixed
- metastatic*
- mixed pineal**
- mixed salivary gland type (malignant only)
- mucocarcinoid
- Mullerian mixed
- neuroectodermal (exclude melanotic)
- nonencapsulating sclerosing
- odontogenic (malignant only)
- olfactory, neurogenic
- Pancoast
- peripheral neuroectodermal or peripheral primitive neuroectodermal, NOS
- peripheral nerve sheath (malignant only)**
- phyllodes (malignant only)
- pineal parenchymal of intermediate differentiation**
- Pinkus*/**
- plasma cell
- polyvesicular vitelline
- primitive neuroectodermal
- rhabdoid, NOS**

dysembryoplastic neuroepithelial
embolus*
endodermal sinus
epithelial*
Ewing
Tumor – include only, *continued*
Sertoli-Leydig cell (poorly diff, w/heterologus elements, sarcomatoid, malignant)**
small cell type* (malignant only)
smooth muscle (NOS)
soft tissue
spindle cell type* (malignant only)
spindle epithelial w/thymus-like element or thymus like differentiation
steroid cell (malignant only)**
sweat gland (malignant only)
teratoid/rhabdoid, atypical
transitional pineal**
triton, malignant
trophoblastic, epithelioid**
vitelline, polyvesicular
Wilm
yolk sac
Ulcer, rodent*
VAIN III (vaginal intraepithelial neoplasia, grade 3)
VIN III (vulvar intraepithelial neoplasia, grade 3)
Vipoma (malignant only)**
Xanthoastrocytoma, pleomorphic
rhabdoid/teratoid, atypical**
round cell, desmoplastic, small**
Schminke
secondary*
sinus, endodermal

End of Appendix C

Appendix D:

Multiple Primary Determination

Multiple Primary Cancers

For all cases diagnosed January 1, 2007, until January 1, 2018, the *2007 Multiple Primary and Histology Coding Rules* (MP/H) should be utilized. For cases with a diagnosis date January 1, 2018, and later please refer to the 2018 Solid Tumor Rules and updates in the Summary of Changes section of this manual.

2018 Solid Tumor Manual: https://seer.cancer.gov/tools/solidtumor/STM_2018.pdf

The September 2021 Updated Solid Tumor Manual includes changes that apply to cases diagnosed January 1, 2022, and after. For cases diagnosed prior to this date registrars should continue using the current Solid Tumor Rules (linked below) updated December 2020, for cases diagnosed from January 1, 2018, through 12/31/2021.

*Note: All sections were updated on September 17, 2021.

Effective dates for "Other Sites" rules extended to 2022 throughout.
Information added about 2022 Guidelines for ICD-O-3.2 Histology Code and Behavior Update, effective for cases diagnosed 1/1/2022 forward.

Please refer to the updated Solid Tumor Rules beginning on page B-83 of the Summary of Changes in this manual.

MP/H represent the first site-specific multiple primary and histology rules developed to promote consistent and standardized coding. Physician guidance by specialty pathologists and clinicians was integral to the review and revision process. Regular consultation with the editors of ICD-O-3 clarified ICD-O-3 codes and ensured the new rules accurately reflect the ICD-O-3 editors' intent and purpose.

The 2007 MP/H rules include site specific rules for lung, breast, colon, melanoma of the skin, head and neck, kidney, renal pelvis/ureter/bladder, and malignant brain. A separate set of rules addresses the specific and general rules for malignant solid tumors originating in all other sites. The multiple primary rules guide and standardize the process of determining the number of primaries. The histology rules contain detailed histology coding instructions. For example, there are instructions and guidance for identifying histologic lineages, differentiating between general (NOS) terms and specific histologic types, and correctly assigning mixed and combination codes.

Determining Multiple Primaries for Solid Malignant Tumors – diagnosis dated January 1, 2007 until January 1, 2024.

General Instructions

1. Use the MP/H rules to determine the number of reportable primaries. Do NOT use these rules to determine case reportability, stage or grade.

2. The 2007 MP/H rules **replace all previous** multiple primary and histology coding **rules.**

3. The rules are **effective** for cases **diagnosed January 1, 2007,** and after. Do not use these rules to abstract cases diagnosed prior to January 1, 2007.

4. Read the **General instructions** and the **site-specific Equivalent Terms and Definitions** before using the multiple primary rules.

5. The MP/H rules are available in three formats: flowchart, text, and matrix. The **rules are identical,** only the formats differ. Use the rules in the format that is easiest for you to follow.

6. **Do not use** a physician's statement to decide whether the patient has a recurrence of a previous cancer or a new primary. Use the multiple primary rules as written **unless a pathologist compares** the present tumor to the "original" tumor and states that this tumor is a recurrence of cancer from the previous primary.

How to use the MP/H Rules

1. Use the **Multiple Primary** rules to **decide on the number of primary malignancies** to be abstracted for reportable solid malignant tumors.

2. Use the **site-specific rules** for the following sites:

    a. Brain, malignant (intracranial and CNS)
    b. Brain, benign and borderline (intracranial and CNS)
    c. Breast
    d. Colon
    e. Head and Neck
    f. Kidney
    g. Lung
    h. Malignant Melanoma of the Skin
    i. Renal pelvis, ureter, bladder and other urinary

1. Use the **Other Site rules** for solid malignant tumors that occur in primary sites not covered by the site-specific rules.

2. Each module (Unknown if Single or Multiple Tumors, Single Tumor, Multiple Tumors) is an independent, complete set of coding rules. To determine which set of rules to use:

    a. Where there is no tumor in the primary site, only metastatic lesions are present:

        i. Use the primary site documented by a physician and use the multiple primary and histology coding rules for that primary site.

        ii. If no primary is documented, code the primary site as unknown and use the general multiple primary and histology coding rules. Use the "Unknown if Single or Multiple Tumors" module to determine multiple primaries and the "Single Tumor" module for coding histology.

    b. To choose the appropriate module (Unknown if Single or Multiple Tumors, Single Tumor, Multiple Tumors):

        i. Use the multiple primary and histology coding rules for the primary site

        ii. Determine the number of tumors:

            a) Do not count metastatic lesions.

            b) When the tumor is only described a multicentric or multifocal and the number of tumors is not mentioned, use the "Unknown if Single or Multiple Tumors" module.

            c) When there is a tumor or tumors with separate microscopic foci, ignore the separate microscopic foci and use the "Single Tumor" or "Multiple Tumor" modules as appropriate.

            d) When the patient has a single tumor, use the "Single Tumor" module.

            e) If there are multiple tumors, use the "Multiple Tumor" module.

    c. See the Equivalent Terms and Definitions for Head and Neck for guidance in coding the primary site.

    d. Use the primary site documented by the physician on the medical record.

7. If a **single primary,** prepare **one abstract.**

8. If there are **multiple primaries,** prepare **two or more abstracts.**

9. Rules are in hierarchical order within each module (Unknown if Single or Multiple Tumors, Single Tumor, Multiple Tumors). Use the first rule that applies and **STOP.**

The MP/H Rules is available online at:

http://seer.cancer.gov/tools/mphrules/download.html

Determining Multiple Primaries for Solid Malignant Tumors – diagnosis prior to January 1, 2007

More Than One Malignant Cancer

If more than one primary malignant cancer is diagnosed, a separate report must be submitted for each primary. The VCR, like most central registries in the United States, follows the rules of the Surveillance, Epidemiology and End Results (SEER) Program for determination of multiple primary cancers. The reference information contained in this section is taken from the *SEER Program Code Manual, Third Edition, January 1998*.

The determination of how many primary cancers a patient has is, of course, a medical decision, but operational rules are needed to ensure consistency of reporting by all participants. Basic factors include the site of origin, the date of diagnosis, the histologic type, the behavior of the neoplasm (i.e., in situ versus malignant), and laterality.

In general, if there is a difference in the site where the cancer originates, it is easy to determine whether it is a separate primary, regardless of dates of diagnosis and differences in histology.

Likewise, if there is a clear-cut difference in histology, other data such as site and time of diagnosis are not essential. In some neoplasms, however, one must be careful since different histologic terms are used, for example, *leukemic phase of* or *converting to*, to describe progressive stages of the same disease process.

Lymphatic or Hematopoietic Disease

The Hematopoietic Database and Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual should be used for all hematopoietic and lymphoid neoplasms, regardless of the date of diagnosis. This database also has a multiple primary calculator associated with it; this calculator should be used to determine whether the new disease is a recurrence of the original diagnosis or if it represents a new primary. This database and manual are also available at the SEER.

https://seer.cancer.gov/tools/heme/Hematopoietic_Instructions_and_Rules.pdf

GUIDELINES FOR DETERMINING MULTIPLE PRIMARIES FOR LYMPHATIC AND HEMATOPOIETIC DISEASES

1. Lymphoma is a general term for hematopoietic solid malignancies of the lymphoid series. Leukemia is a general term for liquid malignancies of either the lymphoid or the myeloid series. While it is recognized some malignancies occur predominantly (or even exclusively) in liquid or solid form, because so many malignancies can potentially arise as either leukemias or lymphomas (or both), all hematopoietic malignancies are assumed to have this potential.

2. Malignancies of the lymphoid series are different from those of the myeloid series. Therefore, a lymphoid malignancy arising after diagnosis of a myeloid malignancy (or myelodysplastic or myeloproliferative disorder) would be considered a subsequent (new) primary; however, a myeloid malignancy diagnosed after a previous myeloid malignancy would not count as a subsequent primary. Histiocytic malignancies are considered different from both lymphoid and myeloid malignancies.

3. Hodgkin lymphoma is different from non-Hodgkin lymphoma (NHL). Among the NHLs, B-cell malignancies are considered different from T- cell/NK cell malignancies. Therefore, a B-cell malignancy arising later during a patient previously diagnosed with a T-cell malignancy would be considered a subsequent primary; however, a T- cell malignancy diagnosed later in the same patient would not be considered a subsequent primary.

4. The sequence of diagnosis affects whether a diagnosis represents a subsequent primary. In some cases, the order of occurrence of the two diagnoses being compared is a factor in the decision whether the second diagnosis is a new primary.

SINGLE VERSUS SUBSEQUENT PRIMARIES OF LYMPHATIC AND HEMATOPOIETIC DISEASE

Both diseases diagnosed
on or after 01/01/2001

or

First diagnosis made prior to 2001 and second diagnosis made on or after 01/01/2001

The table that was used prior to the Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual and Hematopoietic Database SHOULD NO LONGER BE USED!

ALL CASES regardless of date of diagnosis should be coded using the above noted references.

https://seer.cancer.gov/tools/heme/

End of Appendix D

APPENDIX E:

SEER GEOCODES

For Coding Place of Birth and Place of Death

SEER Geocodes

Continental United States and Hawaii

000 United States

001 New England & New Jersey

002 Maine
003 New Hampshire
004 Vermont
005 Massachusetts
006 Rhode Island
007 Connecticut
008 New Jersey

010 North Mid-Atlantic States

011 New York
014 Pennsylvania
017 Delaware

020 South Mid-Atlantic States

21 Maryland
22 District of Columbia
Nevada
23 Virginia
24 West Virginia
25 North Carolina
26 South Carolina

030 Southeastern States
States

031 Tennessee
033 Georgia
035 Florida

060 Central Midwest States

061 Illinois
063 Missouri
065 Kansas
067 Nebraska

070 Southern Midwest States

071 Arkansas
073 Louisiana
075 Oklahoma
077 Texas

080 Mountain States

081 Idaho
082 Wyoming
083 Colorado
084 Utah
085

086 New Mexico
087 Arizona

090 Pacific Coast

091 Alaska
093 Washington
095 Oregon

037 Alabama
039 Mississippi

097 California
099 Hawaii

040 North Central States

041 Michigan
043 Ohio
045 Indiana
047 Kentucky

050 Northern Midwest States

051 Wisconsin
052 Minnesota
053 Iowa
054 North Dakota
055 South Dakota
056 Montana

UNITED STATES POSSESSIONS

100 Atlantic/Caribbean Area
101 Puerto Rico
102 US Virginia Islands
109 Other Atlantic/Caribbean Area
110 Canal Zone
120 Pacific Area
121 American Samoa
122 Kiribati (Gilbert Islands, Line Islands, Phoenix Islands)
123 Micronesia [Federated States of] (Caroline Islands, Trust Territory of Pacific Islands)
124 Cook Islands (New Zealand)
125 Tuvalu (Ellice Islands)
126 Guam
127 Johnston Atoll
129 Northern Mariana Islands (Trust Territory of Pacific Islands)
131 Marshall Islands (Trust Territory of Pacific Islands)
132 Midway Islands/Atoll
133 Nampo-Shoto/Southern Islands
134 Ryukyu Islands (Japan)
135 Swan Islands
136 Tokelau Islands (New Zealand)
137 Wake Island
139 Palau (Trust Territory of Pacific Islands

North and South America, Exclusive of the United States and Is Possessions			
210	Greenland		Trinidad and Tobago
			Turks and Caicos
220	Canada		West Indies, NOS
	221 Maritime Provinces		Windward Islands, NOS
	Labrador		246 Bermuda
	New Brunswick		247 Bahamas, The
	Newfoundland		249 St Pierre and Miquelon
	Nova Scotia		
	Prince Edward Island	250	Central America
	222 Quebec		251 Guatemala
	223 Ontario		252 Belize (British Honduras)
	224 Prairie Provinces		253 Honduras
	Alberta		254 El Salvador
	Manitoba		255 Nicaragua
	Saskatchewan		256 Costa Rica
	225 Northwest Territories		257 Panama
	Yukon Territory		
	226 British Columbia	260	North America, NOS
	227 Nunavut		265 Latin America, NOS
230	Mexico	300	South America, NOS
240	North American Islands		311 Columbia
	241 Cuba		321 Venezuela
	242 Haiti		331 Guyana (British Guiana)
	243 Dominican Republic		332 Suriname (Dutch Guiana)
	245 Other Caribbean Islands		333 French Guiana
	Anguilla		341 Brazil
	Antilles, NOS		345 Ecuador
	Barbados		351 Peru
	British Virgin Islands		355 Bolivia
	British West Indies, NOS		361 Chile
	Caribbean, NOS		365 Argentina
	Cayman Islands		371 Paraguay
	Curacao		375 Uruguay
	Dominica		
	Grenada	380	South American Islands
	Guadeloupe		381 Falkland Islands
	Leeward Islands, NOS		
	Martinique		

	Montserrat		
	Netherlands Antilles		
	St Kitts and Nevis		
	St Lucia		
	St Vincent and the Grenadines		

Europe – former or alternative names are in parentheses

400	United Kingdom, NOS		449 Romania
	401 England		450 Slavic Countries
	Channel Islands		451 Poland
	Isle of Man		452 (former) Czechoslovakia reg
	402 Wales		Bohemia
	403 Scotland		Czech Republic
	404 Northern Ireland (Ulster)		Moravia
	410 Ireland (Eire)		Slovak Republic
	Ireland, NOS		Slovakia
	Republic of Ireland		453 (former) Yugoslavia region
	420 Scandinavia		Bonsia-Herzegovina
	Lapland, NOS		Croatia
	421 Iceland		Dalmatia
	423 Norway		Montenegro
	Svalbard		Macedonia
	425 Denmark		Serbia
	Faroe (Faeroe) Islands		Slavonia
	427 Sweden		Slovenia
	429 Finland		454 Bulgaria
	430 Germanic Countries		455 Russia
	431 Germany		Russian Federation (former
	East Germany, incl East Berlin		USSR)
	West Germany, incl West Berlin		Russia, NOS (Russian SFSR)
	432 Netherlands		456 Ukraine and Moldova
	433 Belgium		(Bessarabia)
	434 Luxembourg		457 Belarus (Byelorussian SSR)
	435 Switzerland		(White Russia)

	436 Austria		458 Estonia (Estonian SSR)
	437 Liechtenstein		459 Latvia (Latvian SSR)
	440 Romance-language Countries		461 Lithuania (Lithuanian SSR)
	441 France		463 Baltic Republic(s), NOS
	Corsica		(Baltic States, NOS)
	Monaco		470 Other Mainland Europe
	443 Spain		471 Greece
	Andorra		Crete
	Balearic Islands		475 Hungary
	Canary Islands		481 Albania
	445 Portugal		485 Gibraltar
	Azores		490 Other Mediterranean Islands
	447 Italy		491 Malta
	San Marino		495 Cyprus
	Sardinia		
	Sicily; Vatican City (Holy See)		

499	Europe, NOS
	Central Europe, NOS
	Northern Europe, NOS
	Southern Europe, NOS
	Western Europe, NOS

Africa

500	Africa, NOS		541 Zaire (Congo-Leopoldville,
	Central Africa, NOS		Belgian Congo, Congo/
	Equatorial Africa, NOS		Kinshasa)
	510 North Africa, NOS		543 Angola (Sao Tome, Principe,
	511 Morocco		Cabinda)
	513 Algeria		545 Republic of South Africa
	515 Tunisia		(Bophuthatswana, Cape
	517 Libya (Tripoli, Tripolitania)		Colony, Ciskei, Natal, Free
	519 Egypt (United Arab Republic)		State [Orange Free State],
	520 Sudanese Countries		Transkei, Transvaal,
	Burkina Faso (Upper Volta)		Venda)
	Chad		Botswana (Bechuanaland)
	Mali		Lesotho (Basutoland)
	Mauritania		Namibia (South West Africa)
	Niger		Swaziland
	530 West Africa		547 Zimbabwe (Rhodesia,
	French West Africa, NOS		Southern Rhodesia)
	531 Nigeria		549 Zambia (Northern Rhodesia)
	539 Other West African Countries		551 Malawi (Nyasaland)
	Benin (Dahomey)		553 Mozambique
	Cameroon (Kameron)		555 Madagascar (Malagasy
	Central African Republic (French		Republic)
	Equatorial Africa)		570 East Africa
	Cote d'Ivoire (Ivory Coast)		571 Tanzania (Tanganyika,
	Congo (Congo-Brazzaville, French		Tanganyika, Zanzibar)
	Congo)		573 Uganda
	Equatorial Guinea (Spanish Guinea)		575 Kenya
	(Bioko[Fernando Poo]Rio Muni)		577 Rwanda (Ruanda)
	Gabon		579 Burundi (Urundi)
	Gambia		581 Somalia (Somali Republic,
	Guinea		Somaliland)
	Liberia		583 Djibouti (French Territory of
	Senegal		the Afars and Issus, French
	Sierra Leone		Somaliland
	Togo		585 Ethiopia (Abyssinia)
	540 South Africa, NOS		Eritrea

Asia

600	Asia, NOS		641 India, Andaman Islands
	610 Near East		643 Nepal
	Mesopotamia, NOS		645 Bangladesh (East Pakistan)
	611 Turkey Anatolia		647 Sri Lanka (Ceylon)
	Armenia (Turkey)		649 Myanmar (Burma)
	Asia Minor, NOS		650 Southeast Asia
	620 Asian Arab Countries		651 Thailand (Siam)
	Iraq-Saudi Arabia Neutral Zone		660 Indochina
	621 Syria		661 Laos
	623 Lebanon		663 Cambodia, Kampuchea
	625 Jordan (Trans-Jordan, former		665 Vietnam (Tonkin, Annam,
	Arab Palestine)		Cochin China)
	627 Iraq		671 Malaysia, Singapore, Brunei
	629 Arabian Peninsula		673 Indonesia (Dutch East Indies)
	Bahrain		675 Philippians (Philippine Islands)
	Kuwait		680 East Asia
	Oman and Muscat		681 China, NOS
	Persian Gulf States, NOS		682 China (People's Republic of
	Qatar		China
	Saudi Arabia		683 Hong Kong
	United Arab Emirates Trucial States)		684 Taiwan (Formosa, Republic of
	Yemen (Aden, People's		China)
	Democratic Republic)		685 Tibet
	631 Israel and former Jewish		686 Macao (Macau)
	Palestine Gaza		691 Mongolia
	Palestine (Palestine National		693 Japan
	Authority [PNA])		695 Korea

	633 Caucasian Republics of the former USSR		North Korea
			South Korea
	Armenia		
	Azerbaijan (Nagorno-Karabakh)		
	Georgia		
	634 Other Asian Republics of the former USSR)		
	Kazakhstan (Kazakh SSR)		
	Kyrgyzstan (Kirghiz SSR, Kyrgyz)		
	Tajikistan (Turkmen SSR)		
	Uzbekistan (Uzbek SSR)		
	637 Iran (Persia)		
	638 Afghanistan		
	639 Pakistan (West Pakistan)		
	640 Mid-East Asia, NOS		
	Maldives		

Australia and Oceania

	711 Australia & Australian New Guinea		
	715 New Zealand		
	Niue		
	720 Pacific Islands		
	Oceania, NOS		
	Polynesia, NOS		
	721 Melanesian Islands		
	Fiji		
	Futuna		
	New Hebrides		
	Solomon Islands	**Place of Birth Unknown**	
	Vanuatu		
	Wallis	998	Place of birth stated not to be in the
	723 Micronesian Islands		United States, but no other
	725 Polynesian Islands		information available
	750 Antarctica	999	Place of birth unknown

SEER Geocodes – Alphabetic Listing

A		633	Armenia (USSR)
585	Abyssinia	611	Armenia (Turkey)
629	Aden	245	Aruba
583	Afars and Issas	600	Asia, NOS
638	Afghanistan	680	Asia, East
500	Africa	640	Asia, Mid-East
570	Africa, East	610	Asia Minor, NOS
510	Africa, North	610	Asia, Near-East
540	Africa, South	650	Asia, Southeast
545	Africa, South West	620	Asian Arab countries
530	Africa, West	634	Asian Republics of the former USSR
580	African Costal Islands (previously	109	Atlantic/Caribbean area, other US
	included in 540)		US possessions
037	Alabama	100	Atlantic/Caribbean area, US
091	Alaska		possessions
481	Albania	711	Australia
224	Alberta	711	Australian New Guinea
513	Algeria	436	Austria
250	America, Central	633	Azerbaijan
260	America, North (use more specific	633	Azerbaijan, SSR
	term if possible)	445	Azores
300	America, South		
121	American Samoa	**B**	
611	Anatolia	247	Bahamas
641	Andaman Islands	629	Bahrain
443	Andorra	443	Balearic Islands
543	Angola	463	Baltic Republic, NOS
245	Anguilla	463	Baltic States, NOS
665	Annam	645	Bangladesh
750	Antarctica	245	Barbados
245	Antigua	245	Barbuda
245	Antilles, NOS	545	Basutoland
245	Antilles, Netherlands	431	Bavaria
625	Arab Palestine	545	Bechuanaland

629	Arabia, Saudi	547	Belarus
629	Arabian Peninsula	541	Belgian Congo
365	Argentina	433	Belgium
087	Arizona	252	Belize
071	Arkansas	539	Benin
246	Bermuda	499	Central Europe, NOS
456	Bessarabia	060	Central Midwest States
643	Bhutan	647	Ceylon
539	Bioko (Fernando Poo)	520	Chad
355	Bophuthatswana	401	Channel Islands (British
673	Borneo	361	Chile
453	Bosnia-Herzegovina	681	China, NOS
545	Botswana	665	China, Cochin
341	Brazil	682	China, People's Republic of
226	British Columbia	684	China, Republic of
331	British Guiana	723	Christmas Island
252	British Honduras	545	Ciskel
245	British Virgin Islands	665	Cochin China
245	British West Indies, NOS	711	Cocos (Keeling) Islands
671	Brunei	311	Columbia
454	Bulgaria	083	Colorado
520	Burkina Faso (Upper Volta)	580	Comoros
649	Burma (see Myanmar)	226	Columbia, British
579	Burundi	022	Columbia, District of
457	Byelorussian SSR	539	Congo – Brazzaville
		541	Congo – Leopoldville
C		539	Congo, French
543	Cabinda	541	Congo Kinshasa
245	Caicos Islands	007	Connecticut
097	California	124	Cook Islands
663	Cambodia	441	Corsica
539	Cameroon	256	Costa Rica
220	Canada	539	Cote d'Ivoire (Ivory Coast
110	Canal Zone	471	Crete
443	Canary Islands	453	Croatia

122	Canton Islands	241	Cuba
545	Cape Colony	245	Curacao
445	Cape Verde Islands	495	Cyprus
245	Caribbean Islands, NOS	517	Cyrenaica
245	Caribbean Islands, other	452	Czechoslovakia
123	Caroline Islands	452	Czech Republic
711	Cartier Islands		
633	Caucasian Republics of the former USSR	**D**	
245	Cayman Islands	539	Dahomey
539	Central African Republic	453	Dalmatia
250	Central America	017	Delaware
425	Denmark	721	Fortuna
022	District of Columbia	441	France
583	Djibouti	545	Free State (Orange Free State)
449	Dobruja	539	French Congo
245	Dominica	333	French Guiana
243	Dominican Republic	725	French Polynesia
673	Dutch East Indies	583	French Somaliland
332	Dutch Guiana	530	French West Africa, NOS
		245	French West Indies
E			
570	East Africa	**G**	
680	East Asia	539	Gabon
431	East Germany	345	Galapagos Islands
673	East Indies, Dutch	539	Gambia
645	East Pakistan	631	Gaza Strip
499	Eastern Europe, NOS	033	Georgia (USA)
345	Ecuador	633	Georgia (USSR)
419	Egypt	430	Germanic countries
410	Eire	431	German Democratic Republic
254	El Salvador	431	Germany
125	Ellice Islands	431	Germany, East
122	Enderbury Islands	431	Germany, Federal Republic of
401	England	539	Ghana
500	Equatorial Africa, NOS	485	Gibraltar
539	Equatorial Guinea (Spanish Guinea)	122	Gilbert Islands

585	Eritrea	471	Greece
458	Estonia	210	Greenland
458	Estonian SSR (Estonia)	245	Grenada
585	Ethiopia	245	Grenadines, The
499	Europe, NOS	245	Guadeloupe
470	Europe, other mainland	126	Guam
		251	Guatemala
F		401	Guernsey
420	Faroe (Faeroe) Islands	331	Guiana, British
381	Falkland Islands	332	Guiana, Dutch

Continued on Next Page

431	Federal Republic of Germany	333	Guiana, French
539	Fernando Poo	539	Guinea
721	Fiji	539	Guinea-Bissau (Portuguese Guinea)
429	Finland	539	Guinea, Equatorial
035	Florida	---	Guinea, New (see New Guinea)
684	Formosa	539	Guinea, Portuguese
331	Guyana	625	Jordan
		453	Jugoslavia
H			
242	Haiti	**K**	
099	Hawaii	539	Kameron
432	Holland	663	Kampuchea
253	Honduras	065	Kansas
252	Honduras, British	634	Kazakh SSR
683	Hong Kong	634	Kazakhstan
475	Hungary	047	Kentucky
		575	Kenya
I		634	Kirghiz SSR
421	Iceland	122	Kiribati
081	Idaho	695	Korea
061	Illinois	695	Korea, North
641	India	695	Korea, South
045	Indiana	629	Kuwait
673	Indies, Dutch East	634	Kyrgyzstan
660	Indochina	634	Kyrgyz
673	Indonesia		
053	Iowa	**L**	
637	Iran	221	Labrador
627	Iraq	661	Laos
620	Iraq-Saudi Arabian Neutral Zone	420	Lapland, NOS
410	Ireland (Erie)	265	Latin America, NOS
404	Ireland, Northern	459	Latvia
410	Ireland, NOS	459	Latvian SSR (Latvia)
410	Ireland, Republic of	623	Lebanon
401	Isle of Man	245	Leeward Islands, NOS

401	Isle of Man	245	Leeward Islands, NOS
631	Israel	545	Lesotho
583	Issas	539	Liberia
447	Italy	517	Libya
539	Ivory Coast	437	Liechtenstein
		122	Line Islands, Southern
J		461	Lithuania
244	Jamaica	461	Lithuanian SSR (Lithuania)
423	Jan Mayen	073	Louisiana
693	Java	434	Luxembourg
401	Jersey		
631	Jewish Palestine		
127	Johnston Atoll		
M		456	Moldavian SSR
686	Macao	456	Moldova
686	Macau	441	Monaco
453	Macedonia	691	Mongolia
555	Madagascar	056	Montana
445	Madeira Islands	453	Montenegro
002	Maine	245	Montserrat
555	Malagasy Republic	452	Moravia
551	Malawi	511	Morocco
671	Malay Peninsula	080	Mountain States
671	Malaysia	553	Mozambique
640	Maldives	629	Muscat
520	Mali	649	Myanmar (see Burma)
491	Malta		
224	Manitoba	**N**	
129	Mariana Islands	545	Namibia
221	Maritime Provinces, Canada	133	Nampo-Shoto, Southern
131	Marshall Islands	545	Natal
245	Martinique	723	Nauru
021	Maryland	610	Near-East Asia
005	Massachusetts	067	Nebraska
520	Mauritania	643	Nepal

580	Mauritius	432	Netherlands
580	Mayotte	245	Netherlands Antilles
490	Mediterranean Islands, Other	332	Netherlands Guiana
721	Melanesian Islands	085	Nevada
610	Mesopotamia, NOS	245	Nevis
230	Mexico	221	New Brunswick
041	Michigan	724	New Caledonia
123	Micronesian Islands (Federated States of)	001	New England
	(Caroline Islands, Trust Territory of	673	New Guinea, except Australian &
	Pacific Islands)		North East
723	Micronesian Islands (except possessions	711	New Guinea, North East
	of the United States)	003	New Hampshire
640	Mid-East Asia	721	New Hebrides
132	Midway Islands	008	New Jersey
052	Minnesota	086	New Mexico
249	Miquelon	011	New York
039	Mississippi	715	New Zealand
063	Missouri	711	Norfolk Island
456	Moldavia	510	North Africa, NOS
260	North America, NOS (use more specific	631	Palestine, Jewish
	term if possible	631	Palestine, NOS
240	North American Islands	631	Palestinian National Authority (PNA)
671	North Borneo (Malaysia)	257	Panama
025	North Carolina	711	Papua New Guinea
040	North Central States	371	Paraguay
054	North Dakota	014	Pennsylvania
711	North East New Guinea	629	People's Democratic Republic of
695	North Kores		Yemen
010	North Mid-Atlantic States	682	People's Republic of China
499	Northern Europe, NOS	637	Persia
404	Northern Ireland	629	Persian Gulf States, NOS
129	Northern Mariana Islands	351	Peru
050	Northern Midwest States	675	Philippine Islands
225	Northwest Territories (Canada)	675	Philippines
423	Norway	725	Pitcairn

998	Not United States, NOS	451	Poland
221	Nova Scotia	725	Polynesian Islands
227	Nunavut	445	Portugal
551	Nyasaland	539	Portuguese Guinea
		224	Prairie Provinces, Canada
O		221	Prince Edward Island
043	Ohio	543	Principe
075	Oklahoma	101	Puerto Rico
629	Oman		
223	Ontario	**Q**	
454	Orange Free State	629	Qatar
095	Oregon	222	Quebec
403	Orkney		
		R	
P		684	Republic of China
120	Pacific area, US Possessions	545	Republic of South Africa
090	Pacific Coast States	580	Reunion
720	Pacific Islands	006	Rhode Island
123	Pacific Islands, Trust Territory of (code to	547	Rhodesia
	island if possible)	549	Rhodesia, Northern
639	Pakistan	547	Rhodesia, Southern
645	Pakistan, East	539	Rio Muni
639	Pakistan, West	440	Romance-language countries
139	Palau (Trust Territory of the Pacific Islands)	449	Romania
625	Palestine, Arab	449	Roumania
577	Ruanda	581	Somali Republic
449	Rumania	581	Somalia
455	Russia, NOS	581	Somaliland
455	Russian, SFSR	583	Somaliland, French
457	Russian, White	540	South Africa
455	Russian Federation (former USSR)	545	South Africa, Republic of
577	Rwanda	545	South Africa, Union of
134	Ryukyu Islands	300	South America
		380	South American Islands

S		026	South Carolina
520	Sahara, Western	055	South Dakota
121	Samoa, American	695	South Korea
725	Samoa, Western	020	South Mid-Atlantic States
245	St Christopher-Nevis	545	South West Africa
580	St Helena	650	Southeast Asia
245	St Kitts (see St Christopher-Nevis)	030	Southeastern States
245	St Lucia	499	Southern Europe, NOS
249	St Pierre	122	Southern Line Islands
245	St Vincent	070	Southern Midwest States
447	San Marino	133	Southern Nampo-Shoto
543	Sao Tome	547	Southern Rhodesia
447	Sardinia	629	Southern Yemen
224	Saskatchewan	---	Soviet Union
629	Saudi Arabia	443	Spain
420	Scandinavia	520	Spanish Sahara
403	Scotland	647	Sri Lanka
539	Senegal	520	Sudan (Anglo-Egyptian Sudan)
453	Serbia	520	Sudanese countries
580	Seychelles	673	Sumatra
403	Shetland Islands	332	Suriname
651	Siam	423	Svalbard
447	Sicily	135	Swan Islands
539	Sierra Leone	545	Swaziland
580	Seychelles	673	Sumatra
403	Shetland Islands	332	Suriname
651	Siam	423	Svalbard
447	Sicily	135	Swan Islands
539	Sierra Leone	545	Swaziland
643	Sikkim	427	Sweden
671	Singapore	435	Switzerland
450	Slavic countries	621	Syria
453	Slavonia		
452	Slovak Republics	T	
452	Slovakia	634	Tadzhik SSR

453	Slovenia	684	Taiwan
721	Solomon Islands	634	Tajikistan
571	Tanganyika	375	Uruguay
571	Tanzanyika	579	Urundi
031	Tennessee	084	Utah
077	Texas	634	Uzbekistan
651	Thailand (Siam)	634	Uzbek, SSR
685	Tibet		
245	Tobago	**V**	
539	Togo	721	Vanuatu
136	Tokelau Islands	447	Vatican City
725	Tonga	545	Venda
665	Tonkin	321	Venezuela
625	Trans-Jordan	004	Vermont
545	Transkei	665	Vietnam
545	Transvaal	245	Virgin Islands (British)
449	Transylvania	102	Virgin Islands (US)
245	Trinidad	023	Virginia
517	Tripoli		
517	Tripolitania	**W**	
629	Trucial States	137	Wake Island
515	Tunisia	402	Wales
611	Turkey	449	Wallachia
634	Turkmen SSR	721	Wallis
634	Turkmenistan	093	Washington (state)
245	Turks Islands	022	Washington DC
125	Truvalu	530	West Africa, NOS
		539	West African countries, other
U		631	West Bank
573	Uganda	431	West Germany
546	Ukraine	245	West Indies, NOS (see individual
456	Ukranian SSR		islands)
404	Ulster	639	West Pakistan
545	Union of South Africa	024	West Virginia

545	Union of South Africa	024	West Virginia
---	Union of Soviet Socialist Republics (USSR)	499	Western Europe, NOS
	(see individual republics)	520	Western Sahara
629	United Arab Emirates	725	Western Samoa
519	United Arab Republic	457	White Russia
400	United Kingdom	245	Windward Islands
000	United States	051	Wisconsin
102	US Virgin Islands	082	Wyoming
999	Unknown		
520	Upper Volta		
Y		**Z**	
629	Yemen	541	Zaire
629	Yemen, People's Democratic Republic of	549	Zambia
453	Yugoslavia (former Yugoslavia region)	571	Zanzibar
225	Yukon Territory	547	Zimbabwe

END OF APPENDIX E

Appendix F:

Federal Information Processing Standards (FIPS) County Codes for Virginia

Federal Information Processing Standards Publication, Counties and Equivalent Entities of the United States, its Possessions, and Associated Areas. US Department of Commerce, National Institute of Standards and Technology, Gaithersburg, MD

FIPS County Codes for Virginia

001 Accomack
003 Albemarle
005 Alleghany
007 Amelia
009 Amherst
011 Appomattox
013 Arlington
015 Augusta
017 Bath
019 Bedford
021 Bland
023 Botetourt
025 Brunswick
027 Buchanan
029 Buckingham
031 Campbell
033 Caroline
035 Carroll
036 Charles City
037 Charlotte
041 Chesterfield
043 Clarke
045 Craig
047 Culpepper
049 Cumberland
051 Dickenson
053 Dinwiddie
057 Essex
059 Fairfax
061 Fauquier
063 Floyd
065 Fluvanna
067 Franklin
069 Frederick
071 Giles
073 Gloucester
075 Goochland
077 Grayson
079 Greene
083 Halifax
085 Hanover
087 Henrico
089 Henry
091 Highland
093 Isle of Wight
095 James City
097 King and Queen
099 King George
101 King William
103 Lancaster
105 Lee
107 Loudoun
109 Louisa
111 Lunenburg
113 Madison
115 Mathews
117 Mecklenburg
119 Middlesex
121 Montgomery
125 Nelson
127 New Kent
131 Northampton
133 Northumberland
135 Nottoway
137 Orange
139 Page
141 Patrick
143 Pittsylvania
145 Powhatan
147 Prince Edward
149 Prince George
153 Prince William
155 Pulaski
157 Rappahannock
159 Richmond
161 Roanoke
163 Rockbridge
165 Rockingham
173 Smyth
175 Southampton
177 Spotsylvania
179 Stafford
181 Surry
183 Sussex
185 Tazewell
187 Warren
191 Washington
193 Westmoreland
195 Wise
197 Wythe
199 York

510 Alexandria
515 Bedford City
520 Bristol
530 Buena Vista
540 Charlottesville
550 Chesapeake
560 Clifton Forge
570 Colonial Heights
582 Covington
590 Danville
595 Emporia
600 Fairfax City
610 Falls Church City
620 Franklin City
630 Fredericksburg
640 Galax
650 Hampton
660 Harrisonburg
670 Hopewell
678 Lexington
680 Lexington
683 Manassas
685 Manassas Park
690 Martinsville
700 Newport News

081 Greensville
720 Norton
730 Petersburg
735 Poquoson
740 Portsmouth
750 Radford
760 Richmond
770 Roanoke
775 Salem
167 Russell
710 Norfolk
780 South Boston(now a town – use Halifax County)
790 Staunton
800 Suffolk
810 Virginia Beach
820 Waynesboro
830 Williamsburg
840 Winchester `

End of Appendix F

Appendix G

SEER Summary Stage 2018

SEER Summary Staging Manual 2018
It is downloadable at:
http://seer.cancer.gov/tools/ssm/

SUMMARY STAGE 2018

Summary Stage is the most basic way of categorizing how far a cancer has spread from its point of origin. Historically, Summary Stage has also been called General Stage, California Stage, historic stage, and SEER Stage.

The 2018 version of Summary Stage applies to every site and/or histology combination, including lymphomas and leukemias.

The latest updates to SEER Summary Stage 2018 are found in Summary Stage 2018 (Version 2.1) Released September 9, 2021

Please Refer to page B-91 in the Summary of Changes section of this manual for updates.

**Note: For cases with a diagnosis date of January 1, 2022, please use the V2.1 updated Summary Stage manual linked below:*

https://seer.cancer.gov/tools/ssm/2018-Summary-Stage-Manual.pdf

Summary Stage uses all information available in the medical record; in other words, it is a combination of the most precise clinical and pathological documentation of the extent of disease. Many central registries report their data by Summary Stage as the staging categories are broad enough to measure the success of cancer control efforts and other epidemiologic efforts.

There are six main categories in Summary Stage, each of which is discussed in detail. In addition, the main category of regional stage is subcategorized by the method of spread. The code structure is:

Code	Definition
0	In situ
1	Localized only
2	Regional by direct extension only
3	Regional lymph nodes only
4	Regional by BOTH direct extension AND lymph node involvement
7	Distant site(s)/node(s) involved
8	Benign/borderline*
9	Unknown if extension or metastasis (unstaged, unknown, or unspecified) Death certificate only case

*Applicable for the following SS2018 chapters: Brain, CNS Other, Intracranial Gland

Note: For SS2018, code 5 for "Regional, NOS" can no longer be coded. Code 5 (Regional, NOS) is still applicable for SS2000.

GUIDELINES BY STAGE

Code 0: In situ

***Note*: ALWAYS check site-specific SS2018 chapters for exceptions and/or additional information**

1. In situ means "in place". The technical definition of in situ is the presence of malignant cells within the cell group from which they arose. There is no penetration of the basement membrane of the tissue and no stromal invasion. Generally, a cancer begins in the rapidly dividing cells of the epithelium or lining of an organ and grows from the inside to the outside of the organ. An in-situ cancer fulfills all pathological criteria for malignancy except that it has not invaded the supporting structure of the organ or tissue in which it arose.

Note: If the pathology report indicates an in-situ tumor but there is evidence of positive lymph nodes or distant metastases, code to the regional nodes/distant metastases.

2. An in-situ diagnosis **can only be made microscopically**, because a pathologist must identify the basement membrane and determine that it has not been penetrated. If the basement membrane has been disrupted (in other words, the pathologist describes the tumor as microinvasive, microinvasion), the case is no longer in situ and is at least localized (code 1).

3. Pathologists have many ways of describing in situ cancer.
   - Intracystic
   - Intra-epithelial
   - No penetration below the basement membrane
   - No stromal invasion
   - Non-infiltrating
   - Noninvasive
   - Pre-invasive

4. Organs and tissues that have no epithelial layer cannot be staged as in situ, since they do not have a basement membrane.

5. Code 0 is not applicable for the following Summary Stage chapters.

- Bone
- Lymphoma
- Brain
- Lymphoma Ocular Adnexa
- Cervical Lymph Nodes, Occult Head and
- Mycosis Fungoides
- Myeloma Plasma Cell Disorder
- CNS Other
- Pleural Mesothelioma
- Corpus Sarcoma
- Primary Cutaneous Lymphoma (non-MF and SS)
- Heart, Mediastinum and Pleura
- HemeRetic
- Retinoblastoma
- Ill-defined other
- Retroperitoneum
- Kaposi Sarcoma
- Soft Tissue

Code 1: Localized

***Note*: ALWAYS check site-specific SS2018 chapters for exceptions and/or additional information**

1. A localized cancer is defined as
   a. Malignancy limited to the site of origin
   b. Spread no farther than the site of origin in which it started
   c. Infiltration past the basement membrane of the epithelium into parenchyma (the functional part of the organ), but there is no spread beyond the boundaries of the organ

Note: A tumor can be widely invasive or even show metastases within the organ itself and still be "confined to organ of origin" or localized in Summary Stage.

2. For organs that have definite boundaries (such as prostate, testis, or stomach) or sites where there is a clear line between the organ of origin and the surrounding region (such as breast or bladder), it is usually straightforward to determine if the cancer is localized.

a. An exception is skin, because it is sometimes difficult to determine where the dermis ends, and subcutaneous tissue begins.
b. For many internal organs, it is difficult to determine whether the tumor is localized without surgery; however, with the increasing sophistication of imaging, it may be possible to determine whether a cancer is localized or regional without surgery.

3. It is important to know and recognize the names of different structures within the organ (such as lamina propria, myometrium, muscularis) so that a description of invasion or involvement of these structures will not be interpreted inappropriately, which may lead to over-staging.

4. Because Summary Stage uses both clinical and pathological information, it is important to review and read the pathology and operative report(s) for comments on gross evidence of spread, microscopic extension, and metastases, as well as physical exam and diagnostic imaging reports for mention of regional or distant disease.

a. If any of these reports provides evidence that the cancer has spread beyond the boundaries of the organ of origin, the case is not localized.
b. If the pathology report, operative report, and other investigations show no evidence of spread, the tumor may be assumed to be localized.

5. Code 1 is not applicable for the following Summary Stage chapters:
- Cervical Lymph Nodes and Unknown Primary
- Ill-defined other

Regional Stage: Codes 2-4

There are several codes to describe the different methods of regional spread of tumor.

Code	Definition
2	Regional by direct extension only
3	Regional lymph node(s) involved only
4	Regional by BOTH direct extension AND regional lymph node(s) involved

Clinicians may use some terms differently than cancer registrars. Therefore, it is important to understand the words used to describe the spread of the cancer and how they are used in staging. For example:

1. "Local" as in "carcinoma of the stomach with involvement of the local lymph nodes." Local nodes are the first group of nodes to drain the primary site and often are referred to as "regional" nodes. Unless evidence of distant or regional spread is present, such a case should be staged as regional, lymph node(s) involved only, assign 3.

2. "Metastases" as in "carcinoma of lung with parabronchial lymph node metastases". Metastases in this sense means involvement by tumor. The name of the involved lymph node will determine whether it is a regional node or distant node. In this case, it would be a regional node. It is important to learn the names of regional nodes for each primary site.

Code 2: Regional by direct extension only

***Note*: ALWAYS check site-specific SS2018 chapters for exceptions and/or additional information**

1. Regional stage by direct extension is perhaps the broadest category as well as the most difficult to properly identify. The brief definition is direct tumor extension beyond the limits of the site of origin. Although the boundary between localized and regional tumor extension is usually well-identified, the boundary between regional and distant spread is not always clear and can be defined differently by physicians in various specialties.

2. Cancer becomes regional by direct extension when there is potential for spread by more than one vascular supply route. For example, if the tumor goes outside of the wall and invades another organ, it regional by direct extension.

3. The formal (scientific) definition of regional used by surgeons is that area extending from the periphery of an involved organ that lends itself to removal en bloc with a portion of, or an entire organ with outer limits to include at least the first level nodal basin. However, en bloc resection (removal of multiple organs or tissues in one piece at the same time) is not always feasible or may have been shown not to be necessary. For example, many clinical trials have shown that lumpectomy or modified radical mastectomy has equivalent survival to the very disfiguring radical mastectomy for treatment of breast cancer.

4. In contrast, radiation oncologists define the term regional as including any organs or tissues encompassed in the radiation field used to treat the primary site and regional lymph nodes.

5. For primary sites that have "walls" (e.g. colon, rectum), regional by direct extension is invasion through entire wall of organ into surrounding organs and/or

adjacent tissues, direct extension, or contiguous spread. For those primary sites without defined walls, regional by direct extension is when the tumor has spread beyond the primary site or capsule into adjacent structures.

6. Do NOT use code 2 if there is direct extension and also regional nodes positive (see code 4).

7. Code 2 is not applicable for the following Summary Stage chapters:

- Cervical Lymph Nodes and Unknown Primary
- HemeRetic
- Ill-defined other
- Myeloma Plasma Cell Disorder

Code 3: Regional lymph nodes only

***Note*: ALWAYS check site-specific SS2018 V2.1 chapters for exceptions and/or additional information**

1. Regional lymph nodes are listed for each chapter/site.
    a. If a lymph node chain is not listed in code 3, then the following resources can be used to help identify regional lymph nodes:

        i. Appendix I ii. Anatomy textbook iii. ICD-O manual iv. Medical dictionary (synonym)

2. If no preoperative treatment was administered and there is a discrepancy between clinical information and pathological information about the same lymph nodes, pathological information takes precedence. It is not necessary to biopsy every lymph node in the suspicious area to disprove involvement. Use the following priority order:

a. Pathology report
b. Imaging
    i. If nodes are determined positive based on imaging and then confirmed to be negative on pathological exam, treat the regional nodes as negative when assigning Summary Stage c. Physical exam

    ii. If nodes are determined positive based on physical exam and then confirmed to be negative on pathological exam, treat the regional nodes as negative when assigning Summary Stage

3. If the patient receives neoadjuvant (preoperative) systemic therapy (chemotherapy, immunotherapy) or radiation therapy, code the clinical information if that is the most extensive lymph node involvement documented. If the post-neoadjuvant surgery shows more extensive lymph node involvement, code the regional nodes based on the post-neoadjuvant information.

4. For solid tumors, the terms “fixed” or “matted” and “mass in the hilum, mediastinum, retroperitoneum, and/or mesentery” (with no specific information as to tissue involved) are recorded as involvement of lymph nodes.

   a. Other terms, such as “palpable,” “enlarged,” “visible swelling,” “shotty,” or “lymphadenopathy” should be ignored for solid tumors. If these terms are used and there is no treatment to indicate lymph node involvement, treat the case as having no lymph node involvement.

5. The terms “homolateral,” “ipsilateral,” and “same side” are used interchangeably.

6. **Accessible lymph nodes:** For “accessible” lymph nodes that can be observed, palpated, or examined without instruments, such as the regional nodes for the breast, oral cavity, salivary gland, skin, thyroid, and other organs, look for some description of the regional lymph nodes. **A statement such as “remainder of examination negative” is sufficient to determine negative regional lymph nodes.**

7. **Inaccessible lymph nodes**: For certain primary sites, regional lymph nodes are not easily examined by palpation, observation, physical examination, or other clinical methods. These are lymph nodes within body cavities that in most situations cannot be palpated, making them inaccessible. Bladder, colon, corpus uteri, esophagus, kidney, liver, lung, ovary, prostate, and stomach are examples of inaccessible sites (this is not an all-inclusive list). When the tumor is Localized and standard treatment for a localized site is done, it is sufficient to determine negative regional lymph nodes.

8. Involved nodes found during sentinel lymph node procedures are classified as positive regional nodes.

   a. The sentinel lymph node is the first lymph node to receive lymphatic drainage from a primary tumor.

   b. If it contains metastatic tumor, this indicates that other lymph nodes may contain tumor. If it does not contain metastatic tumor, other lymph nodes are not likely to contain tumor. Occasionally there is more than one sentinel lymph node

9. For some chapters, ITCs are counted as positive regional nodes, while other chapters count them as negative. See the individual chapters to determine how to count ITCs.

10. Discontinuous (satellite) tumor deposits (peritumoral nodules) for colon, appendix, rectosigmoid and rectum can occur WITH or WITHOUT regional lymph node involvement. Assign the appropriate code according to guidelines in individual chapters. Tumor nodules in pericolic or perirectal fat without evidence of residual lymph node structures can be one of several aspects of the primary cancer:
Discontinuous spread, venous invasion with extravascular spread, or a totally replaced lymph node. If there are Tumor Deposits AND node involvement, code only the information on node involvement in Summary Stage.

11. If direct extension of the primary tumor into a regional lymph node is shown, code as involved regional nodes.

12. Any positive unidentified nodes included with the resected primary site specimen are to be coded as “Regional Lymph Nodes, NOS”.

13. If the only indication of positive regional lymph node involvement in the record is the physician’s statement of a positive N category from the TNM staging system or a stage from a site-specific staging system, use that information to code regional lymph node involvement.

14. If a specific chain of lymph nodes is named, but not listed as regional, first determine if the name is synonymous with a listed lymph node. Otherwise, assume distant lymph node(s) are involved.

15. Code 3 is not applicable for the following Summary Stage chapters:

- Brain
- CNS Other
- HemeRetic
- Ill-defined other (includes unknown primary site, C809)
- Intracranial Gland
- Lymphoma o Primary Cutaneous Lymphoma and Ocular Adnexal Lymphoma have separate chapters from Lymphoma and regional lymph node involvement is assigned in these chapters.

Do NOT use code 3 if there are regional nodes positive AND also direct extension. (see code 4).

Code 4: Regional by BOTH direct extension AND regional lymph node(s) involved

***Note*: ALWAYS check site-specific SS2018 V2.1 chapters for exceptions and/or additional information**

1. For tumors that are regional (see definition of code 2) and have regional lymph node involvement (see definition of code 3), use code 4.

2. If there is only localized involvement (see definition of code 1) with regional lymph node involvement, assign code 3.

3. Code 4 is not applicable for the following Summary Stage chapters:

- Brain
- Cervical Lymph Nodes and Unknown Primary
- CNS Other
- HemeRetic
- Ill-defined other (includes unknown primary site)
- Intracranial Gland
- Lymphoma o Primary Cutaneous Lymphoma and Ocular Adnexal Lymphoma have separate chapters from Lymphoma and regional lymph node involvement is assigned in these chapters.
- Myeloma Plasma Cell Disorder

Code 7: Distant

***Note*: ALWAYS check site-specific SS2018 V2.1 chapters for exceptions and/or additional information**

1. Distant metastases are tumor cells that have broken away from the primary tumor, have travelled to other parts of the body, and have begun to grow at the new location. Distant stage is also called remote, diffuse, disseminated, metastatic, or secondary disease. The point is that in most cases there is no visible continuous trail of tumor cells involving only the primary site and the distant site.

2. Cancer cells can travel from the primary site in any of four ways.

a. Extension from primary organ beyond adjacent tissue into next organ; for example, from the lung through the pleura into bone or nerve

b. Travel in lymph channels beyond the first (regional) drainage area. Tumor cells can be filtered, trapped, and begin to grow in any lymph nodes in the body.

c. Hematogenous or blood-borne metastases. Invasion of blood vessels within the primary tumor (veins are more susceptible to invasion than thicker-walled arteries) allows escape of tumor cells or tumor emboli which are transported through the blood stream to another part of the body where it lodges in a capillary or arteriole. At that point, the tumor penetrates the vessel wall and grows back into the surrounding tissue.

d. Spread through fluids in a body cavity.

i. Example: malignant cells rupture the surface of the primary tumor and are released into the thoracic or peritoneal cavity. They float in the fluid and can land and grow on any tissue reached by the fluid. ii. This type of spread is also called implantation or seeding metastases. Some tumors form large quantities of fluid called ascites that can be removed, but the fluid rapidly re-accumulates. However, the presence of fluid or ascites does not automatically indicate dissemination. There must be cytologic evidence of malignant cells. A subsequent clinical diagnosis should be able to override a negative cytology. Malignant cells in ascites or peritoneal washings may not be distant involvement in some schemas.

3. Common sites of distant spread are liver, lung, brain, and bones, but they are not listed specifically for each chapter. These organs receive blood flow from all parts of body and thus are a target for distant metastases. However, if the primary site is adjacent to the liver, lung, brain or bone, it is important to review the Summary Stage chapter for the primary site to assure that the stage is not regional by direct extension.

a. Example: Liver involvement from a primary in the gallbladder. It is likely that this is regional by direct extension rather than distant stage since the gallbladder is adjacent to the liver.

4. Read the diagnostic imaging reports to determine whether the cancer involves the surface of the secondary organ, which could either be regional by direct (contiguous) extension or distant (if determined to be a discontiguous surface implant). If the tumor is identified growing from one organ onto/through the surface of the secondary organ, then it is contiguous extension. But if the tumor is only found in the parenchyma of the secondary organ well away from the primary organ, then it is discontinuous mets.

5. Hematopoietic, immunoproliferative, and myeloproliferative neoplasms are distant except as noted in the Summary Stage chapter.

6. Code 7 is not applicable for the following Summary Stage chapters:

- Ill-defined other

Code 8: Benign/Borderline

1. Code 8 is for Benign/borderline neoplasms. Benign/borderline neoplasms are collected ONLY for the following chapters:

- Brain
- CNS Other
- Intracranial Gland

2. If a registry collects other benign/borderline tumors that are not reportable, use code 9 for Summary Stage 2018. Code 8, at this time, will not be allowed for other sites.

Code 9: Unknown if extension or metastasis (upstaged, unknown or unspecified)

***Note*: ALWAYS check site-specific SS2018 V2.1 chapters for exceptions and/or additional information**

1. If the primary site is unknown (C809), then Summary Stage must be unknown.

2. Assign 9 very sparingly. If possible, contact the physician to see if there is more information about the case which is not in the record, such as diagnostic studies performed prior to admission or documentation in the physician's office record.

3. There will be cases for which sufficient evidence is not available to adequately assign a stage. Examples include:

a. The patient expires before workup is completed.
b. A patient refuses a diagnostic or treatment procedure.
c. There is limited workup due to the patient's age or a simultaneous comorbid or contraindicating condition.
d. Only a biopsy is done and does not provide enough information to assign stage.

4. Code 9 is to be used by default for Death Certificate Only (DCO) cases; however, assign the appropriate Summary Stage when specific staging information is available on a DCO.

GENERAL INSTRUCTIONS FOR USING THE SUMMARY STAGE 2018 MANUAL

The 2018 V2.1 Summary Stage Manual chapters consist of a one-digit hierarchical code. In the United States, these chapters will apply to January 1, 2018, diagnoses and forward. It is extremely important to thoroughly read all clinical and pathological documentation, including imaging studies, operative and pathology reports, and the clinician's narrative descriptions of tumor involvement.

1. Updates to the Summary Stage 2018 manual were based on the AJCC 8th edition. Although the two systems are similar, there are many differences between them. For example, something that is regional in AJCC (recorded in T or N) may be distant in Summary Stage. If a structure or lymph node cannot be found in localized (code 1) or regional (codes 2-4), then review distant (code 7).

2. Summary Stage chapters apply to ALL primary sites and histologies. Most chapters are based on primary site, while some are based on histology alone, or both primary site and histology.

3. Chapter-specific guidelines take precedence over general guidelines. Always read the information pertaining to a specific primary site or histology chapter.

4. For ALL primary sites and histologies, Summary Stage is based on a combined clinical and operative/pathological assessment. Gross observations at surgery are particularly important when all malignant tissue cannot be, or was not, removed.

    a. In the event of a discrepancy between pathology and operative reports concerning excised tissue, priority is given to the pathology report.

5. Summary Stage should include all information available within **four months of diagnosis** in the absence of disease progression or upon completion **of surgery(ies)** in first course of treatment, whichever is longer.

6. Clinical information, such as description of skin involvement for breast cancer and distant lymph nodes for any site, can change the Summary Stage. Be sure to review the clinical information carefully to accurately determine the extent of disease.

    a. If the operative/pathology information disproves the clinical information, use the operative/pathology information.

7. When multiple tumors are reported as a single primary, assign the greatest Summary Stage from any tumor.

8. Information for Summary Stage from a surgical resection **after neoadjuvant treatment may be used**, but ONLY if the extent of disease is greater than the pre-treatment clinical findings.

9. Disease progression, including metastatic involvement, known to have developed after the initial stage workup, should be excluded when assigning Summary Stage.

10. Autopsy reports are used in Summary Stage just as are pathology reports, applying the same rules for inclusion and exclusion.

11. T, N, M information may be used to assign Summary Stage when it is the only information available.

12. Use the medical record documentation to assign Summary Stage when there is a discrepancy between the T, N, M information and the documentation in the medical record. If you have access to the physician, please query to resolve the discrepancy.

    a. When there is doubt that documentation in the medical record is complete, assign Summary Stage corresponding to the physician staging.

13. It is strongly recommended that the assessment of the Summary Stage be documented, as well as the choice of the Summary Stage assignment in a related STAGE text field on the abstract.

14. Death Certificate Only (DCO) cases and unknown primaries are assigned '9' for Summary Stage; however, assign the appropriate Summary Stage when specific staging information is available on a DCO.

GUIDELINES FOR SUMMARY STAGE

For efficient assignment of Summary Stage, here are some additional guidelines. Three of the Summary Stage categories can be ruled out quickly: in situ, distant, and localized.

Note 1: These guidelines do not apply to benign/borderline tumors.

***Note 2*: ALWAYS check site-specific SS2018 chapters for exceptions and/or additional information.**

In situ

1. Rule out in situ stage disease. Carcinomas and melanomas are the only types of cancer that can be classified as in situ since they arise only in organs with a basement membrane. Sarcomas are never described as in situ. A pathologist must examine the

primary tissue and state that the tumor is in situ. If the cancer is anything except a carcinoma or melanoma, it cannot be in situ.

2. If there is any evidence of invasion (or extension beyond the basement membrane), nodal involvement or metastatic spread, the case is not in situ even if the pathology report so states.

Distant

3. Rule out distant disease. If distant metastases can be documented, there is no need to spend a great deal of time identifying local or regional spread. If distant metastases are recorded on imaging or needle biopsy, the stage is already determined, and the patient does not need to undergo a lot of other tests.

4. Hematopoietic diseases, such as leukemia and multiple myeloma, are disseminated or distant at time of diagnosis.

5. Determine distant spread by reading the operative report for comments about seeding, implants, liver nodules, or other indications of metastases to determine if they are indicators of distant disease for a particular chapter. Read diagnostic reports for references to distant disease.

6. If nodes, organs, or adjacent tissues are not specifically mentioned for the primary site of the cancer in the description of the various staging categories, approximate the location and assign Summary Stage based on the stage listed for organs or tissues in the same anatomic area. If there is no match, assume the involved organ/tissues, nodes in question represents distant disease.

Localized if not in Situ or Distant above

7. Rule out that the cancer is “confined to the organ of origin.” For a lesion to be classified as localized, it must not extend beyond the outer limits of the organ, and there must be no evidence of metastases anywhere else.

8. Terms such as “blood vessel invasion” or “perineural lymphatic invasion” do not necessarily indicate that the cancer has spread beyond the primary organ – see specific chapter. If tumor at the primary site has invaded lymph or blood vessels, there is the potential for malignant cells to be transported throughout the body. Minor vessel or lymph-vascular invasion within the primary site is not a determining factor in changing Summary Stage unless there is definite evidence of tumor at distant sites.

Regional

9. If in situ, distant, and localized categories have been ruled out, the stage is regional.
10. For tissues, structures, and lymph nodes, assume ipsilateral unless stated to be contralateral or bilateral.
11. For solid tumors, if there are lymph nodes involved with the tumor, the stage is at least regional.
12. Determine whether it is regional by direct extension, regional nodes, or both.

Unknown if Extension or Metastasis

13. If there is not enough information in the record to categorize a case, and contacting the physician is not possible or has not resulted in additional information, the case must be recorded as unknown.

HOW TO ASSIGN SUMMARY STAGE

Answers to four basic questions will determine the correct Summary Stage.

1. **Where did the cancer start?**

   a. In what organ or tissue did the tumor originate?
   b. Is there a specific subsite of the organ involved?

      i Information about the primary site and histology will usually come from the physical examination, a diagnostic imaging report, the operative report or the pathology report.

   c. Code the primary site and histology according to the rules in the *International Classification of Diseases for Oncology, Third Edition; 2018 Solid Tumor Rules; and the Hematopoietic Manual and Database.*

   d. In addition to recording this code in the primary site and histology fields on the cancer abstract, this code will be useful later in the staging process.

2. **Where did the cancer go?**

   a. Once the primary site is known, determine what other organs or structures are involved.

b. Review the physical examination, diagnostic imaging reports, operative report(s), pathology report(s), and laboratory tests to identify any structures that are involved by cancer cells.

c. Any of these reports can provide a piece of information that might change the stage.

d. Note whether there is lymphatic or vascular invasion and/or spread, which organs are involved, and whether there is a single focus or multiple foci of tumor.

e. It is important to know the names of the substructures within the primary site as well as the names of surrounding organs and structures. Note the names of any tissues that are reported to be involved by cancer cells.

3. **How did the cancer spread to the other organ or structure?**

a. Did the cancer spread to the new organ/tissue in a continuous line of tumor cells from the primary site?
b. If the pathologist can identify a trail of tumor cells from one organ to another, the stage may be regional by direct extension or distant by direct extension.
c. Did the cancer spread by breaking away from the primary cancer and floating to the new site in the blood stream or body fluids (includes lymph within lymph vessels, blood within blood vessels, fluid outside of vessels such as pleural, pericardial, peritoneal)?
d. If there is no direct trail of tumor cells from the primary organ to another site, the stage is probably distant.

4. **What are the stage and correct code for this cancer?**

a. In the Summary Staging Manual 2018, go to the appropriate chapter that includes the ICD-O primary site and/or histology code identified earlier.
b. Review the chapter looking for the names of the structures and organs that were reported as involved. If more than one structure or organ is involved, select the highest category that includes an involved structure.

DEFINITIONS OF TERMS USED

Adjacent connective tissue

These are unnamed tissues that immediately surround an organ or structure containing a primary cancer. Use this category when a tumor has invaded past the outer border (capsule,

serosa, or other edge) of the primary organ into the organ's surrounding supportive structures but has not invaded into larger structures or adjacent organs. The structures considered in ICD-O as connective tissue include the following: adipose tissue; aponeuroses; arteries; blood vessels; bursa; connective tissue, NOS; fascia; fatty tissue; fibrous tissue; ganglia; ligaments; lymphatic channels (not nodes); muscle; nerves (spinal, sympathetic, and peripheral); skeletal muscle; subcutaneous tissue; synovia; tendons; tendon sheaths; veins, and vessels, NOS. In general, these tissues do not have specific names. These tissues form the framework of many organs, provide support to hold organs in place, bind tissues and organs together, and serve as storage sites for nutrients.

Adjacent organs/structures

Organs are anatomic structures with specific physiologic functions other than (or in addition to) support and storage. There are two types:

- Unnamed: Contiguous growth into an unnamed organ lying next to the primary is coded to 'adjacent organs/structures.'
- Named: Connective tissues may be large enough to be given a specific name.
- Examples: Blood, cartilage and bone are sometimes considered connective tissues, but in this manual, they would be listed separately.
- Contiguous growth from one organ into an adjacent named structure would be coded to 'adjacent organs/structures.' For example, the brachial artery has a name, as does the broad ligament and both are structures.

Circulating Tumor Cells (CTCs)

See Isolated Tumor Cells

Contiguous

Directly adjacent; continuously adjoining; without lapse or intervening space; used in reference to regionalized cancers and extent of disease.

Cortex (adjective: cortical)

The external or outer surface layer of an organ, as distinguished from the core, or medulla, of the organ. In some organs, such as the adrenal glands, the cortex has a different function than the medulla.

Discontinuous

Tumors that are not connected; tumors in more than one area with normal tissue between them; often a sign of metastatic disease.

Disseminated Tumor Cells (DTCs)

See Isolated Tumor Cells

Direct extension

A term used in staging to indicate contiguous growth of tumor from the primary into an adjacent organ or surrounding tissue.

Distant

Refers to cancer that has spread from the original (primary) tumor to distant organs or distant lymph nodes.

Isolated tumor cells (ITCs), Circulating tumor cells (CTCs), Disseminated tumor cells (DTCs)

Isolated tumor cells (ITCs) are single tumor cells or small clusters of cells not more than 0.2 mm in greatest extent that can be detected by routine H and E stains or immunohistochemistry. An additional criterion has been proposed to include a cluster of fewer than 200 cells in a single histological cross-section. The same applies to cases with findings suggestive of tumor cells or their components by non-morphological techniques such as flow cytometry or DNA analysis.

ITCs do not typically show evidence of metastatic activity (e.g. proliferation or stromal reaction) or penetration of lymphatic sinus walls.

This definition also refers to circulating tumor cells (CTCs) and disseminated tumor cells (DTCs)

Localized

In medicine, describes disease that is limited to a certain part of the body. For example, localized cancer is usually found only in the tissue or organ where it began and has not spread to nearby lymph nodes or to other parts of the body. Some localized cancers can be completely removed by surgery.

Medulla (adjective: medullary)

The medulla (central) portion of an organ, in contrast to the outer layer or cortex. It is sometimes called marrow. In some organs, such as bone, the medulla or marrow has a different physiologic role than the cortex.

Parenchyma

The parenchyma is the functional portion of an organ, in contrast to its framework or stroma. For example, the parenchyma of the kidney contains all the structures which filter and remove waste products from the blood. In general, malignancies tend to arise in the parenchyma of an organ.

Regional

In oncology, describes the body area right around a tumor.

Stroma

The stroma are the cells and tissues that support, store nutrients, and maintain viability within an organ. Stroma consists of connective tissue, vessels and nerves, and provides the framework of an organ. In general, spread of tumor to the stroma of an organ is still localized or confined to the organ of origin.

AMBIGUOUS TERMINOLOGY

Most of the time, registrars will find definitive statements of involvement; however, for those situations where involvement is described with non-definitive (ambiguous) terminology, use the guidelines below to interpret and determine the appropriate assignment of Summary Stage 2018.

Determination of the cancer stage is both a subjective and objective assessment by the physician(s) of how far the cancer has spread. When it is not possible to determine the extent of involvement because terminology is ambiguous, look at the documentation that the physician used to make informed decisions on how the patient is being treated. For example, assign Summary Stage 2018 based on involvement when the patient was treated as though adjacent organs or nodes were involved.

Use the following lists to interpret the intent of the clinician ONLY when further documentation is not available and/or there is no specific statement of involvement in the medical record. The physician's definitions/ descriptions and choice of therapy have priority over these lists because individual clinicians may use these terms differently.

***Note 1*:** Terminology in the chapter takes priority over this list. Some chapters interpret certain words as involvement, such as 'encasing' the carotid artery for a head and neck site or "abutment," "encases," or "encasement" for pancreas primaries.
Note 2: Use this list only for Summary Stage 2018 or EOD 2018.

Note 3: This is ***not*** the same list used for determining reportability as published in the SEER manual, Hematopoietic Manual or in Section 1 of the Standards for Oncology Registry Entry (STORE). This is ***not*** the same list of ambiguous terminology provided in the Solid Tumors Rules published and maintained by the SEER Program.
Use the following lists as a guide ***when no other information is available.***

Ambiguous Terms at Diagnosis

As part of the registry casefinding activities, all diagnostic reports should be reviewed to confirm whether a case is required. If the terminology is ambiguous, use the following guidelines to determine whether a particular case should be included. Words or phrases that appear to be synonyms of these terms do not constitute a diagnosis. For example, "likely" alone does not constitute a diagnosis.

Ambiguous Terms that Constitute a Diagnosis	
Apparent(ly)	Presumed
Appears	Probable
Comparable with	Suspect(ed)
Compatible with	Suspicious (for)
Consistent with	Tumor* (beginning with 2004 diagnoses and only for C70.0–C72.9, C75.1–75.3)
Favors	Typical of
Malignant appearing	
Most likely	
Neoplasm* (beginning with 2004 diagnoses and only for C70.0–C72.9, C75.1–75.3)	

*additional terms for nonmalignant primary intracranial and central nervous system tumors only

EXCEPTION: If cytology is identified only with an ambiguous term, do not interpret it as a diagnosis of cancer.

Abstract the case only if a positive biopsy or a physician's clinical impression of cancer supports the cytology findings.

Examples of Diagnostic Terms:

- The inpatient discharge summary documents a chest x-ray consistent with carcinoma of the right upper lobe. The patient refused further work-up or treatment. Consistent with carcinoma is indicative of cancer.

- The pathology report states suspicious for malignancy. Suspicious for malignancy is indicative of cancer.

  EXCEPTION: If cytology is identified only with an ambiguous term, do not interpret it as a diagnosis of cancer. Abstract the case only if a positive biopsy or a physician's clinical impression of cancer supports the cytology findings.

Ambiguous Terms That *Do Not* Constitute a Diagnosis *without additional information*	
Cannot be ruled out	Questionable
Equivocal	Rule out
Possible	Suggests
Potentially malignant	Worrisome

Examples of Nondiagnostic Terms:

- The inpatient discharge summary documents a chest x-ray consistent with neoplasm of the right upper lobe. The patient refused further work-up or treatment. Consistent with neoplasm is not indicative of cancer. While "consistent with" can indicate involvement, "neoplasm" without specification of malignancy is not diagnostic except for non-malignant primary intracranial and central nervous system tumors.

- Final diagnosis is reported as possible carcinoma of the breast. Possible is not a diagnostic term for cancer.

Genetic findings in the absence of pathologic or clinical evidence of reportable disease are indicative of risk only and do not constitute a diagnosis.

Ambiguous Terminology Lists: References of Last Resort

This section clarifies the use of Ambiguous Terminology as listed in STORE 2018 for case reportability and staging in Commission on Cancer (CoC)-accredited programs. When abstracting, registrars are to use the "Ambiguous Terms at Diagnosis" list with respect to case

reportability, and the “Ambiguous Terms Describing Tumor Spread” list with respect to tumor spread for staging purposes. However, these lists need to be used correctly.

The first and foremost resource for the registrar for questionable cases is the physician who diagnosed and/or staged the tumor. The ideal way to approach abstracting situations when the medical record is not clear is to follow up with the physician. If the physician is not available, the medical record, and any other pertinent reports (e.g., pathology, etc.) should be read closely for the required information. The purpose of the Ambiguous Terminology lists is so that in the case where wording in the patient record is ambiguous with respect to reportability or tumor spread and no further information is available from any resource, registrars will make consistent decisions. When there is a clear statement of malignancy or tumor spread (i.e., the registrar can determine malignancy or tumor spread from the resources available), they should not refer to the Ambiguous Terminology lists. Registrars should only rely on these lists when the situation is not clear, and the case cannot be discussed with the appropriate physician/pathologist.

The CoC recognizes that not every registrar has access to the physician who diagnosed and/or staged the tumor, as a result, the Ambiguous Terminology list delineated above must be used in CoC-accredited programs as "references of last resort.”

SUMMARY STAGE 2018 CHAPTERS

The Summary Stage site-specific chapters are based on historical staging, Summary Stage 2000 and the AJCC 8th Edition. Some of the AJCC 8th edition chapters were divided to line up with historical Summary Stage chapters.

SS Chapter	EOD Schema	AJCC Chap. No	AJCC Chapter Name
Adnexa Uterine Other	Adnexa Uterine Other	N/A	N/A
Adrenal Gland (including NET)	Adrenal Gland	76	Adrenal Cortical Carcinoma
Adrenal Gland (including NET)	NET Adrenal Gland	77	Adrenal-Neuroendocrine Tumors
Ampulla Vater (including NET)	Ampulla Vater	27	Ampulla of Vater
Ampulla Vater (including NET)	NET Ampulla of Vater	30	Neuroendocrine Tumors of the Duodenum and Ampulla of Vater
Anus	Anus	21	Anus

Appendix (including NET)	Appendix	19	Appendix-Carcinoma
Appendix (including NET)	NET Appendix	32	Neuroendocrine Tumors of the Appendix
Biliary Other	Biliary Other	N/A	N/A
Bladder	Bladder	62	Urinary Bladder
Bone	Bone Appendicular Skeleton	38	Bone
Bone	Bone Pelvis	38	Bone
Bone	Bone Spine	38	Bone
Brain	Brain	72	Brain and Spinal Cord
Breast	Breast	48	Breast
Buccal Mucosa	Buccal Mucosa	7	Lip and Oral Cavity
Cervical Lymph Nodes and Unknown Primary	Cervical Lymph Nodes and Unk. Prim. Tumor of Head & Neck	6	Cervical Lymph Nodes and Unknown Primary Tumors of Head and Neck
SS Chapter	**EOD Schema**	**AJCC Chap. No**	**AJCC Chapter Name**
Cervix	Cervix	52	Cervix Uteri
CNS Other	CNS Other	72	Brain and Spinal Cord
Colon and Rectum (including NET)	Colon and Rectum	20	Colon and Rectum
Colon and Rectum (including NET)	NET Colon and Rectum	33	Neuroendocrine Tumors of the Colon and Rectum
Conjunctiva	Conjunctiva	65	Conjunctival Carcinoma
Corpus Carcinoma and Carcinosarcoma	Corpus Carcinoma	53	Corpus Uteri-Carcinoma and Carcinosarcoma
Corpus Sarcoma (including Adenosarcoma)	Corpus Adenosarcoma	54	Corpus Uteri-Sarcoma
Corpus Sarcoma (including Adenosarcoma)	Corpus Sarcoma	54	Corpus Uteri-Sarcoma
Digestive Other	Digestive Other	N/A	N/A
Endocrine Other	Endocrine Other	N/A	N/A

Esophagus (including GE junction)	Esophagus (including GE junction) Squamous	16	Esophagus and Esophagogastric Junction
Esophagus (including GE junction)	Esophagus (including GE junction) (excluding Squamous)	16	Esophagus and Esophagogastric Junction
Extrahepatic Bile Ducts	Bile Ducts Distal	26	Distal Bile Duct
Extrahepatic Bile Ducts	Bile Ducts Perihilar	25	Perihilar Bile Ducts
Extrahepatic Bile Ducts	Cystic Duct	24	Gallbladder
Eye Other	Eye Other	N/A	N/A
Fallopian Tube	Fallopian Tube	55	Ovary, Fallopian Tube, and Primary Peritoneal Carcinoma
SS Chapter	**EOD Schema**	**AJCC Chp. No**	**AJCC Chapter Name**
Floor of Mouth	Floor of Mouth	7	Lip and Oral Cavity
Gallbladder	Gallbladder	24	Gallbladder
Genital Female Other	Genital Female Other	N/A	N/A
Genital Male Other	Genital Male Other	N/A	N/A
GIST	GIST	43	Gastrointestinal Stromal Tumors
Gum	Gum	7	Lip and Oral Cavity
Heart and Mediastinum	Heart and Mediastinum	42	Soft Tissue Sarcoma of the Abdomen and Thoracic Visceral Organs
HemeRetic	HemeRetic	83	Leukemia
Hypopharynx	Hypopharynx	11	Oropharynx (p16-) and Hypopharynx
Ill-Defined Other	Ill-Defined Other	N/A	N/A
Intracranial Gland	Intracranial Gland	72	Brain and Spinal Cord
Intrahepatic Bile Ducts	Bile Ducts Intrahepatic	23	Intrahepatic Bile Duct

Kaposi Sarcoma	Kaposi Sarcoma	45	Soft Tissue Sarcoma of Unusual Sites and Histologies
Kidney Parenchyma	Kidney Parenchyma	60	Kidney
Kidney Renal Pelvis	Kidney Renal Pelvis	61	Renal Pelvis and Ureter
Lacrimal Gland/Sac	Lacrimal Gland	69	Lacrimal Gland Carcinoma
Lacrimal Gland/Sac	Lacrimal Sac	N/A	N/A
Larynx Glottic	Larynx Glottic	13	Larynx
Larynx Other	Larynx Other	13	Larynx
Larynx Sub-Glottic	Larynx Sub-Glottic	13	Larynx
Larynx Supra-Glottic	Larynx Supra-Glottic	13	Larynx
Lip	Lip	7	Lip and Oral Cavity
Liver	Liver	22	Liver
Lung	Lung	36	Lung
SS Chapter	**EOD Schema**	**AJCC Chap. No**	**AJCC Chapter Name**
Lymphoma	Lymphoma	79, 80	Hodgkin and non-Hodgkin Lymphoma *(Adult and Pediatric chapters)*
Lymphoma	Lymphoma-CLL/SLL	79, 80	Hodgkin and non-Hodgkin Lymphoma *(Adult and Pediatric chapters)*
Lymphoma Ocular Adnexa	Lymphoma Ocular Adnexa	71	Ocular Adnexal Lymphoma
Major Salivary Glands	Major Salivary Glands	8	Major Salivary Glands
Melanoma Conjunctiva	Melanoma Conjunctiva	66	Conjunctival Melanoma
Melanoma Head and Neck	Melanoma Head and Neck	14	Mucosal Melanoma of the Head and Neck
Melanoma Skin	Melanoma Skin	47	Melanoma of the Skin
Melanoma Uvea	Melanoma Choroid and Ciliary Body	67	Uveal Melanoma
Melanoma Uvea	Melanoma Iris	67	Uveal Melanoma

Merkel Cell Skin	Merkel Cell Skin	46	Merkel Cell Skin
Middle Ear	Middle Ear	N/A	N/A
Mouth Other	Mouth Other	7	Lip and Oral Cavity
Mycosis Fungoides	Mycosis Fungoides and Sezary Syndrome	81	Primary Cutaneous Lymphomas
Myeloma Plasma Cell Disorder	Plasma Cell Myeloma	82	Plasma Cell Myeloma and Plasma Cell Disorders
Myeloma Plasma Cell Disorder	Plasmacytomas	82	Plasma Cell Myeloma and Plasma Cell Disorders
Nasal Cavity and Paranasal Sinuses	Maxillary Sinus	12	Nasal Cavity and Paranasal Sinus
Nasal Cavity and Paranasal Sinuses	Nasal Cavity and Ethmoid Sinus	12	Nasal Cavity and Paranasal Sinus
SS Chapter	**EOD Schema**	**AJCC Chp. No**	**AJCC Chapter Name**
Nasopharynx	Nasopharynx	9	Nasopharynx
Orbit	Orbital Sarcoma	70	Orbital Sarcoma
Oropharynx	Oropharynx HPV-Mediated (p16+)	10	HPV-Mediated (p16+) Oropharyngeal Cancer
Oropharynx	Oropharynx (p16-)	11	Oropharynx (p16-) and Hypopharynx
Ovary and Primary Peritoneal Carcinoma	Ovary	55	Ovary, Fallopian Tube, and Primary Peritoneal Carcinoma
Ovary and Primary Peritoneal Carcinoma	Primary Peritoneal Carcinoma	55	Ovary, Fallopian Tube, and Primary Peritoneal Carcinoma
Palate Hard	Palate Hard	7	Lip and Oral Cavity
Pancreas (including NET)	Pancreas	28	Exocrine Pancreas
Pancreas (including NET)	NET Pancreas	34	Neuroendocrine Tumors of the Pancreas
Parathyroid	Parathyroid	75	Parathyroid
Penis	Penis	57	Penis
Pharynx Other	Pharynx Other	N/A	N/A
Placenta	Placenta	56	Gestational Trophoblastic Neoplasms

Pleural Mesothelioma	Pleural Mesothelioma	37	Malignant Pleural Mesothelioma
Primary Cutaneous Lymphomas: Non-MF/SS	Primary Cutaneous Lymphomas: Non-MF/SS	81	Primary Cutaneous Lymphomas
Prostate	Prostate	58	Prostate
Respiratory Other	Respiratory Other	N/A	N/A
Retinoblastoma	Retinoblastoma	68	Retinoblastoma
Retroperitoneum	Retroperitoneum	44	Soft Tissue Sarcoma of the Retroperitoneum
Sinus Other	Sinus Other	N/A	N/A
SS Chapter	**EOD Schema**	**AJCC Chp. No**	**AJCC Chapter Name**
Skin (except Eyelid)	Cutaneous Carcinoma of Head and Neck	15	Cutaneous Carcinoma of the Head and Neck
Skin (except Eyelid)	Skin Other	N/A	N/A
Skin Eyelid	Skin Eyelid	64	Eyelid Carcinoma
Small Intestine (including NET)	Small Intestine	18	Small Intestine
Small Intestine (including NET)	NET Duodenum	30	Neuroendocrine Tumors of the Duodenum and Ampulla of Vater
Small Intestine (including NET)	NET Jejunum and Ileum	31	Neuroendocrine Tumors of the Jejunum and Ileum
Soft Tissue	Soft Tissue Head and Neck	40	Soft Tissue Sarcoma of the Head and Neck
Soft Tissue	Soft Tissue Trunk and Extremities	41	Soft Tissue Sarcoma of the Trunk and Extremities
Soft Tissue	Soft Tissue Abdomen and Thoracic(excl. Heart, Mediastinum, Pleura	42	Soft Tissue Sarcoma of the Abdomen and Thoracic Visceral Organs

End of Appendix G

Appendix H

Surgical Codes
Regional Lymph Nodes by Site

Note: The histologies specified in this section apply to cases diagnosed from 2010-2017 Please consult FORDS: Revised for 2009 for applicable histologies for cases diagnosed prior to that date.

For cases diagnosed after January 1, 2021, refer to the 2021 STORE Manual and the Summary of Changes section of this manual.

2018 STORE MANUAL:

https://www.facs.org/-/media/files/quality-programs/cancer/ncdb/store_manual_2021.ashx

Surgical Codes - Regional Lymph Nodes by Site

ORAL CAVITY

Lip C00.0–C00.9, Base of Tongue C01.9, Other Parts of Tongue C02.0–C02.9, Gum C03.0–C03.9, Floor of Mouth C04.0–C04.9, Palate C05.0–C05.9, Other Parts of Mouth C06.0–C06.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery 14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery 23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Wide excision, NOS

Code 30 includes:

Hemi glossectomy

Partial glossectomy

40 Radical excision of tumor, NOS

41 Radical excision of tumor ONLY

42 Combination of 41 WITH resection in continuity with mandible (marginal, segmental, hemi-, or total resection)

43 Combination of 41 WITH resection in continuity with maxilla (partial, subtotal, or total resection)

Codes 40–43 include:

Total glossectomy

Radical glossectomy

Specimen sent to pathology from surgical events 20–43.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY.

PAROTID AND OTHER UNSPECIFIED GLANDS

Parotid Gland C07.9, Major Salivary Glands C08.0–C08.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Less than total parotidectomy, NOS; less than total removal of major salivary gland, NOS

31 Facial nerve spared

32 Facial nerve sacrificed

33 Superficial lobe ONLY

34 Facial nerve spared

35 Facial nerve sacrificed

36 Deep lobe (Total)

37 Facial nerve spared

38 Facial nerve sacrificed

40 Total parotidectomy, NOS; total removal of major salivary gland, NOS

41 Facial nerve spared

42 Facial nerve sacrificed

50 Radical parotidectomy, NOS; radical removal of major salivary gland, NOS

51 WITHOUT removal of temporal bone

52 WITH removal of temporal bone

53 WITH removal of overlying skin (requires graft or flap coverage)

80 Parotidectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

PHARYNX

Tonsil C09.0–C09.9, Oropharynx C10.0–C10.9, Nasopharynx C11.0–C11.9

Pyriform Sinus C12.9, Hypopharynx C13.0–C13.9, Pharynx C14.0

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Stripping

No specimen sent to pathology from surgical events 10–15.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

28 Stripping

30 Pharyngectomy, NOS

31 Limited/partial pharyngectomy; tonsillectomy, bilateral tonsillectomy

32 Total pharyngectomy

40 Pharyngectomy WITH laryngectomy OR removal of contiguous bone tissue, NOS (does NOT include total mandibular resection)

41 WITH Laryngectomy (laryngopharyngectomy)

42 WITH bone

43 WITH both 41 and 42

50 Radical pharyngectomy (includes total mandibular resection), NOS

51 WITHOUT laryngectomy

52 WITH laryngectomy

Specimen sent to pathology from surgical events 20–52.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

ESOPHAGUS

C15.0–C15.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Partial esophagectomy

40 Total esophagectomy, NOS

50 Esophagectomy, NOS WITH laryngectomy and/or gastrectomy, NOS

51 WITH laryngectomy

52 WITH gastrectomy, NOS

53 Partial gastrectomy

54 Total gastrectomy

55 Combination of 51 WITH any of 52–54

80 Esophagectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY.

STOMACH

C16.0–C16.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

23 Cryosurgery

22 Electrocautery

24 Laser ablation

25 Laser excision

30 Gastrectomy, NOS (partial, subtotal, hemi-)

31 Antrectomy, lower (distal-less than 40% of stomach)***

32 Lower (distal) gastrectomy (partial, subtotal, hemi-)

33 Upper (proximal) gastrectomy (partial, subtotal, hemi-)

Code 30 includes:

Partial gastrectomy, including a sleeve resection of the stomach

Billroth I: anastomosis to duodenum (duodenostomy)

Billroth II: anastomosis to jejunum (jejunostomy)

40 Near-total or total gastrectomy, NOS

41 Near-total gastrectomy

42 Total gastrectomy

A total gastrectomy may follow a previous partial resection of the stomach.

50 Gastrectomy, NOS WITH removal of a portion of esophagus

51 Partial or subtotal gastrectomy

52 Near total or total gastrectomy

Codes 50–52 are used for gastrectomy resection when only portions of esophagus are included in procedure.

60 Gastrectomy with a resection in continuity with the resection of other organs, NOS***

61 Partial or subtotal gastrectomy, in continuity with the resection of other organs***

62 Near total or total gastrectomy, in continuity with the resection of other organs***

63 Radical gastrectomy, in continuity with the resection of other organs***

Codes 60–63 are used for gastrectomy resections with organs other than esophagus. Portions of esophagus may or may not be included in the resection.

80 Gastrectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

*** Incidental splenectomy NOT included

COLON

C18.0–C18.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Code removal/surgical ablation of single or multiple liver metastases under the data item Surgical Procedure/Other Site (NAACCR Item #1294).

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

27 Excisional biopsy

26 Polypectomy, NOS

28 Polypectomy-endoscopic

29 Polypectomy-surgical excision

Any combination of 20 or 26–29 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Partial colectomy, segmental resection

32 Plus resection of contiguous organ; example: small bowel, bladder

40 Subtotal colectomy/hemicolectomy (total right or left colon and a portion of transverse colon)

41 Plus resection of contiguous organ; example: small bowel, bladder

50 Total colectomy (removal of colon from cecum to the rectosigmoid junction; may include a portion of the rectum)

51 Plus resection of contiguous organ; example: small bowel, bladder

60 Total proctocolectomy (removal of colon from cecum to the rectosigmoid junction, including the entire rectum)

61 Plus resection of contiguous organ; example: small bowel, bladder

70 Colectomy or coloproctotectomy with resection of contiguous organ(s), NOS(where there is not enough information to code 32, 41, 51, or 61)

Code 70 includes: Any colectomy (partial, hemicolectomy, or total) WITH a resection of any other organs in continuity with the primary site. Other organs may be partially or totally removed. Other organs may include, but are not limited to, oophorectomy, partial proctectomy, rectal mucosectomy, or pelvic exenteration.

80 Colectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

RECTOSIGMOID

C19.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Code removal/surgical ablation of single or multiple liver metastases under the data item Surgical Procedure/Other Site (NAACCR Item #1294).

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser ablation

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Wedge or segmental resection; partial proctosigmoidectomy, NOS

31 Plus resection of contiguous organs; example: small bowel, bladder

Procedures coded 30 include, but are not limited to:

Anterior resection

Hartmann operation

Low anterior resection (LAR)

Partial colectomy, NOS

Rectosigmoidectomy, NOS

Sigmoidectomy

40 Pull through WITH sphincter preservation (colo-anal anastomosis)

50 Total proctectomy

51 Total colectomy

55 Total colectomy WITH ileostomy, NOS

56 Ileorectal reconstruction

57 Total colectomy WITH other pouch; example: Koch pouch

60 Total proctocolectomy, NOS

65 Total proctocolectomy WITH ileostomy, NOS

66 Total proctocolectomy WITH ileostomy and pouch

Removal of the colon from cecum to the rectosigmoid or a portion of the rectum.

70 Colectomy or proctocolectomy resection in continuity with other organs; pelvic exenteration

80 Colectomy, NOS; Proctectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

RECTUM

C20.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Code removal/surgical ablation of single or multiple liver metastases under the data item Surgical Procedure/Other Site (NAACCR Item #1294).

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10-14.

20 Local tumor excision, NOS

27 Excisional biopsy

26 Polypectomy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

28 Curette and fulguration

30 Wedge or segmental resection; partial proctectomy, NOS

Procedures coded 30 include, but are not limited to:

Anterior resection

Hartmann's operation

Low anterior resection (LAR)

Transsacral rectosigmoidectomy

Total mesorectal excision (TME)

40 Pull through WITH sphincter preservation (coloanal anastomosis)

50 Total proctectomy

Procedure coded 50 includes, but is not limited to:

Abdominoperineal resection (Miles Procedure)

60 Total proctocolectomy, NOS

70 Proctectomy or proctocolectomy with resection in continuity with other organs; pelvic

80 Proctectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

ANUS

C21.0–C21.8

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Thermal Ablation

No specimen sent to pathology from surgical events 10–15.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

60 Abdominal perineal resection, NOS (APR; Miles procedure)

61 APR and sentinel node excision

62 APR and unilateral inguinal lymph node dissection

63 APR and bilateral inguinal lymph node dissection

The lymph node dissection should also be coded under Scope of Regional Lymph Node Surgery (NAACCR Item #1292) or Scope of Regional Lymph Node Surgery at This Facility (NAACCR Item #672).

Specimen sent to pathology from surgical events 20–63.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

LIVER AND INTRAHEPATIC BILE DUCTS

C22.0–C22.1

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Alcohol (Percutaneous Ethanol Injection-PEI)

16 Heat-Radio-frequency ablation (RFA)

17 Other (ultrasound, acetic acid)

No specimen sent to pathology from surgical events 10–17.

20 Wedge or segmental resection, NOS

21 Wedge resection

22 Segmental resection, NOS

23 One

24 Two

25 Three

26 Segmental resection AND local tumor destruction

30 Lobectomy, NOS

36 Right lobectomy

37 Left lobectomy

38 Lobectomy AND local tumor destruction

50 Extended lobectomy, NOS (extended: resection of a single lobe plus a segment of another lobe)

51 Right lobectomy

52 Left lobectomy

59 Extended lobectomy AND local tumor destruction

60 Hepatectomy, NOS

61 Total hepatectomy and transplant

65 Excision of a bile duct (for an intra-hepatic bile duct primary only)

66 Excision of an intrahepatic bile duct PLUS partial hepatectomy

75 Extrahepatic bile duct and hepatectomy WITH transplant

Specimen sent to pathology from surgical events 20–75.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

PANCREAS

C25.0–C25.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

25 Local excision of tumor, NOS

30 Partial pancreatectomy, NOS; example: distal

35 Local or partial pancreatectomy and duodenectomy

36 WITHOUT distal/partial gastrectomy

37 WITH partial gastrectomy (Whipple)

40 Total pancreatectomy

60 Total pancreatectomy and subtotal gastrectomy or duodenectomy

70 Extended pancreatoduodenectomy

80 Pancreatectomy, NOS

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

LARYNX

C32.0–C32.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Stripping

No specimen sent to pathology from surgical events 10–15.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

28 Stripping

30 Partial excision of the primary site, NOS; subtotal/partial laryngectomy NOS; hemilaryngectomy NOS

31 Vertical laryngectomy

32 Anterior commissure laryngectomy

33 Supraglottic laryngectomy

40 Total or radical laryngectomy, NOS

41 Total laryngectomy ONLY

42 Radical laryngectomy ONLY

50 Pharyngolaryngectomy

80 Laryngectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

LUNG

C34.0–C34.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction or excision, NOS

Unknown whether a specimen was sent to pathology for surgical events coded (principally for cases diagnosed prior to January 1, 2003).

15 Local tumor destruction, NOS

12 Laser ablation or cryosurgery

13 Electrocautery; fulguration (includes use of hot forceps for tumor destruction) No specimen sent to pathology from surgical events 12–13 and 15.

20 Excision or resection of less than one lobe, NOS

23 Excision, NOS

24 Laser excision

25 Bronchial sleeve resection ONLY

21 Wedge resection

22 Segmental resection, including lingulectomy

30 Resection of lobe or bilobectomy, but less than the whole lung (partial pneumonectomy, NOS)

33 Lobectomy WITH mediastinal lymph node dissection

The lymph node dissection should also be coded under Scope of Regional Lymph Node Surgery (NAACCR Item #1292) or Scope of Regional Lymph Node Surgery at This Facility (NAACCR Item #672).

45 Lobe or bilobectomy extended, NOS

46 WITH chest wall

47 WITH pericardium

48 WITH diaphragm

55 Pneumonectomy, NOS

56 WITH mediastinal lymph node dissection (radical pneumonectomy)

The lymph node dissection should also be coded under Scope of Regional Lymph Node Surgery (NAACCR Item #1292) or Scope of Regional Lymph Node Surgery at This Facility (NAACCR Item #672).

65 Extended pneumonectomy

66 Extended pneumonectomy plus pleura or diaphragm

70 Extended radical pneumonectomy

The lymph node dissection should also be coded under Scope of Regional Lymph Node Surgery (NAACCR Item #1292) or Scope of Regional Lymph Node Surgery at This Facility (NAACCR Item #672).

80 Resection of lung, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

HEMATOPOIETIC/RETICULOENDOTHELIAL/IMMUNOPROLIFERATIVE/MYELOPROLIFERATIVE DISEASE

C42.0, C42.1, C42.3, C42.4 (with any histology) **or**

M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992 **(with any site)**

Code

98 All hematopoietic/reticuloendothelial/immunoproliferative/myeloproliferative disease sites and/or histologies, WITH or WITHOUT surgical treatment.

Surgical procedures for hematopoietic/reticuloendothelial/immunoproliferative/ myeloproliferative primaries are to be recorded using the data item Surgical Procedure/Other Site (NAACCR Item #1294) or Surgical Procedure/Other Site at This Facility (NAACCR Item #674)

BONES, JOINTS, AND ARTICULAR CARTILAGE

C40.0–C41.9

PERIPHERAL NERVES AND AUTONOMIC NERVOUS SYSTEM

C47.0–C47.9

CONNECTIVE, SUBCUTANEOUS, AND OTHER SOFT TISSUES

C49.0–C49.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction or excision, NOS

Unknown whether a specimen was sent to pathology for surgical events coded 19 (principally for cases diagnosed prior to January 1, 2003).

15 Local tumor destruction

No specimen sent to pathology from surgical event 15.

25 Local excision

26 Partial resection

30 Radical excision or resection of lesion WITH limb salvage

40 Amputation of limb

41 Partial amputation of limb

42 Total amputation of limb

50 Major amputation, NOS

51 Forequarter, including scapula

52 Hindquarter, including ilium/hip bone

53 Hemipelvectomy, NOS

54 Internal hemipelvectomy

Specimen sent to pathology from surgical events 25–54.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

SPLEEN

C42.2

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction or excision, NOS

Unknown whether a specimen was sent to pathology for surgical events coded 19 (principally for cases diagnosed prior to January 1, 2003).

21 Partial splenectomy

22 Total splenectomy

80 Splenectomy, NOS

Specimen sent to pathology for surgical events 21-80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

SKIN

C44.0–C44.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser ablation

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Biopsy of primary tumor followed by a gross excision of the lesion (does not have to be done under the same anesthesia)

31 Shave biopsy followed by a gross excision of the lesion

32 Punch biopsy followed by a gross excision of the lesion

33 Incisional biopsy followed by a gross excision of the lesion

34 Mohs surgery, NOS

35 Mohs with 1-cm margin or less

36 Mohs with more than 1-cm margin

45 Wide excision or re-excision of lesion or minor (local) amputation with margins more than 1 cm, NOS. **Margins MUST be microscopically negative.**

46 WITH margins more than 1 cm and less than or equal to 2 cm

47 WITH margins greater than 2 cm

If the excision or re-excision has microscopically confirmed negative margins less than 1 cm OR the margins are 1cm or more but are not microscopically confirmed; use the appropriate code, 20–36.

60 Major amputation

Specimen sent to pathology from surgical events 20–60.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY

BREAST

C50.0–C50.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction, NOS

No specimen was sent to pathology for surgical events coded 19 (principally for cases diagnosed prior to January 1, 2003).

20 Partial mastectomy, NOS; less than total mastectomy, NOS

21 Partial mastectomy WITH nipple resection

22 Lumpectomy or excisional biopsy

23 Re-excision of the biopsy site for gross or microscopic residual disease

24 Segmental mastectomy (including wedge resection, quadrantectomy, tylectomy)

Procedures coded 20–24 remove the gross primary tumor and some of the breast tissue (breast conserving or preserving). There may be microscopic residual tumor.

30 Subcutaneous mastectomy

A subcutaneous mastectomy, also called a nipple sparing mastectomy, is the removal of breast tissue without the nipple and areolar complex or overlying skin. It is performed to facilitate immediate breast reconstruction. Cases coded 30 may be considered to have undergone breast reconstruction.

40 Total (simple) mastectomy

41 WITHOUT removal of uninvolved contralateral breast

43 With reconstruction NOS

44 Tissue

45 Implant

46 Combined (Tissue and Implant)

42 WITH removal of uninvolved contralateral breast

47 With reconstruction NOS

48 Tissue

49 Implant

75 Combined (Tissue and Implant)

A total (simple) mastectomy removes all breast tissue, the nipple, and areolar complex. An axillary dissection is not done, but sentinel lymph nodes may be removed.

For single primaries only, code removal of the contralateral breast under the data item Surgical Procedure/Other Site (NAACCR Item #1294) and/or Surgical Procedure/Other Site at This Facility (NAACCR Item #674).

If the contralateral breast reveals a second primary, each breast is abstracted separately. The surgical procedure is coded 41 for the first primary. The surgical code for the contralateral breast is coded to the procedure performed on that site.

Reconstruction that is planned as part of first course treatment is coded 43-49 or 75, whether it is done at the time of mastectomy or later.

76 Bilateral mastectomy for a single tumor involving both breasts, as for bilateral inflammatory carcinoma.

50 Modified radical mastectomy

51 WITHOUT removal of uninvolved contralateral breast

53 Reconstruction, NOS

54 Tissue

55 Implant

56 Combined (Tissue and Implant)

52 WITH removal of uninvolved contralateral breast

57 Reconstruction, NOS

58 Tissue

59 Implant

63 Combined (Tissue and Implant)

Removal of all breast tissue, the nipple, the areolar complex, and variable amounts of breast skin in continuity with the axilla. The specimen may or may not include a portion of the pectoralis major muscle.

If contralateral breast reveals a second primary, it is abstracted separately. The surgical procedure is coded 51 for the first primary. The surgical code for the contralateral breast is coded to the procedure performed on that site.

For single primaries only, code removal of involved contralateral breast under the data item Surgical Procedure/Other Site (NAACCR Item #1294) or Surgical Procedure/Other Site at This Facility (NAACCR Item #674).

60 Radical mastectomy, NOS

61 WITHOUT removal of uninvolved contralateral breast

64 Reconstruction, NOS

65 Tissue

66 Implant

67 Combined (Tissue and Implant)

62 WITH removal of uninvolved contralateral breast

68 Reconstruction, NOS

69 Tissue

73 Implant

74 Combined (Tissue and Implant)

70 Extended radical mastectomy

71 WITHOUT removal of uninvolved contralateral breast

72 WITH removal of uninvolved contralateral breast

80 Mastectomy, NOS

Specimen sent to pathology for surgical events coded 20-80.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY.

CERVIX UTERI

C53.0–C53.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

For invasive cancers, dilation and curettage is coded as an incisional biopsy (02) under the data item Surgical Diagnostic and Staging Procedure (NAACCR Item #1350).

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Loop Electrocautery Excision Procedure (LEEP)

16 Laser ablation

17 Thermal ablation

No specimen sent to pathology from surgical events 10–17.

20 Local tumor excision, NOS

26 Excisional biopsy, NOS

27 Cone biopsy

24 Cone biopsy WITH gross excision of lesion

29 Trachelectomy; removal of cervical stump; cervicectomy

Any combination of 20, 24, 26, 27 or 29 WITH

21 Electrocautery

22 Cryosurgery

23 Laser ablation or excision

25 Dilatation and curettage; endocervical curettage (for in situ only)

28 Loop electrocautery excision procedure (LEEP)

30 Total hysterectomy (simple, pan-) WITHOUT removal of tubes and ovaries

Total hysterectomy removes both the corpus and cervix uteri and may also include a portion of vaginal cuff.

40 Total hysterectomy (simple, pan-) WITH removal of tubes and/or ovary

Total hysterectomy removes both the corpus and cervix uteri and may also include a portion of vaginal cuff.

50 Modified radical or extended hysterectomy; radical hysterectomy; extended radical hysterectomy

51 Modified radical hysterectomy

52 Extended hysterectomy

53 Radical hysterectomy; Wertheim procedure

54 Extended radical hysterectomy

60 Hysterectomy, NOS, WITH or WITHOUT removal of tubes and ovaries

61 WITHOUT removal of tubes and ovaries

62 WITH removal of tubes and ovaries

70 Pelvic exenteration

71 Anterior exenteration

Includes bladder, distal ureters, and genital organs WITH their ligamentous attachments and pelvic lymph nodes.

72 Posterior exenteration

Includes rectum and rectosigmoid WITH ligamentous attachments and pelvic lymph nodes.

73 Total exenteration

Includes removal of all pelvic contents and pelvic lymph nodes.

74 Extended exenteration

Includes pelvic blood vessels or bony pelvis.

Specimen sent to pathology from surgical events 20–74.

90 Surgery, NOS

99 Unknown if surgery performed; death certificate ONLY.

CORPUS UTERI

C54.0–C55.9

For invasive cancers, dilation and curettage is coded as an incisional biopsy (02) under the data item Surgical Diagnostic and Staging Procedure (NAACCR Item #1350).

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction or excision, NOS

Unknown whether a specimen was sent to pathology for surgical events coded 19 (principally for cases diagnosed prior to January 1, 2003).

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Loop Electrocautery Excision Procedure (LEEP)

16 Thermal ablation

No specimen sent to pathology from surgical events 10–16.

20 Local tumor excision, NOS; simple excision, NOS

24 Excisional biopsy

25 Polypectomy

26 Myomectomy

Any combination of 20 or 24–26 WITH

21 Electrocautery

22 Cryosurgery

23 Laser ablation or excision

30 Subtotal hysterectomy/supracervical hysterectomy/fundectomy WITH or WITHOUT removal of tube(s) and ovary(ies)

31 WITHOUT tube(s) and ovary(ies)

32 WITH tube(s) and ovary(ies)

40 Total hysterectomy (simple, pan-) WITHOUT removal of tube(s) and ovary(ies)

Removes both the corpus and cervix uteri. It may also include a portion of the vaginal cuff.

50 Total hysterectomy (simple, pan-) WITH removal of tube(s) and/or ovary(ies)

Removes both the corpus and cervix uteri. It may also include a portion of the vaginal cuff.

60 Modified radical or extended hysterectomy; radical hysterectomy; extended radical hysterectomy

61 Modified radical hysterectomy

62 Extended hysterectomy

63 Radical hysterectomy; Wertheim procedure

64 Extended radical hysterectomy

65 Hysterectomy, NOS, WITH or WITHOUT removal of tube(s) and ovary(ies)

66 WITHOUT removal of tube(s) and ovary(ies)

67 WITH removal of tube(s) and ovary(ies)

75 Pelvic exenteration

76 Anterior exenteration

Includes bladder, distal ureters, and genital organs WITH their ligamentous attachments and pelvic lymph nodes.

77 Posterior exenteration

Includes rectum and rectosigmoid WITH ligamentous attachments and pelvic lymph nodes.

78 Total exenteration

Includes removal of all pelvic contents and pelvic lymph nodes.

79 Extended exenteration

Includes pelvic blood vessels or bony pelvis.

Specimen sent to pathology from surgical events 20–79.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY.

OVARY

C56.9

(Except for M-9277,9732,9741-9742,9762-9809,9832,9840-9931,9945-9946,9950-9967,and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

17 Local tumor destruction, NOS

No specimen sent to pathology from surgical event 17.

25 Total removal of tumor or (single) ovary, NOS

26 Resection of ovary (wedge, subtotal, or partial) ONLY, NOS; unknown if hysterectomy done

27 WITHOUT hysterectomy

28 WITH hysterectomy

35 Unilateral (salpingo-)oophorectomy; unknown if hysterectomy done.

36 WITHOUT hysterectomy

37 WITH hysterectomy

50 Bilateral (salpingo-)oophorectomy; unknown if hysterectomy done

51 WITHOUT hysterectomy

52 WITH hysterectomy

55 Unilateral or bilateral (salpingo-)oophorectomy WITH OMENTECTOMY, NOS; partial or total; unknown if hysterectomy done

56 WITHOUT hysterectomy

57 WITH hysterectomy

60 Debulking; cytoreductive surgery, NOS

61 WITH colon (including appendix) and/or small intestine resection (not incidental)

62 WITH partial resection of urinary tract (not incidental)

63 Combination of 61 and 62

Debulking is a partial or total removal of the tumor mass and can involve the removal of multiple organ sites. It may include removal of ovaries and/or the uterus (a hysterectomy). The pathology report may or may not identify ovarian tissue. A debulking is usually followed by another treatment modality such as chemotherapy.

70 Pelvic exenteration, NOS

71 Anterior exenteration

Includes bladder, distal ureters, and genital organs WITH their ligamentous attachments and pelvic lymph nodes.

72 Posterior exenteration

Includes rectum and rectosigmoid WITH ligamentous attachments and pelvic lymph nodes.

73 Total exenteration

Includes removal of all pelvic contents and pelvic lymph nodes.

74 Extended exenteration

Includes pelvic blood vessels or bony pelvis.

80 (Salpingo-)oophorectomy, NOS

Specimen sent to pathology from surgical events 25–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

PROSTATE

C61.9

Do not code an orchiectomy in this field. For prostate primaries, orchiectomies are coded in the data item Hematologic Transplant and Endocrine Procedures (NAACCR Item #3250).

Codes

00 None; no surgery of primary site; autopsy ONLY

18 Local tumor destruction or excision, NOS

19 Transurethral resection (TURP), NOS, and no specimen sent to pathology or unknown if sent

Unknown whether a specimen was sent to pathology for surgical events coded 18 or 19 (principally for cases diagnosed prior to January 1, 2003).

10 Local tumor destruction, NOS

14 Cryoprostatectomy

15 Laser ablation

16 Hyperthermia

17 Other method of local tumor destruction

No specimen sent to pathology from surgical events 10–17.

20 Local tumor excision, NOS

21 Transurethral resection (TURP), NOS, with specimen sent to pathology

22 TURP–cancer is incidental finding during surgery for benign disease

23 TURP–patient has suspected/known cancer

Any combination of 20–23 WITH

24 Cryosurgery

25 Laser

26 Hyperthermia

30 Subtotal, segmental, or simple prostatectomy, which may leave all or part of the capsule intact

50 Radical prostatectomy, NOS; total prostatectomy, NOS

Excised prostate, prostatic capsule, ejaculatory ducts, seminal vesicle(s) and may include a narrow cuff of bladder neck.

70 Prostatectomy WITH resection in continuity with other organs; pelvic exenteration

Surgeries coded 70 are any prostatectomy WITH resection in continuity with any other organs. The other organs may be partially or totally removed. Procedures may include, but are not limited to, cystoprostatectomy, radical cystectomy, and prostatectomy.

80 Prostatectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

TESTIS

C62.0–C62.9

(Except for M-9727,9732,9741-9742,9762-9809,9832,9840-9931,9945-9946,9950-9967,and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

12 Local tumor destruction, NOS

No specimen sent to pathology from surgical event 12.

20 Local or partial excision of testicle

30 Excision of testicle WITHOUT cord

40 Excision of testicle WITH cord or cord not mentioned (radical orchiectomy)

80 Orchiectomy, NOS (unspecified whether partial or total testicle removed)

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

KIDNEY, RENAL PELVIS, AND URETER

Kidney C64.9, Renal Pelvis C65.9, Ureter C66.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-99922)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Thermal ablation

No specimen sent to pathology from this surgical event 10–15.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Partial or subtotal nephrectomy (kidney or renal pelvis) or partial ureterectomy (ureter)

Procedures coded 30 include, but are not limited to:

Segmental resection

Wedge resection

40 Complete/total/simple nephrectomy–for kidney parenchyma Nephroureterectomy

Includes bladder cuff for renal pelvis or ureter.

50 Radical nephrectomy

May include removal of a portion of vena cava, adrenal gland(s), Gerota's fascia, perinephric fat, or partial/total ureter.

70 Any nephrectomy (simple, subtotal, complete, partial, simple, total, radical) in continuity with the resection of other organ(s) (colon, bladder)

The other organs, such as colon or bladder, may be partially or totally removed.

80 Nephrectomy, NOS

Ureterectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

BLADDER

C67.0–C67.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

15 Intravesical therapy

16 Bacillus Calmette-Guerin (BCG) or other immunotherapy

Also code the introduction of immunotherapy in the immunotherapy items. If immunotherapy is followed by surgery of the type coded 20-80 code that surgery instead and code the immunotherapy only as immunotherapy.

No specimen sent to pathology from surgical events 10–16.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Partial cystectomy

50 Simple/total/complete cystectomy

60 Complete cystectomy with reconstruction

61 Radical cystectomy PLUS ileal conduit

62 Radical cystectomy PLUS continent reservoir or pouch, NOS

63 Radical cystectomy PLUS abdominal pouch (cutaneous)

64 Radical cystectomy PLUS in situ pouch (orthotopic)

When the procedure is described as a pelvic exenteration for males, but the prostate is not removed, the surgery should be coded as a cystectomy (code 60-64).

70 Pelvic exenteration, NOS

71 Radical cystectomy including anterior exenteration

For females, includes removal of bladder, uterus, ovaries, entire vaginal wall, and entire urethra. For males, includes removal of the prostate. When a procedure is described as a pelvic exenteration for males, but the prostate is not removed, the surgery should be coded as a cystectomy (code 60-64).

72 Posterior exenteration

For females, also includes removal of vagina, rectum, and anus. For males, also includes prostate, rectum, and anus.

73 Total exenteration

Includes all tissue and organs removed for an anterior and posterior exenteration.

74 Extended exenteration

Includes pelvic blood vessels or bony pelvis.

80 Cystectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

BRAIN

Meninges C70.0–C70.9, Brain C71.0–C71.9,

Spinal Cord, Cranial Nerves and Other Parts of Central Nervous System C72.0–C72.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

No specimen sent to pathology from surgical events

Do not code laminectomies for spinal cord primaries. Codes

00 None; no surgery of primary site; autopsy ONLY

10 Tumor destruction, NOS

No specimen sent to pathology from surgical event 10.

Do not record stereotactic radiosurgery (SRS), Gamma knife, Cyber knife, or Linac radiosurgery as surgical tumor destruction. All of these modalities are recorded in the radiation treatment fields.

20 Local excision of tumor, lesion, or mass; excisional biopsy

21 Subtotal resection of tumor, lesion, or mass in brain

22 Resection of tumor of spinal cord or nerve

30 Radical, total, gross resection of tumor, lesion, or mass in brain

40 Partial resection of lobe of brain, when the surgery cannot be coded as 20-30.

55 Gross total resection of lobe of brain (lobectomy)
Codes 30 - 55 are not applicable for spinal cord or spinal nerve primary sites.

Specimen sent to pathology from surgical events 20–55.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

THYROID GLAND

C73.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

13 Local tumor destruction, NOS

No specimen sent to pathology from surgical event 13.

25 Removal of less than a lobe, NOS

26 Local surgical excision

27 Removal of a partial lobe ONLY

20 Lobectomy and/or isthmectomy

21 Lobectomy ONLY

22 Isthmectomy ONLY

23 Lobectomy WITH isthmus

30 Removal of a lobe and partial removal of the contralateral lobe

40 Subtotal or near total thyroidectomy

50 Total thyroidectomy

80 Thyroidectomy, NOS

Specimen sent to pathology from surgical events 20–80.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

LYMPH NODES

C77.0–C77.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

19 Local tumor destruction or excision, NOS

Unknown whether a specimen was sent to pathology for surgical events coded to 19 (principally for cases diagnosed prior to January 1, 2003).

15 Local tumor destruction, NOS

No specimen sent to pathology from surgical event 15.

25 Local tumor excision, NOS

Less than a full chain, includes an excisional biopsy of a single lymph node.

30 Lymph node dissection, NOS

31 One chain

32 Two or more chains

40 Lymph node dissection, NOS PLUS splenectomy

41 One chain

42 Two or more chains

50 Lymph node dissection, NOS, and partial/total removal of adjacent organ(s)

51 One chain

52 Two or more chains

60 Lymph node dissection, NOS, and partial/total removal of adjacent organ(s) PLUS splenectomy (Includes staging laparotomy for lymphoma.)

61 One chain

62 Two or more chains

Specimen sent to pathology for surgical events 25-62.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

ALL OTHER SITES

C14.2–C14.8, C17.0–C17.9, C23.9, C24.0–C24.9, C26.0–C26.9, C30.0–C 30.1, C31.0–C31.9, C33.9, C37.9, C38.0–C38.8, C39.0–C39.9, C48.0–C48.8, C51.0–C51.9, C52.9, C57.0–C57.9, C58.9,C60.0–C60.9, C63.0–C63.9, C68.0–C68.9, C69.0–C69.9, C74.0–C74.9, C75.0–C75.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Codes

00 None; no surgery of primary site; autopsy ONLY

10 Local tumor destruction, NOS

11 Photodynamic therapy (PDT)

12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)

13 Cryosurgery

14 Laser

No specimen sent to pathology from surgical events 10–14.

20 Local tumor excision, NOS

26 Polypectomy

27 Excisional biopsy

Any combination of 20 or 26–27 WITH

21 Photodynamic therapy (PDT)

22 Electrocautery

23 Cryosurgery

24 Laser ablation

25 Laser excision

30 Simple/partial surgical removal of primary site

40 Total surgical removal of primary site; enucleation

41 Total enucleation (for eye surgery only)

50 Surgery stated to be “debulking”

60 Radical surgery

Partial or total removal of the primary site WITH a resection in continuity (partial or total removal) with other organs.

Specimen sent to pathology from surgical events 20–60.

90 Surgery, NOS

99 Unknown if surgery performed, death certificate ONLY

UNKNOWN AND ILL-DEFINED PRIMARY SITES

C76.0–C76.8, C80.9

(Except for M-9727, 9732, 9741-9742, 9762-9809, 9832, 9840-9931, 9945-9946, 9950-9967, and 9975-9992)

Code

98 All unknown and ill-defined disease sites, WITH or WITHOUT surgical treatment.

Surgical procedures for unknown and ill-defined primaries are to be recorded using the data item Surgical Procedure/Other Site (NAACCR Item #1294) or Surgical Procedure/Other Site at This Facility (NAACCR Item #674).

End of Appendix H

APPENDIX I:

Data Items Required to Enter Date Case Completed CoC (STORE)

STORE Items Required to Be Complete to Enter Date Case Completed – CoC

For Cases Diagnosed in 2018

See *Date Case Completed–CoC* [2092] for instructions.

Category	STORE Item	NAACCR Item #
Identification **Class of Case 00-22**	Addr at DX–City	70
	Addr at DX–State	80
	Addr at DX–Postal Code	100
	County at DX	90
	Addr at DX--Country	102
	Date of 1st Contact	580
	Date of 1st Contact Flag	581
	Class of Case	610
	Primary Payer at DX	630
	NPI Archive FIN	3105
	Archive FIN	3100
	Accession Number	500
	Sequence Number	560
	Abstracted By	570
	Secondary Diagnosis #1	3780
	Secondary Diagnosis #2	3782
	Secondary Diagnosis #3	3784
	Secondary Diagnosis #4	3786
	Secondary Diagnosis #5	3788

Category	STORE Item	NAACCR Item #
Identification **Class of Case 00-22**	Secondary Diagnosis #6	3790
	Secondary Diagnosis #7	3792
	Secondary Diagnosis #8	3794
	Secondary Diagnosis #9	3796
	Secondary Diagnosis #10	3798
	Override Acsn/Class/Seq	1985
	CoC Coding System - Current	2140
	CoC Coding System - Original	2150
	Vendor Name	2170
	ICD-O-3 Conversion Flag	2116
	Date of Last Contact or Death	1750
	Date of Last Contact Flag	1751
	City/Town – Current	1810
Identification **Class of Case 00-22**	State – Current	1820
	Postal Code – Current	1830
	Address Current--Country	1832
	Last Name	2230
	First Name	2240
	Middle Name	2250
	Medical Record Number	2300
	Social Security Number	2320
	Patient Address (Number and Street) at Diagnosis	2330

Category	STORE Item	NAACCR Item #
Identification **Class of Case 00-22**	Patient Address at Diagnosis – Supplemental	2335
	Patient Address (Number and Street) – Current	2350
	Patient Address–Current - Supplemental	2335
	Telephone	2360
Demographic **Class of Case 00-22**	Race 1	160
	Race 2	161
	Race 3	162
	Race 4	163
	Race 5	164
	Spanish/Hispanic Origin	190
	Sex	220
	Age at Diagnosis	230
	Date of Birth	240
	Date of Birth Flag	241
	Birthplace--State	252
	Birthplace--Country	254
	Race Coding System – Current	170
	Race Coding System – Original	180
Diagnostic **Class of Case 00-22**	Date of Diagnosis	390
	Primary Site	400
	Laterality	410
	Histologic Type ICD-O-3	522

Category	STORE Item	NAACCR Item #
Diagnostic **Class of Case 00-22**	Behavior Code ICD-O-3	523
	Grade Clinical	3843
	Grade Pathological	3844
	Grade Post Therapy	3845
	Diagnostic Confirmation	490
	Sequence Number - Hosp	560
	RX Hosp–DX/Stg Proc	740
	Site Coding System – Current	450
Diagnostic **Class of Case 00-22**	Site Coding System – Original	460
	Morph Coding System – Current	470
	Morph Coding System – Original	480
	Override HospSeq/DxConf	1986
	Override CoC Site/Type	1987
	Override HospSeq/Site	1988
	Override Site/TNM-StgGrp	1989
	Override Age/Site/Morph	1990
	Override SeqNo/DxConf	2000
	Override Site/Lat/SeqNo	2010
	Override Surg/DxConf	2020
	Override Site/Type	2030
	Override Histology	2040
	Override Leuk, Lymphoma	2070
	Override Site/Behavior	2071
	Override Site/Lat/Morph	2074
Staging **Class of Case 10-22**	TNM Edition Number	1060
	AJCC TNM Clin T	1001
	AJCC TNM Clin T Suffix	1031
	AJCC TNM Clin N	1002
	AJCC TNM Clin N Suffix	1034
	AJCC TNM Clin M	1003
	AJCC TNM Clin Stage Group	1004

Category	STORE Item	NAACCR Item #
Staging Class of Case 10-22	AJCC TNM Path T	1011
	AJCC TNM Path T Suffix	1032
	AJCC TNM Path N	1012
	AJCC TNM Path N Suffix	1035
	AJCC TNM Path M	1013
	AJCC TNM Path Stage Group	1014
	AJCC TNM Post Therapy T	1021
	AJCC TNM Post Therapy T Suffix	1033
	AJCC TNM Post Therapy N	1022
	AJCC TNM Post Therapy N Suffix	1036
	AJCC TNM Post Therapy M	1023
	AJCC TNM Post Therapy Stage Group	1024
	Lymphovascular Invasion	1182
	Tumor Size Summary	756
	Regional Nodes Positive	820
	Regional Nodes Examined	830
Staging Class of Case 10-22	Date Regional Lymph Node Dissection	682
	Date Regional Lymph Node Dissection Flag	683
	Sentinel Lymph Nodes Positive	835
	Sentinel Lymph Nodes Examined	834
	Date of Sentinel Lymph Node Biopsy	832
	Date of Sentinel Lymph Node Biopsy Flag	833
	SSDI if required for case	-----
	Tumor Size Summary	756
	Mets at DX-Bone	1112
	Mets at DX-Brain	1113
	Mets at Dx-Distant LN	1114
	Mets at DX-Liver	1115
	Mets at DX-Lung	1116
	Mets at DX-Other	1117
	Summary Stage 2018	764
Hospital - Specific Treatment Class of Case 10-22	RX Hosp–Surg App 2010	668
	Surgical Procedure of Primary Site at This Facility	670

Category	STORE Item	NAACCR Item #
Hospital-Specific Treatment Class of Case 10-22	Scope of Regional Lymph Node Surgery at This Facility	672
	Surgical Procedure / Other Site at This Facility	674
	Chemotherapy at This Facility	700
	Hormone Therapy at This Facility	710
	Immunotherapy at This Facility	720
	Other Treatment at This Facility	730
	Palliative Care at This Facility	3280
	Date of First Course of Treatment	1270
	Date of 1st Crs Flag	1271
	Date of First Surgical Procedure	1200
	RX Date–Surgery Flag	1201
	Date of the Most Definitive Resection of the Primary Site	3170
	RX Date–Mst Defin Srg Flag	3171
	Date of Surgical Discharge	3180
	RX Date–Surg Disch Flag	3181
	Date Radiation Started	1210
	RX Date–Radiation Flag	1211
	Date Radiation Ended	3220
	RX Date–Rad Ended Flag	3221
	Date Systemic Therapy Started	3230
	Date Chemotherapy Started	1220
Hospital-Specific Treatment Class of Case 10-22	RX Date–Chemo Flag	1221
	Date Hormone Therapy Started	1230
	RX Date–Hormone Flag	1231
	Date Immunotherapy Started	1240
	RX Date–BRM Flag	1241
	Date Other Treatment Started	1250
	RX Date–Other Flag	1251
	RX Summ–Treatment Status	1285
	NPI- Managing Physician	2465
	NPI-Following Physician	2475
	NPI-Primary Surgeon	2485

Category	STORE Item	NAACCR Item #
Hospital-Specific Treatment Class of Case 10-22	NPI-Physician #3	2495
	NPI-Physician #4	2505
	Surgical Procedure of Primary Site	1290
Summary Treatment Class of Case 10, 12, 14, 20, 22	Scope of Regional Lymph Node Surgery	1292
	Surgical Procedure / Other Site	1294
	Surgical Margins of the Primary Site	1320
	Reason for No Surgery of Primary Site	1340
	Surgical Diagnostic and Staging Procedure	1350
	Palliative Care	3270
	Radiation / Surgery Sequence	1380
	Hematological Transplant and Endocrine Procedures	3250
	Chemotherapy	1390
	Hormone Therapy	1400
	Immunotherapy	1410
	Other Treatment	1420
	Reason for No Radiation	1430
	Rx Coding System–Current	1460
	Regional Dose: cGy	1510
	Phase I Radiation Primary Treatment Volume	1504
	Phase I Radiation to Draining Lymph Nodes	1505
	Phase I Radiation Treatment Modality	1506
	Phase I Radiation External Beam Planning Tech	1502
	Phase I Dose per Fraction	1501
	Phase I Number of Fractions	1503
	Phase I Total Dose	1507
	Phase II Radiation Primary Treatment Volume	1514
	Phase II Radiation to Draining Lymph Nodes	1515
	Phase II Radiation Treatment Modality	1516
Summary Treatment Class of Case 10, 12, 14, 20, 22	Phase II Radiation External Beam Planning Tech	1512
	Phase II Dose per Fraction	1511
	Phase II Number of Fractions	1513

Category	STORE Item	NAACCR Item #
Summary Treatment Class of Case 10, 12, 14, 20, 22	Phase II Total Dose	1517
	Phase III Radiation Primary Treatment Volume	1524
	Phase III Radiation to Draining Lymph Nodes	1525
	Phase III Radiation Treatment Modality	1526
	Phase III Radiation External Beam Planning Tech	1522
	Phase III Dose per Fraction	1521
	Phase III Number of Fractions	1523
	Phase III Total Dose	1527
	Number of Phases of Rad Treatment to this Volume	1532
	Radiation Treatment Discontinued Early	1531
	Total Dose	1533
	Location of Radiation Treatment	1550
	Systemic / Surgery Sequence	1639
	NPI-Inst Referred To	2425
Referred To Class of Case 00 [Must have a facility OR at least one Physician]	NPI-Primary Surgeon	2485
	NPI-Physician #3	2495
	NPI-Physician #4	2505
	NPI-Inst Referred From	2415
Referred To or From Class of Case 11-13, 20-22 [Must have at least one facility OR at least one Physician]	NPI-Inst Referred To	2425
	NPI-Managing Physician (if that person diagnosed the patient and the other options do not apply)	2465
	NPI-Primary Surgeon	2485
	NPI-Physician #3	2495
	NPI-Physician #4	2505

End of Appendix I

Appendix J

Abbreviations & Symbols

Recommended Abbreviations for Abstractors

Abbreviations

The VCR requires all cases to include text information to support specific coded fields. Complete and descriptive text is vital to the quality control efforts of the VCR. Often it is necessary to use abbreviations to provide adequate descriptions within the limited size of the text fields. However, a reader may interpret many standard medical abbreviations differently.

The VCR will rely on the attached abbreviation list to indicate how VCR staff will interpret the abbreviation when its use is unclear.

The Abbreviations Listings consist of two main lists word/terms and their recommended abbreviations, as well as a special table delineating context-sensitive abbreviations and one for symbols. The first main listing is ordered by word/term to enable the look-up of a recommended abbreviation for a particular word or term, and the second main listing is ordered by abbreviation to enable the look-up of the word or term for a particular abbreviation. The context-sensitive abbreviations list consists of a subset of the abbreviations from the main lists where a different context for the same abbreviation conveys a different meaning (for example, CA may mean calcium or carcinoma/ML may mean milliliter or middle lobe). For these context-sensitive abbreviations, the meaning of the abbreviation should be readily apparent from the context in which it is used.

The listings are not exhaustive, but many of the most commonly used terms were included. Abbreviations for chemotherapy drugs and/or regimens are not included. For short names and acronyms of antineoplastic drugs, consult the SEER Program Self Instructional Manual for Tumor Registrars: Book 8-Antineoplastic Drugs, Third Edition or SEER RX at:

http://seer.cancer.gov/tools/seerrx/

Please note that although abbreviations are presented in uppercase, either upper- or lowercase may be utilized when entering abbreviations within abstraction software. When abstracting into text fields, the use of abbreviations should be limited to those that appear on these lists whenever practical.

Abbreviations and symbols should be used carefully. The abbreviations list does not include an abbreviation for the word **cancer**. While the abbreviation “CA” is often used in the medical record to mean either the term **cancer** or **carcinoma**, it should be used in text reported to the VCR to indicate the histologic term of carcinoma. This distinction is very important when verifying histologic coding for cancer, NOS (8000/3) and carcinoma, NOS (8010/3).

This appendix contains two lists for abbreviations, one in term order and one in abbreviation order.

Ordered by Word/Term

Abdomen (abdominal) - ABD

Abdominal hysterectomy - ABD HYST

Abdominal perineal (Abdominoperineal) - AP

Abdominoperineal resection APR

Abnormal - ABN

Abnormal liver function test - ALFT

Above - ^

Above knee (amputation) - AK(A)

Absent/Absence - ABS

Abstract/Abstracted - ABST

Achilles tendon reflex - ATR

Acid phosphatase - ACID PHOS

Acquired Immune Deficiency Syndrome - AIDS

Acral lentiginous melanoma - ALM

Activities of daily living - ADL

Acute erythroleukemia - AEL

Acute granulocytic leukemia - AGL

Acute leukemia - AL

Acute lymphocytic leukemia - ALL

Acute megakaryoblastic leukemia - AMEGL

Acute myeloblastic leukemia - AMBL

Acute myelogenous leukemia - AML

Ordered by Word/Term

Acute myelomonocytic leukemia - AMML

Acute myocardial infarction - AMI

Acute promyelocytic leukemia - APL

Acute renal failure - ARF

Acute Respiratory Distress (Disease) Syndrome - ARDS

Acute tubular necrosis - ATN

Acute undifferentiated leukemia - AUL

Adenocarcinoma - ADENOCA, ACA

Adenosine triphosphate ATP

Adjacent - ADJ

Admission/Admit - ADM

Adrenal cortex - AC

Adrenal cortical hormone - ACH

Adrenocorticotrophic hormone - ACTH

Adult T-cell leukemia - ATL

Adult T-cell leukemia/lymphoma - ATLL

Adult-onset Diabetes Mellitus - AODM

Affirmative - AFF

Against medical advice - AMA

AIDS-related condition (complex) - ARC

AIDS-related disease - ARD

Air contrast barium enema - ACBE

Albumin - ALB

Alcohol - ETOH

Alkaline phosphatase - ALK PHOS

Ordered by Word/Term

Alpha chain disease - ACD

Alpha-fetoprotein - AFP

Also known as - AKA

Alternate - ALT

Ambulatory - AMB

Amount - AMT

Amputation - AMP

Amyotrophic lateral sclerosis - ALS

Anal intraepithelial neoplasia, grade III - AIN III

Anaplastic - ANAP

And - &

Angioblastic immunoblastic lymphadenopathy - AIL

Angiography/Angiogram - ANGIO

Anterior - ANT

Anteroposterior - AP

Antidiuretic hormone - ADH

Antigen - AG

Aortic stenosis - A-STEN

Apparently - APPL'Y

Appendix - APP

Approximately - APPROX

Arrhythmia - ARRHY

Arterial blood gases - ABG

Arteriosclerosis/Arteriosclerotic - AS

Arteriosclerotic cardiovascular disease - ASCVD

Ordered by Word/Term

Arteriosclerotic heart disease - ASHD

Arteriosclerotic Peripheral Vascular Disease - ASPVD

Arteriovenous - AV

Arteriovenous malformation - AVM

Artery (ial) - ART

As soon as possible - ASAP

Ascending - ASC

Ascending colon - A-COLON

Aspiration - ASP

Aspiration biopsy cytology - ABC

Aspirin, Acetylsalicylic acid - ASA

At - @

Atrial fibrillation - A FIB

Atrial flutter - A FLUTTER

Atrial premature complexes - APC

Atrial stenosis/insufficiency/incompetence - AI

Auscultation & percussion - A&P

Autoimmune hemolytic anemia - AIHA

Autologous bone marrow - ABM

Autologous bone marrow transplantation - ABMT

Autonomic nervous system - ANS

Autopsy - AUT

Average - AVG

Axilla(ry) - AX

Bacillus Calmette-Guerin - BCG

Ordered by Word/Term

Barium - BA

Barium enema - BE

Barium swallow - BAS

Bartholin's, Urethral & Skene's - BUS

Basal cell carcinoma - BCC

Before noon - AM

Below knee (amputation) - BK(A)

Benign prostatic hypertrophy/hyperplasia - BPH

Bilateral - BIL

Bilateral hilar lymphadenopathy - BHL

Bilateral lower lobes - BLL

Bilateral pelvic lymph node dissection - BPLND

Bilateral salpingo-oophorectomy - BSO

Bile duct - BD

Biological response modifier - BRM

Biopsy - BX

Bipolar affective disorder - BAD

Black female - B/F

Black male - B/M

Bladder outlet obstruction - BOO

Bladder tumor - BT

Blood pressure - BP

Blood urea nitrogen - BUN

Blood volume - BV

Bone Marrow - BM

Ordered by Word/Term

Bone marrow aspirate - BMA

Bone marrow biopsy - BMBX

Bone Marrow Transplant - BMT

Bowel Movement - BM

Bowel sounds - BS

Breast self-examination - BSE

Breath sounds - BRS

Bright red blood - BRB

Bright red blood per rectum - BRBPR

Bronchial lymph node - BLN

Bronchoalveolar washing - BAW

Bronchogenic carcinoma - BGCA

Burkitt lymphoma - BL

Calcium - CA

Capsule (s) - CAP(S)

Carcinoembryonic antigen - CEA

Carcinoma - CA

Carcinoma *in situ* - CIS

Carcinoma unknown primary - CUP

Cardioesophageal junction - CEJ

Cardiovascular disease - CVD

CAT/CT scan/Computerized axial tomography - CT

Ceased to breath - CTB

Centigram - CGM

Centigray - CGY

Ordered by Word/Term

Centimeter - CM

Central nervous system - CNS

Cerebrospinal fluid - CSF

Cerebrovascular accident - CVA

Cervical intraepithelial neoplasia - CIN

Cervical intraepithelial neoplasia, grade III - CIN III

Cervical spine - C-SPINE

Cervical vertebrae - C1-C7

Cervix - CX

Change - CHG

Chemotherapy - CHEMO

Chest X-ray - CXR

Chief complaint - C/C

Cholecystectomy - CHOLE

Chronic - CHR

Chronic granulocytic leukemia - CGL

Chronic leukemia - CL

Chronic lymphocytic leukemia - CLL

Chronic lymphosarcoma leukemia - CLSL

Chronic myelodysplastic syndrome - CMS

Chronic myeloid (myelocytic) leukemia - CML

Chronic myelomonocytic leukemia - CMML

Chronic obstructive lung disease - COLD

Chronic obstructive pulmonary disease - COPD

Chronic renal failure - CRF

Ordered by Word/Term

Chronic ulcerative colitis - CUC

Cigarettes - CIG

Clear - CLR

Clinical tumor, nodes, metastases - CTNM

Cobalt 60 - CO60

Collaborative stage - CS

Colon, Ascending - A-COLON

Colon, Descending - D-COLON

Colon, Sigmoid - SIG-COLON

Colon, Transverse - TRANS-COLON

Colony-stimulating factor - C-SF

Common bile duct - CBD

Complaint (-ning) of - C/O

Complete blood count - CBC

Complete continuous remission - CCR

Computerized axial tomography scan - CT, CAT

Congenital heart disease - CHD

Congestive heart failure - CHF

Consistent with - C/W

Continue/continuous - CONT

Contralateral - CONTRA

Coronary artery bypass graft - CABG

Coronary artery disease - CAD

Coronary care unit - CCU

Cubic centimeter - CC

Ordered by Word/Term

Curie - CU

Cutaneous - CUT

Cutaneous T-cell lymphoma - CTCL

Cystic fibrosis - CF

Cystoscopy - CYSTO

Cytology - CYTO

Date of birth - DOB

Date of death - DOD

Dead on arrival - DOA

Debridement - DEB

Decrease(d) - DECR

Deep tendon reflex - DTR

Deep vein thrombosis - DVT

Deoxyribonucleic acid - DNA

Dermatofibrosarcoma protuberans - DFSP

Dermatology - DERM

Descending - DESC

Descending colon D-COLON

Diabetes mellitus - DM

Diagnosis - DX

Diagnostic laparoscopy - DL

Diameter - DIAM

Died of other causes - DOC

Died with disease - DWD

Diethylstilbestrol - DES

Ordered by Word/Term

Differentiated/differential - DIFF

Digital rectal examination - DRE

Dilatation and curettage - D&C

Direct extension - DE

Discharge - DISCH

Discontinue(d) - DC

Disease - DZ

Disease free interval - DFI

Disseminated - DISSEM

Disseminated intravascular coagulopathy - DIC

Distant metastases - DM

Doctor - DR

Ductal carcinoma in situ - DCIS

Dyspnea on exertion - DOE

Ears, nose, and throat - ENT

Electrocardiogram - ECG/EKG

Electroencephalogram - EEG

Electromyogram - EMG

Emergency room - ER

Endoscopic retrograde cholangiopancreatography - ERCP

Enlarged - ENLGD

Equal(s) - =

esophagogastroduodenoscopy - EGD

Esophagus - ESO

Estrogen receptor assay - ERA

Ordered by Word/Term

Evaluation - EVAL

Every - Q

Every day - QD

Examination - EXAM

Examination under anesthesia - EUA

Excision/excised - EXC(D)

Expired - EXP

Exploratory - EXPL

Exploratory laparotomy - EXPL LAP

Extend/extension - EXT

Extended care facility - ECF

External - EX

Extremity - EXTR

Eyes, ears, nose and throat - EENT

Family history - FHX

Family medical history - FMH

Fever of unknown origin - FUO

Fine needle aspiration - FNA

Fine needle aspiration biopsy - FNAB

Fingerbreadth - FB

Flexible sigmoidoscopy - FLEX SIG

Floor of mouth - FOM

Fluid - FL

Fluoroscopy - FLURO

Follow-up - FU

Ordered by Word/Term

For example - E.G

Fracture - FX

French-American-British - FAB

Frequent/Frequency - FREQ

Frozen section - FS

Full thickness skin graft - FTSG

Gallbladder - GB

Gastroesophageal - GE

Gastroesophageal reflux disease - GERD

Gastrointestinal - GI

General/Generalized - GEN

Genitourinary - GU

Grade - GR

Gram - GM

Greater/Greater than - >

Gynecology - GYN

Head, eyes, ears, nose, throat - HEENT

Hematocrit - HCT

Hematology - HEMO

Hemoglobin - HGB

Hepatitis A (virus) - HAV

Hepatitis B (virus) - HBV

Hepatitis C (virus) - HCV

Hepatitis D (virus) - HDV

Hepatocellular carcinoma - HCC

Ordered by Word/Term

Hepatosplenomegaly - HSM

History - HX

History and physical - H&P

History of - H/O

History of present illness - HPI

Hodgkin disease - HD

Hormone - HORM

Hospital - HOSP/HSP

Hour/Hours - HR(S)

Human chorionic gonadotropin - HCG

Human Immunodeficiency Virus - HIV

Human Papilloma Virus - HPV

Human T-Lymphotropic Virus, (Type III) - HTLV

Hypertension - HTN

Hypertensive cardiovascular disease - HCVD

Hypertensive vascular disease - HVD

Hysterectomy - HYST

Idiopathic hypertrophic subaortic stenosis - IHSS

Idiopathic thrombocytopenia - ITP

Immunoglobulin - IG

Immunohistochemical - IHC

Impression - IMP

Inch - IN

Incision & drainage - I&D

Includes/Including - INCL

Ordered by Word/Term

Increase(d) - INCR

Inferior - INF

Inferior vena cava - IVC

Infiltrating - INFILT

Inflammatory bowel disease - IBD

Inpatient - IP

Insulin-dependent diabetes mellitus - IDDM

Intensive care unit - ICU

Intercostal margin - ICM

Intercostal space - ICS

Intermittent positive pressure breathing - IPPB

Internal - INT

Internal mammary artery - IMA

Interstitial lung disease - ILD

Intra-abdominal - IAB

Intramuscular - IM

Intrathecal - IT

Intravenous - IV

Intravenous cholangiogram - IVCA

Intravenous pyelogram - IVP

Invade(s)/invading/invasion - INV

Involve(s)/involvement/involving - INVL

Iodine - I

Ipsilateral - IPSI

Irregular - IRREG

Ordered by Word/Term

Joule - J

Jugular venous distention - JVD

Junction - JCT, JX

Juvenile rheumatic arthritis - JRA

Kaposi sarcoma - KS

Kidneys, ureters, bladder - KUB

Kilogram - KG

Kilovolt - KV

Laboratory - LAB

Lactic Dehydrogenase - LDH

Laparotomy - LAP

Large - LRG

Large bowel resection - LBR

Large-cleaved cell - LCC

Last menstrual period - LMP

Lateral - LAT

Left - LT

Left breast biopsy - LBBX

Left bundle branch block - LBBB

Left costal margin - LCM

Left eye - OS

Left lower extremity - LLE

Left lower lobe - LLL

Left lower quadrant - LLQ

Left salpingo-oophorectomy - LSO

Ordered by Word/Term

Left upper extremity - LUE

Left upper lobe - LUL

Left upper outer quadrant - LUOQ

Left upper quadrant - LUQ

Left ureteral orifice - LUO

Less/Less than - <

Licensed practical nurse - LPN

Linear accelerator - LINAC

Liver, kidney, spleen - LKS

Liver, kidney, spleen, bladder - LKSB

Liver/spleen scan - LS SCAN

Lobular carcinoma in situ - LCIS

Lobular in situ - LIS

Lobular neoplasia, grade 2 - LN2

Long Term Care Facility - LTCF

Lower extremity - LE

Lower inner quadrant - LIQ

Lower outer quadrant - LOQ

Lower right quadrant - LRQ

Lumbar puncture - LP

Lumbar spine - L-SPINE

Lumbar vertebra - L1-L5

Lumbosacral - LS

Lupus erythematosus - LUP ERYTH

Lymph node biopsy - LNBX

Ordered by Word/Term

Lymph node dissection - LND

Lymph node resection - LNR

Lymph node(s) - LN(S)

Lymphadenopathy-associated virus - LAV

Lymphangiography/lymphangiogram - LAG

Macrophage colony-stimulating factor - M-CSF

Magnetic resonance cholangiopancreatography - MRCP

Magnetic resonance imaging - MRI

Main stem bronchus - MSB

Malignant - MALIG

Malignant carcinoid syndrome - MCS

Malignant fibrous histiocytoma - MFH

Mandible/mandibular - MAND

Mastectomy - MAST, MX

Maximum - MAX

Medical center - MC

Medical history - MHX

Medication - MED

Melanoma associated antigen - MAA

Metastatic/Metastasis - METS

Methicillin Resistant Staphylococcus Aureus - MRSA

Microgram - MCG

Microscopic - MICRO

Midclavicular line - MCL

Middle - MID

Ordered by Word/Term

Middle lobe - ML

Millicurie (hours) - MC(H)

Milligram (hours) - MG(H)

Milliliter - ML

Millimeter - MM

Million electron volts - MEV

Minimum - MIN

Minus -

Minute - MIN

Mitral valve prolapse - MVP

Mixed combined immunodeficiency - MCID

Mixed connective tissue disease - MCTD

Moderate (ly) - MOD

Moderately differentiated - MD, MOD DIFF

Modified radical mastectomy - MRM

Monoclonal antibody - MC-AB, MCAB, MAB, MOAB

More/More than - >

Multifocal arterial tachycardia - MAT

Multifocal premature ventricular contraction - MPVC

Multiple - MULT

Multiple myeloma - MM

Multiple sclerosis - MS

Myasthenia gravis - MG

Myelodysplasia/myelodysplastic syndrome - MDS

Myeloproliferative disease - MPD

Ordered by Word/Term

Myocardial infarction - MI

Natural killer - NK

Nausea and vomiting - N&V

Neck vein distention - NVD

Needle biopsy - NBX

Needle liver biopsy - NLBX

Negative - NEG, -

Neoplasm - NEOPL

Neoplasm embryonic antigen - NEA

Nephrectomy - NX

Nerves, Cranial - 1-12 N-I - N-XII

Neurology - NEURO

No acute/active disease - NAD

No evidence of disease - NED

No evidence of recurrence - NER

No significant findings - NSF

Nodular & diffuse lymphoma - NDL

Non-small cell carcinoma - NSCCA

Non-Hodgkin malignant lymphoma - NHML

Non-Hodgkin lymphoma - NHL

Non-small cell lung cancer - NSCLC

Normal - NL

Not applicable - NA

Not elsewhere classified/classifiable - NEC

Not otherwise specified - NOS

Ordered by Word/Term

Not recorded - NR

Number - #

Nursing home - NH

Obstetrics - OB

Obstructed (-ing, -ion) - OBST

Occult primary malignancy - OPM

Oncology - ONC

Operating room - OR

Operation - OP

Operative report - OP RPT

Organic brain syndrome - OBS

Orthopedics - ORTHO

Otology - OTO

Ounce - OZ

Outpatient - OP

Outpatient surgery - OPS

Packs per day - PPD

Palpated (-able) - PALP

Papanicolaou smear - PAP

Papillary - PAP

Past/personal (medical) history - PMH

Pathologic tumor, nodes, metastases - PTNM

Pathology - PATH

Patient - PT

Pediatrics – PEDS

Ordered by Word/Term

Pelvic inflammatory disease - PID

Peptic ulcer disease - PUD

Percussion and auscultation - P&A

Percutaneous - PERC

Percutaneous transhepatic cholecystogram - PTC

Peripheral vascular disease - PVD

Phosphorus 32 - P32

Physical examination - PE

Physiotherapy/Physical therapy - PT

Plasma cell leukemia - PCL

Platelets - PLT

Plus - +

Polycythemia vera - PCV

Poorly differentiated - PD, POOR DIFF

Positive - POS, +

Positron emission tomography - PET

Possible - POSS

Posterior - POST

Posteroanterior - PA

Postoperative (-ly) - POST OP

Pound(s) - LB(S), #

Premature atrial contraction - PAC

Preoperative (-ly) - PRE OP

Prescription - RX

Present illness – PI

Ordered by Word/Term

Previous - PREV

Primitive neuroectodermal tumor - PNET

Prior to admission - PTA

Probable (-ly) - PROB

Proctoscopy - PROCTO

Progesterone receptor assay - PRA

Prolymphocytic leukemia - PLL

Prostatic intraepithelial neoplasia - PIN

Prostatic intraepithelial neoplasia, grade III - PIN III

Prostatic specific antigen - PSA

Pulmonary - PULM

Pulmonary artery - PULM ART

Quadrant - QUAD

Radiation absorbed dose - RAD

Radiation therapy - RT

Radical neck dissection - RND

Radioactive iodine - RAI

Radioimmunoassay - RIA

Received - REC'D

Red blood cells (count) - RBC

Regarding - RE

Regional medical center - R MC

Regular - REG

Regular sinus rhythm - RSR

Resection (ed) – RESEC

Ordered by Word/Term

Respiratory - RESPIR, RESP

Review of outside films - ROF

Review of outside slides - ROS

Rheumatic heart disease - RHD

Rheumatoid arthritis - RA

Right - RT

Right breast biopsy - RBBX

Right bundle branch block - RBBB

Right costal margin - RCM

Right eye - OD

Right inner quadrant - RIQ

Right lower extremity - RLE

Right lower lobe - RLL

Right lower quadrant - RLQ

Right middle lobe - RML

Right outer quadrant - ROQ

Right salpingo-oophorectomy - RSO

Right upper extremity - RUE

Right upper lobe - RUL

Right upper quadrant - RUQ

Right ureteral orifice - RUO

Rule out - R/O

Sacral spine - S-SPINE

Sacral vertebra - S1-S5

Salpingo-oophorectomy – SO

Ordered by Word/Term

Sarcoma - SARC

Satisfactory - SATIS

Sequential multiple analysis - SMA

Serum glutamic oxaloacetic transaminase - SGOT

Serum glutamic pyruvic transaminase - SGPT

Severe combined immunodeficiency syndrome - SCID

Short(ness) of breath - SOB

Sick sinus syndrome - SSS

Sigmoid colon - SIG COLON

Skilled nursing facility - SNF

Small - SM

Small bowel - SB

Small bowel obstruction - SBO

Small bowel resection - SBR

Small cell lung carcinoma - SCLC

Specimen - SPEC

Spine, Cervical - C-SPINE

Spine, Lumbar - L-SPINE

Spine, Sacral - S-SPINE

Spine, Thoracic - T-SPINE

Split thickness skin graft - STSG

Squamous - SQ

Squamous cell carcinoma - SCC

Status post - S/P

Subcutaneous – SUBQ

Ordered by Word/Term

Summary stage - SS

Superior vena cava - SVC

Surgery/Surgical - SURG

Suspicious/suspected - SUSP

Symptoms - SX

Syndrome of inappropriate - ADH SIADH

Systemic lupus erythematosus - SLE

T-cell acute lymphoblastic leukemia - T-ALL

T-cell chronic lymphatic leukemia - T-CLL

Thoracic spine - T-SPINE

Thrombotic thrombocytopenia purpura - TTP

Times - X

Total abdominal hysterectomy - TAH

Total abdominal hysterectomy- bilateral salpingo-oophorectomy - TAH-BSO

Total axial (lymph) node irradiation - TANI

Total parenteral nutrition - TPN

Total vaginal hysterectomy - TVH

Transbronchial biopsy - TBBX

Transient ischemic attack - TIA

Transitional cell carcinoma - TCC

Transrectal ultrasound - TRUS

Transrectal ultrasound of prostate - TRUSP

Transurethral resection - TUR

Transurethral resection bladder - TURB

Transurethral resection bladder tumor – TURBT

Ordered by Word/Term

Transurethral resection prostate - TURP

Transverse colon - TRANS-COLON

Transverse rectus abdominous myocutaneous - TRAM

Treatment - TX

True vocal cord - TVC

Tumor size - TS

Tumor, node, metastasis - TNM

Twice a day (daily) - BID

Ultrasound - US

Undetermined - UNDET

Undetermined origin - UDO

Undifferentiated - UNDIFF

Unilateral salpingo-oophorectomy - USO

Unknown - UNK

Upper extremity - UE

Upper gastrointestinal (series) - UGI

Upper inner quadrant - UIQ

Upper outer quadrant - UOQ

Upper respiratory infection - URI

Upper right quadrant - URQ

Urinary tract infection - UTI

Vagina/Vaginal - VAG

Vaginal hysterectomy - VAG HYST

Vaginal intraepithelial neoplasia - VAIN

Vaginal intraepithelial neoplasia (grade III) - VAIN III

Ordered by Word/Term

Vascular - VASC

Versus - VS

Vulvar intraepithelial neoplasia - VIN

Vulvar intraepithelial neoplasia (grade III) - VIN III

Well differentiated - WD, WELL DIFF

White blood cells (count) - WBC

White female - W/F

White male - W/M

Will follow (in) office - WF-O

Wilms (tumor), aniridia, genitourinary (abnormalities), and - WAGR

With - W/

Within normal limits - WNL

Without - W/O

Wolff-Parkinson-White Syndrome - WPW

Work-up - W/U

Xray - XR

Year - YR

Yolk Sac Tumor - YST

Ordered by Abbreviation

A FIB - Atrial fibrillation

A FLUTTER - Atrial flutter

A&P - Auscultation & percussion

ABC - Aspiration biopsy cytology

ABD - Abdomen (abdominal)

Ordered by Abbreviation

ABD HYST - Abdominal hysterectomy

ABG - Arterial blood gases

ABM - Autologous bone marrow

ABMT - Autologous bone marrow transplantation

ABN - Abnormal

ABS - Absent/Absence

ABST - Abstract/Abstracted

AC - Adrenal cortex

ACA - Adenocarcinoma

ACBE - Air contrast barium enema

ACD - Alpha chain disease

ACH - Adrenal cortical hormone

ACID - PHOS Acid phosphatase

A-COLON - Ascending colon

ACTH - Adrenocorticotrophic hormone

ADENOCA, ACA - Adenocarcinoma

ADH - Antidiuretic hormone

ADH SIADH - Syndrome of inappropriate ADH

ADJ - Adjacent

ADL - Activities of daily living

ADM - Admission/Admit

AEL - Acute erythroleukemia

AFF - Affirmative

AFP - Alpha-fetoprotein

AG – Antigen

Ordered by Abbreviation

AGL - Acute granulocytic leukemia

AI - Atrial stenosis/insufficiency/incompetence

AIDS - Acquired Immune Deficiency Syndrome

AIHA - Autoimmune hemolytic anemia

AIL - Angioblastic immunoblastic lymphadenopathy

AIN III - Anal intraepithelial neoplasia, grade III

AK(A) - Above knee (amputation)

AKA - Also known as

AL - Acute leukemia

ALB - Albumin

ALFT - Abnormal liver function test

ALK PHOS - Alkaline phosphatase

ALL - Acute lymphocytic leukemia

ALM - Acral lentiginous melanoma

ALS - Amyotrophic lateral sclerosis

ALT - Alternate

AM - Before noon

AMA - Against medical advice

AMB - Ambulatory

AMBL - Acute myeloblastic leukemia

AMEGL - Acute megakaryoblast leukemia

AMI - Acute myocardial infarction

AML - Acute myelogenous leukemia

AMML - Acute myelomonocytic leukemia

AMP – Amputation

Ordered by Abbreviation

AMT - Amount

ANAP - Anaplastic

ANGIO - Angiography/Angiogram

ANS - Autonomic nervous system

ANT - Anterior

AODM - Adult-onset Diabetes Mellitus

AP - Abdominal perineal (Abdominoperineal)

AP - Anteroposterior

APC - Atrial premature complexes

APL - Acute promyelocytic leukemia

APP - Appendix

APPL'Y - Apparently

APPROX - Approximately

APR - Abdominoperineal resection

ARC AIDS -related condition (complex)

ARD AIDS -related disease

ARDS - Acute Respiratory Distress (Disease) Syndrome

ARF - Acute renal failure

ARRHY - Arrhythmia

ART - Artery (ial)

AS - Arteriosclerosis/Arteriosclerotic

ASA - Aspirin, Acetylsalicylic acid

ASAP - As soon as possible

ASC - Ascending

ASCVD - Arteriosclerotic cardiovascular disease

Ordered by Abbreviation

ASHD - Arteriosclerotic heart disease

ASP - Aspiration

ASPVD - Arteriosclerotic Peripheral Vascular Disease

A-STEN - Aortic stenosis

ATL - Adult T-cell leukemia

ATLL- Adult T-cell leukemia/lymphoma

ATN - Acute tubular necrosis

ATP - Adenosine triphosphate

ATR - Achilles tendon reflex

AUL - Acute undifferentiated leukemia

AUT - Autopsy

AV - Arteriovenous

AVG - Average

AVM - Arteriovenous malformation

AX - Axilla(ry)

B/F - Black female

B/M - Black male

BA - Barium

BAD - Bipolar affective disorder

BAS - Barium swallow

BAW - Bronchoalveolar washing

BCC - Basal cell carcinoma

BCG - Bacillus Calmette-Guerin

BD - Bile duct

BE - Barium enema

Ordered by Abbreviation

BGCA - Bronchogenic carcinoma

BHL - Bilateral hilar lymphadenopathy

BID - Twice a day (daily)

BIL - Bilateral

BK(A) - Below knee (amputation)

BKA - Below knee amputation

BL - Burkitt lymphoma

BLL - Bilateral lower lobes

BLN - Bronchial lymph node

BM - Bone Marrow

BM - Bowel Movement

BMA - Bone marrow aspirate

BMBX - Bone marrow biopsy

BMT - Bone Marrow Transplant

BOO - Bladder outlet obstruction

BP - Blood pressure

BPH - Benign prostatic hypertrophy/hyperplasia

BPLND - Bilateral pelvic lymph node dissection

BRB - Bright red blood

BRBPR - Bright red blood per rectum

BRM B - iological response modifier

BRS - Breath sounds

BS - Bowel sounds

BSE - Breast self-examination

BSO - Bilateral salpingo-oophorectomy

Ordered by Abbreviation

BT - Bladder tumor

BUN - Blood urea nitrogen

BUS - Bartholin's, Urethral & Skene's

BV - Blood volume

BX - Biopsy

C/C - Chief complaint

C/O - Complaint (-ning) of

C/W - Consistent with

C1-C7- Cervical vertebrae

CA - Calcium

CA - Carcinoma

CABG - Coronary artery bypass graft

CAD - Coronary artery disease

CAP(S) - Capsule (s)

CBC - Complete blood count

CBD - Common bile duct

CC - Cubic centimeter

CCR - Complete continuous remission

CCU - Coronary care unit

CEA - Carcinoembryonic antigen

CEJ - Cardio esophageal junction

CF - Cystic fibrosis

CGL - Chronic granulocytic leukemia

CGM - Centigram

CGY – Centi-gray

Ordered by Abbreviation

CHD - Congenital heart disease

CHEMO - Chemotherapy

CHF - Congestive heart failure

CHG - Change

CHOLE - Cholecystectomy

CHR - Chronic

CIG - Cigarettes

CIN - Cervical intraepithelial neoplasia

CIN III - Cervical intraepithelial neoplasia, grade III

CIS - Carcinoma in situ

CL - Chronic leukemia

CLL - Chronic lymphocytic leukemia

CLR - Clear

CLSL - Chronic lymphosarcoma leukemia

CM - Centimeter

CML - Chronic myeloid (myelocytic) leukemia

CMML - Chronic myelomonocytic leukemia

CMS - Chronic myelodysplastic syndrome

CNS - Central nervous system

CO60 - Cobalt 60

COLD - Chronic obstructive lung disease

CONT - Continue/continuous

CONTRA - Contralateral

COPD - Chronic obstructive pulmonary disease

CRF - Chronic renal failure

Ordered by Abbreviation

CS - Collaborative stage

CSF - Cerebrospinal fluid

C-SF - Colony-stimulating factor

C-SPINE - Cervical spine

CT CAT/CT scan/ - Computerized axial tomography

CT, CAT - Computerized axial tomography scan

CTB - Ceased to breath

CTCL - Cutaneous T-cell lymphoma

CTNM - Clinical tumor, nodes, metastases

CU - Curie

CUC - Chronic ulcerative colitis

CUP - Carcinoma unknown primary

CUT - Cutaneous

CVA - Cerebrovascular accident

CVD - Cardiovascular disease

CX - Cervix

CXR - Chest X-ray

CYSTO - Cystoscopy

CYTO - Cytology

D&C - Dilatation and curettage

DC - Discontinue(d)

DCIS - Ductal carcinoma in situ

D-COLON - Descending colon

DE - Direct extension

DEB – Debridement

Ordered by Abbreviation

DECR - Decrease(d)

DERM - Dermatology

DES - Diethylstilbestrol

DESC - Descending

DFI - Disease free interval

DFSP - Dermatofibrosarcoma protuberans

DIAM - Diameter

DIC - Disseminated intravascular coagulopathy

DIFF - Differentiated/differential

DISCH - Discharge

DISSEM - Disseminated

DL - Diagnostic laparoscopy

DM - Diabetes mellitus

DM - Distant metastases

DNA - Deoxyribonucleic acid

DOA - Dead on arrival

DOB - Date of birth

DOC - Died of other causes

DOD - Date of death

DOE - Dyspnea on exertion

DR - Doctor

DRE - Digital rectal examination

DTR - Deep tendon reflex

DVT - Deep vein thrombosis

DWD - Died with disease

Ordered by Abbreviation

DX - Diagnosis

DZ - Disease

E.G - For example

ECF - Extended care facility

ECG/EKG - Electrocardiogram

EEG - Electroencephalogram

EENT - Eyes, ears, nose and throat

EGD - Esophagogastroduodenoscopy

EMG - Electromyogram

ENLGD - Enlarged

ENT - Ears, nose, and throat

ER - Emergency room

ERA - Estrogen receptor assay

ERCP - Endoscopic retrograde cholangiopancreatography

ESO - Esophagus

ETOH - Alcohol

EUA - Examination under anesthesia

EVAL - Evaluation

EX - External

EXAM - Examination

EXC(D) - Excision/excised

EXP - Expired

EXPL - Exploratory

EXPL LAP - Exploratory laparotomy

EXT - Extend/extension

Ordered by Abbreviation

EXTR - Extremity

FAB - French-American-British

FB - Fingerbreadth

FHX - Family history

FL - Fluid

FLEX SIG - Flexible sigmoidoscopy

FLURO - Fluoroscopy

FMH - Family medical history

FNA - Fine needle aspiration

FNAB - Fine needle aspiration biopsy

FOM - Floor of mouth

FREQ - Frequent/Frequency

FS - Frozen section

FTSG - Full thickness skin graft

FU - Follow-up

FUO - Fever of unknown origin

FX - Fracture

GB - Gallbladder

GE - Gastroesophageal

GEN - General/Generalized

GERD - Gastroesophageal reflux disease

GI - Gastrointestinal

GM - Gram

GR - Grade

GU – Genitourinary

Ordered by Abbreviation

GYN - Gynecology

H&P - History and physical

H/O - History of

HAV - Hepatitis A (virus)

HBV - Hepatitis B (virus)

HCC - Hepatocellular carcinoma

HCG - Human chorionic gonadotropin

HCT - Hematocrit

HCV - Hepatitis C (virus)

HCVD - Hypertensive cardiovascular disease

HD - Hodgkin disease

HDV - Hepatitis D (virus)

HEENT - Head, eyes, ears, nose, throat

HEMO - Hematology

HGB - Hemoglobin

HIV - Human Immunodeficiency Virus

HORM - Hormone

HOSP - Hospital

HPI - History of present illness

HPV - Human Papilloma Virus

HR(S) - Hour/Hours

HSM - Hepatosplenomegaly

HTLV - Human T-Lymphotropic Virus, (Type III)

HTN - Hypertension

HVD - Hypertensive vascular disease

Ordered by Abbreviation

HX - History

HYST - Hysterectomy

I - Iodine

I&D - Incision & drainage

IAB - Intra-abdominal

IBD - Inflammatory bowel disease

ICM - Intercostal margin

ICS - Intercostal space

ICU - Intensive care unit

IDDM - Insulin-dependent diabetes mellitus

IG - Immunoglobulin

IHC - Immunohistochemical

IHSS - Idiopathic hypertrophic subaortic stenosis

ILD - Interstitial lung disease

IM - Intramuscular

IMA - Internal mammary artery

IMP - Impression

IN - Inch

INCL - Includes/Including

INCR - Increase(d)

INF - Inferior

INFILT - Infiltrating

INT - Internal

INV - Invade(s)/invading/invasion

INVL - Involve(s)/involvement/involving

Ordered by Abbreviation

IP - Inpatient

IPPB - Intermittent positive pressure breathing

IPSI - Ipsilateral

IRREG - Irregular

IT - Intrathecal

ITP - Idiopathic thrombocytopenia

IV - Intravenous

IVC - Inferior vena cava

IVCA - Intravenous cholangiogram

IVP - Intravenous pyelogram

J - Joule

JCT - Junction

JRA - Juvenile rheumatic arthritis

JVD - Jugular venous distention

JX - Junction

KG - Kilogram

KS - Kaposi sarcoma

KUB - Kidneys, ureters, bladder

KV - Kilovolt

L1-L5 - Lumbar vertebra

LAB - Laboratory

LAG - Lymphangiography/lymphangiogram

LAP - Laparotomy

LAT - Lateral

LAV - Lymphadenopathy-associated virus

Ordered by Abbreviation

LB(S) - Pound(s)

LBBB - Left bundle branch block

LBBX - Left breast biopsy

LBR - Large bowel resection

LCC - Large cleaved cell

LCIS - Lobular carcinoma in situ

LCM - Left costal margin

LDH - Lactic dehydrogenase

LE - Lower extremity

LINAC - Linear accelerator

LIQ - Lower inner quadrant

LIS - Lobular in situ

LKS - Liver, kidney, spleen

LKSB - Liver, kidney, spleen, bladder

LLE - Left lower extremity

LLL - Left lower lobe

LLQ - Left lower quadrant

LMP - Last menstrual period

LN(S) - Lymph node(s)

LN2 - Lobular neoplasia, grade 2

LNBX - Lymph node biopsy

LND - Lymph node dissection

LNR - Lymph node resection

LOQ - Lower outer quadrant

LP - Lumbar puncture

Ordered by Abbreviation

LPN - Licensed practical nurse

LRG - Large

LRQ - Lower right quadrant

LS - Lumbosacral

LS SCAN - Liver/spleen scan

LSO - Left salpingo-oophorectomy

L-SPINE - Lumbar spine

LT - Left

LTCF - Long Term Care Facility

LUE - Left upper extremity

LUL - Left upper lobe

LUO - Left ureteral orifice

LUOQ - Left upper outer quadrant

LUP ERYTH - Lupus erythematosus

LUQ - Left upper quadrant

MAA - Melanoma associated antigen

MAB - Monoclonal antibody

MALIG - Malignant

MAND - Mandible/mandibular

MAST - Mastectomy

MAT - Multifocal arterial tachycardia

MAX - Maximum

MC - Medical center

MC(H) - Millicurie (hours)

MC-AB, - MCAB Monoclonal antibody

Ordered by Abbreviation

MCG - Microgram

MCID - Mixed combined immunodeficiency

MCL - Midclavicular line

MCS - Malignant carcinoid syndrome

M-CSF - Macrophage colony-stimulating factor

MCTD - Mixed connective tissue disease

MD - Moderately differentiated

MDS - Myelodysplasia/myelodysplastic syndrome

MED - Medication

MED - Medicine

METS - Metastatic/Metastasis

MEV - Million electron volts

MFH - Malignant fibrous histiocytoma

MG - Myasthenia gravis

MG(H) - Milligram (hours)

MHX - Medical history

MI - Myocardial infarction

MICRO - Microscopic

MID - Middle

MIN - Minimum

MIN - Minute

ML - Middle lobe

ML - Milliliter

MM - Millimeter

MM - Multiple myeloma

Ordered by Abbreviation

MOAB - Monoclonal antibody

MOD - Moderate (ly)

MOD DIFF - Moderately differentiated

MPD - Myeloproliferative disease

MPVC - Multifocal premature ventricular contraction

MRCP - Magnetic resonance cholangiopancreatography

MRI - Magnetic resonance imaging

MRM - Modified radical mastectomy

MRSA - Methicillin Resistant Staphylococcus Aureus

MS - Multiple sclerosis

MSB - Main stem bronchus

MULT - Multiple

MVP - Mitral valve prolapse

MX - Mastectomy

N&V - Nausea and vomiting

NA - Not applicable

NAD - No acute/active disease

NBX - Needle biopsy

NDL - Nodular & diffuse lymphoma

NEA - Neoplasm embryonic antigen

NEC - Not elsewhere classified/classifiable

NED - No evidence of disease

NEG - Negative

NEOPL - Neoplasm

NER - No evidence of recurrence

Ordered by Abbreviation

NEURO - Neurology

NH - Nursing home

NHL - non-Hodgkin lymphoma

NHML - non-Hodgkin malignant lymphoma

N-I - N-XII Nerves, Cranial 1-12

NK - Natural killer

NL - Normal

NLBX - Needle liver biopsy

NOS - Not otherwise specified

NR - Not recorded

NSCCA - Non-small cell carcinoma

NSCLC - Non-small cell lung cancer

NSF - No significant findings

NVD - Neck vein distention

NX - Nephrectomy

OB - Obstetrics

OBS - Organic brain syndrome

OBST - Obstructed (-ing, -ion)

OD - Right eye

ONC - Oncology

OP - Operation

OP - Outpatient

OP RPT - Operative report

OPM - Occult primary malignancy

OPS - Outpatient surgery

Ordered by Abbreviation

OR - Operating room

ORTHO - Orthopedics

OS - Left eye

OTO - Otology

OZ - Ounce

P&A - Percussion and auscultation

P32 - Phosphorus 32

PA - Posteroanterior

PAC - Premature atrial contraction

PALP - Palpated (-able)

PAP - Papanicolaou smear

PAP - Papillary

PATH - Pathology

PCL - Plasma cell leukemia

PCV - Polycythemia vera

PD - Poorly differentiated

PE - Physical examination

PEDS - Pediatrics

PERC - Percutaneous

PET - Positron emission tomography

PI - Present illness

PID - Pelvic inflammatory disease

PIN - Prostatic intraepithelial neoplasia

PIN III - Prostatic intraepithelial neoplasia, grade III

PLL - Prolymphocytic leukemia

Ordered by Abbreviation

PLT - Platelets

PMH - Past/personal (medical) history

PMP - Primary medical physician

PNET - Primitive neuroectodermal tumor

POOR DIFF - Poorly differentiated

POS - Positive

POSS - Possible

POST - Posterior

POST OP - Postoperative (-ly)

PPD - Packs per day

PRA - Progesterone receptor assay

PRE OP - Preoperative (-ly)

PREV - Previous

PROB - Probable (-ly)

PROCTO - Proctoscopy

PSA - Prostatic specific antigen

PT - Patient

PT - Physiotherapy/Physical therapy

PTA - Prior to admission

PTC - Percutaneous transhepatic cholecystogram

PTNM - Pathologic tumor, nodes, metastases

PUD - Peptic ulcer disease

PULM - Pulmonary

PULM ART - Pulmonary artery

PVD - Peripheral vascular disease

Ordered by Abbreviation

Q - Every

QD - Every day

QUAD - Quadrant

R/O - Rule out

RA - Rheumatoid arthritis

RAD - Radiation absorbed dose

RAI - Radioactive iodine

RBBB - Right bundle branch block

RBBX - Right breast biopsy

RBC - Red blood cells (count)

RCM - Right costal margin

RE - Regarding

REC'D - Received

REG - Regular

RESEC - Resection (ed)

RESP - Respiratory

RESPIR - Respiratory

RHD - Rheumatic heart disease

RIA - Radioimmunoassay

RIQ - Right inner quadrant

RLE - Right lower extremity

RLL - Right lower lobe

RLQ - Right lower quadrant

RMC - Regional medical center

RML - Right middle lobe

Ordered by Abbreviation

RND - Radical neck dissection

ROF - Review of outside films

ROQ - Right outer quadrant

ROS - Review of outside slides

RSO - Right salpingo-oophorectomy

RSR - Regular sinus rhythm

RT - Radiation therapy

RT - Right

RUE - Right upper extremity

RUL - Right upper lobe

RUO - Right ureteral orifice

RUQ - Right upper quadrant

RX - Prescription

S/P - Status post

S1-S5 - Sacral vertebra

SARC - Sarcoma

SATIS - Satisfactory

SB - Small bowel

SBO - Small bowel obstruction

SBR - Small bowel resection

SCC - Squamous cell carcinoma

SCID - Severe combined immunodeficiency syndrome

SCLC - Small cell lung carcinoma

SGOT - Serum glutamic oxaloacetic transaminase

SGPT - Serum glutamic pyruvic transaminase

Ordered by Abbreviation

SIG COLON - Sigmoid colon

SLE - Systemic lupus erythematosus

SM - Small

SMA - Sequential multiple analysis

SNF - Skilled nursing facility

SO - Salpingo-oophorectomy

SOB - Short(ness) of breath

SPEC - Specimen

SQ - Squamous

SS - Summary stage

S-SPINE- Sacral spine

SSS - Sick sinus syndrome

STSG - Split thickness skin graft

SUBQ - Subcutaneous

SURG - Surgery/Surgical

SUSP - Suspicious/suspected

SVC - Superior vena cava

SX - Symptoms

TAH - Total abdominal hysterectomy

TAH-BSO - Total abdominal hysterectomy- bilateral salpingo-oophorectomy

T-ALL - T-cell acute lymphoblastic leukemia

TANI - Total axial (lymph) node irradiation

TBBX - Transbronchial biopsy

TCC - Transitional cell carcinoma

T-CLL - T-cell chronic lymphatic leukemia

Ordered by Abbreviation

TIA - Transient ischemic attack

TNM - Tumor, node, metastasis

TPN - Total parenteral nutrition

TRAM - Transverse rectus abdominous myocutaneous

TRANS-COLON - Transverse colon

TRUS - Transrectal ultrasound

TRUSP - Transrectal ultrasound of prostate

TS - Tumor size

T-SPINE- Thoracic spine

TTP - Thromboticthrombocytopenia purpura

TUR - Transurethral resection

TURB - Transurethral resection bladder

TURBT - Transurethral resection bladder tumor

TURP - Transurethral resection prostate

TVC - True vocal cord

TVH - Total vaginal hysterectomy

TX - Treatment

UDO - Undetermined origin

UE - Upper extremity

UGI - Upper gastrointestinal (series)

UIQ - Upper inner quadrant

UNDET - Undetermined

UNDIFF - Undifferentiated

UNK - Unknown

UOQ - Upper outer quadrant

Ordered by Abbreviation

URI - Upper respiratory infection

URQ - Upper right quadrant

US - Ultrasound

USO - Unilateral salpingo-oophorectomy

UTI - Urinary tract infection

VAG - Vagina/Vaginal

VAG HYST - Vaginal hysterectomy

VAIN - Vaginal intraepithelial neoplasia

VAIN III - Vaginal intraepithelial neoplasia (grade III)

VASC - Vascular

VIN - Vulvar intraepithelial neoplasia

VIN III - Vulvar intraepithelial neoplasia (grade III)

VS - Versus

W/ - With

W/F - White female

W/M - White male

W/O - Without

W/U - Work-up

WAGR - Wilms (tumor), aniridia, genitourinary (abnormalities), and (mental)

WBC - White blood cells (count)

WD - Well differentiated

WELL DIFF - Well differentiated

WF-O - Will follow (in) office

WNL - Within normal limits

WPW - Wolff-Parkinson-White syndrome

Ordered by Abbreviation

XR - Xray

YR - Year

YST -Yolk Sac Tumor

Context-Sensitive Abbreviations

When using these abbreviations, make sure the meaning of the abbreviation is readily apparent in the context in which it is used.

Abbreviation – Word/Term(s)

AP – Anteroposterior, Abdominal perineal

BM - Bone marrow, Bowel movement

CA – Calcium, Carcinoma

DM - Diabetes mellitus, Distant metastase

MIN – Minimum, Minute

ML – Milliliter, Middle lobe

MM – Millimeter, Multiple myeloma

OP – Operation, Outpatient

PAP – Papillary, Papanicolaou smear

PT – Patient, Physiotherapy, Physical therapy

RT – Right, Radiation therapy

Symbol – Word/Term(s)

- Negative, minus

- Number, pound(s)

& - And

@ - At

^ - Above

+ - Plus, Positive

< - Less/Less than

= - Equal(s)

> - Greater/Greater than, More/more than

X - Times

End of Appendix J

Appendix K

AJCC 8th Edition

AJCC 8th Edition

AJCC 8th Edition TNM Stage

AJCC moved from editions to versions The AJCC version 9 TNM staging for was published in July of 2020, and went into use in the United States on January 1, 2021. For cases with a diagnosis date of January 1,2021 and later, please refer to the information in Summary of Changes of this manual.

AJCC TNM Clin T

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1001	15	1082-1096	Alphanumeric, Blank	2018+	01/18

Description

Evaluates the primary tumor (T) and reflects the tumor size and/or extension of the tumor known ***prior*** to the start of any therapy. Detailed site-specific values for the clinical T category as defined by the current AJCC edition.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018, the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Codes and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The clinical T category staging data item must be recorded for *Class of Case* 10-22.
- It is strongly recommended that the clinical T category staging data item be recorded for *Class of Case* 00 cases if the patient's workup at the facility allows assigning of clinical T.
- Assign clinical T category as documented by the first treating physician or the managing physician in the medical record.

- If the managing physician has not recorded clinical T, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current AJCC Cancer Staging Manual, Eighth Edition for detailed staging rules.

AJCC Clinical T Codes and Labels

Code	Label
(blank)	Not recorded
cTX	cTX
cT0	cT0
cTa	cTa
cTis	cTis
cTis(DCIS)	cTis(DCIS)
cTis(LAMN)	cTis(LAMN)
cTis(Paget)	cTis(Paget)
cT1	cT1
cT1mi	cT1mi
cT1a	cT1a
cT1a1	cT1a1
cT1a2	cT1a2
cT1b	cT1b
cT1b1	cT1b1
cT1b2	cT1b2

Code	Label
cT2	cT2
cT2a	cT2a
cT2a1	cT2a1
cT2a2	cT2a2
cT2b	cT2b
cT2c	cT2c
cT2d	cT2d
cT3	cT3
cT3a	cT3a
cT3b	cT3b
cT3c	cT3c
cT3d	cT3d
cT3e	cT3e
cT4	cT4
cT4a	cT4a
cT4b	cT4b

cT1c	cT1c
cT1c1	cT1c1
cT1c2	cT1c2
cT1c3	cT1c3
cT1d	cT1d

cT4c	cT4c
cT4d	cT4d
cT4e	cT4e
88	Not applicable

AJCC TNM Clin T Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1031	4	1097-1100	(m), (s), Blank	2018+	01/18

Description

Identifies the AJCC TNM clinical T category suffix for the tumor ***prior*** to the start of any therapy. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Codes and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- Record the clinical T category suffix as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the suffix when applicable, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.

- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(m)	Multiple synchronous tumors OR Multifocal tumor (differentiated and anaplastic thyroid only)
(s)	Solitary tumor (differentiated and anaplastic thyroid only)

AJCC TNM Clin N

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1002	15	1101-1115	Alphanumeric, Blank	2018+	01/18

Description

Identifies the absence or presence of regional lymph node (N) metastasis and describes the extent of regional lymph node metastasis of the tumor known ***prior*** to the start of any therapy. Detailed sitespecific values for the clinical N category as defined by the current AJCC edition.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Codes and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The clinical N category staging data item must be assigned for *Class of Case* 10-22.
- It is strongly recommended that the clinical N category staging data item be recorded for *Class of Case* 00 cases if the patient's workup at the facility allows assigned of clinical N category.
- Record clinical N category as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded clinical N, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Clinical N Codes and Labels

Code	Label
(blank)	Not recorded
cNX	cNX
cN0	cN0
cN0a	cN0a
cN0b	cN0b
cN0(i+)	cN0(i+)
cN1	cN1
cN1mi	cN1mi
cN1a	cN1a
cN1b	cN1b

Code	Label
cN2	cN2
cN2mi	cN2mi
cN2a	cN2a
cN2b	cN2b
cN2c	cN2c
cN3	cN3
cN3a	cN3a
cN3b	cN3b
cN3c	cN3c
88	Not applicable

cN1c	cN1c

AJCC TNM Clin N Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1034	4	1116-1119	(sn), (f), Blank	2018+	01/18

Description

Identifies the AJCC TNM clinical N category suffix for the tumor ***prior*** to the start of any therapy. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- Record the clinical N category suffix as documented by the first treating physician or the managing physician in the medical record.

- If the managing physician has not recorded the suffix when applicable, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(sn)	Sentinel node procedure with or without FNA or core needle biopsy
(f)	FNA or core needle biopsy only

AJCC TNM Clin M

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1003	15	1120-1134	Alphanumeric, Blank	2018+	01/18

Description

Identifies the presence or absence of distant metastasis (M) of the tumor known ***prior*** to the start of any therapy. Detailed site-specific values for the clinical T category suffix as defined by the current AJCC edition.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The clinical M category staging data item must be assigned for *Class of Case* 10-22.
- It is strongly recommended that the clinical M category staging data item be recorded for *Class of Case* 00 cases if the patient's workup at the facility allows assigning of clinical M.
- Record clinical M category as documented by the first treating physician or managing physician in the medical record.
- If the managing physician has not recorded clinical M category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- The valid codes and labels for the *AJCC Cancer Staging Manual, Eighth Edition* have been expanded and are now consistent for clarity. They are provided herein with permission from the American College of Surgeons (ACS) to support the data collection efforts of the CoC and NCDB.

Clinical M Codes and Labels

Code	Label
(blank)	Not recorded
cM0	cM0
cM0(i+)	cM0(i+)
cM1	cM1
cM1a	cM1a
cM1a(0)	cM1a(0)
cM1a(1)	cM1a(1)
cM1b	cM1b
cM1b(0)	cM1b(0)
cM1b(1)	cM1b(1)
cM1c	cM1c
cM1c(0)	cM1c(0)
cM1c(1)	cM1c(1)
cM1d	cM1d
cM1d(0)	cM1d(0)
cM1d(1)	cM1d(1)

Code	Label
pM1	pM1
pM1a	pM1a
pM1a(0)	pM1a(0)
pM1a(1)	pM1a(1)
pM1b	pM1b
pM1b(0)	pM1b(0)
pM1b(1)	pM1b(1)
pM1c	pM1c
pM1c(0)	pM1c(0)
pM1c(1)	pM1c(1)
pM1d	pM1d
pM1d(0)	pM1d(0)
pM1d(1)	pM1d(1)
88	Not applicable

AJCC TNM Clin Stage Group

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1004	15	1135-1149	Alphanumeric, Blank	2018+	01/18

Description

Identifies the anatomic extent of disease based on the T, N, and M category data items known ***prior*** to the start of any therapy. Detailed site-specific values for the clinical stage group as defined by the current AJCC edition.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are still utilized for the stage groups only due to the decision to maintain Arabic numerals in the stage groups. New groups will be used for cases diagnosed in 2018 and later.

Coding Instructions

- Record the clinical stage group as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the clinical stage, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Convert all Roman numerals to Arabic numerals and use upper-case (capital letters) only.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.
- The valid codes and labels for the *AJCC Cancer Staging Manual, Eighth Edition* have been expanded and are now consistent for clarity. They are provided herein with permission from the American College of Surgeons (ACS) to support the data collection efforts of the CoC and NCDB.

Code	Label
(blank)	Not recorded
Occultcarcinoma	Occult carcinoma
0	0
0a	0a
0is	0is
1	I
1A	IA
1A1	IA1
1A2	IA2
1A3	IA3
1B	IB
1B1	IB1
1B2	IB2
1C	IC
1E	IE
1S	IS
1:0	I:0
1:1	I:1
1:2	I:2
1:3	I:3
1:4	I:4
1:5	I:5
1:6	I:6

Code	Label
2	II
2A	IIA
2A1	IIA1
2A2	IIA2
2B	IIB
2C	IIC
2E	IIE
2bulky	II bulky
2:0	II:0
2:1	II:1
2:2	II:2
2:3	II:3
2:4	II:4
2:5	II:5
2:6	II:6
2:7	II:7
2:8	II:8
2:9	II:9
2:10	II:10
2:11	II:11
2:12	II:12
2:13	II:13
2:14	II:14

1:7	I:7
1:8	I:8
1:9	I:9
1:10	I:10
1:11	I:11
1:12	I:12
1:13	I:13
1:14	I:14
1:15	I:15
1:16	I:16
1:17	I:17
1:18	I:18
1:19	I:19
1:20	I:20
1:21	I:21
1:22	I:22
1:23	I:23
1:24	I:24
1:25	I:25
3:0	III:0
3:1	III:1
3:2	III:2
3:3	III:3
3:4	III:4

2:15	II:15
2:16	II:16
2:17	II:17
2:18	II:18
2:19	II:19
2:20	II:20
2:21	II:21
2:22	II:22
2:23	II:23
2:24	II:24
2:25	II:25
3	III
3A	IIIA
3A1	IIIA1
3A2	IIIA2
3B	IIIB
3C	IIIC
3C1	IIIC1
3C2	IIIC2
4B	IVB
4C	IVC
4:0	IV:0
4:1	IV:1
4:2	IV:2

3:5	III:5
3:6	III:6
3:7	III:7
3:8	III:8
3:9	III:9
3:10	III:10
3:11	III:11
3:12	III:12
3:13	III:13
3:14	III:14
3:15	III:15
3:16	III:16
3:17	III:17
3:18	III:18
3:19	III:19
3:20	III:20
3:21	III:21
3:22	III:22
3:23	III:23
3:24	III:24
3:25	III:25
4	IV
4A	IVA
4A1	IVA1

4:3	IV:3
4:4	IV:4
4:5	IV:5
4:6	IV:6
4:7	IV:7
4:8	IV:8
4:9	IV:9
4:10	IV:10
4:11	IV:11
4:12	IV:12
4:13	IV:13
4:14	IV:14
4:15	IV:15
4:16	IV:16
4:17	IV:17
4:18	IV:18
4:19	IV:19
4:20	IV:20
4:21	IV:21
4:22	IV:22
4:23	IV:23
4:24	IV:24
4:25	IV:25
88	Not applicable

4A2	IVA2	99	Unknown

AJCC TNM Path T

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1011	15	1150-1164	Alphanumeric, Blank	2018+	01/18

Description

Evaluates the primary tumor (T) and reflects the tumor size and/or extension of the tumor known ***following*** the completion of surgical therapy. Detailed site-specific values for the pathological tumor (T) as defined by the current AJCC edition.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The pathological T category staging data item must be assigned for *Class of Case* 10-22.
- Assign pathological T as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded pathological T category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- For lung, occult carcinoma is assigned TX.

- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.

Refer to the most current list of valid codes and labels: https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
pTX	pTX
pT0	pT0
pTa	pTa
pTis	pTis
pTis(DCIS)	pTis(DCIS)
pTis(LAMN)	pTis(LAMN)
pTis(Paget)	pTis(Paget)
pT1	pT1
pT1mi	pT1mi
pT1a	pT1a
pT1a1	pT1a1
pT1a2	pT1a2
pT1b	pT1b
pT1b1	pT1b1
pT1b2	pT1b2
pT1c	pT1c
pT1c1	pT1c1
pT1c2	pT1c2
pT1c3	pT1c3

Code	Label
cTX	cTX
cT0	cT0
cTa	cTa
cTis	cTis
cTis(DCIS)	cTis(DCIS)
cTis(LAMN)	cTis(LAMN)
cTis(Paget)	cTis(Paget)
cT1	cT1
cT1mi	cT1mi
cT1a	cT1a
cT1a1	cT1a1
cT1a2	cT1a2
cT1b	cT1b
cT1b1	cT1b1
cT1b2	cT1b2
cT1c	cT1c
cT1c1	cT1c1
cT1c2	cT1c2
cT1c3	cT1c3
cT1d	cT1d

pT1d	pT1d
pT2	pT2
pT2a	pT2a
pT2a1	pT2a1
pT2a2	pT2a2
pT2b	pT2b
pT2c	pT2c
pT2d	pT2d
pT3	pT3
pT3a	pT3a
pT3b	pT3b
pT3c	pT3c
pT3d	pT3d
pT4	pT4
pT4a	pT4a
pT4b	pT4b
pT4c	pT4c
pT4d	pT4d
pT4e	pT4e

cT2	cT2
cT2a	cT2a
cT2a1	cT2a1
cT2a2	cT2a2
cT2b	cT2b
cT2c	cT2c
cT2d	cT2d
cT3	cT3
cT3a	cT3a
cT3b	cT3b
cT3c	cT3c
cT3d	cT3d
cT3e	cT3e
cT4	cT4
cT4a	cT4a
cT4b	cT4b
cT4c	cT4c
cT4d	cT4d
cT4e	cT4e

AJCC TNM Path T Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1032	4	1165-1168	(m), (s), Blank	2018+	01/18

Description

Identifies the AJCC TMN pathological T category suffix for the tumor ***following*** the completion of surgical therapy. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2008 the CoC requires that AJCC clinical TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the pathological stage T category suffix as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the descriptor, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(m)	Multiple synchronous tumors OR Multifocal tumor (differentiated and anaplastic thyroid only)
(s)	Solitary tumor (differentiated and anaplastic thyroid only)

AJCC TNM Path N

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1012	15	1169-1183	Alphanumeric, Blank	2018+	01/18

Description

Identifies the absence or presence of regional lymph node (N) metastasis and describes the extent of regional lymph node metastasis of the tumor known ***following*** the completion of surgical therapy.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The pathological N category staging data item must be assigned for *Class of Case* 10-22.
- Assign pathological N category as documented by the treating physician(s) or managing physician in the medical record.
- If the managing physician has not recorded pathological N category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels: https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded

Code	Label
cNX	cNX

pNX	pNX
pN0	pN0
pN0(i+)	pN0(i+)
pN0(mol+)	pN0(mol+)
pN0a	pN0a
pN1	pN1
pN1mi	pN1mi
pN1a(sn)	pN1a(sn)
pN1a	pN1a
pN1b	pN1b
pN1c	pN1c
pN2	pN2
pN2mi	pN2mi
pN2a	pN2a
pN2b	pN2b
pN2c	pN2c
pN3	pN3
pN3a	pN3a
pN3b	pN3b
pN3c	pN3c

cN0	cN0
cN0a	cN0a
cN0b	cN0b
cN0(i+)	cN0(i+)
cN1	cN1
cN1mi	cN1mi
cN1a	cN1a
cN1b	cN1b
cN1c	cN1c
cN2	cN2
cN2mi	cN2mi
cN2a	cN2a
cN2b	cN2b
cN2c	cN2c
cN3	cN3
cN3a	cN3a
cN3b	cN3b
cN3c	cN3c
88	Not applicable

AJCC TNM Path N Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1035	4	1184-1187	(sn), (f), Blank	2018+	01/18

Description

Identifies the AJCC TNM pathological N suffix for the tumor ***following*** the completion of surgical therapy. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2008, the CoC requires that AJCC pathological TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the pathological N category suffix as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the descriptor, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(sn)	Sentinel node procedure with or without FNA or core needle biopsy
(f)	FNA or core needle biopsy only

AJCC TNM Path M

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1013	15	1188- 1202	Alphanumeric, Blank	2018+	01/18

Description

Identifies the presence or absence of distant metastasis (M) of the tumor known ***following*** the completion of surgical therapy.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018, the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The pathological M category staging data item must be assigned for *Class of Case* 10-22.
- Assign pathological M category as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded pathological M category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels:
https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
cM0	cM0
cM0(i+)	cM0(i+)
cM1	cM1
cM1a	cM1a
cM1a(0)	cM1a(0)
cM1a(1)	cM1a(1)
cM1b	cM1b
cM1b(0)	cM1b(0)
cM1b(1)	cM1b(1)
cM1c	cM1c
cM1c(0)	cM1c(0)
cM1c(1)	cM1c(1)
cM1d	cM1d
cM1d(0)	cM1d(0)
cM1d(1)	cM1d(1)

Code	Label
pM1	pM1
pM1a	pM1a
pM1a(0)	pM1a(0)
pM1a(1)	pM1a(1)
pM1b	pM1b
pM1b(0)	pM1b(0)
pM1b(1)	pM1b(1)
pM1c	pM1c
pM1c(0)	pM1c(0)
pM1c(1)	pM1c(1)
pM1d	pM1d
pM1d(0)	pM1d(0)
pM1d(1)	pM1d(1)
88	Not applicable

AJCC TNM Path Stage Group

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1014	15	1203-1217	Alphanumeric, Blank	2018+	01/18

Description

Identifies the anatomic extent of disease based on the T, N, and M category data items known ***following*** the completion of surgical therapy.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2015 the CoC requires that AJCC pathological TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the pathological stage group as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded the pathological stage, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician(s).
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Convert all Roman numerals to Arabic numerals and use upper-case (capital letters) only.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	Not recorded
OccultCarcinoma	Occult carcinoma
0	0

Code	Label
0is	0is
0a	0a
1	I

Refer to the most current list of valid codes and labels: https://cancerstaging.org/Pages/Vendors.aspx.

1A	IA
1A1	IA1
1A2	IA2
1A3	IA3
1B	IB
1B1	IB1
1B2	IB2
1C	IC
1E	IE
1S	IS
1:0	I:0
1:1	I:1
1:2	I:2
1:3	I:3
1:4	I:4
1:5	I:5
1:6	I:6
1:7	I:7
1:8	I:8
1:9	I:9
1:10	I:10
1:11	I:11
1:12	I:12
1:13	I:13

2E	IIE
2bulky	II bulky
2:0	II:0
2:1	II:1
2:2	II:2
2:3	II:3
2:4	II:4
2:5	II:5
2:6	II:6
2:7	II:7
2:8	II:8
2:9	II:9
2:10	II:10
2:11	II:11
2:12	II:12
2:13	II:13
2:14	II:14
2:15	II:15
2:16	II:16
2:17	II:17
2:18	II:18
2:19	II:19
2:20	II:20
2:21	II:21

1:14	I:14
1:15	I:15
1:16	I:16
1:17	I:17
1:18	I:18
1:19	I:19
1:20	I:20
1:21	I:21
1:22	I:22
1:23	I:23
1:24	I:24
1:25	I:25
2	II
2A	IIA
2A1	IIA1
2A2	IIA2
2B	IIB
2C	IIC
3:5	III:5
3:6	III:6
3:7	III:7
3:8	III:8
3:9	III:9
3:10	III:10

2:22	II:22
2:23	II:23
2:24	II:24
2:25	II:25
3	III
3A	IIIA
3A1	IIIA1
3A2	IIIA2
3B	IIIB
3C	IIIC
3C1	IIIC1
3C2	IIIC2
3D	IIID
3:0	III:0
3:1	III:1
3:2	III:2
3:3	III:3
3:4	III:4
4:2	IV:2
4:3	IV:3
4:4	IV:4
4:5	IV:5
4:6	IV:6
4:7	IV:7

3:11	III:11
3:12	III:12
3:13	III:13
3:14	III:14
3:15	III:15
3:16	III:16
3:17	III:17
3:18	III:18
3:19	III:19
3:20	III:20
3:21	III:21
3:22	III:22
3:23	III:23
3:24	III:24
3:25	III:25
4	IV
4A	IVA
4B	IVB
4C	IVC
4:0	IV:0
4:1	IV:1

4:8	IV:8
4:9	IV:9
4:10	IV:10
4:11	IV:11
4:12	IV:12
4:13	IV:13
4:14	IV:14
4:15	IV:15
4:16	IV:16
4:17	IV:17
4:18	IV:18
4:19	IV:19
4:20	IV:20
4:21	IV:21
4:22	IV:22
4:23	IV:23
4:24	IV:24
4:25	IV:25
88	Not applicable
99	Unknown

AJCC TNM Post Therapy T

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1021	15	1218-1232	Alphanumeric, Blank	2018+	01/18

Description

Evaluates the primary tumor (T) and reflects the tumor size and/or extension of the tumor known following the completion of **neoadjuvant** therapy (satisfying the definition for that disease site) and planned **post-neoadjuvant therapy surgical resection**.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The post therapy T category staging data item must be assigned for *Class of Case* 10-22.
- Assign post therapy T category as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded post therapy T category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- For lung, occult carcinoma is assigned TX.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels:
https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
ypTX	ypTX
ypT0	ypT0
ypTa	ypTa
ypTis	ypTis
ypTis(DCIS)	ypTis(DCIS)
ypTis(LAMN)	ypTis(LAMN)
ypTis(Paget)	ypTis(Paget)
ypT1	ypT1
ypT1mi	ypT1mi
ypT1a	ypT1a
ypT1a1	ypT1a1
ypT1a2	ypT1a2
ypT1b	ypT1b
ypT1b1	ypT1b1
ypT1b2	ypT1b2
ypT1c	ypT1c
ypT1c1	ypT1c1
ypT1c2	ypT1c2
ypT1c3	ypT1c3

Code	Label
ypT1d	ypT1d
ypT2	ypT2
ypT2a	ypT2a
ypT2a1	ypT2a1
ypT2a2	ypT2a2
ypT2b	ypT2b
ypT2c	ypT2c
ypT2d	ypT2d
ypT3	ypT3
ypT3a	ypT3a
ypT3b	ypT3b
ypT3c	ypT3c
ypT3d	ypT3d
ypT4	ypT4
ypT4a	ypT4a
ypT4b	ypT4b
ypT4c	ypT4c
ypT4d	ypT4d
ypT4e	ypT4e
88	Not applicable

AJCC TNM Post Therapy T Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1033	4	1233-1236	(m), (s), Blank	2018+	01/18

Description

Identifies the AJCC TNM post therapy T category suffix for the known following the completion of **neoadjuvant** therapy (satisfying the definition for that disease site) and planned **post-neoadjuvant therapy surgical resection**. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2008, the CoC requires that AJCC clinical TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the post therapy T category suffix as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the post therapy T category suffix, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(m)	Multiple synchronous tumors OR Multifocal tumor (differentiated and anaplastic thyroid only)

(s)	Solitary tumor (differentiated and anaplastic thyroid only)

AJCC TNM Post Therapy N

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1022	15	1237-1251	Alphanumeric, Blank	2018+	01/18

Description

Identifies the absence or presence of regional lymph node (N) metastasis and describes the extent of lymph node metastasis of the tumor known following the completion of **neoadjuvant** therapy (satisfying the definition for that disease site) and planned **post-neoadjuvant therapy surgical resection**.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018, the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The post therapy N category staging data item must be assigned for *Class of Case* 10-22.
- Assign post therapy N category as documented by the treating physician(s) or managing physician in the medical record.
- If the managing physician has not recorded post therapy N category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.

- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels:
https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
ypNX	ypNX
ypN0	ypN0
ypN0(i+)	ypN0(i+)
ypN0(mol+)	ypN0(mol+)
ypN0a	ypN0a
ypN1	ypN1
ypN1mi	ypN1mi
ypN1a(sn)	ypN1a(sn)
ypN1a	ypN1a
ypN1b	ypN1b

Code	Label
ypN1c	ypN1c
ypN2	ypN2
ypN2mi	ypN2mi
ypN2a	ypN2a
ypN2b	ypN2b
ypN2c	ypN2c
ypN3	ypN3
ypN3a	ypN3a
ypN3b	ypN3b
ypN3c	ypN3c
88	Not applicable

AJCC TNM Post Therapy N Suffix

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1036	4	1252-1255	(sn), (f), Blank	2018+	01/18

Description

Identifies the AJCC TNM post therapy N suffix for the tumor known following the completion of **neoadjuvant** therapy (satisfying the definition for that disease site) and planned **post-**

neoadjuvant therapy surgical resection. Stage suffices identify special cases that need separate analysis. Suffices are adjuncts to and do not change the stage group.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2008, the CoC requires that AJCC clinical TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the post therapy N category suffix as documented by the first treating physician or the managing physician in the medical record.
- If the managing physician has not recorded the post therapy N category suffix, registrars will assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- If the tumor is not staged according to the AJCC manual, leave this data item blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Code	Label
(blank)	No information available; not recorded
(sn)	Sentinel node procedure with or without FNA or core needle biopsy
(f)	FNA or core needle biopsy only

AJCC TNM Post Therapy M

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1023	15	1256-1270	Alphanumeric, Blank	2018+	01/18

Description

Identifies the presence or absence of distant metastasis (M) of the tumor known following the completion of **neoadjuvant** therapy (satisfying the definition for that disease site) and planned **post-neoadjuvant therapy surgical resection**.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2018 the CoC requires use of the AJCC 8th Edition Staging System in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

With the implementation of the 8th Edition storage codes are no longer utilized. Values and Labels for the different categories are exact matches to what is listed in the 8th Edition Manual (except for code 88). The new categories will be used for cases diagnosed in 2018 and later.

Coding Instructions

- The post therapy M category staging data item must be assigned for *Class of Case* 10-22.
- Assign post therapy M category as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded post therapy M category, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician.
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels:
https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
cM0	cM0
cM0(i+)	cM0(i+)
cM1	cM1
cM1a	cM1a
cM1a(0)	cM1a(0)
cM1a(1)	cM1a(1)
cM1b	cM1b
cM1b(0)	cM1b(0)
cM1b(1)	cM1b(1)
cM1c	cM1c
cM1c(0)	cM1c(0)
cM1c(1)	cM1c(1)
cM1d	cM1d
cM1d(0)	cM1d(0)
cM1d(1)	cM1d(1)

Code	Label
pM1	pM1
pM1a	pM1a
pM1a(0)	pM1a(0)
pM1a(1)	pM1a(1)
pM1b	pM1b
pM1b(0)	pM1b(0)
pM1b(1)	pM1b(1)
pM1c	pM1c
pM1c(0)	pM1c(0)
pM1c(1)	pM1c(1)
pM1d	pM1d
pM1d(0)	pM1d(0)
pM1d(1)	pM1d(1)
88	Not applicable

AJCC TNM Post Therapy Stage Group

Item #	Length	Column #	Allowable Values	Required Status	Date Revised
1024	15	1271-1285	Alphanumeric2018, Blank	+	01/18

Description

Identifies the anatomic extent of disease based on the T, N, and M category data items of the tumor known following the completion of neoadjuvant therapy (satisfying the definition for that disease site) and planned post-neoadjuvant therapy surgical resection.

Rationale

The CoC requires that AJCC TNM staging be used in its accredited cancer programs. Effective January 1, 2015, the CoC requires that AJCC pathological TNM staging be recorded in its accredited program cancer registries. The AJCC developed this staging system for evaluating trends in the treatment and control of cancer. This staging system is used by physicians to estimate prognosis, plan treatment, evaluate new types of therapy, analyze outcomes, design follow-up strategies, and to assess early detection results.

Coding Instructions

- Record the post therapy stage group as documented by the treating physician(s) or the managing physician in the medical record.
- If the managing physician has not recorded the post therapy stage, registrars *will* assign this item based on the best available information, without necessarily requiring additional contact with the physician(s).
- Code 88 for clinical and pathological or post therapy T, N, and M as well as stage group if a site/histology combination is not defined in the current AJCC edition and for in situ tumors that are not staged according to the current AJCC edition.
- If the value does not fill all 15 characters, then record the value to the left and leave the remaining spaces blank.
- Convert all Roman numerals to Arabic numerals and use upper-case (capital letters) only.
- Refer to the current *AJCC Cancer Staging Manual* for staging rules.

Refer to the most current list of valid codes and labels:
https://cancerstaging.org/Pages/Vendors.aspx.

Code	Label
(blank)	Not recorded
Occultcarcinoma	Occult carcinoma
0	0

Code	Label
2A	IIA
2A1	IIA1
2A2	IIA2

0is	0is
0a	0a
1	I
1A	IA
1A1	IA1
1A2	IA2
1A3	IA3
1B	IB
1B1	IB1
1B2	IB2
1C	IC
1S	IS
1:0	I:0
1:1	I:1
1:2	I:2
1:3	I:3
1:4	I:4
1:5	I:5
1:6	I:6
1:7	I:7
1:8	I:8
1:9	I:9
1:10	I:10
1:11	I:11

2B	IIB
2C	IIC
2:0	II:0
2:1	II:1
2:2	II:2
2:3	II:3
2:4	II:4
2:5	II:5
2:6	II:6
2:7	II:7
2:8	II:8
2:9	II:9
2:10	II:10
2:11	II:11
2:12	II:12
2:13	II:13
2:14	II:14
2:15	II:15
2:16	II:16
2:17	II:17
2:18	II:18
2:19	II:19
2:20	II:20
2:21	II:21

1:12	I:12
1:13	I:13
1:14	I:14
1:15	I:15
1:16	I:16
1:17	I:17
1:18	I:18
1:19	I:19
1:20	I:20
1:21	I:21
1:22	I:22
1:23	I:23
1:24	I:24
1:25	I:25
2	II
3:2	III:2
3:3	III:3
3:4	III:4
3:5	III:5
3:6	III:6
3:7	III:7
3:8	III:8
3:9	III:9
3:10	III:10

2:22	II:22
2:23	II:23
2:24	II:24
2:25	II:25
3	III
3A	IIIA
3A1	IIIA1
3A2	IIIA2
3B	IIIB
3C	IIIC
3C1	IIIC1
3C2	IIIC2
3D	IIID
3:0	III:0
3:1	III:1
4:0	IV:0
4:1	IV:1
4:2	IV:2
4:3	IV:3
4:4	IV:4
4:5	IV:5
4:6	IV:6
4:7	IV:7
4:8	IV:8

3:11	III:11
3:12	III:12
3:13	III:13
3:14	III:14
3:15	III:15
3:16	III:16
3:17	III:17
3:18	III:18
3:19	III:19
3:20	III:20
3:21	III:21
3:22	III:22
3:23	III:23
3:24	III:24
3:25	III:25
4	IV
4A	IVA
4B	IVB
4C	IVC

4:9	IV:9
4:10	IV:10
4:11	IV:11
4:12	IV:12
4:13	IV:13
4:14	IV:14
4:15	IV:15
4:16	IV:16
4:17	IV:17
4:18	IV:18
4:19	IV:19
4:20	IV:20
4:21	IV:21
4:22	IV:22
4:23	IV:23
4:24	IV:24
4:25	IV:25
88	Not applicable
99	Unknown

APPENDIX L – SSDI's

For cases diagnosed on January 1, 2018 and later, use of the Collaborative Stage (CS) Site-Specific Factors (SSF's) is discontinued, and Site-Specific Data Items (SSDIs) are used for collection of site-specific information.

For cases diagnosed on January 1, 2018 and later, the Site-Specific Data Items in the below table are required by CoC. Data items are listed by their respective NAACCR Data Item Number and Name.

- Please see the SSDI Manual at the following URL for detailed descriptions, rationales, coding instructions and site-specific coding rules: https://www.naaccr.org/SSDI/SSDI-Manual.pdf.

Item #	Site-Specific Data Item
	Adenoid Cystic Basaloid Pattern
	Adenopathy
	AFP Post-Orchiectomy Lab Value
	AFP Post-Orchiectomy Range
	AFP Pre-Orchiectomy Lab Value
	AFP Pre-Orchiectomy Range
3803 3804 3805 3806 3807 3808 3809 3810 3811 3812 3813 3814	AFP Pretreatment Interpretation

Item #	Site-Specific Data Item
	FIGO Stage
3836 3837	Gestational Trophoblastic Prognostic Scoring Index
	Gleason Patterns Clinical
	Gleason Patterns Pathological
	Gleason Score Clinical
	Gleason Score Pathological

	AFP Pretreatment Lab Value
	Anemia
	B symptoms
	Bilirubin Pretreatment Total Lab Value
___	Bilirubin Pretreatment Unit of Measure
	Bone Invasion
	Breslow Tumor Thickness
	CA-125 Pretreatment Interpretation
	CEA Pretreatment Interpretation

	Gleason Tertiary Pattern
	Grade Clinical
	Grade Pathological
	Grade Post Therapy
	hCG Post-Orchiectomy Lab Value
	hCG Post-Orchiectomy Range
	hCG Pre-Orchiectomy Lab Value
3838 3839 3840 3841 3842 3843 3844 3845 3846 3847 3848 3849 3850 3851 3852 3853 3854 3855 3856 3857 3858 3859	hCG Pre-Orchiectomy Range
	HER2 IHC Summary
	HER2 ISH Dual Probe Copy Number

3815 3817 3818 3819 3820 3821 3822 3823	CEA Pretreatment Lab Value
	Chromosome 3 Status
	Chromosome 8q Status
____	Circumferential Resection Margin (CRM)
	Creatinine Pretreatment Lab Value
3824 3825	Creatinine Pretreatment Unit of Measure
3826	Estrogen Receptor Percent Positive or Range
	Estrogen Receptor Summary
	Estrogen Receptor Total Allred Score
3827 3828 3829 3830	Esophagus and EGJ Tumor Epicenter
____	Extranodal Extension Clin (non-Head and Neck)

	HER2 ISH Dual Probe Ratio
	HER2 ISH Single Probe Copy Number
	HER2 ISH Summary
	HER2 Overall Summary
	Heritable Trait
	High Risk Cytogenetics
	High Risk Histologic Features
	HIV Status
3860	International Normalized Ratio Prothrombin Time
	Ipsilateral Adrenal Gland Involvement
	JAK2
	Ki-67
	Invasion Beyond Capsule
	KIT Gene Immunohistochemistry

3831	Extranodal Extension Head and Neck Clinical
3832	Extranodal Extension Head and Neck Pathological
3833	Extranodal Extension Path (non-Head and Neck)
3834 3835	Extravascular Matrix Patterns
	Fibrosis Score

3861 3862 3863 3864 3865 3866 3867 3868 3869 3870	KRAS
	LDH Post-Orchiectomy Range
	LDH Pre-Orchiectomy Range
	LDH Pretreatment Level
	LDH Upper Limits of Normal
3871	LN Assessment Method Femoral- Inguinal
3872	LN Assessment Method Para-Aortic

Site-Specific Data Items

Item #	Site-Specific Data Item
	LN Assessment Method Pelvic
	LN Distant Assessment Method
	LN Distant: Mediastinal, Scalene
	LN Head and Neck Levels I-III
	LN Head and Neck Levels IV-V

Item #	Site-Specific Data Item
	Oncotype Dx Risk Level-Invasive
	Organomegaly
	Percent Necrosis Post Neoadjuvant
	Perineural Invasion
3906 3907 3908 3909 3910 3911 3913 3914	Peripheral Blood Involvement

	LN Head and Neck Levels VI-VII
3873 3874 3875 3876 3877 3878 3879 3880 3881 3882 3883 3884	LN Head and Neck Other
	LN Isolated Tumor Cells (ITC)
	LN Laterality
	LN Positive Axillary Level I-II
	LN Size
____	LN Status Femoral-Inguinal, ParaAortic, Pelvic
	Lymphocytosis
	Major Vein Involvement
3885 3886 3887 3888	Measured Basal Diameter
	Measured Thickness
3889	Methylation of O6-MethylguanineMethyltransferase
	Microsatellite Instability (MSI)
	Microvascular Density
	Mitotic Count Uveal Melanoma

	Peritoneal Cytology
	Pleural Effusion
____	Progesterone Receptor Percent Positive or Range
	Progesterone Receptor Summary
3915 3916	Progesterone Receptor Total Allred Score
	Primary Sclerosing Cholangitis
	Profound Immune Suppression
3917 3918 3919 3920	Prostate Pathological Extension
____	PSA (Prostatic Specific Antigen) Lab Value
3921	Residual Tumor Volume Post Cytoreduction
	Response to Neoadjuvant Therapy
	S Category Clinical
	S Category Pathological

3890 3891 3892 3893 3894 3895	Mitotic Rate Melanoma
	Multigene Signature Method
	Multigene Signature Results
3896	NCCN International Prognostic Index (IPI)
	Number of Cores Examined
3897 3898	Number of Cores Positive
3899	Number of Examined Para-Aortic Nodes
	Number of Examined Pelvic Nodes
	Number of Positive Para-Aortic Nodes
3900 3901 3902 3903	Number of Positive Pelvic Nodes
	Oncotype Dx Recurrence Score-DCIS
3904	Oncotype Dx Recurrence ScoreInvasive

	Sarcomatoid Features
	Schema Discriminator 1
3922 3923 3924 3925 3926 3927 3928 3929 3930 3931	Schema Discriminator 2
	Schema Discriminator 3
	Separate Tumor Nodules
____	Serum Albumin Pretreatment Level Serum Beta-2 Microglobulin Pretreatment Level
	LDH Pretreatment Lab Value
	Thrombocytopenia
	Tumor Deposits
3932 3933 3934 3935 3936 3937	Tumor Growth Pattern
	Ulceration
	Visceral and Parietal Pleural Invasion

APPENDIX M

Required Data Set

Note: For cases dignosed after January 1, 2018 see Appendix I

Date Items Required to enter Date of Case Completed

VCR Required Data Set for Cases Diagnosed Prior to January 1,2018

VCR Required Data Item	Field Length	NAACCR Item #
Patient Identification		
Record Type	1	10
Accession Number	9	550
Sequence Number	2	560
Patient ID Number	8	20
Medical Record Number	11	2300
Social Security Number	9	2320
Last Name	40	2230
First Name	40	2240
Middle Name (Middle Initial)	40	2250
Name – Alias	40	2280
Name – Maiden	40	2390
Patient Address (# and Street) at Diagnosis	60	2330
Patient Address at Diagnosis – Supplemental	60	2335
City/Town at Diagnosis (City or Town	50	70
State at Diagnosis (State)	2	80
Postal Code at Diagnosis (Zip Code)	9	100
County at Diagnosis	3	90
Country at Diagnosis	3	102
Birthplace	3	250
Birthplace – State	3	252
Birthplace – Country	3	254
Date of Birth	8	240
Date of Birth Flag	2	241
Age at Diagnosis	3	230
Race 1	2	160
Race 2	2	161
Race 3	2	162
Race 4	2	163
Race 5	2	164
Spanish Origin – All Sources (Spanish/Hispanic Origin)	1	190
Sex	1	220
Age at Diagnosis	3	230
Text – Usual Occupation	100	310
Text – Usual Industry	100	320
Primary Payer at Diagnosis	2	630
Class of Case	2	610

Cancer Identification		
NPI – Reporting Facility	10	545
Date of 1st Contact	8	580
Date of 1st Contact Flag	1	581
Date of Initial Diagnosis	8	390
Date of Initial Diagnosis Flag	2	391
Diagnostic Confirmation	1	490
Type of Reporting Source	1	500
Casefinding Source	2	501
Primary Site	4	400
Text – Primary Site Title	40	2580
Laterality	1	410
Histologic Type ICD-O-3	4	522
Text – Histology Title	40	2590
Behavior Code	1	523
Grade/Differentiation	1	440
Histologic Confirmation	1	490
Tumor Size Summary	3	756
Regional Lymph Nodes Examined	2	830
Regional Lymph Nodes Positive	2	820
Lymph vascular Invasion	1	1182
Mets at DX – Bone	1	1112
Mets at Dx – Brain	1	1113
Mets at Dx – Distant LN	1	1114
Mets at Dx – Liver	1	1115
Mets at Dx – Lung	1	1116
Mets at Dx – Other	1	1117
CS Site Specific Factor 1	3	2880
CS Site Specific Factor 2	3	2890
CS Site Specific Factor 5	3	2920
CS Site Specific Factor 6	3	2930
CS Site Specific Factor 8	3	2862
CS Site Specific Factor 9	3	2863
CS Site Specific Factor 11	3	2865
CS Site Specific Factor 13	3	2867
CS Site Specific Factor 14	3	2868
CS Site Specific Factor 15	3	2869
CS Site Specific Factor 16	3	2870
CS Site Specific Factor 25	3	2879
TNM Path T	4	880
TNM Path N	4	890
TNM Path M	4	900
TNM Path Stage Group	4	910
TNM Path Descriptor	1	920
TNM Path Staged By	2	930

Required Data Set for Reporting Facilities *continued*		
VCR Required Data Item	**Field Length**	**NAACCR Item #**
TNM Clin T	4	940
TNM Clin N	4	950
TNM Clin M	4	960
TNM Clin Stage Group	4	970
TNM Clin Stage Descriptor	1	980
TNM Clin Staged By	2	990
TNM Edition Number	2	1060
Seer Summary Stage 2000	1	759
Text – Staging	1000	2600
First Course of Treatment		
Date of First Course of Treatment	8	1270
Date of First Course of Treatment Flag	2	1271
Rx Date - Surgery	8	1200
Rx Date - Surgery Flag	2	1201
Rx Date – Radiation	8	1210
Rx Date – Radiation Flag	2	1211
Rx Date - Chemo	8	1220
Rx Date – Chemo Flag	2	1221
Rx Date – Hormone	8	1230
Rx Date – Hormone Flag	2	1231
Rx Date – BRM	8	1240
Rx Date – BRM Flag	2	1241
Rx Date – Other	8	1250
Rx Date – Other Flag	2	1251
Scope of Regional Lymph Node Surgery	1	1292
Surgical Procedure Oth Reg/Dis Site	1	1294
Rx Summ – Treatment Status	1	1285
RX Date Mst Defn Srg	8	3170
RX Date Mst Defn Srg Flag	1	3171
Rx Summ – Surg Primary Site	2	1290
Rx Summ – Scope Reg LN Surg	1	1294
Reason for No Surgery of Primary Site	1	1340
Rx Summ – Radiation	1	1360
Rad – Regional RX Modality	2	1570
Rx Summ – Rad/Surg Sequence	1	1380
Rx Summ – Transplant/Endocrine	2	3250
Rx Summ – Chemo	2	1390
Rx Summ – Hormone	2	1400

Required Data Set for Reporting Facilities
continued

VCR Required Data Item	Field Length	NAACCR Item #
Rx Summ – BRM	2	1410
Rx Summ – Other	1	1420
Rx Summ – Systemic/Surg Seq	1	1639
Reason for No Radiation	1	1430
Text-Diagnostic:		
Dx Procedures – Lab Tests	1000	2550
Dx Procedures – Scopes	1000	2540
Dx Procedures – Op Procedures	1000	2560
Dx Procedures – Pathology	1000	2570
Dx Procedures – PE	1000	2520
Dx Procedures – X-Rays/Scans	1000	2530
Dx Procedures – Remarks	1000	2680
Text - Treatment:		
Surgery	1000	2610
Radiation – Beam	1000	2620
Radiation – Other	1000	2630
Chemotherapy	1000	2640
Hormone	1000	2650
BRM	1000	2660
Other	1000	2670
Outcomes		
Date of Last Contact/Death	8	1750
Date of Last Contact/Death Flag	2	1751
Vital Status	1	1760
Cause of Death	4	1910
DC State File Number	6	2380
ICD Revision Number	1	1920
Place of Death – State	2	1942
Place of Death – Country	3	1944
Follow up Source	1	1790
Case Administration		
Abstracted By	3	570
Facility Identification Number (FIN)	10	540
Record Type	1	10
Over-ride SITE/TNM-STAGE GROUP	1	1989
Over-ride AGE/SITE/MORPH	1	1990
Over-ride SEQNO/DXCONF	1	2000

Required Data Set for Reporting Facilities
continued

VCR Required Data Item	Field Length	NAACCR Item #
Over-ride SITE/LAT/SEQNO	1	2010
Over-ride SURG/DXCONF	1	2020
Over-ride SITE/TYPE	1	2030
Over-ride HISTOLOGY	1	2040
Over-ride REPORT SOURCE	1	2050
Over-ride ILL DEFINED SITE	1	2560
Over-ride LEUK,LYMPHOMA	1	2070
Over-ride SITE/BEHAVIOR	1	2071
Over-ride SITE/LAT/MORPH	1	2074
Over-ride CS 1	1	3750
Over-ride CS 2	1	3751
Over-ride CS 3	1	3752
Over-ride CS 4	1	3753
Over-ride CS 5	1	3754
Over-ride CS 6	1	3755
Over-ride CS 7	1	3756
Over-ride CS 8	1	3757
Over-ride CS 9	1	3758
Over-ride CS 10	1	3759
Over-ride CS 11	1	3760
Over-ride CS 12	1	3761
Over-ride CS 13	1	3762
Over-ride CS 14	1	3763
Over-ride CS 15	1	3764
Over-ride CS 16	1	3765
Over-ride CS 17	1	3766
Over-ride CS 18	1	3767
Over-ride CS 19	1	3768
Over-ride CS 20	1	3769
Site Coding System – Current	1	450
Morphology Coding System – Current	1	470
ICD-O-3 Conversion Flag	1	2116
RX Coding System – Current	2	1460
CS Version Input Original	6	2935
CS Version Input Current	6	2937

Required Data Set for Reporting Facilities
continued

VCR Required Data Item	Field Length	NAACCR Item #
NAACCR Record Version	1	50
Date Case Completed	8	2090
Date Case Report Exported	8	2110
Virginia State Specific		
Dioxin Exposure	1	2220
Vietnam Veteran	1	2220
Tobacco History	1	2220
Number of Years Smoked	3	2220
Alcohol History	1	2220
Family History	1	2220

Item #	Item Name
10	Record Type
20	Patient ID Number
21	Patient System ID-Hosp
30	Registry Type
40	Registry ID
45	NPI--Registry ID
50	NAACCR Record Version
70	Addr at DX--City
80	Addr at DX--State
90	County at DX
100	Addr at DX--Postal Code
102	Addr at DX--Country
160	Race 1
161	Race 2
162	Race 3
163	Race 4
164	Race 5
190	Spanish/Hispanic Origin
220	Sex
230	Age at Diagnosis
240	Date of Birth

Item #	Item Name
241	Date of Birth Flag
250	Birthplace
252	Birthplace--State
254	Birthplace--Country
390	Date of Diagnosis
391	Date of Diagnosis Flag
400	Primary Site
410	Laterality
420	Histology (92-00) ICD-O-2
430	Behavior (92-00) ICD-O-2
440	Grade
441	Grade Path Value
449	Grade Path System
450	Site Coding Sys--Current
470	Morph Coding Sys--Current
490	Diagnostic Confirmation
500	Type of Reporting Source
501	Casefinding Source
522	Histologic Type ICD-O-3
523	Behavior Code ICD-O-3
540	Reporting Facility
545	NPI--Reporting Facility
550	Accession Number--Hosp
560	Sequence Number--Hospital
570	Abstracted By
580	Date of 1st Contact
581	Date of 1st Contact Flag
610	Class of Case
630	Primary Payer at DX
756	Tumor Size Summary
759	SEER Summary Stage 2000
820	Regional Nodes Positive
830	Regional Nodes Examined

Item #	Item Name
880	TNM Path T
890	TNM Path N
900	TNM Path M
910	TNM Path Stage Group
920	TNM Path Descriptor
930	TNM Path Staged By
940	TNM Clin T
950	TNM Clin N
960	TNM Clin M
970	TNM Clin Stage Group
980	TNM Clin Descriptor
990	TNM Clin Staged By
1060	TNM Edition Number
1112	Mets at DX-Bone
1113	Mets at DX-Brain
1114	Mets at Dx-Distant LN
1115	Mets at DX-Liver
1116	Mets at DX-Lung
1117	Mets at DX-Other
1182	Lymph-vascular Invasion
1200	RX Date Surgery
1201	RX Date Surgery Flag
1210	RX Date Radiation
1211	RX Date Radiation Flag
1220	RX Date Chemo
1221	RX Date Chemo Flag
1230	RX Date Hormone
1231	RX Date Hormone Flag

Item #	Item Name
1240	RX Date BRM
1241	RX Date BRM Flag
1250	RX Date Other
1251	RX Date Other Flag
1260	Date Initial RX SEER
1261	Date Initial RX SEER Flag
1270	Date 1st Crs RX CoC
1271	Date 1st Crs RX CoC Flag
1285	RX Summ--Treatment Status
1290	RX Summ--Surg Prim Site
1292	RX Summ--Scope Reg LN Sur
1294	RX Summ--Surg Oth Reg/Dis
1340	Reason for No Surgery
1350	RX Summ--DX/Stg Proc
1360	RX Summ--Radiation
1380	RX Summ--Surg/Rad Seq
1390	RX Summ--Chemo
1400	RX Summ--Hormone
1410	RX Summ--BRM
1420	RX Summ--Other
1430	Reason for No Radiation
1460	RX Coding System--Current
1570	Rad--Regional RX Modality
1639	RX Summ--Systemic/Sur Seq
1750	Date of Last Contact
1751	Date of Last Contact Flag
1760	Vital Status
1790	Follow-Up Source
1910	Cause of Death
1920	ICD Revision Number
1940	Place of Death
1942	Place of Death--State
1944	Place of Death--Country

Item #	Item Name
1989	Over-ride Site/TNM-StgGrp
1990	Over-ride Age/Site/Morph
2000	Over-ride SeqNo/DxConf
2010	Over-ride Site/Lat/SeqNo
2020	Over-ride Surg/DxConf
2030	Over-ride Site/Type
2040	Over-ride Histology
2050	Over-ride Report Source
2060	Over-ride Ill-define Site
2070	Over-ride Leuk, Lymphoma
2071	Over-ride Site/Behavior
2074	Over-ride Site/Lat/Morph
2110	Date Case Report Exported
2116	ICD-O-3 Conversion Flag
2220	State/Requestor Items
2230	Name--Last
2240	Name--First
2250	Name--Middle
2260	Name--Prefix
2270	Name--Suffix
2280	Name--Alias
2300	Medical Record Number
2320	Social Security Number
2330	Addr at DX--No & Street
2335	Addr at DX--Supplementl
2380	DC State File Number
2390	Name--Maiden
2520	Text--DX Proc--PE
2530	Text--DX Proc--X-ray/Scan
2540	Text--DX Proc--Scopes
2550	Text--DX Proc--Lab Tests

Item #	Item Name
2560	Text--DX Proc--Op
2570	Text--DX Proc--Path
2580	Text--Primary Site Title
2590	Text--Histology Title
2600	Text--Staging
2610	RX Text--Surgery
2620	RX Text--Radiation (Beam)
2630	RX Text--Radiation Other
2640	RX Text--Chemo
2650	RX Text--Hormone
2660	RX Text--BRM
2670	RX Text--Other
2680	Text--Remarks
2861	CS Site-Specific Factor 7
2862	CS Site-Specific Factor 8
2863	CS Site-Specific Factor 9
2865	CS Site-Specific Factor11
2867	CS Site-Specific Factor13
2868	CS Site-Specific Factor14
2869	CS Site-Specific Factor15
2870	CS Site-Specific Factor16
2879	CS Site-Specific Factor25
2880	CS Site-Specific Factor 1
2890	CS Site-Specific Factor 2
2920	CS Site-Specific Factor 5
2930	CS Site-Specific Factor 6
2935	CS Version Input Original
2937	CS Version Input Current
3170	RX Date Mst Defn Srg
3171	RX Date Mst Defn Srg Flag
3250	RX Summ--Transplnt/Endocr
3720	NPCR Specific Field

Item #	Item Name
3750	Over-ride CS 1
3751	Over-ride CS 2
3752	Over-ride CS 3
3753	Over-ride CS 4
3754	Over-ride CS 5
3755	Over-ride CS 6
3756	Over-ride CS 7
3757	Over-ride CS 8
3758	Over-ride CS 9
3759	Over-ride CS 10
3760	Over-ride CS 11
3761	Over-ride CS 12
3762	Over-ride CS 13
3763	Over-ride CS 14
3764	Over-ride CS 15
3765	Over-ride CS 16
3766	Over-ride CS 17
3767	Over-ride CS 18
3768	Over-ride CS 19
3769	Over-ride CS 20

End of Appendix M

APPENDIX N

Virginia Web Plus Reporting Facilities and FIN Numbers

Important Message Regarding Electronic Reporting to VCR

As of January 1,2022, all cancer reporting to VCR reporting portal. Data submissions via secure email, fax, or U.S. Mail has been discontinued.

As VCR continues to promote electronic case reporting and the VCR/VDH digitized file initiative, transitioning facilities from “paper reporting” to electronic Web Plus reporting continues.

If your facility has not been transitioned to the Virginia Web Plus online reporting portal please send an email to: john.ladouceur@vdh.virginia.gov

The following pages contain an alphabetical listing of those electronic reporting facilities currently in the Virginia Web Plus system and their respective Facility Identification Number(s) FIN

List of VCR Electronic Web Plus Reporters and Facility Numbers

6340400414	District Dermatology	Physician's Office
6340300064	Dominion Pathology	Pathology Laboratory
6340100012	Fair Oaks hospital	Hospital Inpatient
6340100132	Fairfax Hospital	Hospital Inpatient
6341100107	Fairfax Surgical Ctr	Other Outpatient/Surgery Centers
1234567890	File Upload Facility	
6340489902	Forefront Dermatology	Physician's Office
6341400095	Gastroenterology, LTD	Physician's Office
6340200142	Halifax Regional Hospital	Hospital Inpatient
6340400086	Harrisonburg Dermatology	Physician's Office
6341100117	Haymarket Surgery Center	Other Outpatient/Surgery Centers
6340600096	Hematology Oncology of Loudoun Reston	RT or Medical Oncology Centers
6340100010	Henrico Doctors Hospital	Hospital Inpatient
6349800083	INCORR NUM-Dermatology Associates of Va	Physician's Office
6341400415	INCORR NUM-Surgical Suites of Coastal VA	Other Outpatient/Surgery Centers
6340489999	INCORRECT NUM-Metro Mohs Surgery Center	Physician's Office
6340400087	Institute For Dermatopathology PA	Pathology Laboratory
6340100015	John Randolph	Hospital Inpatient
6340401140	Kensington Pathology Consultants	Pathology Laboratory
6341100110	Lakeview Medical Center	Other Outpatient/Surgery Centers
6340400088	Laser & Skin Surg Ctr of Richmond PC	Other Outpatient/Surgery Centers
6340200001	Lewis Gale Alleghany	Hospital Inpatient
6340100017	Lewis Gale Medical Center	Hospital Inpatient
6340200041	Lewis Gale Montgomery	Hospital Inpatient
6340100023	Lewis Gale Pulaski	Hospital Inpatient
6340100013	Loudoun Cancer Care	Hospital Inpatient
6340400078	Loudoun Dermatology	Physician's Office
6340100018	Martha Jefferson Hospital	Hospital Inpatient
6341100111	Mary Immaculate Ambulatory Surgery Ctr	Other Outpatient/Surgery Centers
6340200040	Mary Immaculate Hospital	Hospital Inpatient
6340100020	Mary Washington Hospital	Hospital Inpatient
6340100021	Maryview Medical Center	Hospital Inpatient
6340300065	Maya Pathology Labs	Pathology Laboratory

6340100022	Memorial Regional Medical Center	Hospital Inpatient
6340400421	Metro Mohs Surgery Center	Other Outpatient/Surgery Centers
6340100014	Mount Vernon Hospital	Hospital Inpatient
6340100218	Novant Health	Hospital Inpatient
6340300067	Old Dominion Pathology Assoc, LTD	Pathology Laboratory
6340400079	Pariser Dermatology Specialists, Ltd.	Other Outpatient/Surgery Centers
6340300068	Pathology Consultants of Central Va	Pathology Laboratory
6340489904	Peninsula Dermatology	Physician's Office
6341000101	Physician Reporters	Physician's Office
6340400417	Pinnacle Dermatology	Physician's Office
6341100407	Port Warwick Surgery Center	Other Outpatient/Surgery Centers
6341100113	Prince William Ambulatory Surgery Center	Other Outpatient/Surgery Centers
6340400381	Prince William Dermatology	Physician's Office
6340300414	PRW Laboratories	Pathology Laboratory
6340300071	Quest Diagnostics	Pathology Laboratory
6340100129	Reston Hospital Center	Hospital Inpatient
6340300072	Reston Surgery Ctr	Other Outpatient/Surgery Centers
6340400089	Richmond Dermatology and Laser Spec	Physician's Office
6341400403	Richmond Ear Nose & Throat	Physician's Office
6340100024	Riverside Regional Med Ctr	Hospital Inpatient
6340100025	Riverside Shore Memorial Hospital	Hospital Inpatient
6340100145	RMH Hahn Cancer Center	Hospital Inpatient
6340100044	Sentara Healthcare Sys (Careplex Hosp)	Hospital Inpatient
6340100027	Sentara Leigh Memorial Hospital	Hospital Inpatient
6340100045	Sentara Norfolk General Hospital	Hospital Inpatient
6340100144	Sentara Northern Virginia	Hospital Inpatient
6340100046	Sentara Obici	Hospital Inpatient
6340100047	Sentara Princess Anne Hospital	Hospital Inpatient
6340100048	Sentara VA Beach General Hospital	Hospital Inpatient
6340100049	Sentara Williamsburg	Hospital Inpatient
6341000109	Shenandoah Oncology	RT or Medical Oncology Centers
6220300073	siParadigm Diagnostic Informatics-NJ	Pathology Laboratory
6340400403	Skin Surgery Center-Galax	Other Outpatient/Surgery Centers
6340100051	Southside Regional Medical Center	Hospital Inpatient
6340100038	SOVAH Danville Regional Med Ctr	Hospital Inpatient

6340100019	SOVAH Martinsville Mem Hosp	Hospital Inpatient
6340200389	Spotsylvania Regional Medical Ctr	Hospital Inpatient
6340100029	St. Francis Med Ctr (Bon Secours)	Hospital Inpatient
6340100030	St. Mary's Hosp-Richmond (Bon Secours)	Hospital Inpatient
6340200408	Stone Springs Hospital Center	Hospital Inpatient
6140300419	Strata Diagnostics-MA	Pathology Laboratory
6341100415	Surgical Suites of Coastal Virginia	Other Outpatient/Surgery Centers
6340200052	Twin County Community Hospital-Duke	Hospital Inpatient
6340100031	University of Virginia	Hospital Inpatient
6340500103	Urology of Virginia, P.C.	Physician's Office
6340100008	VCU Community Memorial Health Center	Hospital Inpatient
6341100114	VCU School of Dentistry	Physician's Office
6340200026	VCU Tappahannock Hospital	Hospital Inpatient
6340489905	Verum Cutis Dermatology	Physician's Office
6340100032	Virginia Commonwealth Health System-MCV	Hospital Inpatient
6340100033	Virginia Hospital Center	Hospital Inpatient
6340600113	Virginia Oncology	RT or Medical Oncology Centers
6340500114	Virginia Urology	Physician's Office
6340100034	Winchester Medical Ctr	Hospital Inpatient
6340200053	Wythe County Community Hospital	Hospital Inpatient

End of Appendix N

Appendix O

Reportable Neoplasms

STANDARDS FOR TUMOR INCLUSION AND REPORTABILITY

Due to continued efforts by standard-setting organizations, facility-based registries and population-based central registries now follow nearly identical standards for determining reportable tumors that are to be included in the registry; however, some differences in reportability remain. CoC stipulates the tumors that must be included in accredited facility registries, while most population-based registries, at a minimum, follow the standards set by SEER or NPCR. *The Cancer Program Standards,* the CoC STORE Manual, SEER Program Code manuals, NPCR Program Announcement, and the Canadian Cancer Registry System Guide should be consulted for more details.

Standards for tumor reportability are defined by the following criteria:

Reference Date

The reference date is the effective date when cancer registration starts in a specified at-risk population or in a specific facility. It is not the date the registry is organized or the date work begins. Tumors diagnosed on or after the reference date must be included. The reference date typically begins on January 1 of a calendar year, but sometimes it is another date. It is important to be aware that the reference date of the regional, state or provincial/territorial registry may precede the reference date set by cancer registry hospitals or other individual facilities. If the regional, state or provincial/territorial registry is established by law, reporting entities will be required to submit their cases in accordance with the law regardless of their facility reference date.

Residency

For a population-based registry, it is essential to include all tumors occurring in the at-risk population, and rules must be in place for determining the members of that population. The goal is to use the same rules for the patients' demographic data at the time of diagnosis as those used by the Census Bureau in enumerating the population. For example, a population-based registry must have rules for determining residency of part-year residents, institutionalized persons, homeless persons, military personnel, and students. For U.S. registries see the *SEER Program Code Manual* for specific instructions and for Canadian registries see appendix T of the *Canadian Cancer Registry System Guide* for specific instructions.

NAACCR recommends that population-based registries include in their database tumor reports of non-residents from facilities in their catchment areas to:

Share tumor information that otherwise may go unreported with the residents' population-based registry

Facilitate death clearance and other record linkages allow preparation of complete and accurate reports to individual facilities

Hospital-based registries are less concerned with residency of the patient than the reason for admission, and hospital registries might not collect data for certain categories of patients that the central registry must include, such as patients admitted to a hospice unit or transient patients who receive interim care to avoid interrupting a course of therapy. Also, CoC does not require complete abstracting of tumors that are "non-analytic" for the facility. Therefore, for the central registry, clear rules that are well documented, widely distributed, and accepted are essential to prevent missed case reports (source records).

In Utero Diagnosis

Diagnoses made in utero are reportable if the pregnancy results in a live birth. When a reportable diagnosis is confirmed prior to birth and disease is not evident at birth due to regression, accession the case based on the pre-birth diagnosis.

Reportable List

CoC, NPCR, SEER and CCCR have achieved greater consensus on reportable tumors in the past few years (see Table). For all tumors diagnosed from January 1, 1992, through December 31, 2000, all three U.S. standard setters (CoC, NPCR, and SEER) required the inclusion of all neoplasms in the International Classification of Diseases for Oncology, Second Edition17 (ICD-O-2) with a behavior code of 2 or 3 (in situ or malignant), with the exception of squamous cell and basal cell carcinoma of the skin and carcinoma in situ of the cervix uteri since 1996. The CCCR adopted the ICD-O-217 in 1992.

For all tumors diagnosed on or after January 1, 2001, all four organizations require the inclusion of all neoplasms in the *International Classification of Diseases for Oncology, Third Edition16 (ICD-O-3)* with a behavior code of 2 or 3 (in situ or malignant), with the exception of squamous cell and basal cell carcinomas of the skin, prostatic intraepithelial neoplasia (PIN) III, carcinoma in situ (CIS) of the cervix, and cervical intraepithelial neoplasia (CIN) III. Morphology code 9421 (juvenile astrocytoma, pilocytic astrocytoma, or piloid astrocytoma), with a behavior code of 1 (borderline) in ICD-O-3, is reportable as 9421/3. Prior to 2003, CoC considered basal and squamous skin cancers that were AJCC stage group II or higher at diagnosis as reportable regardless of the site. Prior to 2007 CCCR considered CIS of the cervix, CIN III, and PIN III as reportable.

In addition, the three U.S. organizations require the inclusion of all non-malignant primary intracranial and central nervous system (CNS) tumors diagnosed on or after January 1, 2004. Specifically, non-malignant, primary intracranial and CNS tumors of any morphology in ICD-O-3 having a behavior code of 0 or 1 (benign/ borderline) occurring in the following sites: brain, meninges, spinal cord, cranial nerves and other parts of the CNS, pituitary gland, pineal gland,

and craniopharyngeal duct are reportable (see table below). The CCCR requires inclusion of all non-malignant primary intracranial and central nervous system (CNS) tumors diagnosed on or after January 1, 1992. Specifically, non-malignant primary intracranial and CNS tumors of any morphology in ICD-O-316 having a behavior code of 0 or 1 (benign or borderline) occurring in the following sites: brain, meninges, spinal cord, cranial nerves and other parts of the CNS are reportable (see *Canadian Cancer Registry System Guide*). As of June 1, 2007, this was expanded to include the pituitary gland, pineal gland, and craniopharyngeal duct.

In Situ/Invasive

It is important to distinguish between the morphologic condition of in situ as it is represented in ICD-O-2 or ICD-O-3 behavior codes and Tis as it is defined for the purpose of prognostic staging in the AJCC Cancer Staging Manual. Some morphologic and disease descriptive terms that are invasive in ICD-O-2/ICD-O-3 or localized in the SEER Summary Staging Guide/SEER Summary Staging Manual 2000 are Tis in the AJCC Cancer Staging Manual. Some examples are:

Paget's disease of the nipple (8540/3) (an “invasive” code in ICD-O-2 and ICD-O-3) with no underlying tumor is classified as Tis in AJCC Seventh Edition

For colon/rectum, “invasion of the lamina propria” (intramucosal) with no extension through the muscularis mucosae into the submucosa is classified as Tis according to AJCC Seventh Edition, but localized in SEER Summary Stage 2000

Some tumors classified as invasive in the behavior code can be classified as Tis or Stage 0 when coded according to AJCC Seventh Edition or when Collaborative Staging (CS) codes are converted to AJCC Seventh Edition. These differences should be considered when data are being compared.

Multiple Primary Rules

SEER rules have been the de facto standard for determining the number of primary cancers in the U.S. for both central and hospital-based registries. See the *SEER Program Coding and Staging Manuals* for details. CCCR rules were the Canadian standard for the Canadian Cancer Registry database between 1992 and 2006. See the *Canadian Cancer Registry System Guide* for details. For cases diagnosed on or after January 1, 2007, the CCCR has adopted the *SEER Multiple Primary and Histology Coding Rules.* Until all registries in Canada adopt the same set of rules to determine multiple primaries, the Canadian Cancer Registry publishes data nationally using the IARC rules.

SEER convened a multi-agency task force (with representation from Canada) to review and revise the multiple primary and histology (MP/H) coding rules in a manner that promotes consistent, standardized determination of multiple primaries and coding of histologies at the

data collection level. The revised MP/H rules were implemented January 2007. Additional information is available on the SEER website.

Neither the pre-2007 rules nor the 2007 MP/H rules are identical to the international standard recommended by the International Agency for Research on Cancer (IARC) and the International Association of Cancer Registries (IACR). The IARC rules have the effect of defining fewer cases than do the pre-2007 SEER/CCCR or the 2007 MP/H rules. A computer algorithm is available through IACR/IARC which identifies which U.S. cases would not be reportable under IACR/IARC multiple primary rules.

A rule requiring that an invasive tumor diagnosed more than two months after an in situ tumor of the same site be reported as a subsequent primary was reviewed by the Uniform Data Standards Committee and adopted on April 26, 1994, effective with tumors diagnosed in 1995 and later. This rule remains in effect and is incorporated into the 2007 MP/H rules as follows:

An invasive tumor following an in situ tumor more than 60 days after diagnosis is considered a multiple primary.

Note 1: The purpose of this rule is to ensure that the case is counted as an incident (invasive) case when incidence data are analyzed.

Note 2: Abstract as multiple primaries even if the medical record/physician states it is recurrence or progression of disease.

This important rule affects how the tumor will be counted in published statistics. With the exception of bladder, in situ tumors are not usually included in published incidence rates. Without the reporting of these invasive cancers, for example, rates of invasive breast cancer would be underreported. CoC, with its emphasis on clinical data, did not adopt this exception to the general rule until the 2007 MP/H rules were implemented.

In the Canadian Cancer Registry database 1992-2006, if there was an in situ cancer followed by an invasive cancer at the same site and histology, only the invasive primary was retained, the date of diagnosis was linked to the invasive primary. The Canadian Cancer Registry multiple primary rules did not allow an in situ and invasive primary to be retained for the same site and histology.

Carcinoma In Situ of the Cervix, CIN, and the Bethesda System

The term “pre-invasive cervical neoplasia” refers to carcinoma in situ of the cervix and conditions viewed as equivalent to it or on a continuum with it. Diagnostic terminology for pre-invasive cervical neoplasia has changed significantly over time, from the four-tiered system of dysplasia and carcinoma in situ, to the three-tiered system of CIN, to the two-tiered Bethesda System, with high- and low-grade squamous intraepithelial lesions (SIL). In the past,

cancer registries generally considered carcinoma in situ of the cervix reportable, but they differed in which of these other terms they considered synonymous with carcinoma in situ and hence reportable. Consequently, data were not comparable over time or across registries.

NAACCR convened a multidisciplinary working group in April 1993 to review the problem and make recommendations for its membership. The recommendation was that "population-based registries discontinue routine collection of data on pre-invasive cervical neoplasia unless there is strong local need and interest, and sufficient resources are available to collect all [high-grade squamous intraepithelial lesions] and its equivalent terms."30 NAACCR and NPCR adopted this recommendation at that time. SEER and CoC adopted it effective for cases diagnosed January 1, 1996, forward. CCCR adopted it effective for cases diagnosed June 1, 2007.

Ambiguous Terminology

In most circumstances, the diagnosis of cancer, as recorded in the patient's medical record, clearly is synonymous with reportable cancer. However, in those situations where the physician is not certain of the diagnosis, the associated terminology in the medical record reflects that uncertainty and is ambiguous. CoC, NPCR, SEER and CCCR are in agreement in regard to the list of terms considered as diagnostic of cancer and the list of terms not considered as cancer. These terms are shown in the table below.

Supplemental List of ICD-10 (Effective Dates: 10/1/2017-9/30/2018)

ICD-10-CM Code	Explanation of Code
B20	Human immunodeficiency virus [HIV] disease with other diseases
B97.33, B97.34, B97.35	Human T-cell lymphotrophic virus,(type I [HTLV-1], type II [HTLV-II], type 2 [HIV 2]) as the cause of diseases classified elsewhere
B97.7	Papillomarvirus as the cause of diseases classified elsewhere
C44.01, C44.02	Basal/squamous cell carcinoma of skin of lip
C44.11_, C44.12_	Basal/squamous cell carcinoma of skin of eyelid
C44.21-, C44.22-	Basal/squamous cell carcinoma of skin of ear and external auricular canal
C44.31-, C44.32-	Basal/squamous cell carcinoma of skin of other and unspecified parts of face
C44.41, C44.42	Basal/squamous cell carcinoma of skin of scalp and neck
C44.51-, C44.52-	Basal/squamous cell carcinoma of skin of trunk
C44.61-, C44.62-	Basal/squamous cell carcinoma of skin of upper limb, including shoulder
C44.71-, C44.72-	Basal/squamous cell carcinoma of skin of lower limb, including hip
C44.81, C44.82	Basal/squamous cell carcinoma of skin of overlapping sites of skin
C44.91, C44.92	Basal/squamous cell carcinoma of skin of unspecified sites of skin
D10.- - D31.-, D34, D35.0, D35.1, D35.5-D35.9, D36.-	Benign neoplasms (see "must collect" list for reportable benign neoplasms) *Note: Screen for incorrectly coded malignancies or reportable by agreement tumors* *Note: Borderline cystadenomas M-8442, 8451, 8462, 8472, 8473, of the ovaries moved from behavior /3 (malignant) to /1 (borderline malignancy) in ICD-O-3. SEER registries are not required to collect these cases for diagnoses made 1/1/2001 and after. However, cases diagnosed prior to 1/1/2001 should still be abstracted and reported to SEER.*
D3A._	Benign carcinoid tumors
D37._ - D41._	Neoplasms of uncertain or unknown behavior (see "must collect" list for reportable neoplasms of uncertain or unknown behavior) *Note: Screen for incorrectly coded malignancies or reportable by agreement tumors*
D44.0 - D44.2, D44.6-D44.9	Neoplasm of uncertain or unknown behavior of other endocrine glands (see "must collect" list for D44.3-D44.5) *Note: Screen for incorrectly coded malignancies or reportable by agreement tumors*

D47.01	Cutaneous mastocytosis (9740/1) *Note: Effective 10/1/2017*
D47.09	Other mast cell neoplasms of uncertain behavior *Note: Effective 10/1/2017*
D47.2	Monoclonal gammopathy *Note: Screen for incorrectly coded Waldenstrom's macroglobulinemia*
D47.Z2	Castleman disease
D48.-	Neoplasm of uncertain behavior of other and unspecified sites
D49.0 - D49.9	Neoplasm of unspecified behavior (except for D49.6 and D49.7)
D61.1	Drug-induced aplastic anemia (also known as *"aplastic anemia due to antineoplastic chemotherapy"*) *ICD-10-CM Coding instruction note: Use additional code for adverse effect, if applicable, to identify drug*
D61.810	Antineoplastic chemotherapy induced pancytopenia
D61.82	Myelophthisis *ICD-10-CM Coding instruction: Code first the underlying disorder, such as: malignant neoplasm of breast (C50._)*
D63.0	Anemia in neoplastic disease *ICD-10-CM Coding instruction: Code first neoplasm (C00-C49)*
D64.81	Anemia due to antineoplastic chemotherapy
D69.49, D69.59, D69.6	Other thrombocytopenia *Note: Screen for incorrectly coded thrombocythemia*
D70.1	Agranulocytosis secondary to cancer chemotherapy *ICD-10-CM Coding instruction: Code also underlying neoplasm*
D72.1	Eosinophilia (*Note: Code for eosinophilia (9964/3). Not every case of eosinophilia is a malignancy. Reportable Diagnosis is "Hypereosonophilic syndrome."*)
D75.81	Myelofibrosis (note: this is not primary myelofibrosis [9961/3] *ICD-10-CM Coding instruction note: Code first the underlying disorder, such as: malignant neoplasm of breast (C50._)*
D76.-	Other specified diseases with participation of lymphoreticular and reticulohistiocytic tissue
D89.0, D89.1	Other disorders involving the immune mechanism, not elsewhere classified *Note: Review for miscodes*
D89.4-	Mast cell activation syndrome and related disorders *Note: Effective 10/1/2016*

E08	Diabetes mellitus due to underlying condition *ICD-10-CM Coding instruction note: Code first the underlying condition, such as: malignant neoplasm (C00-C96)*
E31.2-	Multiple endocrine neoplasia [MEN] syndromes *ICD-10-CM Coding instruction: Code also any associated malignancies and other conditions associated with the syndromes*
E34.0	Carcinoid syndrome *ICD-10-CM Coding instruction: May be used as an additional code to identify functional activity associated with a carcinoid tumor*
E83.52	Hypercalcemia
E88.09	Other disorders of plasma-protein metabolism, not elsewhere classified
E88.3	Tumor lysis syndrome (following antineoplastic chemotherapy)
G13.0	Paraneoplastic neuromyopathy and neuropathy *ICD-10-CM Coding instruction note:: Code first underlying neoplasm (C00-D49)*
G13.1	Other systemic atrophy primarily affecting central nervous system in neoplastic disease *ICD-10-CM Coding instruction note:: Code first underlying neoplasm (C00-D49)*
G32.8	Other specified degenerative disorders of nervous system in diseases classified elsewhere *ICD-10-CM Coding instruction note: Code first underlying disease, such as: cerebral degeneration (due to) neoplasm (C00-D49)*
G53	Cranial nerve disorders in diseases classified elsewhere *Note: Code first underlying neoplasm (C00-D49)*
G55	Nerve root and plexus compressions in diseases classified elsewhere *ICD-10-CM Coding instruction note: Code also underlying disease, such as neoplasm (C00-D49)*
G63	Polyneuropathy in diseases classified elsewhere *ICD-10-CM Coding instruction note: Code first underlying disease, such as: neoplasm (C00-D49)*
G73.1	Lambert-Eaton syndrome in neoplastic disease *ICD-10-CM Coding instruction: Code first underlying neoplasm (C00-D49)*
G89.3	Neoplasm related pain (acute)(chronic)
G99.2	Myelopathy in diseases classified elsewhere *ICD-10-CM Coding instruction: Code first underlying disease, such as: neoplasm (C00-D49)*
H47.42	Disorders of optic chiasm in (due to) neoplasm *ICD-10-CM Coding instruction: Code also underlying condition*
H47.52-	Disorders of visual pathways in (due to) neoplasm *ICD-10-CM Coding instruction: Code also underlying condition*

H47.63-	Disorders of visual cortex in (due to) neoplasm *ICD-10-CM Coding instruction: Code also underlying condition*
J34.81	Nasal mucositis (ulcerative)
J91.0	Malignant pleural effusion *ICD-10-CM Coding instruction: Code first underlying neoplasm*
J93.12	Secondary spontaneous pneumothorax *ICD-10-CM Coding instruction: Code first underlying condition, such as:* *Malignant neoplasm of bronchus and lung (C34._)* *Secondary malignant neoplasm of lung (C78.0_)*
K12.31	Oral mucositis (ulcerative) due to antineoplastic therapy
K12.33	Oral mucositis (ulcerative) due to radiation
K22.711	Barrett's esophagus with high grade dysplasia
K62.7	Radiation proctitis
K62.82	Dysplasia of anus (AIN I and AIN II)
K92.81	Gastrointestinal mucositis (ulcerated) (due to antineoplastic therapy)
M36.0	Dermato(poly)myositis in neoplastic disease *ICD-10-CM Coding instruction: Code first underlying neoplasm (C00-D49)*
M36.1	Arthropathy in neoplastic disease *ICD-10-CM Coding instruction: Code first underlying neoplasm, such as:* Leukemia (C91-C95), malignant histiocytosis (C96.A), multiple myeloma (C90.0)
M84.5-	Pathologic fracture in neoplastic disease *ICD-10-CM Coding instruction: Code also underlying neoplasm (C00-D49)*
M90.6-	Osteitis deformans in neoplastic disease *ICD-10-CM Coding instruction: Code first the neoplasm (C40._, C41._)*
N42.3	Dysplasia of prostate (PIN I and PIN II)
N76.81	Mucositis (ulcerative) of vagina and vulva
N87.-	Dysplasia of cervix uteri (CIN I and CIN II)
N89.0, N89.1, N89.3	Vaginal dysplasia (VIN I and VIN II)
N90.0, N90.1, N90.3	Vulvar dysplasia (VAIN I and VAIN II)
O01.-	Hydatidiform mole *Note: Benign tumor that can become malignant. If malignant, report as Choriocarcinoma (9100/3,) malignancy code in the C00- C97 range*

O9A.1-	Malignant neoplasm complicating pregnancy, childbirth and the puerperium (conditions in C00-C96) *ICD-10-CM Coding instruction: Use additional code to identify neoplasm*
Q85.0-	Neurofibromatosis (nonmalignant) (9540/1) *Note: Neurofibromatosis is not cancer. These tumors can be precursors to acoustic neuromas, which are reportable*
R18.0	Malignant ascites *ICD-10-CM Coding instruction: Code first malignancy, such as:* *Malignant neoplasm of ovary (C56._), secondary malignant neoplasm of retroperitoneum and peritoneum (C78.6)*
R53.0	Neoplastic (malignant) related fatigue *ICD-10-CM Coding instruction: Code first associated neoplasm*
R59.-	Enlarged lymph nodes
R85.6-	Abnormal findings on cytological and histological examination of digestive organs *Note: see "must collect" list for R85.614*
R87.61-, R87.62-	Abnormal findings on cytological/histological examination of female genital organs *Note: see "must collect" list for R87.614 and R87.624*
R92.-	Abnormal findings on diagnostic imaging of breast
R97.-	Abnormal tumor markers
T38.6-	Poisoning by antigonadotrophins, antiestrogens, antiandrogens, not elsewhere classified
T38.8-, T38.9-	Poisoning by hormones and their synthetic substitutes
T45.1-	Poisoning by, adverse effect of and under dosing of antineoplastic and immunosuppressive drugs
T45.8-, T45.9-	Poisoning by primary systemic and hematological agent, unspecified
T66	Unspecified effects of radiation
T80.1	Vascular complications following infusion, transfusion and therapeutic injection
T80.2-	Infections following infusion, transfusion and therapeutic injection
T80.810	Extravasation of vesicant antineoplastic chemotherapy
T80.818	Extravasation of other vesicant agent
T86.0	Complications of bone marrow transplant *ICD-10-CM Coding instruction: Use addition code to identify other transplant complications, such as: malignancy associated with organ transplant (C80.2) or post-transplant lymphoproliferative disorders (PTLD) (D47.Z1)*

Y63.2	Overdose of radiation given during therapy
Y84.2	Radiological procedure and radiotherapy as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
Z03.89	Encounter for observation for other suspected diseases and conditions ruled out
Z08	Encounter for follow-up examination after completed treatment for malignant neoplasm (medical surveillance following completed treatment) *ICD-10-CM Coding instruction: Use additional code to identify the personal history of malignant neoplasm (Z85._)*
Z12.-	Encounter for screening for malignant neoplasms
Z13.0	Encounter for screening for diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
Z15.0	Genetic susceptibility to malignant neoplasm *ICD-10-CM Coding instruction: Code first, if applicable, any current malignant neoplasm (C00-C75, C81-C96); Use additional code, if applicable, for any personal history of malignant neoplasm (Z85._)*
Z17.0, Z17.1	Estrogen receptor positive and negative status *ICD-10-CM Coding instruction: Code first malignant neoplasm of breast (C50._)*
Z40.0-	Encounter for prophylactic surgery for risk factors related to malignant neoplasms
Z42.1	Encounter for breast reconstruction following mastectomy
Z48.3	Aftercare following surgery for neoplasm *ICD-10-CM Coding instruction: Use additional code to identify the neoplasm*
Z48.290	Encounter for aftercare following bone marrow transplant
Z51.0	Encounter for antineoplastic radiation therapy
Z51.1-	Encounter for antineoplastic chemotherapy and immunotherapy
Z51.5, Z51.89	Encounter for palliative care and other specified aftercare
Z79.81-	Long term (current) use of agents affecting estrogen receptors and estrogen levels *ICD-10-CM Coding instruction: Code first, if applicable, malignant neoplasm of breast (C50._), malignant neoplasm of prostate (C61)*
Z80.-	Family history of primary malignant neoplasm
Z85._	Personal history of malignant neoplasm *ICD-10-CM Coding instruction: Code first any follow-up examination after treatment of malignant neoplasm (Z08)*

Z86.0-, Z86.01-, Z86.03	Personal history of in situ and benign neoplasms and neoplasms of uncertain behavior
Z92.21, Z92.23, Z92.25. Z92.3	Personal history of antineoplastic chemotherapy, estrogen therapy, immunosuppression therapy or irradiation (radiation)
Z94.81, Z94.84	Bone marrow and stem cell transplant status

End of Section O

VCR Epidemiologist Manual

~ 2024 ~

Virginia Cancer Registry Epidemiologist Manual

Table of Contents

Part 1: Cancer Policy and Data Security

A. VCR's Data Security and Confidentiality Policy

1. Mission Statement

   The Virginia Cancer Registry (VCR) is mandated by law to collect cancer incidence data, and as such, must act as custodian of these data to ensure that these records are held in trust, and that the privacy of individual patients, reporting facilities, and physicians is protected. Confidentiality of the data is protected under statutory authority of the Code of Virginia § 32.1-41 (Anonymity of patients and practitioners to be preserved in use of medical records) and detailed under the Regulations for Disease Reporting and Control of the Commonwealth of Virginia State Board of Health.

2. Data Security

   All VCR staff engaged in the collection, handling and/or dissemination of VCR data will be informed of the responsibility to protect such data and the consequences of failure to do so. Employees will be held accountable for the appropriate use of VCR data and for safeguarding the information in their possession. Access to data is restricted to those who specifically require access to perform their assigned duties. All requests for data will be documented. VCR analytic staff will offer consultation to data requestors to determine the type of information that will best meet the requestors' needs.

4. Non-confidential Data

   Many requests can be provided within suppression levels as described in the contents of this document. Suggestions will be made to the requestor on how to aggregate the requested data to keep within suppression levels by analytic staff.

5. Confidential Data

   Documentation for release of confidential data includes processes outlined in the data request section in this document. The VCR Director or Statistical Analysis Coordinator must determine the instruments needed to provide confidential data i.e., DSA (Data Sharing Agreement), IRB, the VDH commissioner's decision memo.

**** Confidential data may be disclosed to the following*:**

1. to the original reporting facility.
2. to the Health District director or his/her designee where the record lists residence at diagnosis for the purposes of safeguarding the public health
3. to health care facilities with patients in common. Such information will be provided only if all parties have signed a data sharing agreement.
4. to researchers after approval from the VDH Institutional Review Board
5. to other state, federal or municipal agencies with appropriate signed documents such as memorandums of agreement.

**** Disclosure will be permitted only if the following conditions are met:***

1. the minimum number of confidential data items needed to meet the request will be provided.
2. use of the data for other than the stated purpose is prohibited.
3. redisclosure of confidential data to any other party is not permitted.
4. the data must be destroyed in a manner which maintains confidentiality after the stated need has been fulfilled.

B. Data Suppression Guidelines

This will be used for suppression of data counts, rates, and percentages: 1<u>*<# cases<16, 0 is not suppressed.*</u>

1. Suppression for confidentiality and statistical stability
    a. Applies when releasing data outside the registry.
    b. Applies to any published data.
    c. Applies to any data available on website.
    d. In general, release of a health statistic should only occur if the denominator of the health statistic is more than fifty when the denominator is a population (a group of people with certain age, race, and sex characteristics who live in a particular place) or more than ten when the denominator is a cohort (a group of people whose membership is defined by the occurrence of some event
2. Chance variation is a common problem when the numbers used to calculate rates are extremely small. Large fluctuations often occur in rates based on small numbers that do not reflect real changes in the cancer burden in the underlying population. Consider these pancreatic mortality rates for a five-year period. Therefore, any rate with a numerator (cases or deaths) of fifteen or less is considered unstable and will not be routinely published. Specific requests will be addressed with an emphasis on reliability when releasing the data.

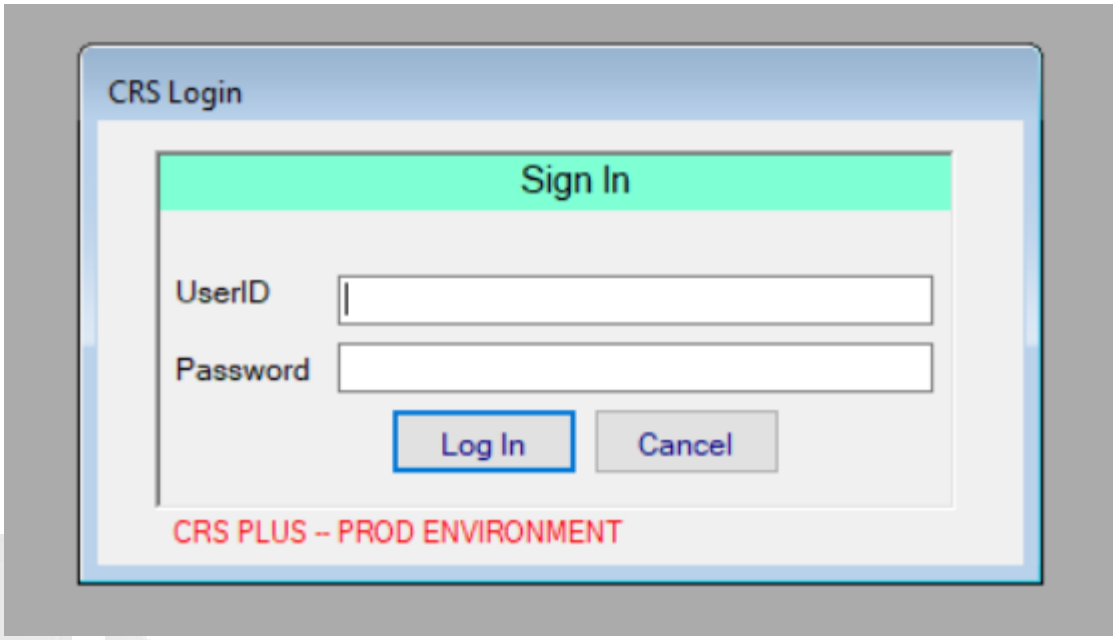
C. Data Transfer

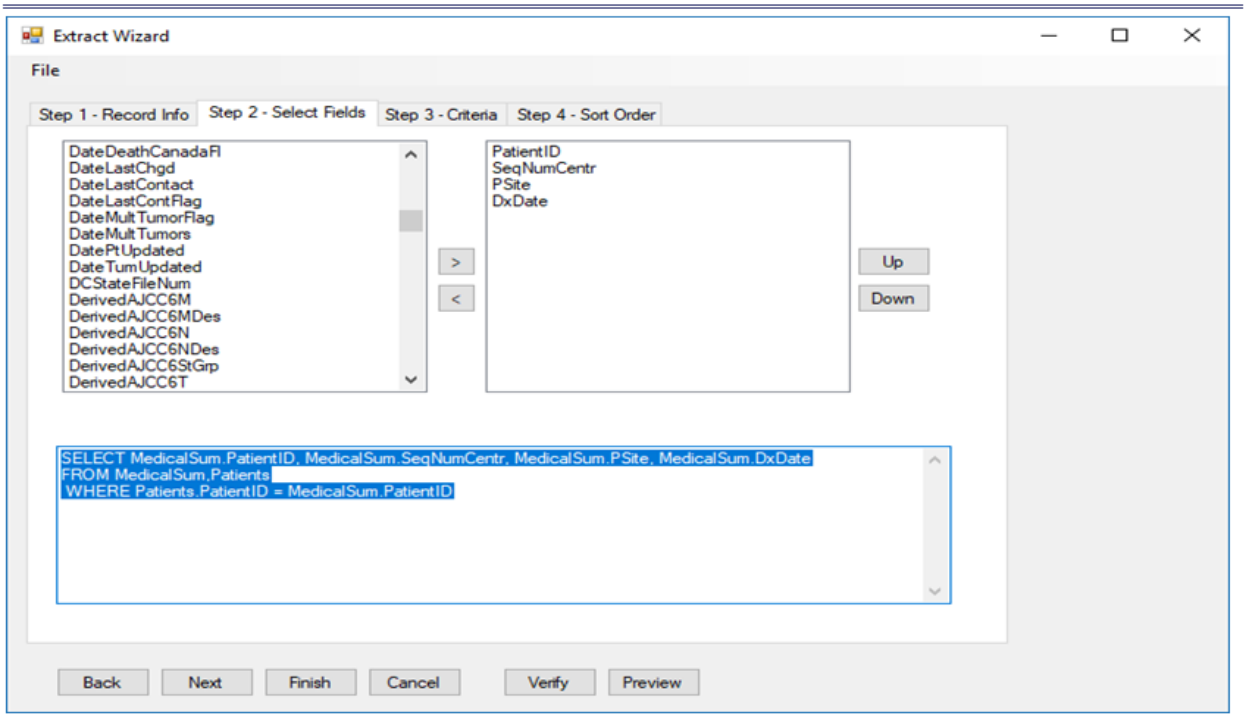
1. Confidentiality Statement: Confidentiality statements must be signed and reviewed for each research project and filed in applicable folder. This includes outside research projects as well as cross program research projects.
2. Cluster Analysis: When working on a cluster analysis and reviewing reported cases, information is only returned in aggregate unless the report is to the designated health district. There is no individual confirmation of status in registry files even if the cluster reporter provides the names. This must be communicated with all coordinating programs for each project.
3. Data/disk/CD: All disks and CDs must be returned upon completion of research projects for both external and cross program projects. Data disks and CDs must be sent USPS return receipt requested of hand delivered/ received.
4. Email: Confidential data may not be emailed.

Part 2: Introduction to CRS and SEERSTAT Databases

A. Central Registry System (CRS)

CDC National Program of Cancer Registries (NPCR)-funded central registries have access to CRS. The CRS (Central Registry System) Plus software is the Registry Plus application used to manage the central registry database. The program provides for the automatic determination of multiple primary tumors and the consolidation of data items from multiple abstracts into incidence records. Supports the linkage of incoming abstracts against the existing database, exports records in North American Association of Central Cancer Registries (NAACCR) format and automates the preparation of files for national calls for data.





B. SEER

The National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program provides information on cancer statistics that underpins efforts to reduce the cancer burden among the U.S. population.

C. SEERSTAT

The SEER*Stat statistical software is used for the analysis of SEER and other cancer-related databases, as well as to view individual cancer records and to produce statistics for studying the impact of cancer on a population. Below is the URL and screenshot for downloading the software.
https://seer.cancer.gov/seerstat/started.html

Part 3: VCR Cancer Data and Statistics Computation

A. VCR Live Incidence Data Summary

1. Collects around 42,000 diagnoses (all invasive cancer including non-invasive bladder cancer) per year.
2. A tumor-based registry, not patient based. One patient can have multiple records.
3. Data collected as early as 80's.
4. Maintain and submit 1995- current year data to NPCR, NAACCR, and SEER annually.
5. Around 1.1 million patients in our database as of December 2023.
6. Data is 2-year behind: Facilities have 180 days to report a diagnosis.

B. Incidence Counts and Rates

1. Counts: incidence counts from VCR database
2. Population: The county population estimates that are incorporated into the National Cancer Institute's (NCI's) SEER*Stat software are a slight modification of the annual time series of July 1 County population estimates (by age, sex, race, and Hispanic origin) produced under a collaborative arrangement between the U.S. Bureau of the Census (Census Bureau) and CDC's National Center for Health Statistics with support from NCI through an interagency agreement.
3. Age Adjusted Rates: SEERSTAT software auto-populates the age-adjusted incidence rates. Age-adjustment is a way to compare cancer cases in communities with different age distributions. Age-adjusted rates are calculated by weighting the age-specific rates for a given year by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined.

Age-adjusted rates are calculated by the direct method, as in:

$$\sum_{i=1}^{n} r_i \times (p_i / P)$$

where

r_i = rate in age group i in the population of interest

p_i = standard population in age group I

$$P = \sum_{i=1}^{n} p_i$$

n = total number of age groups over the age range of the age-adjusted rate.

Age adjustment by the direct method requires the use of a standard age distribution. The 2000 U.S. standard population replaced the 1970 civilian noninstitutionalized population for age adjusting estimates from most National Center for Health Statistics (NCHS) surveys.

For more information on implementing the 2000 population standard for age adjusting death rates, see: Anderson RN, Rosenberg HM. Age standardization of death rates: Implementation of the year 2000 standard. National Vital Statistics Reports; vol 47 no 3. Hyattsville, MD: National Center for Health Statistics. 1998. Available from:

https://www.cdc.gov/nchs/data/nvsr/nvsr47/nvs47_03.pdf. For more information on the derivation of age-adjustment weights for use with NCHS survey data, see: Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Healthy People 2010 Statistical Notes, no 20. Hyattsville, MD: National Center for Health Statistics. 2001. Available from: https://www.cdc.gov/nchs/data/statnt/statnt20.pdf. The projected year 2000 U.S. standard population is available from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program: https://seer.cancer.gov/stdpopulations/stdpop.singleages.html

C. Mortality Counts and Rates

1. Death counts: The VCR mortality counts are from SeerStat which is provided by CDC's National Center for Health Statistics. Cancer mortality statistics are based on information from all death certificates filed in the 50 states, the District of Columbia, and Puerto Rico, and processed by the National Vital Statistics System. For 1969-2020, deaths are associated with the population data for 3 racial groups: White, Black, Other. The "Other" race category consists of American Indian/Alaskan Native and Asian/Pacific Islander combined. (See Race Recode Changes for more information).
2. Population: 2000 US standard population. Same as incidence stats.
3. Age Adjusted Rates: Same as incidence.

D. Data Suppression for Reliability

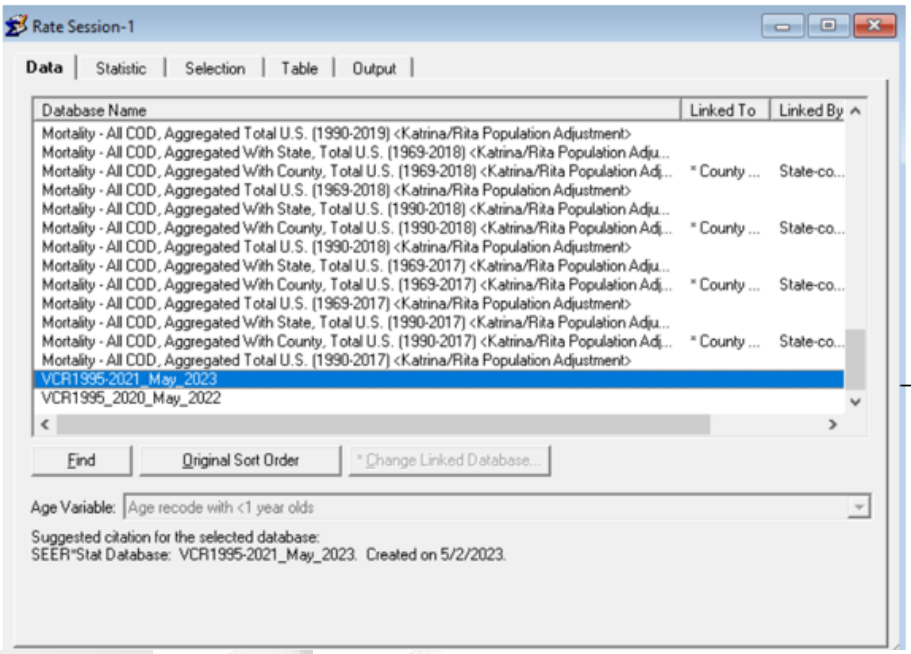
When the numbers of cases or deaths used to compute rates are small, those rates tend to have poor reliability. Therefore, to discourage misinterpretation or misuse of rates or counts that are unstable, incidence and death rates and counts are not shown in tables and figures when the case or death counts are below 16. A count of fewer than 16 results in a standard error of the rate that is approximately 25% (or more) larger than the rate itself. Similarly, a case count below 16 results in the width of the rate's 95% confidence interval being at least as large as the rate itself. These relationships were derived under the assumption of a Poisson process and with the standard population age distribution assumed to be like the observed population age distribution. A suppressed rate does not necessarily mean that the rate was low. https://www.cdc.gov/cancer/uscs/technical_notes/stat_methods/suppression.htm

Part 4: VCR Manuals for Individual Procedures

A. Query in SEERSTAT (step by step for selection) Screen shots

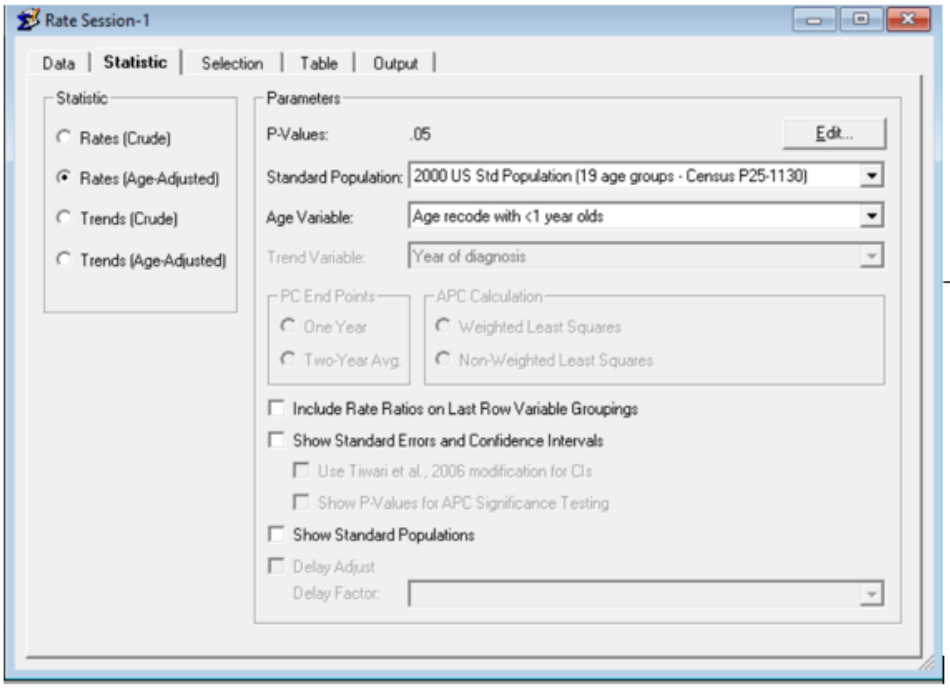
Below are the screenshots of query in SEERSTAT database. For SEER sessions, it's best to work from left to right with the tabs.

Step1: In the data tab, select the database name shown in the screen shot. Ex: VCR 1995-2021, May2023.



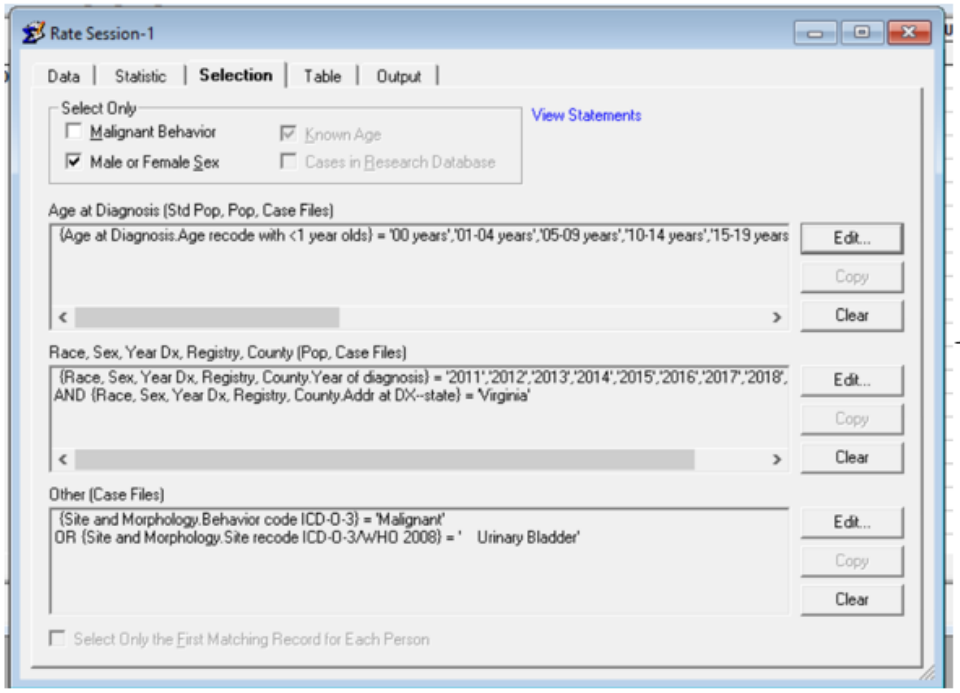
Select the database name ex: VCR 1995-2021 May 2023

Step 2: In the Statistic tab, select all the parameters shown in the below screenshot.



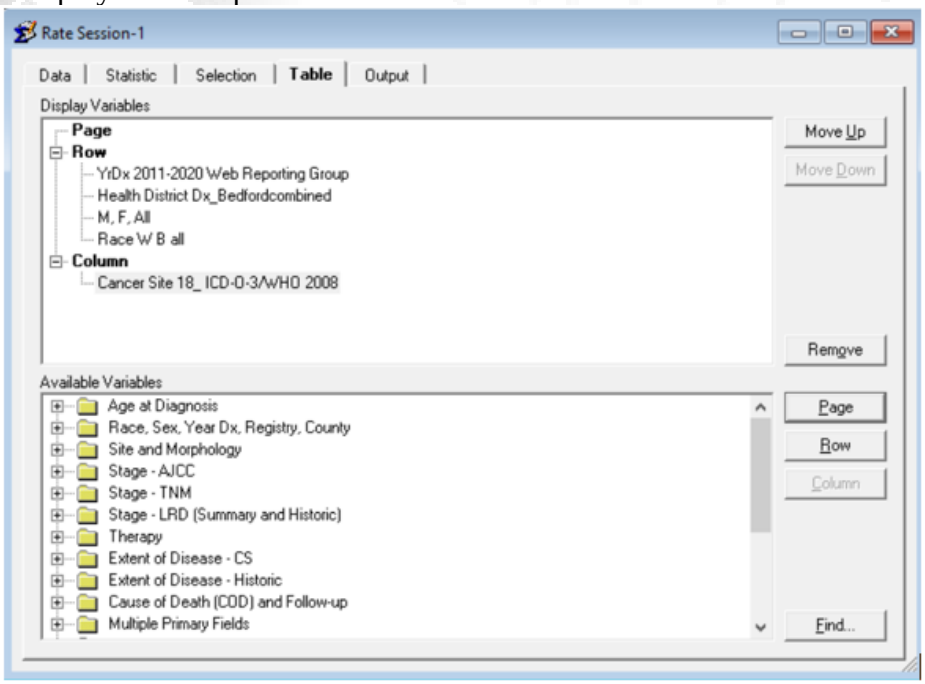
Select all the parameters listed in the statistic tab.

Step 3: In the selection tab, click the "Edit…" button to refine which cases/variables you want to include in your query (i.e., inclusion/exclusion criteria). Example shown in the below screenshot.



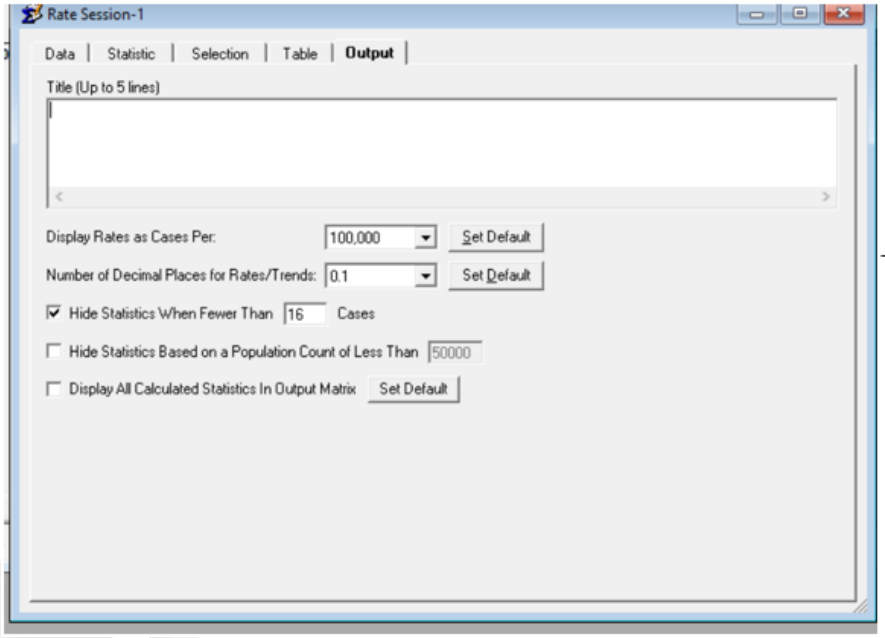
Enter the age range at diagnosis, Race, Sex, Dx Year, County and State in the selection tab.

Step 4: While the "Selection" tab selected cases, the "Table" tab organizes how your selected data will be displayed. Example shown in the below screenshot.



Select the variable to be displayed on the table in the page, row and column options of the table tab.

Step 5: Add a meaningful title to your table output, Check or uncheck the options below the title box. Example: By default, we usually check the "Hide Statistics...." option when there are fewer than 16 cases for confidentiality.

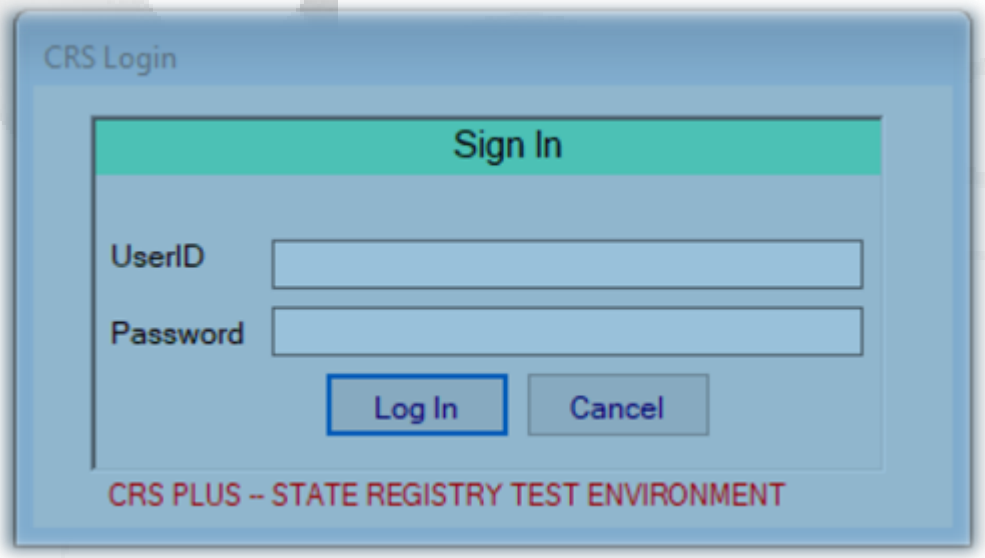


In the output tab, we can check or uncheck the options. Ex. By default, we usually check the box to hide statistics when fewer than 16 cases.

B. CRS Data Extraction Steps

Logging In

To access CRS Plus, double click on the CRS Plus icon on your desktop.



CRS Plus Login dialog box

1. Enter your CRS Plus User ID.
2. Enter your Password.

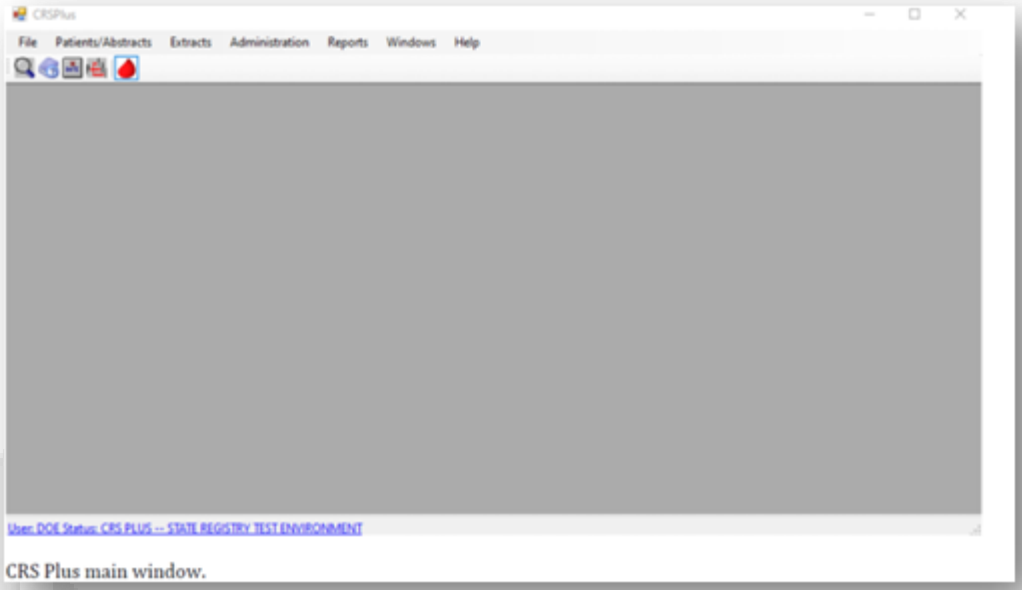
NOTE: If a new user account was created, a temporary password of 'guest' will be assigned. Upon initial login using the temporary password, the user will be prompted to change the password.

3. Click on Log In or hit the Enter button on the keyboard.

NOTE: Please contact a CRS Plus Administrator to set up a Username and password for initial login.

CRS Plus Main Window

When a user successfully logs in to CRS Plus, the main window will open.



CRS Plus main window.

The Menu Bar

The menu bar contains the following options:

CRS Plus menu bar.

File

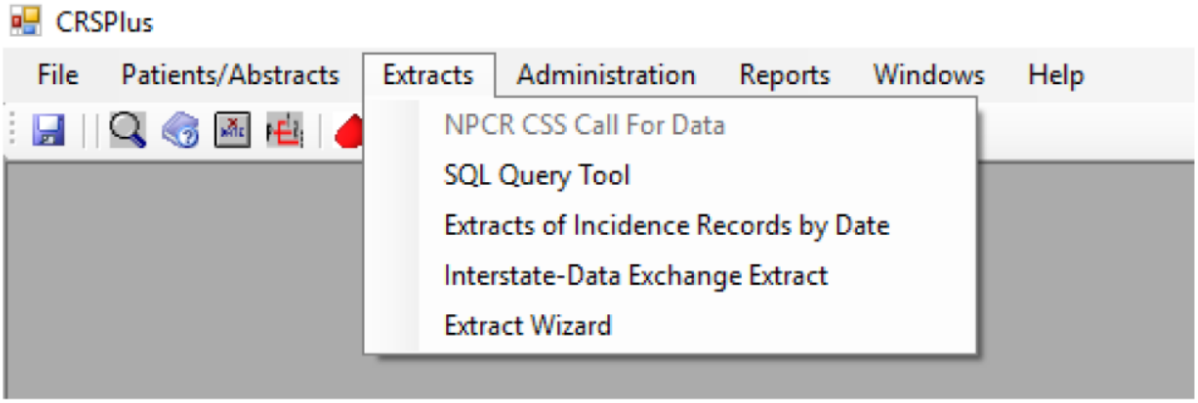
Exit is the only current function available in the File menu.

Patients/Abstracts

Epidemiologists do not use this function.

Extracts

Contains standard extracts for routine file submission as well as tools to create SQL queries and to generate data files in multiple file formats including NAACCR record types and fixed width.



SQL Query Tool: to create and run SQL queries against the database. Queries can be saved to run at any time and query results can be extracted.

Extracts of Incidence Records by Date: Generates files of Incidence Records (NAACCR Record Type I) by Date of Diagnosis and County.

Interstate-Data Exchange Extract: Extraction tool to create files for interstate data exchange. Multiple files can be created at the same time by selecting multiple registries in the Receiving State section of the tool. The data will be separated by Address at Dx State and a count for each file will be provided. (For more details, please check Interstate data exchange Instructions).

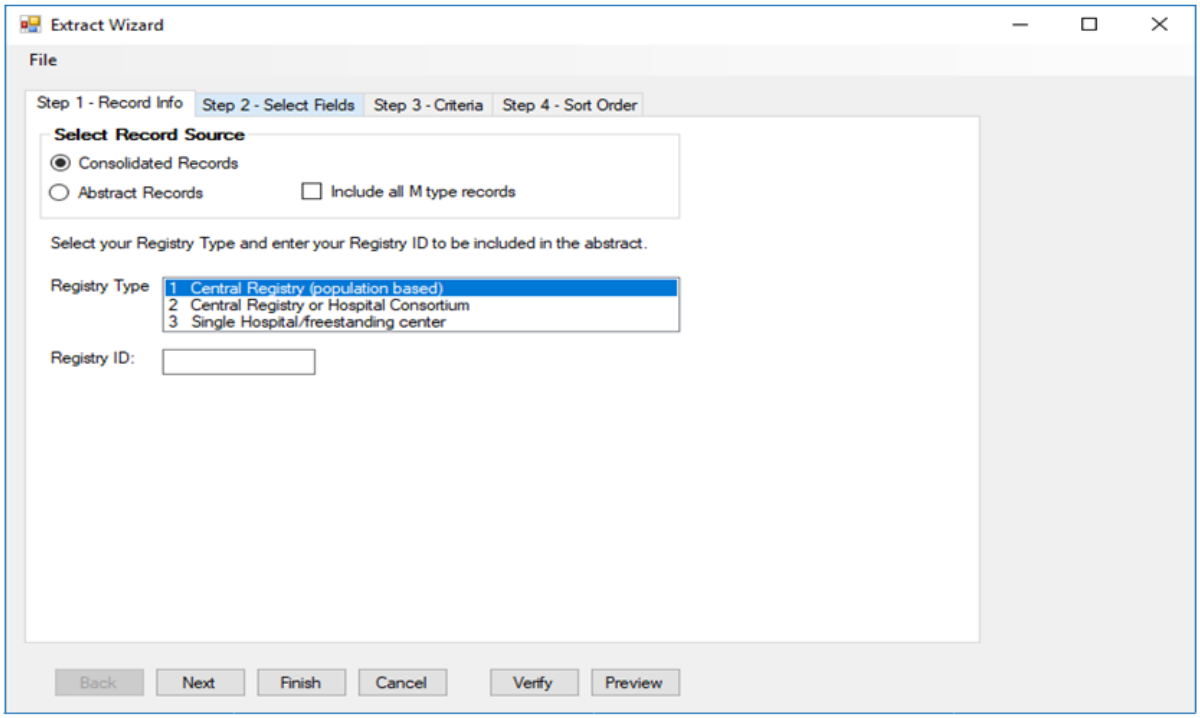
Extract Wizard: Provides the ability to create customized queries in multiple file formats including NAACCR record types and fixed width. SQL statements are generated by following the steps in the Wizard without the need for the user to understand SQL. For those with experience in SQL, the generated SQL statement can be modified to run more advanced SQL queries. Queries can be saved to run at any time and query results can be extracted.

Using the Extract Wizard in CRS Plus

From the *Extracts* menu, select **Extract Wizard**.

STEP 1: RECORD INFO

1. Specify the record source (consolidated records or abstract records). Only one can be selected.
2. Specify the Registry Type.
3. Enter the Registry ID if it should be included in the extract output.



CRS Plus Extract Wizard Step 1

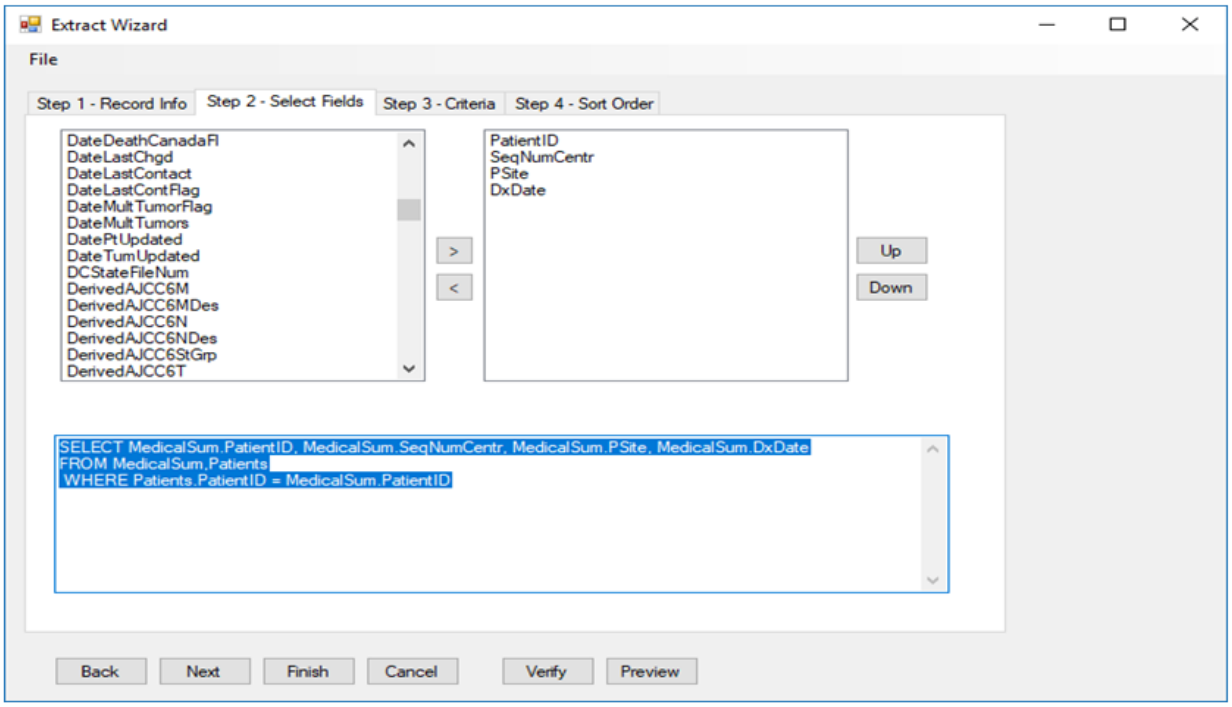
4. Select **Next** and Step 2 will display.

STEP 2: SELECT FIELDS

1. Select fields to be included in the output file. The available fields list on the left contains the NAACCR data items appropriate to the type of record in alphabetic order by Registry Plus short name.

NOTE: *The listing for a Consolidated extract will only contain items included in the Consolidated record.*

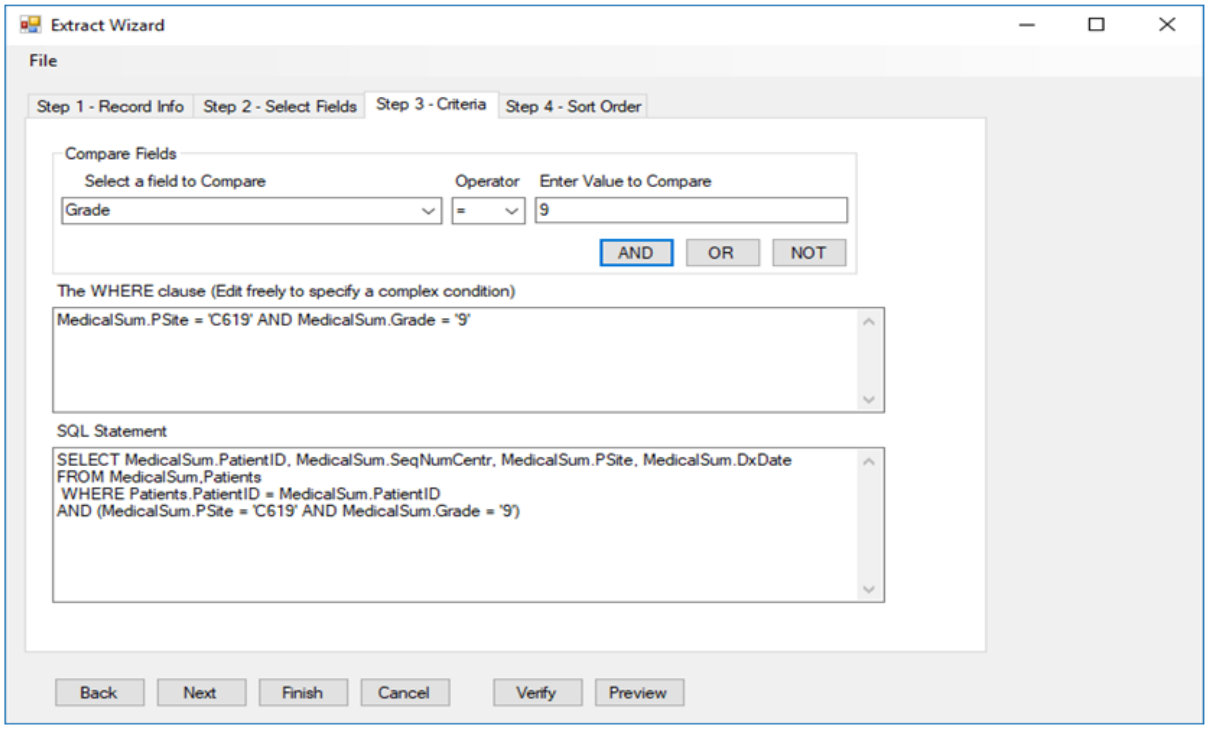
Registry-specific local data items will also be available if included in the database. All fields can be selected, or individual data items can be selected and moved to the selected fields window on the right using the arrow key in the middle. The order of selected fields can also be modified using the buttons to move Up or move Down. As fields are selected, the SQL Statement is created in the lower portion of the *Extract Wizard* window.



2. Select **Next** and Step 3 will display.

STEP 3: CRITERIA

1. Specify the criteria by selecting a field to compare using the dropdown menu.
2. Select an Operator function.
3. Enter a value to compare.
4. Click on the logical connector buttons (AND, OR, NOT) to add the criteria to the Where clause.
5. If additional criteria are needed, select the next field to compare, select an Operator function, enter a value to compare, and select the appropriate logical connector.
    a. The criteria will be automatically added to the SQL Statement.
    b. To delete or modify the criteria, remove or modify the criteria in the WHERE clause section which will automatically update the SQL Statement in the bottom section of the *Extract Wizard* window.

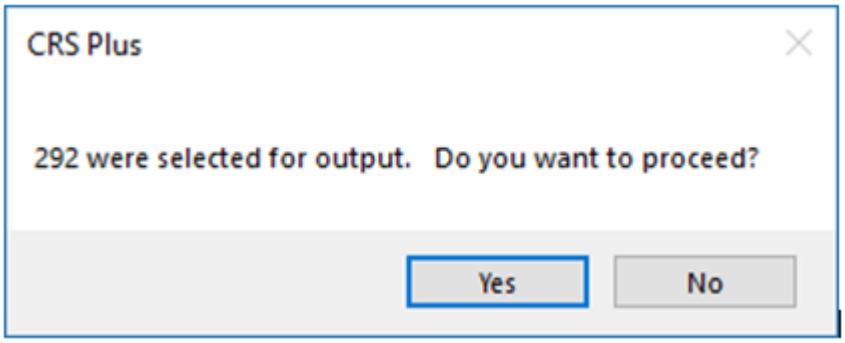


CRS Plus Extract Wizard Step 3

6. Select **Next** and Step 4 will display.

STEP 4: SORT ORDER

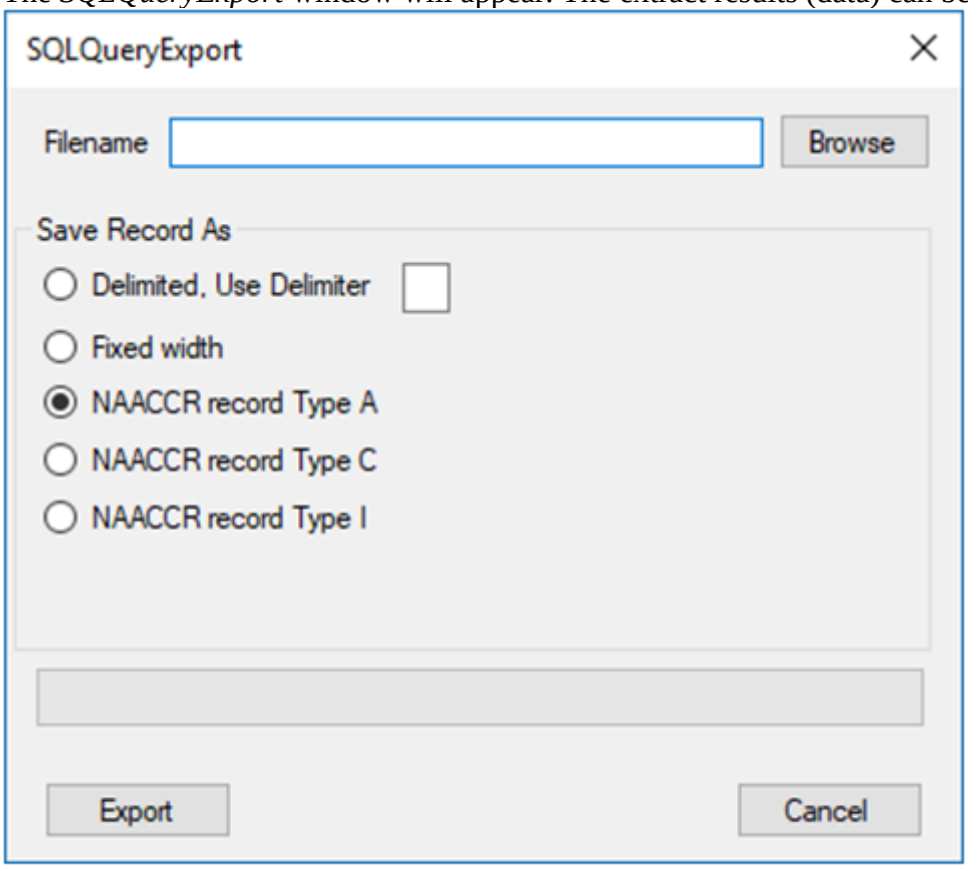
1. Specify the sort order. The fields selected in Step 2 will be available to select for sorting.
2. Once the Sort order is selected, click on **Finish** to execute the extract.
3. A message similar to the following will be presented for the user to verify expected results.



CRS Plus Extract Wizard Output Result Verification

a. Select **Yes** to proceed. Select No if the number of records selected for output is not as expected.

b. The *SQLQueryExport* window will appear. The extract results (data) can be saved



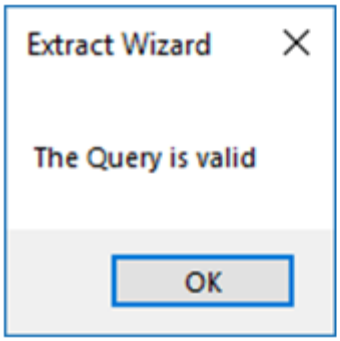
CRS Plus Extract Wizard SQLQueryExport Window

4. Select **Browse** to specify the location and enter a File name.
5. Click on **Open**.
6. Select the output format. NAACCR files can be created, as well as fixed width, or delimited files. If Fixed Width output format is selected, the extract results can be opened in Microsoft Excel and formatted.
7. Once the output format is selected, click on **Export**.
8. A message will be received confirming the extract is complete and will provide the file location and name of the file.
9. The Extract statement can also be saved so the extract can be run or modified at any time. To save the Extract Statement, select **File** in the upper left corner of the *Extract Wizard* window.
10. Select **Save**.
11. Specify a name for the extract and click on **Save**.
12. To access the saved Extract Statement, select **File** in the upper left corner of the *Extract Wizard* window. Select **Open**. The list of all saved extracts will display in a window labeled *ExtractWizardOpen*. Select the file and click on **Open**.

The following additional options are also available:

VERIFY SQL

This function can be used to verify the SQL statement. Once a SQL Statement is generated in the Extract Wizard, click on **Verify**. If successful, the following message will appear:



CRS Plus Extract Wizard Verify SQL Confirmation

If unsuccessful, an error message including details of the invalid function will appear so the SQL statement can be modified.

PREVIEW DATA

This function can be used to quickly display the results and verify fields and format, but only the first 100 records will be selected. Once **Preview** is selected, a window labeled *ExtractWizardPreview* will open displaying the results of the extract. The option is available to **Export** the results from the *ExtractWizardPreview* window.

COPY AND PASTE SQL STATEMENT

A statement can also be pasted into the SQL Statement (lower portion) of the Extract Wizard. This can be used when extracts including both consolidated data and abstract data are needed.

Administration

Most of the options and functionalities in the Administration menu can only be performed when a user is assigned an "Administrator" role in CRS Plus.

Reports

Only registrars and administrative staff can generate reports.

Help

We can search for any information regarding the database.

C. Instructions for data requests

1. **Summary data request**
   I. Requesters submit an online RedCap form via the VCR website.
   II. Epis will check if the information is complete and will contact the requester if more information is needed.
   III. Epis extract summary data from SEERSTAT.
   IV. Epis format and clean the output table and perform data QA before sending it out.
   V. Epis respond to requesters for further questions related to the data sent. If more data is requested, then requester needs to submit a new request.

2. **Linkage data request**
   a. Non-VPR Requests
   I. Initial communication: Explain request procedure, time, and documents required.
   II. Requesters submit variable list to Epi for review. Epis will notify VDH IRB about information request approval in email. VDH IRB will review and approve the request.
   III. After the IRB is approved, Epis start to work on the DSA (Data Sharing Agreement) with requesters.
   IV. After DSA is signed or fully executed, Epis will work on the commissioner's decision memo, routing slip, and all other documents (see attachment B &C) and send them through the chain of command all the way up to the commissioner for signatures.
   V. At the same time, Epis will work with the admin staff (currently the executive secretary) to generate an invoice ($2000 or $3000).
   VI. Once the memo is approved, Epis will work on data extraction from CRS+ and link it with cohort data provided by requesters using match*pro software.
   VII. Once linkage (or extraction) is completed, Epis will transfer data through VDH SFTP. Epi will work with OIM to help requesters set up their SFTP account.
   VIII. Epis respond to requesters for further questions related to the data sent.

   b. Virtual Pooled Registry Requests (VPR)

   VPR started in 2017 as a pioneer project and formally started in 2019 with four linkage requests. Each request starts with Phase I, and most of them (95%) will continue to Phase II. The growth is exponential, except some slowdown during the pandemic. Epis serves as a liaison between VPR and VCR. Epis attend the VPR monthly meeting; maintain and update the Virginia registry profile; provide required documents; submit match counts report, date for DSA approval and data transfer for each linkage request; work with Castine Clerkin (program manager from the CDC) with other requirements, etc.

Linkage Phase I steps:

I. VPR notifies Epis of a new linkage request; Epis then goes to the account to download files needed for the linkage. Files include cohort file, request approval, math*pro linkage configuration, and linkage instruction.
II. Epi will perform linkage using both the cohort file and the VCR linkage file (VCR data manager** will produce the VCR linkage file based on the most recent submission file) in Match*pro. There are 15 steps in the instruction for each linkage.
III. The linkage will take from a few hours to a few days to complete, depending on the size of both files and if manual review is involved.
IV. Once the linkage is completed and the output is saved, Epi will send the result (only a table of match counts by year) to a VPR account.

V. This ends the Phase I linkage process. The requesters then take time to choose if they want real data (patient level data) from our registry.

Linkage Phase II steps:

I. VPR notifies Epis if VCR is selected for the Phase II linkage. Epis then document it in our request log.

II. The Virginia Department of Health (VDH) Institutional Review Board (IRB) signed an agreement with the Biomedical Research Alliance of New York LLC Institutional Review Board (BRANY IRB) on February 1, 2023, that VDH IRB relies upon BRANY IRB for review and continuing oversight of its human subject's research for Virtual Pooled Registry-Cancer Linkage System (VPR-CLS) requests. BRANY (an organization authorized by VPR for the IRB process) sends us CIRB approval. Epis will save it to folder and send a copy to the VDH data governance team for records.

III. Requesters then reach out to Epis for the linked data from phase II with requested variables. Epis will work on DSA.

IV. Epis will work on the commissioner's decision memo, routing slip and other documents and send them through the chain of command way up to the commissioner for signatures.

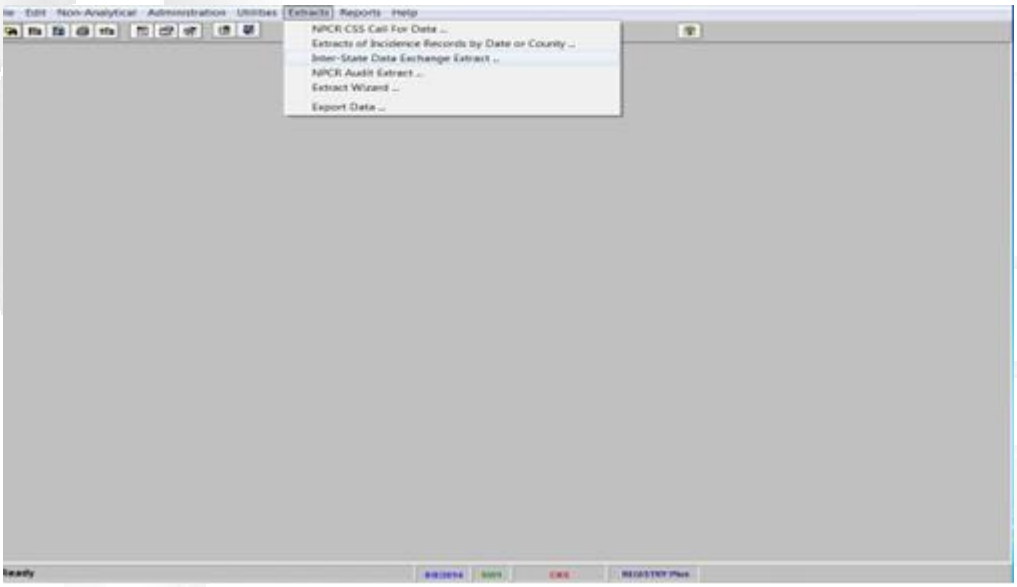
V. Once the memo is approved, Epis work on data extraction from CRS plus database and will make sure not to forget to link back the cohort ID variable in the final table.

VI. Once completed, Epis will transfer data through VDH SFTP. Epi will work with OIM to help requesters set up their SFTP account.

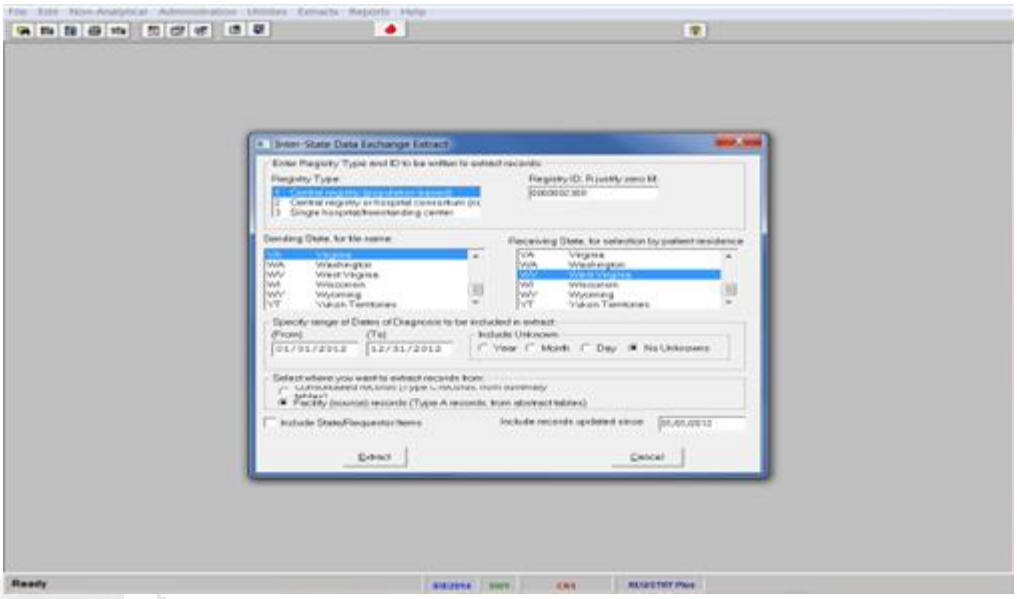
VII. Epis respond to requesters for further questions related to the data sent.

D. Interstate data exchange Instruction

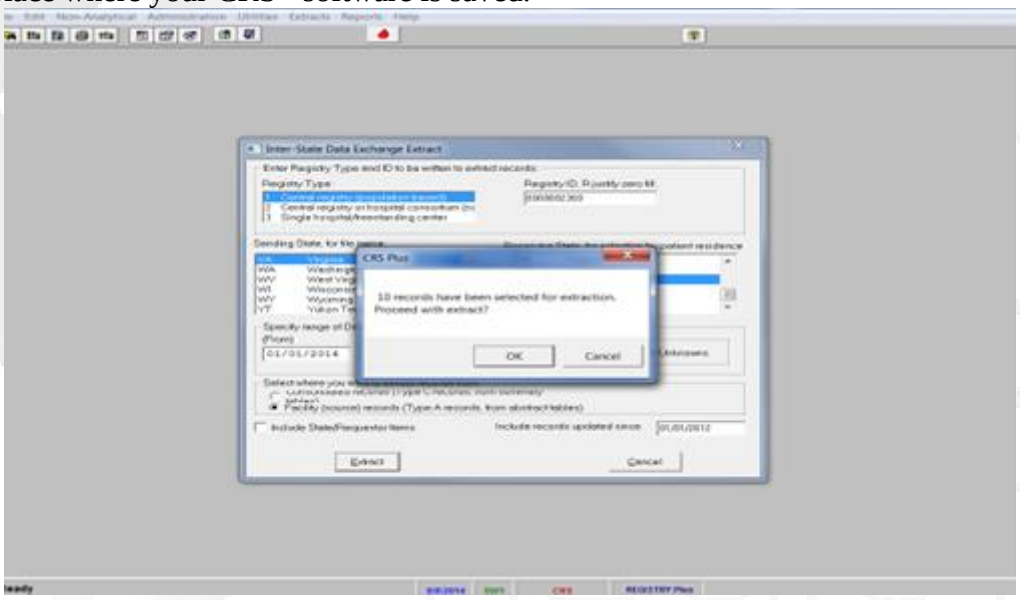
Step 1: Login to your CRS+ account and on the top, you will find “Inter-State Data Exchange Extract..” under EXTRACTS tab. Click it.



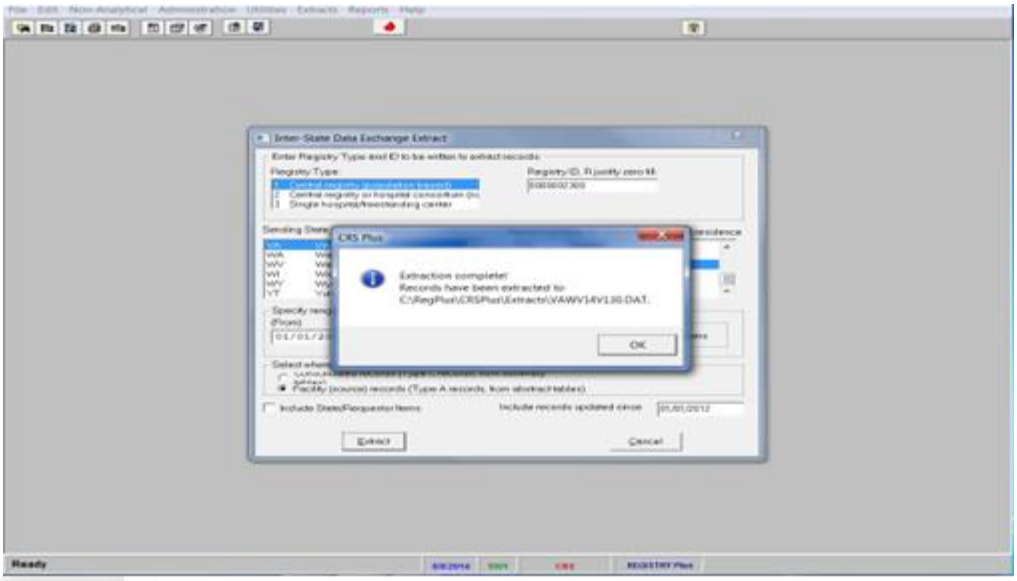
Step 2: A new Inter-State Data Exchange Extract window will show up. Put down the correct parameters and then click “Extract”. Below is an example of extracting West Virginia residence data.



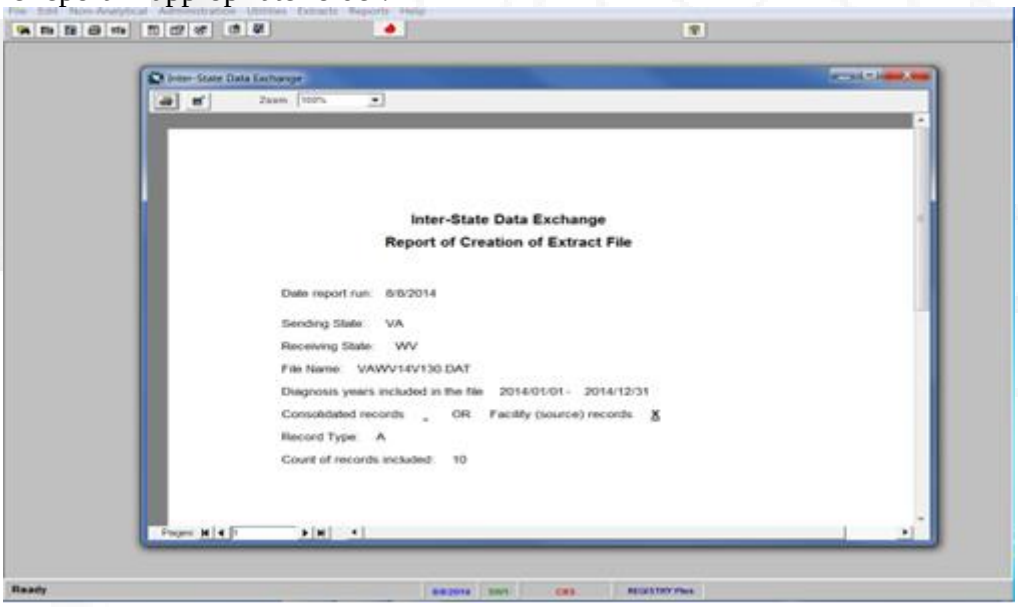
Step 3: Click “ok” and you need to pay attention to the location where it saves. The default place is the place where your CRS+ software is saved.



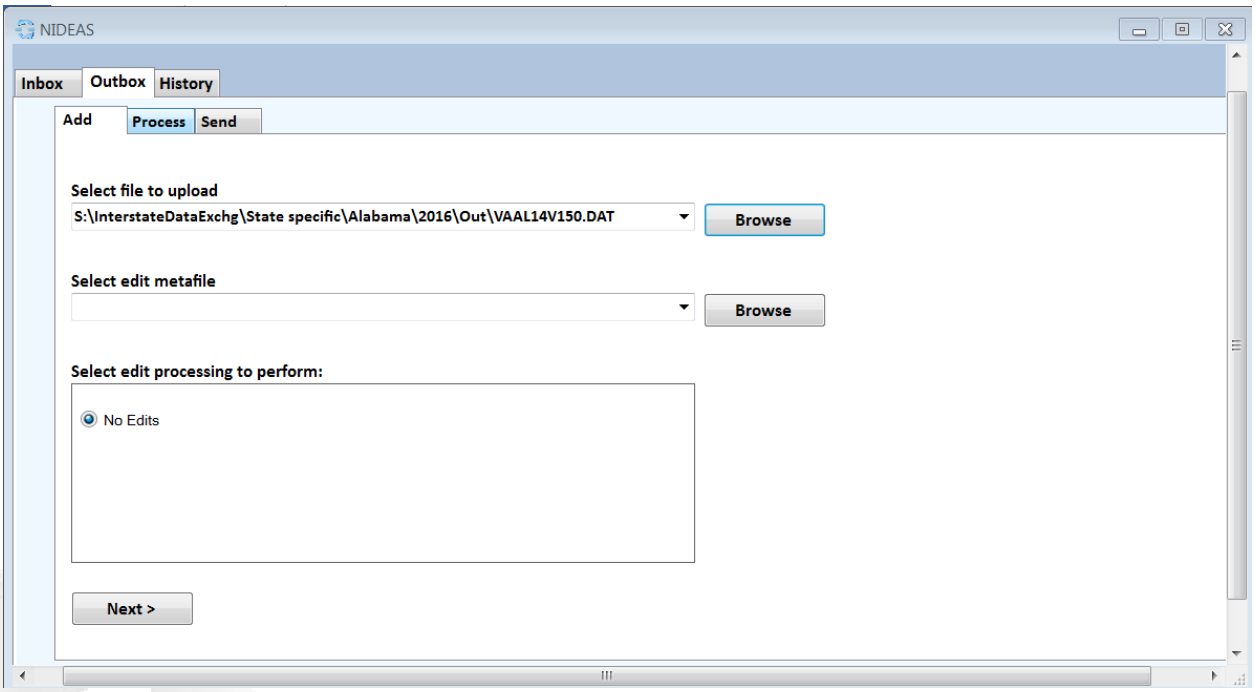
The location is shown in the screenshot below.

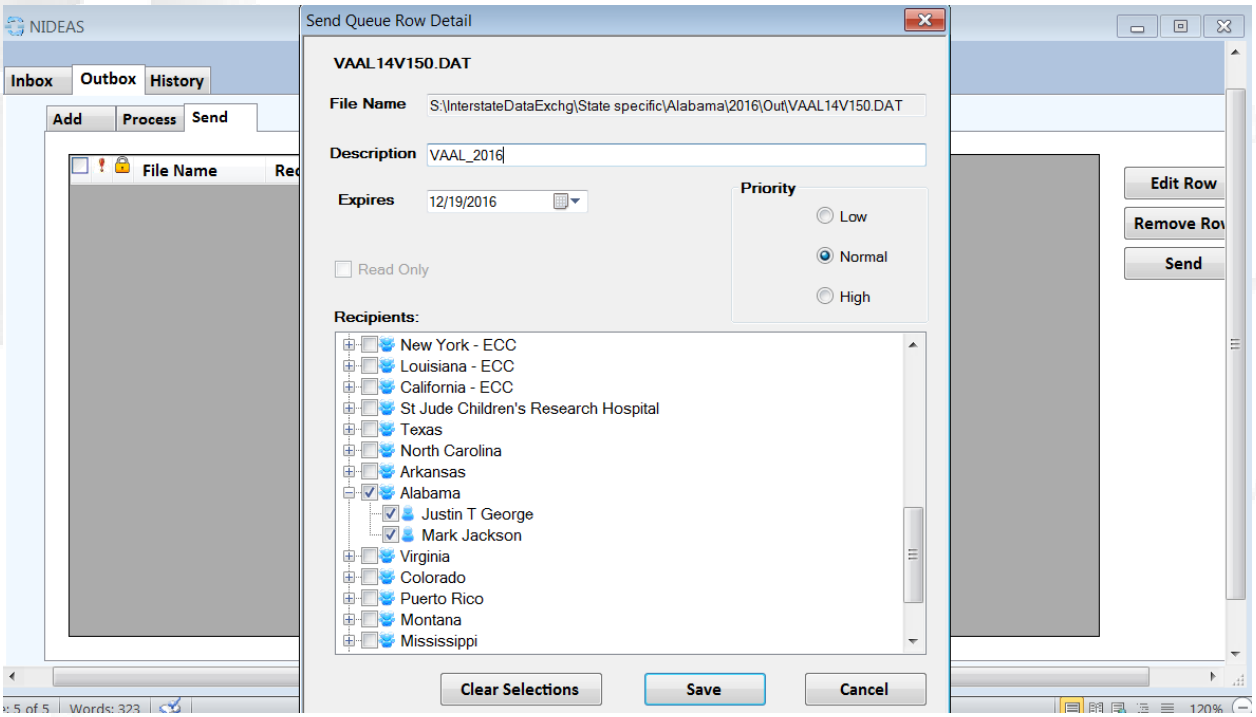


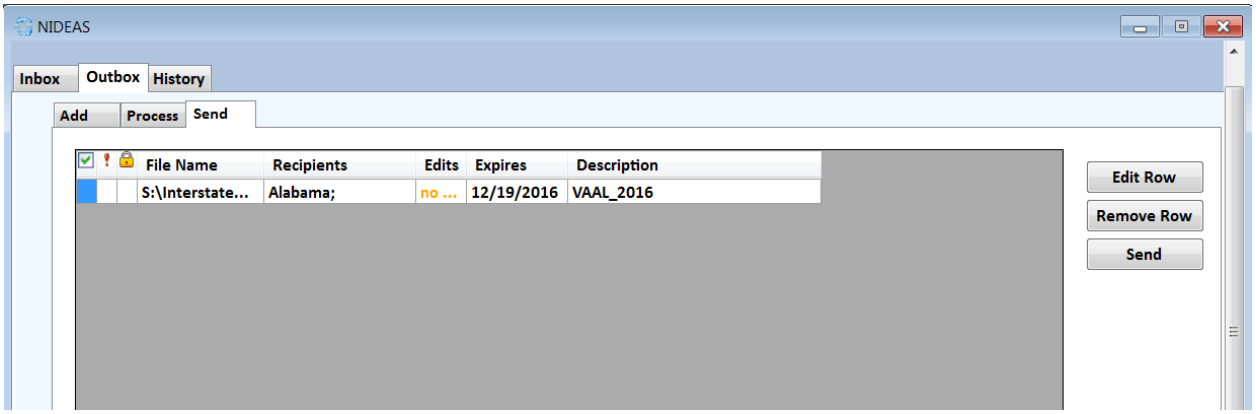
Step 4: After you click “OK” in the previous screen (the second screenshot in Step 3), you will see a report generated by CRS+ automatically. When you send the extraction (you need to encrypt or zip it before send according to requirement) to neighboring state either through mail or by FTP site, don’t forget send this report by email to them too. This report basically records the extraction activity. Save the report in appropriate folder.



Step 5: After the data is downloaded, then log into the NIDEAS account and send the data to other state. Go to the Outbox tab and then follow the “next” tab, don’t forget the “Description” box.


NIDEAS
Inbox
Outbox
History
Add
Process
Send
Select file to upload
S:\InterstateDataExchg\State specific\Alabama\2016\Out\VAAL14V150.DAT
Browse
Select edit metafile
Browse
Select edit processing to perform:
No Edits
Next >


NIDEAS
Inbox
Outbox
History
Add
Process
Send
File Name
Edit Row
Remove Row
Send
Send Queue Row Detail
VAAL14V150.DAT
File Name
S:\InterstateDataExchg\State specific\Alabama\2016\Out\VAAL14V150.DAT
Description
VAAL_2016
Expires
12/19/2016
Priority
Low
Normal
High
Read Only
Recipients:
New York - ECC
Louisiana - ECC
California - ECC
St Jude Children's Research Hospital
Texas
North Carolina
Arkansas
Alabama
Justin T George
Mark Jackson
Virginia
Colorado
Puerto Rico
Montana
Mississippi
Clear Selections
Save
Cancel


NIDEAS
Inbox
Outbox
History
Add
Process
Send
File Name
Recipients
Edits
Expires
Description
S:\Interstate...
Alabama;
no ...
12/19/2016
VAAL_2016
Edit Row
Remove Row
Send

VIRGINIA
Cancer
REGISTRY

E. Instruction on handling cancer cluster request

A cancer cluster is defined as an "a greater than expected number of the **same or etiologically related** cancer cases that occurs within a group of people in a geographic area over a defined period of time." To be a cancer cluster, a group of cancer cases must meet the following criteria. Until all of these parameters are met, the group of cancer cases is often referred to as a suspected cancer cluster.

- **A greater than expected number:** When the number of observed cases is greater than typically observed in a similar setting.
- **Of the same or etiologically related cancer cases:** Cases are of the same type, are within a family of tumors (e.g., Ewing's family of tumors), or have a known or suggested link to the same specific environmental or chemical exposures. It is possible to consider multiple cancer types when such a known exposure (e.g., radiation or a specific chemical) is linked to more than one cancer type or when more than one contaminant or exposure type has been identified.
- **Within a group of people:** The population in which the cancer cases are occurring is defined by its demographic factors (e.g., race, ethnicity, age, and sex).
- **In a geographic area:** The geographic area may be based upon pre-existing geopolitical boundaries (e.g., census tract, county, or ZIP code/ZIP code tabulation area). It may be defined according to the nature and extent of potential exposures that may cross multiple or partial boundaries. These geographic boundaries are used to determine the number of cancer cases as they relate to the total population in this predefined area. It is possible to create or obscure a cluster inadvertently by modifying the area of interest.
- **Over a period of time:** The time frame used to establish the beginning and end dates for analysis. The time period chosen for analysis will affect both the total cases observed and the calculation of the expected incidence of cancer in the population.

Unusual Patterns of Cancer

Cancer is a group of diseases in which some of the body's cells grow uncontrollably and spread to other parts of the body. As a group, cancers are very common. Given the frequency with which cancers are diagnosed, sometimes situations arise where an unusual number of cancers are diagnosed among people in a particular location. These unusual numbers may be from chance, or they may result from the following:

- Different cancer screening practices
- Different access to health care, which may reflect other social and economic factors.
- Genetic susceptibility to a particular cancer
- Behavioral risks and social determinants of health
- Occupational exposures
- Environmental exposures

It is possible that not every unusual pattern will meet the definition of a cluster as described above. However, unusual patterns that meet some of the criteria and also have plausible environmental concerns still warrant further evaluation or assessment. For example, many of the same cancer cases may be present but may be dependent upon a factor such as a water distribution system rather than a traditional boundary like a census tract or county.

Cancer Cluster Investigation Procedure

Step 1: Getting information. Requester will submit cancer cluster investigation form through our website. The purpose of this step is to gather the information needed to determine whether or not there is a potential cancer cluster. Collected information may include:

- The type(s) of cancer
- The number of reports of cancer

- Demographic information of individuals with cancer (e.g., age, race/ethnicity, and gender)
- Geographic area of concern
- Time period of concern
- Suspected environmental exposure(s) (if applicable)

Step 2: Evaluate information and determine if it is a potential cancer cluster. To qualify as a potential cancer cluster, it has to meet three of these conditions:

1. Be unusually high in number
• The observed number of cases is higher than expected among individuals in a similar setting.
2. Be of a specific body site
• All the reported cancer cases must include the same or etiologically related cancer cases
3. Occur close together with respect to space and time
• The cases included in the cluster should occur over the same time period and within the same geographical area.

Step 3: If it is a potential cancer cluster, then analyze data and contact the requester for more information.
• During this step, we use data analysis to determine if the number of cases is statistically higher than expected for this population.
• If it is found that there is a statistically significantly higher occurrence of cancer than expected, we will then further investigate if there is a specific environmental exposure that could be the cause of these cases.

Step 4: Draft the investigation report to the requester with our conclusion meanwhile notify the State Toxicologist and environmental epidemiologist.
• After the completion of the investigation, we will send an investigation report summarizing our findings and send it to the requester.
• If we find there to be a cancer cluster, then further collaboration with the state toxicologist and environmental epidemiologist is necessary to conduct a further investigation.
• Virginia State Public Health Toxicologist: Dwight Flammia, PhD
Dwight.flammia@vdh.virginia.gov
• Director, Division of Environmental Epidemiology: Caroline Holsinger, DrPH, CPH
caroline.holsinger@vdh.virginia.gov Julia Murphy
• Director, Office of Epidemiology: Laurie Forlano, DO, MPH
Laurie.forlano@vdh.virginia.gov

** For Sample Citizen's Letter (refer to Appendix D).

F. Death Clearance Match

A. Contact Vital Records team for death data. The variables needed for match are: UNIQUEID, YEAR_OF_DEATH, SEX, DOD, DOD_TXT, AGE_OF_DECEASED, RACE, HOSPITAL, PLACE_OF_DEATH, PLACE_OF_RESIDENCE, ZIP_CODE, AUTOPSY, CAUSE1, CAUSE2,

CAUSE3, DOB, DOB_TXT, ZIP_CODE_1, SSN, LAST_NAME, FIRST_NAME, MIDDLE_NAME, RESSTATE, RESCITY, RESSTREET, BIRTHPLACE_OF_DECEASED, CERTIFICATE_NUMBER. You need the entire annual death data to match with VCR 1995-most recent year of data. You need to create ***cancer deaths (any of the*** cuse1, or cause2, or cause3 has letter "C" then it is a cancer death). Below is the SAS code for cleaning and preparing for match.

B. Download VCR data for 1995-most recent available year (2 year prior to the current year, e.g., 2022 if it is 2024 now). The variables are listed below:
addrAtDxState [80], causeOfDeath [1910], dateOfBirth [240], dateOfLastContact [1750], nameFirst [2240], nameLast [2230], nameMiddle [2250], patientIdNumber [20], placeOfDeath [1940], primarySite [400], race1 [160], sex [220], socialSecurityNumber [2320], vitalStatus [1760]

C. Perform the linkage in Match*pro.
D. From the linkage result please copy the matched cases, possible matches and unmatched cancer deaths into different tabs in excel file.
E. Send the excel file to VCR data QA for follow-up.
F. Summarize the linkage result as a reference. An example below:

Match Result Status	2017	2018	2019	2020	2021	2022
Matched (patients)	23126	19314	21929	22304	22926	24257
Unmatched Cancer Death (DO	3279	3457	3342	3812	4287	3499
Possible matches	736	230	22	17	30	32
Subtotal	27141	23001	25293	26133	27243	27788

G. SEERSTAT Database Creation

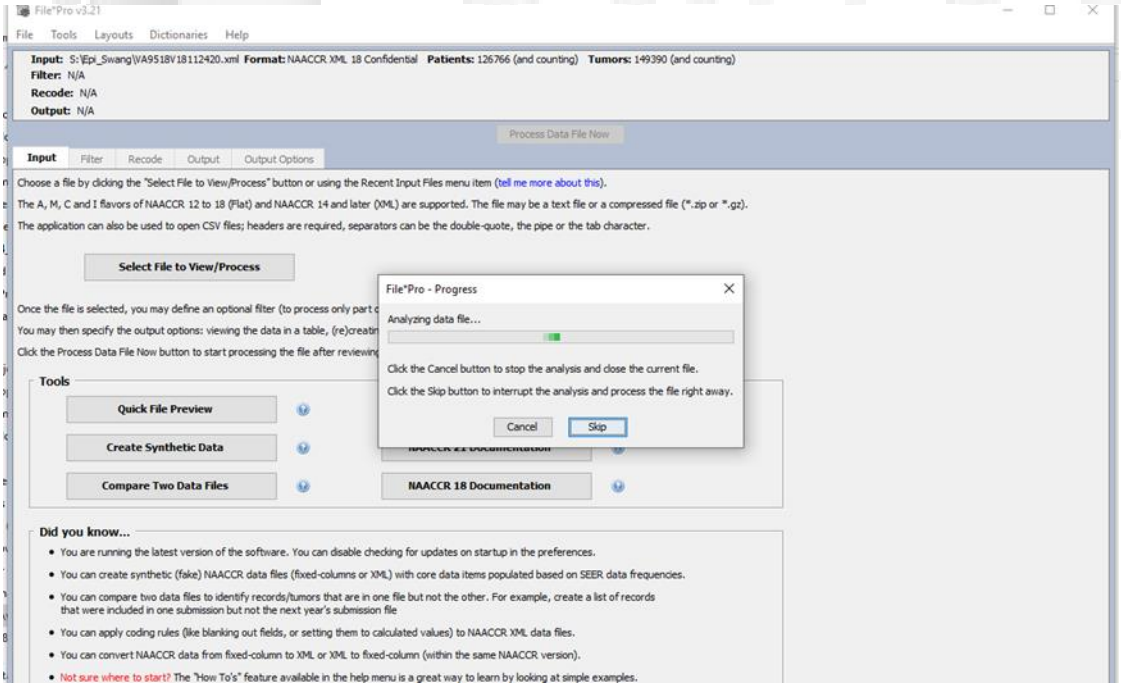
Before you start the process, please do the following:

1. Download the newest version of SEER*Prep from this URL https://seer.cancer.gov/seerprep/download
2. Download file*Pro (to convert NAACCR XML format to .CSV format), https://seer.cancer.gov/tools/filepro/
3. Download SEER*STAT, https://seer.cancer.gov/seerstat/download/, and get access to SEER data, https://seer.cancer.gov/data/access.html. Just access as non-institutional users.

a. Prepare Required Datasets Ready for SEER*Prep

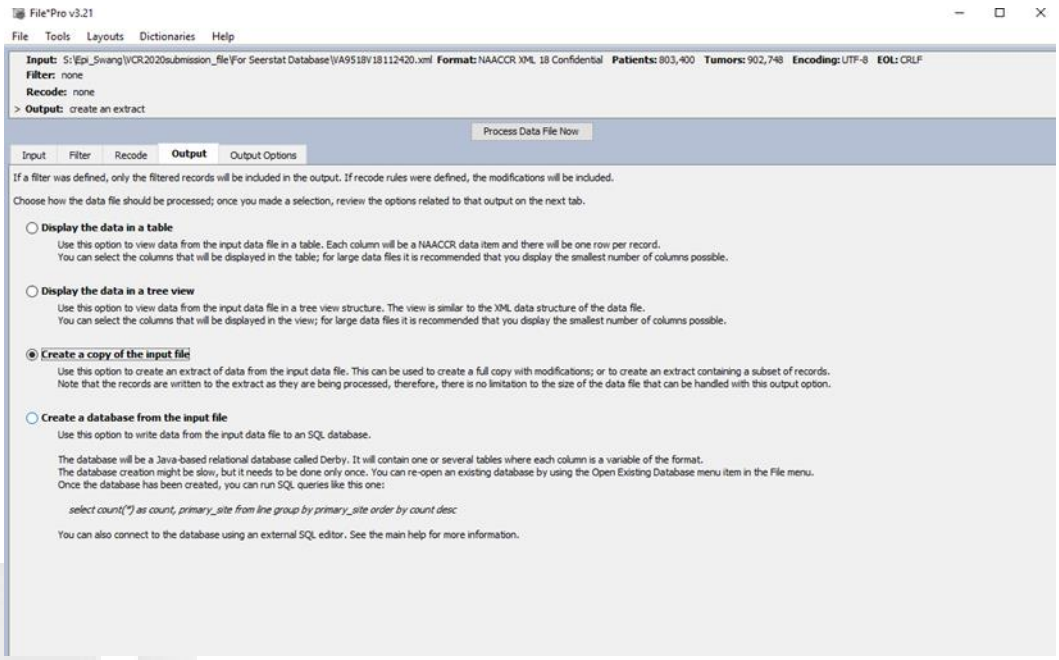
1. Incidence case file is the last year's VCR submission file. Request it from VCR data manager**. It is type I submission data (incidence-only record type, non-confidential coded data, length=4048). DON'T request type C (confidential) data. After you get the xml file, use File*pro to convert the XML file to .CSV file.

More info can be found here: https://seer.cancer.gov/seerprep/format.html.

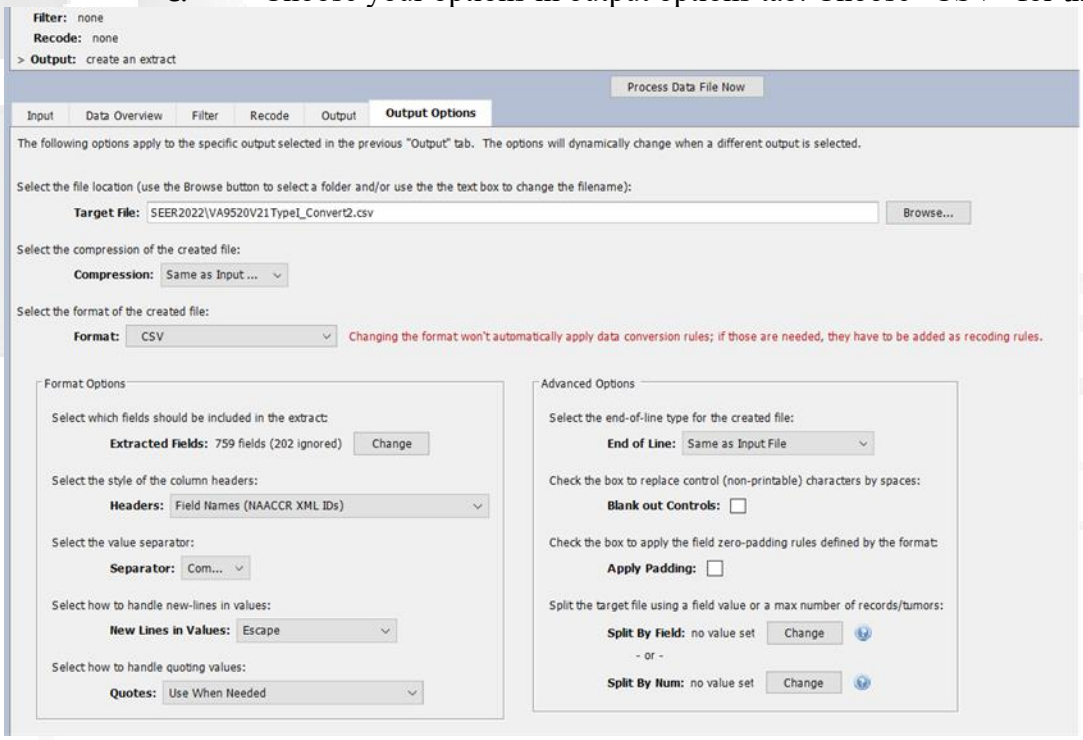


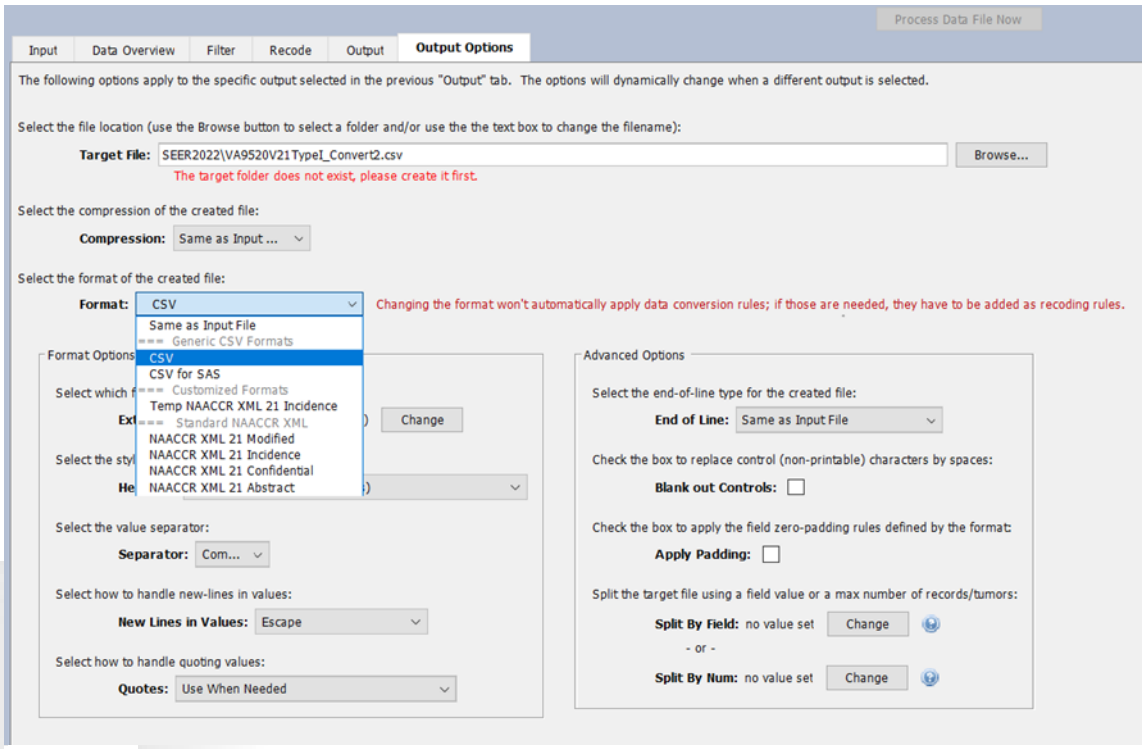
a. Import your submission file in XML format into file*pro. It analyzes the file first.

b. No filter, no recode, choose create a copy of the input file under OUTPUT tab.

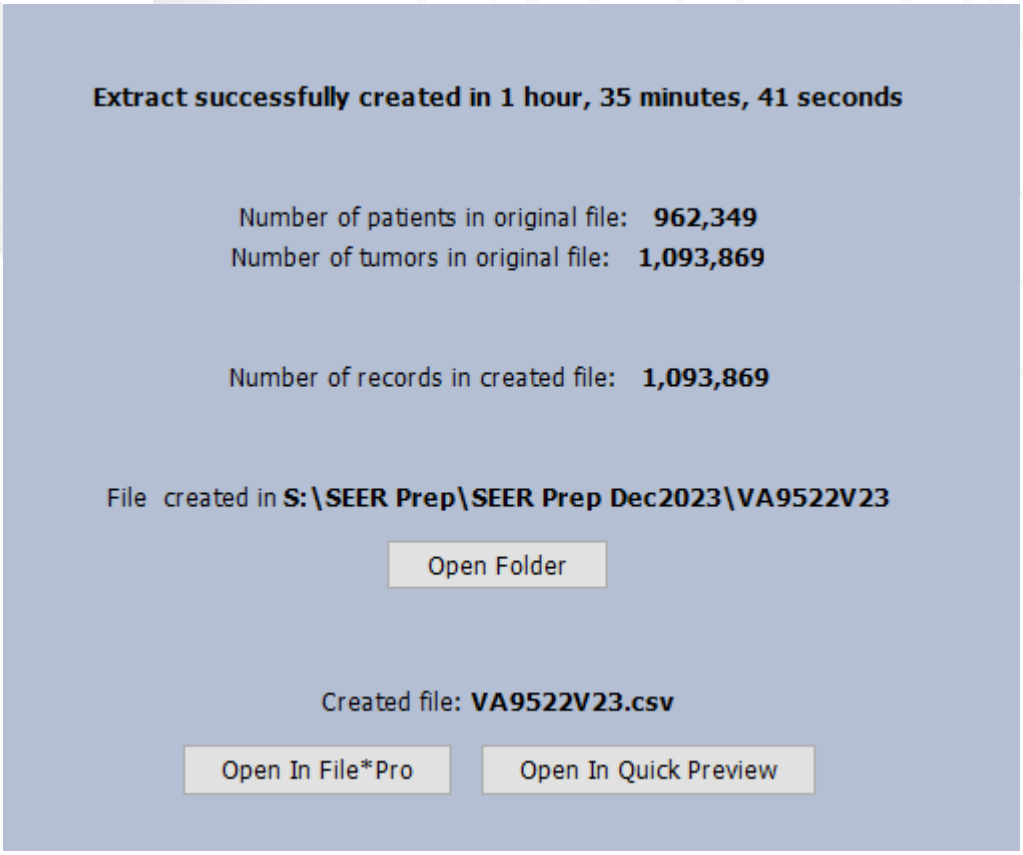


c. Choose your options in output options tab. Choose “CSV” for the format.





Click Process Data File Now.



2. Population data can be downloaded from https://seer.cancer.gov/popdata/download.html. It is, on the left panel, three race category and 19 age group data from 1969-current year. Please download .gz file, not .exe file. Use 7-zip software to unzip it. You can subset it with only containing 1995-current year population data in SAS. SAS codes can be downloaded from https://seer.cancer.gov/seerprep/utilities/.
Choose race with white, black and other three categories

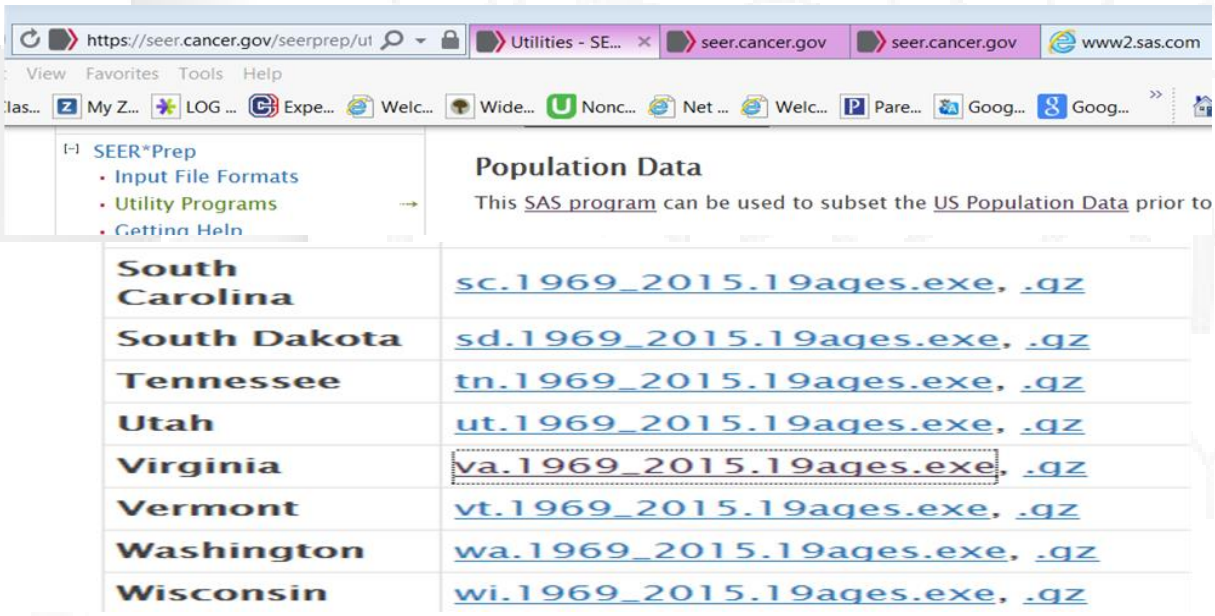
Data Files for Download

The data are stored in text files and provided here as Windows self-ex
format information is provided in the Population Data Dictionary. The fi

- County-level Population Files - 19 Age Groups
- County-level Population Files -Single-year Age Groups

County-Level Population Files - 19 Age Groups

State	1969-2016 White, Black, Other
All States Combined (adjusted)	us.1969_2016.19ages.adjusted.exe (EXE, 21.4 MB) , .gz



South Carolina	sc.1969_2015.19ages.exe, .gz
South Dakota	sd.1969_2015.19ages.exe, .gz
Tennessee	tn.1969_2015.19ages.exe, .gz
Utah	ut.1969_2015.19ages.exe, .gz
Virginia	va.1969_2015.19ages.exe, .gz
Vermont	vt.1969_2015.19ages.exe, .gz
Washington	wa.1969_2015.19ages.exe, .gz
Wisconsin	wi.1969_2015.19ages.exe, .gz

3. DD (data description) file: Please download the most recent DD file from the web Input File Formats - SEER Prep Software (cancer.gov). In addition, when you download your Seer*Prep this year, the .dd file comes along with the package folder. Choose "…..countypops.csv…dd" file. *If your Seer*prep was downloaded last year or before, please don't use the .dd file from it.*

SEER*Prep Database Description Files

In order to convert text data into a SEER*Stat database, SEER*Prep requires a complete description of the text files. This information is stored in a SEER*Prep Database Description (DD) file, including variable locations and valid values for each variable. Incidence and mortality description files also contain file format information for optional population data which are used to generate rates. DD files for the currently supported file formats are installed with the SEER*Prep software.

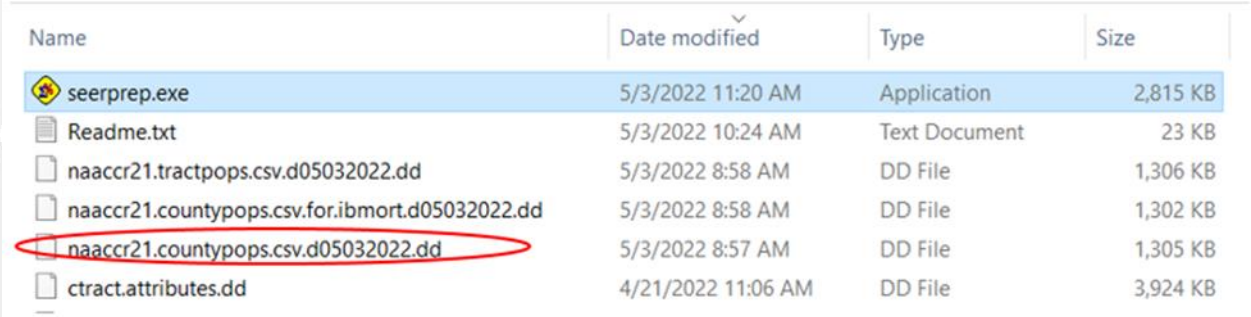
SEER*Prep can be used to generate input file documentation from the DD files. At any time, you can use SEER*Prep to generate a report containing the file descriptions by selecting **Generate Input File Description** from the **File** menu.

Supported File Formats

The available formats and required record lengths for the fixed-width input data are described below. The latest version of SEER*Prep includes database description files with the installation.

Incidence:

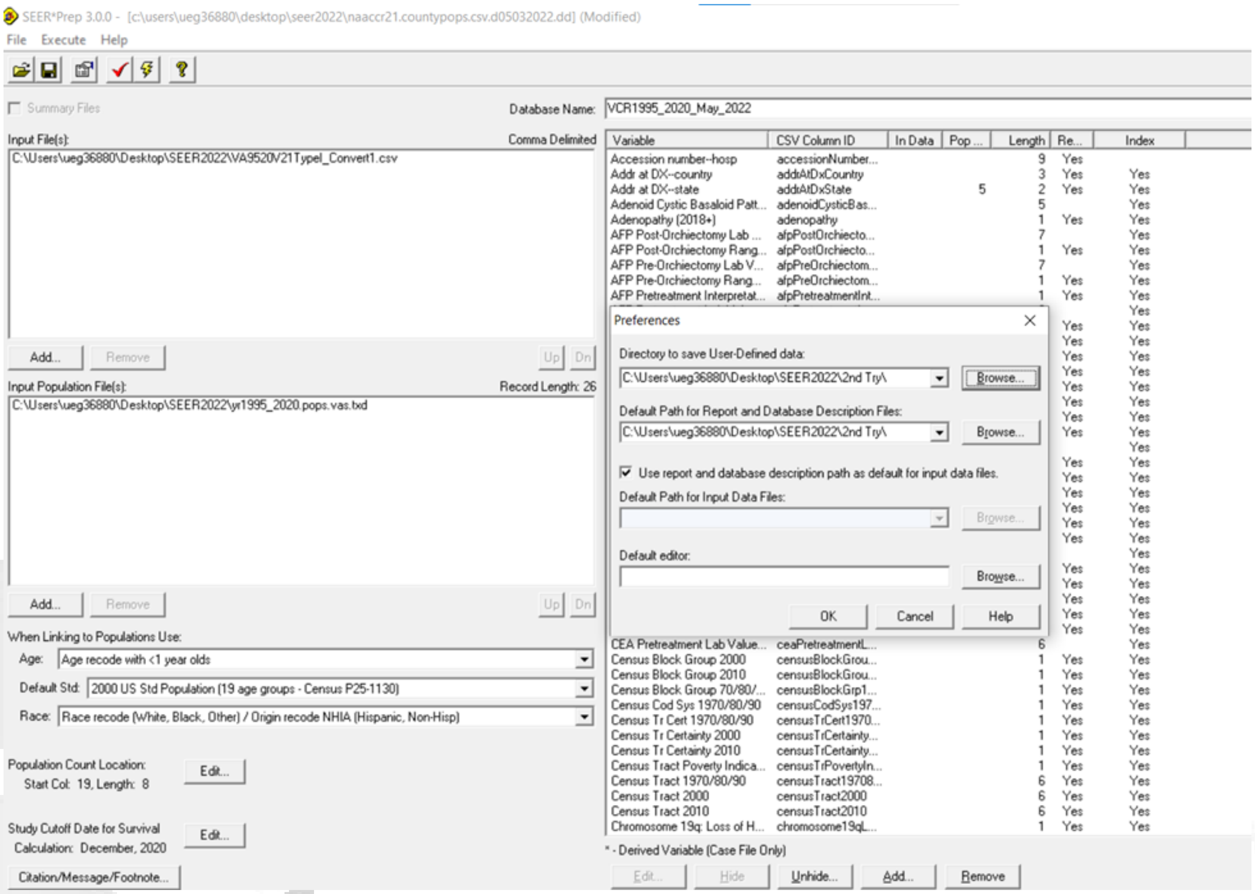
- NAACCR 22 CSV Format: For County Populations (DD, 1.3 MB) (updated 3/15/2023)* and Census-Tract Populations (DD, 1.3 MB) (updated 3/15/2023)*
- Global (DD, 392 KB) (updated 11/28/2022) - 334 Byte Format (for the difference between the NAACCR and the Global formats see the FAQs.)

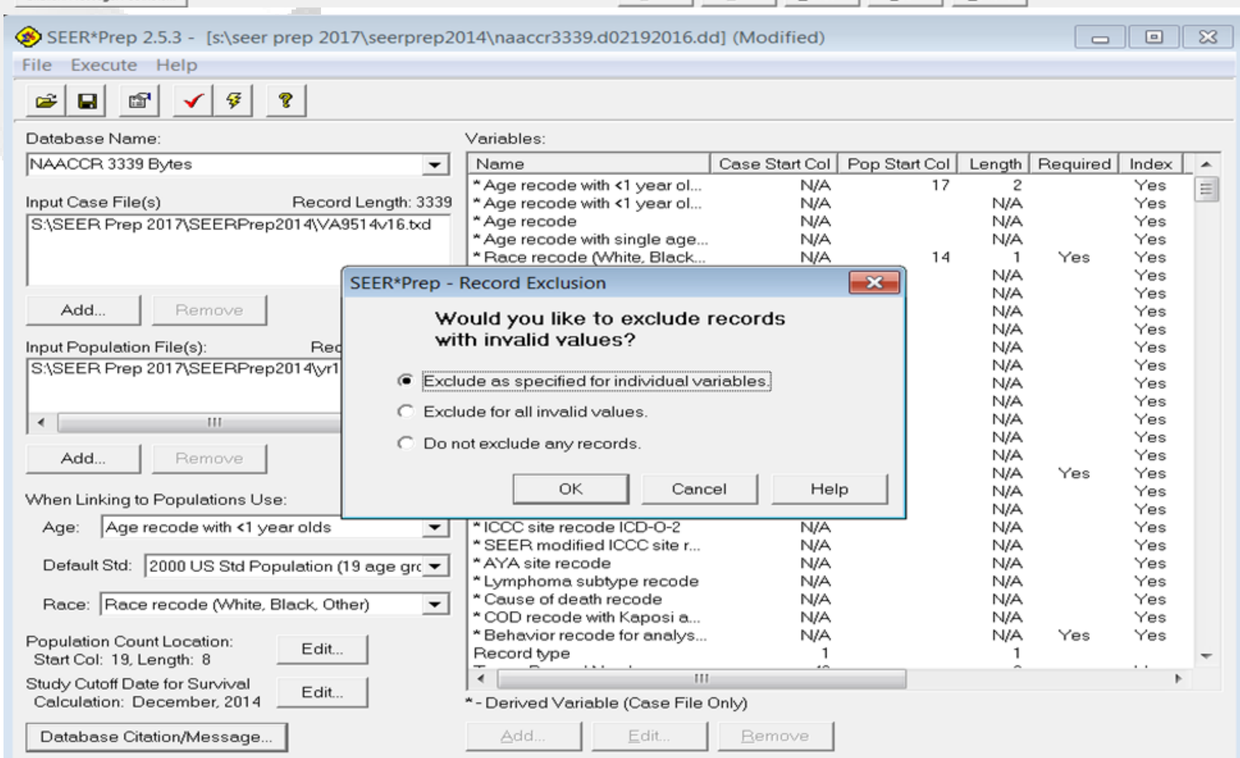


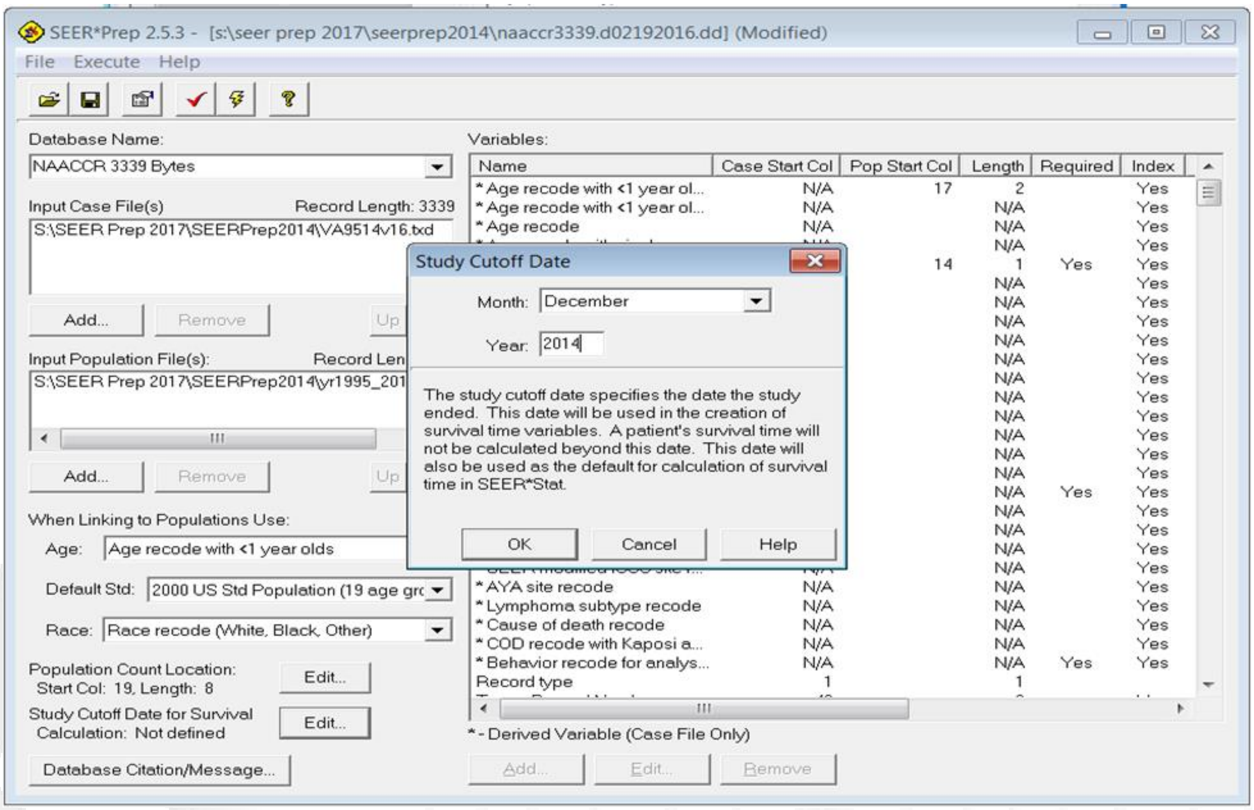
Name	Date modified	Type	Size
seerprep.exe	5/3/2022 11:20 AM	Application	2,815 KB
Readme.txt	5/3/2022 10:24 AM	Text Document	23 KB
naaccr21.tractpops.csv.d05032022.dd	5/3/2022 8:58 AM	DD File	1,306 KB
naaccr21.countypops.csv.for.ibmort.d05032022.dd	5/3/2022 8:58 AM	DD File	1,302 KB
naaccr21.countypops.csv.d05032022.dd	5/3/2022 8:57 AM	DD File	1,305 KB
ctract.attributes.dd	4/21/2022 11:06 AM	DD File	3,924 KB

b. Database creation in Seer*Prep:

1. Click the “open folder” icon on your upper left corner to select your DD file.
2. In your directory popup window, enter your folder path.
3. Click ADD button to add input file (incidence file) and population file.
4. Select your cutoff year and invalid records exclusion selection.

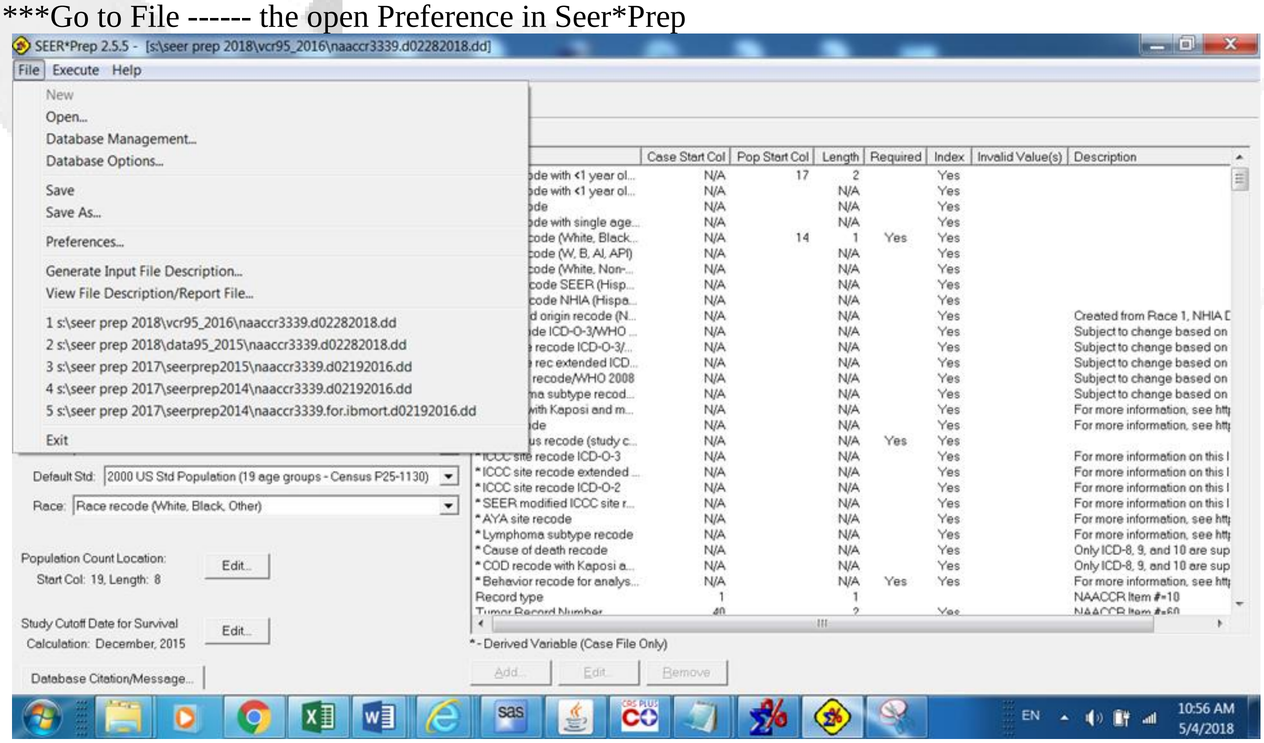

SEER*Prep 3.0.0 - [c:\users\ueg36880\desktop\seer2022\naaccr21.countypops.csv.d05032022.dd] (Modified)
File Execute Help
Summary Files
Database Name: VCR1995_2020_May_2022
Input File(s):
Comma Delimited
C:\Users\ueg36880\Desktop\SEER2022\VA9520V21TypeI_Convert1.csv
Add... Remove
Input Population File(s):
Record Length: 26
C:\Users\ueg36880\Desktop\SEER2022\yr1995_2020.pops.vas.txd
When Linking to Populations Use:
Age: Age recode with <1 year olds
Default Std: 2000 US Std Population (19 age groups - Census P25-1130)
Race: Race recode (White, Black, Other) / Origin recode NHIA (Hispanic, Non-Hisp)
Population Count Location: Start Col: 19, Length: 8
Edit...
Study Cutoff Date for Survival Calculation: December, 2020
Citation/Message/Footnote...
Variable
CSV Column ID
In Data
Pop ...
Length
Re...
Index
Preferences
Directory to save User-Defined data:
C:\Users\ueg36880\Desktop\SEER2022\2nd Try\
Browse...
Default Path for Report and Database Description Files:
C:\Users\ueg36880\Desktop\SEER2022\2nd Try\
Use report and database description path as default for input data files.
Default Path for Input Data Files:
Default editor:
OK
Cancel
Help
* - Derived Variable (Case File Only)
Edit... Hide Unhide... Add... Remove

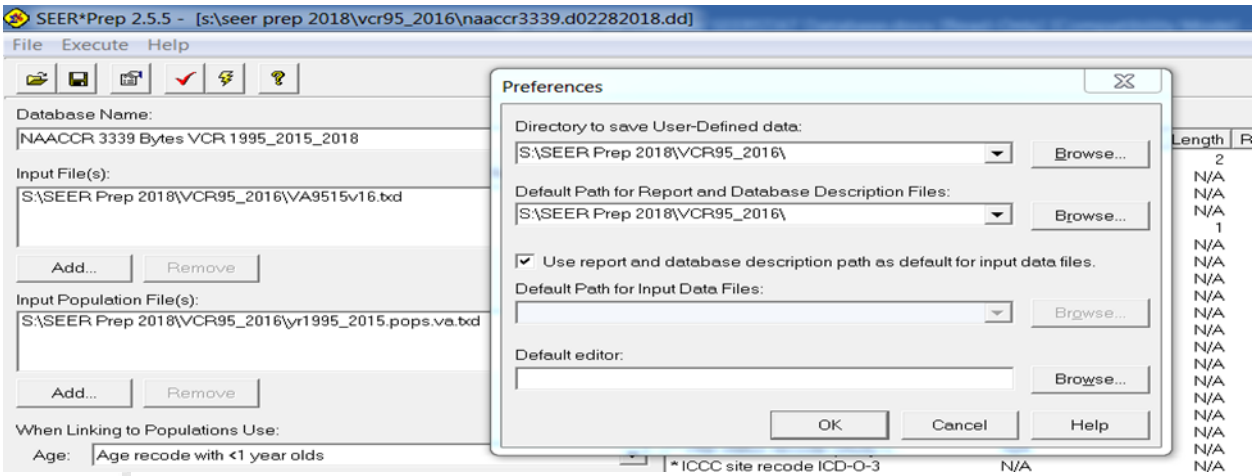

SEER*Prep 2.5.3 - [s:\seer prep 2017\seerprep2014\naaccr3339.d02192016.dd] (Modified)
File Execute Help
Database Name:
NAACCR 3339 Bytes
Input Case File(s)
Record Length: 3339
S:\SEER Prep 2017\SEERPrep2014\VA9514v16.txd
Add... Remove
Input Population File(s):
S:\SEER Prep 2017\SEERPrep2014\yr1
When Linking to Populations Use:
Age: Age recode with <1 year olds
Default Std: 2000 US Std Population (19 age gro
Race: Race recode (White, Black, Other)
Population Count Location: Start Col: 19, Length: 8
Edit...
Study Cutoff Date for Survival Calculation: December, 2014
Database Citation/Message...
Variables:
Name
Case Start Col
Pop Start Col
Length
Required
Index
SEER*Prep - Record Exclusion
Would you like to exclude records with invalid values?
Exclude as specified for individual variables.
Exclude for all invalid values.
Do not exclude any records.
OK
Cancel
Help
* - Derived Variable (Case File Only)
Add... Edit... Remove



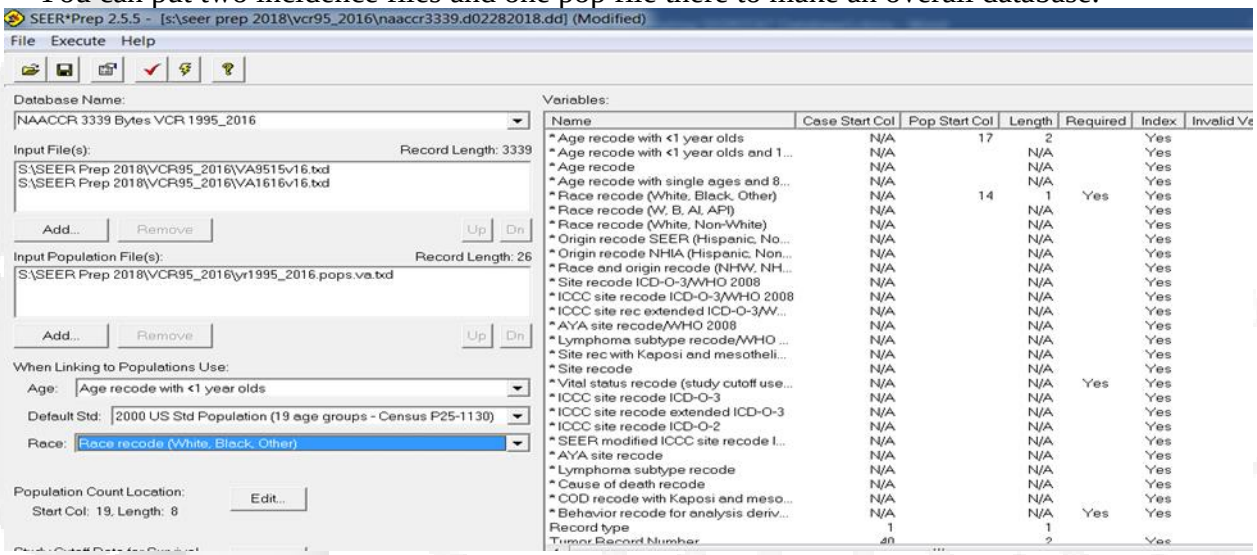
***You can change your file location anytime, but your probably need to rerun the step 1-4.

***Go to File ------ the open Preference in Seer*Prep



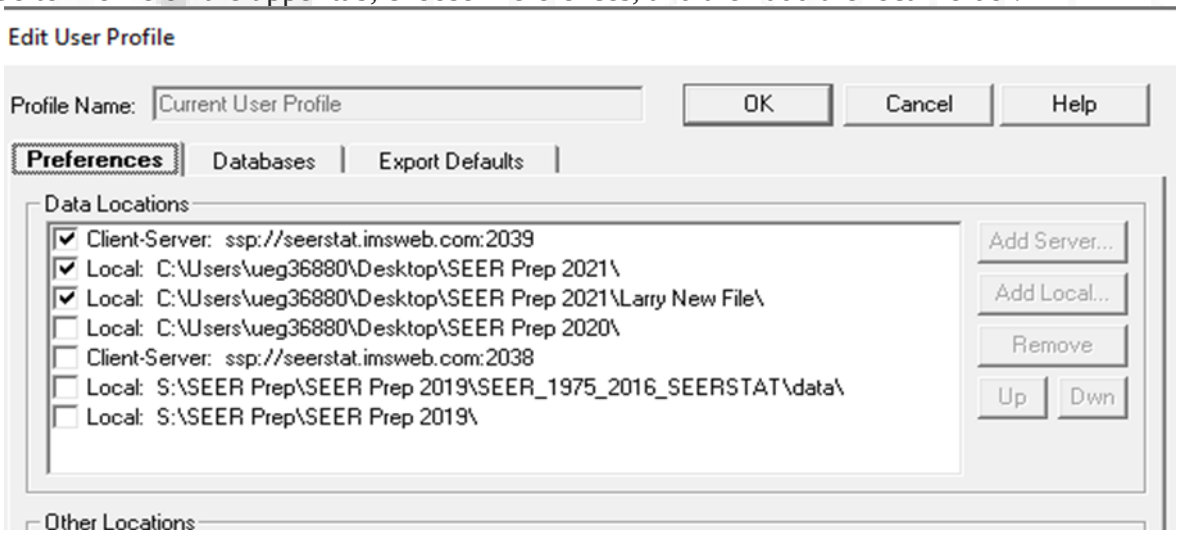


***You can put two incidence files and one pop file there to make an overall database.



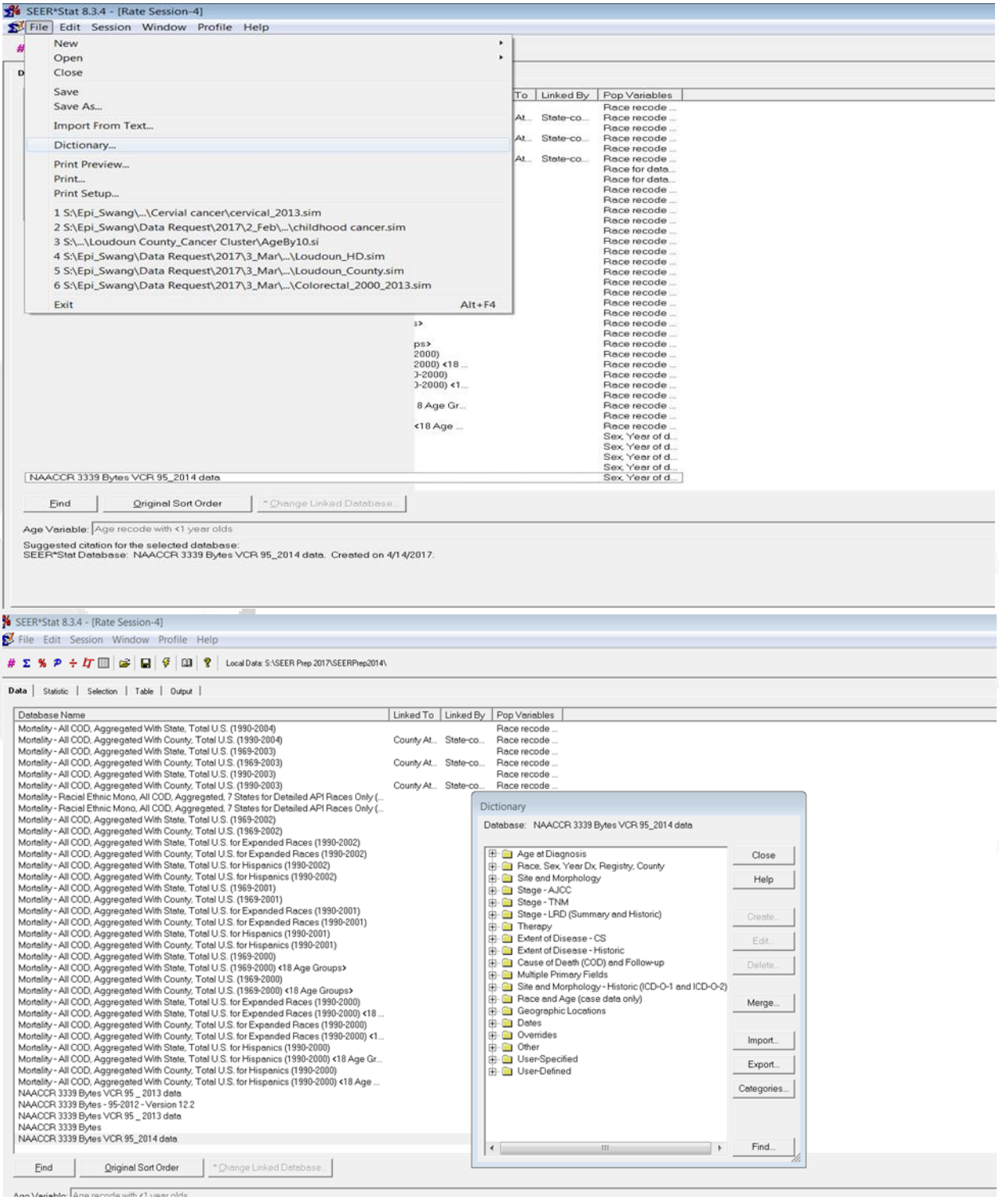
c. Link Database to SEERSTAT &User-defined Variable

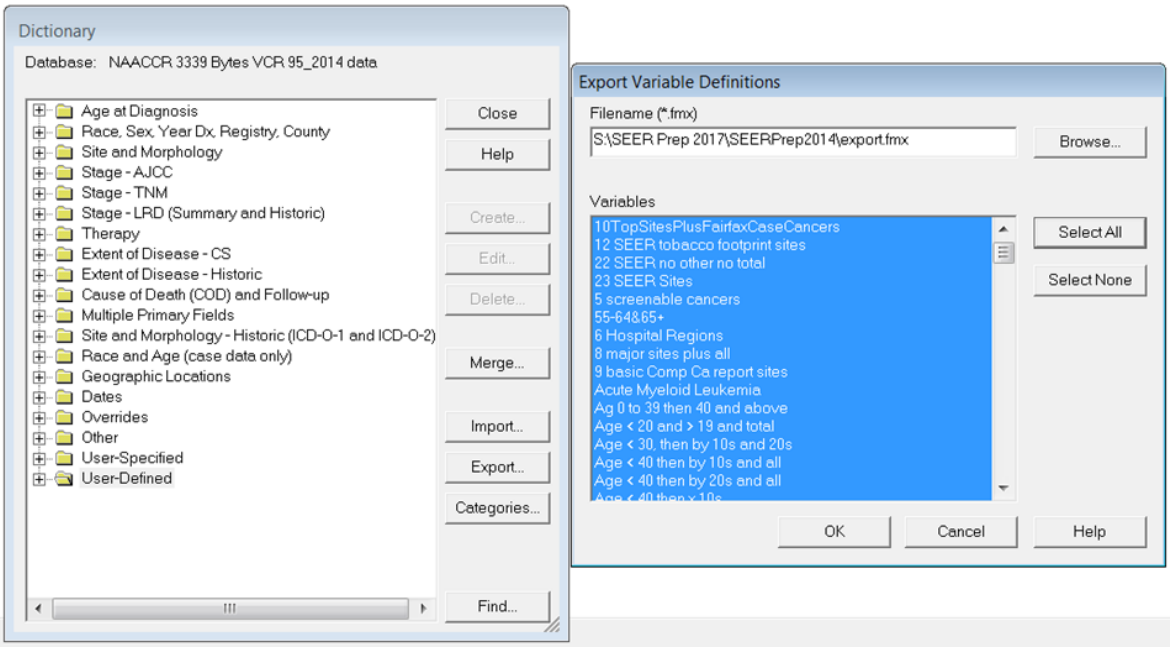
Once the database is created, it can be added to the SEER*STAT Preference local folder. Go to Profile on the upper tab, choose Preferences, and then add the local folder.



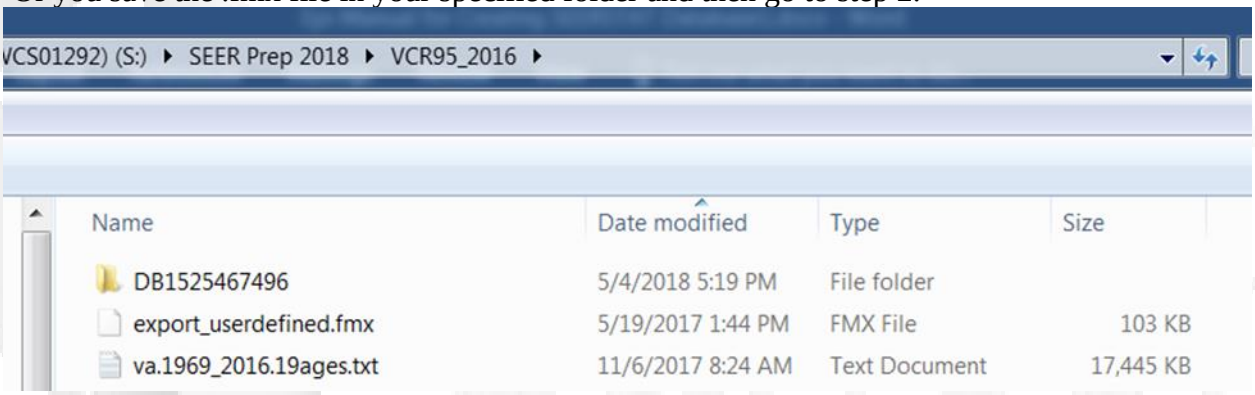
d. Add the user defined variables in the new database

Step 1: Open a session, choose last year's database, and then then click on the File|Dictionary menu option. In the dictionary click on "Export" and provide a filename for your output (.fmx) file.

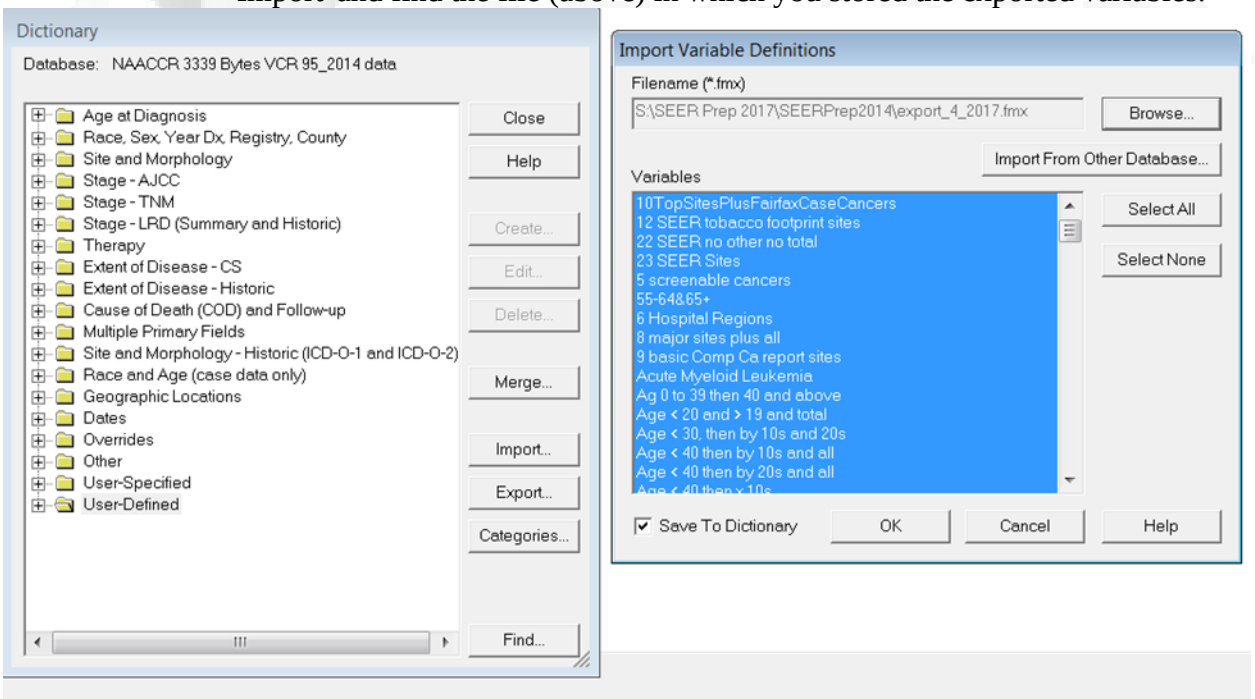


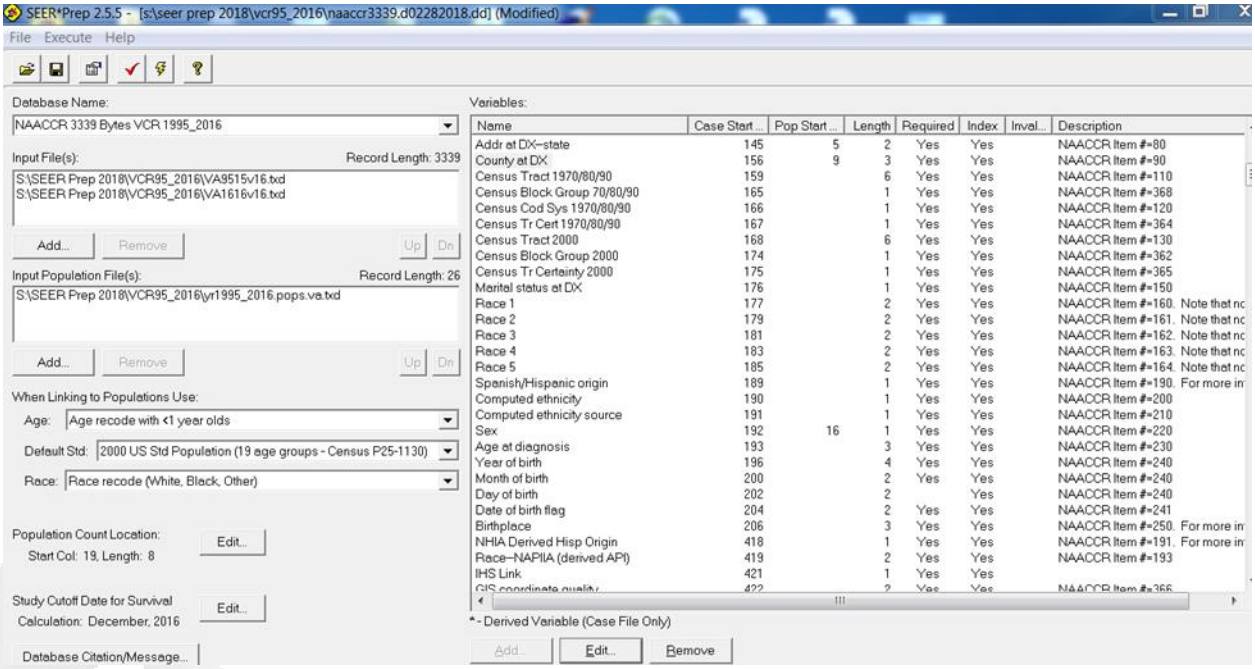


Or you save the .fmx file in your specified folder and then go to step 2.



Step 2: switch to the new database and go to the dictionary again. This time click on "Import"and find the file (above) in which you stored the exported variables.





H. Extraction of VCR Submission File for SEERSTAT Database and VPR Linkage

The Incidence file is extracted utilizing the NPCR CFD Extract application obtained from CDC. The extract is performed by the Informatics Data Manager within the VCR.

The following parameters are used for the extraction:

Registry Type:Central Registry (Population Based)

Years of Diagnosis: From To

State of Residence: VA

Record Type: I

Output Format: Most Recent NAACCR file version

Running this extract produces an .XML file that is sent to the epidemiologist for further analysis.

The Virtual Pool Registry file is created by utilizing the same extract utility described for the Incidence File.

The following parameters are used:

Extract Type: Virtual Pooled Registry

Registry Type: Central Registry (Population Based)

Years of Diagnosis: From To

State of Residence: VA

Record Type: C (Automatically selected when VPR is indicated)

Output Format: Most Recent NAACCR file version

The VPR extract produces an XML file that is processed further utilizing the NAACCRPrep utility available from NAACCR. The processing is performed by the Informatics Data Systems Manager within the VCR.

The following parameters are used:

Input File Location: Location and name of the file produced by the VPR extract

Configuration File: A VPR specific configuration file downloaded from NAACCR.

The compressed output file produced by NAACCRPrep is named with a .xm..gz extension. It contains several files. The Data file, the Log file, and the XML dictionary are the files of most interest.

The compressed file is forwarded to the epidemiologist for further analysis.

Appendix

A. SAS codes

1. Clean vital records death data

```
*******************************************************************************
1.    Data D2;/*Select VA valid cases with more variables*/
2.       set D1;
3.          keep FILENO SEX DOB_YR DOB_MO DOB_DY DOD_MO DOD_DY COD  ACME_UC RAC
          AUTOP ZIP9_D COUNTYTEXT_D CITYTEXT_D ZIP9_R CITYTEXT_R COUNTYTEXT_R
          STATETEXT_R ADDRESS_R DETHNICE  NCHSBRIDGE DMIDDLE DBPLACECITYCODE
          DTHCOUNTRYCD DOD_YR DSTATE VOID GNAME MNAME LNAME SSN AGE_TYPE
          AGE  BPLACE_CNT BPLACE_ST COUNTYC STATEC;
4.          if void='0' and upCASE(STATETEXT_R)='VIRGINIA';
5.       run;
6.       data D3;/*create some new variables combine ACME_UC and RAC */
7.          set D2;
8.          length cause1 cause2 cause3 $4;
9.          cause1=substr(RAC, 1, 4);
10.         cause2=substr(RAC, 6,9);
11.         cause3=substr(RAC, 10,13);
12.         DOBtext=cats(DOB_YR, DOB_MO, DOB_DY);
13.         DODtext=cats(DOD_YR, DOD_MO, DOD_DY);
14.         if cause1=ACME_UC then underlycase='Yes'; else underlycase='No';
15.         if underlycase='No' then cause1=ACME_UC;
16.         if UPCASE(substr(cause1, 1,1)) ='C' or UPCASE(substr(cause2,1,1))
          ='C' or UPCASE(substr(cause3, 1,1)) ='C' then deathcancer='yes'; else
          deathcancer='No';/*create cancer death*/
17.      Run;
*******************************************************************************
```

2. Import CRS data to SAS with Macro error detection

```
*******************************************************************************
1. data WORK.crs    ;
2.          %let _EFIERR_ = 0; /* set the ERROR detection macro variable */
3.          infile 'S:\D'
4.   delimiter='09'x MISSOVER DSD lrecl=32767 firstobs=2 ;
5.             informat DthCause $4. ;
6.             informat BirthDate $8. ;
7.             informat FirstName $17. ;
8.             informat LastName $21. ;
9.             informat MiddleName $5. ;
10.                  informat PatientID $11. ;
11.                  informat DthPlaceState $2. ;
12.                  informat Sex $1. ;
13.                  informat SocSec $9. ;
14.                  informat DateLastContact $8. ;
15.                  informat VitalStatus $1. ;
16.                  informat PSite $4. ;
17.                  informat Race1 $2. ;
18.                  format DthCause $4. ;
19.                  format BirthDate $8. ;
20.                  format FirstName $17. ;
21.                  format LastName $21. ;
22.                  format MiddleName $5. ;
23.                  format PatientID $11. ;
24.                  format DthPlaceState $2. ;
25.                  format Sex $1. ;
26.                  format SocSec $9. ;
27.                  format DateLastContact $8. ;
28.                  format VitalStatus $1. ;
29.                  format PSite $4. ;
30.                  format Race1 $2. ;
```

```
            input
                        DthCause $
                        BirthDate $
                        FirstName $
                        LastName $
                        MiddleName $
                        PatientID $
                        DthPlaceState $
                        Sex $
                        SocSec $
                        DateLastContact $
                        VitalStatus $
                        PSite $
                        Race1 $
        ;
            if _ERROR_ then call symputx('_EFIERR_',1);  /* set ERROR
detection macrovariable */
        run;
```

****

3. Age-Adjusted Rates Calculation using macro. SQL, data steps (mortality as an example, selected codes)

****

```
%let year1=2010;/*select the start year*/
%let year2=2014;/*select the end year*/
%let datalevel=HLTH_DIST_NAME;/*Choose your data level, LOCALITYNAME HLTH_DIST_NAME
HLTH_REGION_NAME, etc;*/

%let startyear=&year1;
%let endyear=%eval(&year2+1);
data Cancer_deaths;
set death.Deathclean;
where &year1 LE deathyr LE &year2 and substr(upcase(groupacme),1,1)='C';
    if x_age NE . then do;
if (x_age LT 1) or (200 le x_age le 699) then agecat = 1; *<1 yr;
    else if 1 LE x_age le 4 then agecat = 2;  *1-4 years;
else if 5 LE x_age le 14 then agecat = 3;  *5-14 years;
else if 15 LE x_age LE 24 then agecat = 4; *15-24 years;
else if 25 LE x_age LE 34 then agecat = 5; *25-34 years;
else if 35 LE x_age LE 44 then agecat = 6; *35-44 years;
else if 45 LE x_age le 54 then agecat = 7; *45-54 years;
else if 55 LE x_age LE 64 then agecat = 8; *55-64 years;
else if 65 LE x_age LE 74 then agecat = 9; *65-74 years;
else if 75 LE x_age LE 84 then agecat = 10;  *75-84 years;
else if x_age GE 85 then agecat = 11; *85+ years;
    else agecat = .;
    end;
if agecat = 1 then factor = 0.013818;
else if agecat = 2 then factor = 0.055317;
    else if agecat = 3 then factor = 0.145565;
else if agecat = 4 then factor = 0.138646;
else if agecat = 5 then factor = 0.135573;
else if agecat = 6 then factor = 0.162613;
else if agecat = 7 then factor = 0.134834;
else if agecat = 8 then factor = 0.087247;
else if agecat = 9 then factor = 0.066037;
else if agecat = 10 then factor = 0.044842;
else if agecat = 11 then factor = 0.015508;
    else factor = .;
    if  agecat EQ . then delete; *can't include observations with unknown age;
    Sex=X_Sex;
keep X_UNIQUEID DEATHYR SEX agecat factor CANCER_SITE_LABEL FIPS_TXT LOCALITYNAME
HLTH_DIST_NAME HLTH_REGION_NAME;
```

```
39.       Run;
   40.  %MACRO Rates(startyr,endyr);
41.          data deathpopcombined1; set deathpopcombined;
   42.     %DO i = &startyr %to &endyr;
   43.     CRate&i=(deathcount&i/pop&i)*100000;
   44.     AARate&i=CRate&i*factor;  %END; Run;
   45.  %MEND Rates;
   46.  %Rates(&startyear, &endyear)
   47.
   48.  ods Html ;
   49.  proc means data = deathpopcombined1 sum maxdec=1;
   50.     var AARate&startyear-AARate&endyear deathcount&startyear-deathcount&endyear;
   51.     class CANCER_SITE_LABEL &datalevel Sex;
   52.     output out = AARates sum = AARate&startyear-AARate&endyear deathcount&startyear-deathcount&endyear;
   53.  run;
   54.  data AARates;set AARates;
   55.     if _type_ ne 7 then delete ; *_type_ ne 7 is specific to this number of stratifications;
   56.     drop _TYPE_ _FREQ_;
   57.  run;
   58.  /*Table for internal use*/
   59.  data AARates_Internal; set AARates;
   60.     array supress{2,%eval(&endyear-&startyear+1)} deathcount&startyear-deathcount&endyear AARate&startyear-
   AARate&endyear;
   61.     do j = 1 to %eval(&endyear-&startyear+1);
   62.        if supress{1,j} in (1, 2,3,4,5,6,7,8,9,10,11,12,13,14,15) then supress{2,j}= .;
   63.     end;
   64.     drop j;
   65.  run;
   66.  /*Table for External use*/
   67.  data AARates_External; set AARates_Internal;
   68.     array supress{%eval(&endyear-&startyear+1)} deathcount&startyear-deathcount&endyear  ;
   69.        do i=1 to %eval(&endyear-&startyear+1);
   70.        if supress{i} in (1, 2,3,4,5,6,7,8,9,10) then supress{i}= .;
   71.    end;
   72.     drop i;
   73.  run; awd
```

A. VDH Commissioner's Decision Memorandum

COMMONWEALTH of VIRGINIA
Department of Health
Karen Shelton, MD
State Health Commissioner
P O BOX 2448
RICHMOND, VA 23218
TTY 7-1-1 OR
1-800-828-1120

Start date here (Ex: June 21, 2023)

DECISION MEMORANDUM

TO: Karen Shelton, MD
State Health Commissioner

THROUGH: Vanessa Walker Harris, MD
Director, Office of Family Health Services

FROM: Sravani Yakkanti
Epidemiologist

Nikkia Ray, MPH
Director, Virginia Cancer Registry

SUBJECT: Authorization to release Virginia Cancer Registry data for research with IRB ######.

PURPOSE

The Virginia Cancer Registry (VCR) seeks authorization from the State Health Commissioner to release cancer registry data to [STUDY NAME]. [INCLUDE STUDY PURPOSE HERE] here The Virginia Department of Health (VDH) Institutional Review Board (IRB) approved this study on [MONTH, YEAR]. The VDH IRB number is [NUMBER]. The principal investigator is [PREFIX FNAME LNAME (OR SUFFIX)]. This authorization is for:

☒An initial proposal requiring Commissioner approval.

☐A modified proposal requiring Commissioner approval.

BACKGROUND

Legal Authority
The Code of Virginia, in § 32.1-71, requires the Commissioner to maintain the confidentiality of Virginia Cancer Registry data:

> § 32.1-71 A: The Commissioner and all persons to whom information is submitted in accordance with § 32.1-70 shall keep such information confidential. Except as authorized

> by the Commissioner in accordance with the provisions of § 32.1-41, no release of any such information shall be made except in the form of statistical or other studies which do not identify individual cases.

The Code of Virginia, in § 32.1-41, defines circumstances in which the Commissioner may authorize releasing cancer registry data that can identify individual cases:

> § 32.1-41: The Commissioner or his designee shall preserve the anonymity of each patient and practitioner of the healing arts whose records are examined pursuant to § 32.1-40 except that the Commissioner, in his sole discretion, may divulge the identity of such patients and practitioners if pertinent to an investigation, research or study. Any person to whom such identities are divulged shall preserve their anonymity.

The Commissioner has sole authority to authorize releasing Virginia Cancer Registry data that can identify individual cases.

JUSTIFICATION

The VDH IRB panel is satisfied. The data security and confidentiality measures described by the researchers are adequate. A Data Sharing Agreement is attached.

RECOMMENDATION

The VDH IRB recommends authorizing the release of the requested data. The researchers are capable of performing the study. The study meets security and confidentiality standards. The study results may influence cancer prevention and control measures and thereby benefit public health.

APPROVAL

☐ Approve release of the requested cancer registry data
☐ Do not approve release of the requested cancer registry data

Karen Shelton, MD — Date
State Health Commissioner

Appendix. Variables the researcher will provide to the VCR and variables VCR will return to the researcher. Both the researcher and VCR agree that the following source document is the standard that describes variable names, structures, types, and contents:

Thornton ML, (ed). *Standards for Cancer Registries Volume II: Data Standards and Data Dictionary*, Version 23, 24th ed. Springfield, Ill.: North American Association of Central Cancer Registries, August 2022, revised March 2023.

NAACCR Item #	Element	Short Name	Element- Long Name
160	Race 1	Demographic	Race1
190	Spanish/Hispanic	Demographic	Hispanic

B. VDH Routing Form

OFFICE OF THE COMMISSIONER (OCOM) DOCUMENT APPROVAL ROUTING FORM

Date Received in OCOM: _____

Approval Deadline: _____
(at least 5 business days required)

Office (select from dropdown menu):

Select:

Document Information

Document Type*: Other
Provide type if "Other": _____
Document Title: _____

** Legislative studies, reports, and implementation plans require Governmental & Regulatory Affairs (GRA) review.*

Background/Justification (attach material if necessary and continue on p. 2 if necessary):

In a few brief sentences (no acronyms or jargon):

1. What is this program, policy, document, etc. and what does it do?

2. Why do we need it, and what would happen if we didn't have it?

3. If applicable, what is the cost, what is source of the money to pay for it (general funds, federal program, XYZ grant, etc), and does it obligate us beyond the period of this agreement?

Deputy Commissioner Recommendation: Needs Commissioner Approval? Yes ☐ No ☐

APPROVALS

Division Director:	_____	Signature:	_____ Date
Office Director:	_____	Signature:	_____ Date
OCOM Executive Assistant:	Select:	Signature:	_____ Date
Assistant Deputy Commissioner or Chief of Staff:	Select:	Signature:	_____ Date
Deputy Commissioner:	Select:	Signature:	_____ Date
*Senior Policy Analyst (GRA):	Select:	Signature	_____ Date
*Deputy Commissioner, Governmental & Regulatory Affairs (GRA):	Select:	Signature:	_____ Date
Commissioner or Chief Operating Officer:	Select:	Signature:	_____ Date

rev. 08/25/2023

Background/Justification *Continued* (attach material if necessary):	
1. Continued…What is this program, policy, document, etc. and what does it do? 2. Continued…Why do we need it, and what would happen if we didn't have it? 3. Continued…If applicable, what is the cost, what is source of the money to pay for it (general funds, federal program, XYZ grant, etc), and does it obligate us beyond the period of this agreement?	
Comments (Division Director):	
Comments (Office Director or Deputy Director):	
Comments (OCOM Executive Assistant):	
Comments (Assistant Deputy Commissioner or Chief of Staff):	
Comments (Deputy Commissioner or GRA Senior Policy Analyst):	
Comments (Commissioner or Chief Operating Officer):	
Typist: _____ *Print name clearly* Subject Matter Expert: _____ *Print name and phone number clearly*	Individual w/ electronic file: _____ *Print name and phone number clearly*

rev. 08/25/2023

C. Sample Citizen Response Letter

Date
Ms. Concerned Citizen
100 Any Street

Anytown, VA 99999

Dear Ms. Citizen:

Thank you for your call to the Virginia Cancer Registry (VCR) expressing concern about the occurrence of cancer in *Anytown,* Virginia. I have examined the VCR data for the *Anytown* Health District, which includes the counties of X, and the cities of X. I have also reviewed data for neighboring cities and counties, which make up the *Next Town* Health District. Some preliminary comments may help you better understand cancer and how it can affect communities.

What is cancer?
"Cancer" is one term that is used to refer to over one hundred different diseases. These diseases have in common an uncontrolled multiplication and growth of abnormal cells and the ability to spread to body parts that are distant from the original site. Cancer is a very commonly occurring group of diseases. Nationwide, it strikes three out of four families, is diagnosed in one out of three people, and causes one out of five deaths.

What causes cancers to form?
Different cancers also have different risk factors which promote their development. For example, cigarette smoking causes lung cancer, overexposure to the sun has been shown to be associated with the development of skin cancer, and lack of dietary fiber may be related to colorectal cancer. Other risk factors that have been identified include alcohol abuse, family history of cancer, age, sex, race, and some specific occupational exposures. Smoking, alcohol abuse, and poor diet account for 80% of the cancer deaths that occur.

The degree to which environmental pollution causes cancer is not precisely known, but most experts agree that less than five percent of cancers are caused by pollution. Given that specific exposures are linked to specific types of cancer, if an environmental exposure caused cancer, its effects would be manifest in the occurrence of cases of the same type of cancer.

How quickly does cancer develop?
Cancers also differ with respect to latency, or the time between exposure to one or more cancer-causing agents and the development of cancer. Generally speaking, however, cancers commonly take 10 to 30 years or more to develop to the point of being detectable. When looking for the cause of cancer, one must consider exposures that took place at least ten years before the cancer was diagnosed.

What is the Cancer Cluster?
A cancer cluster is defined as an **"a greater than expected number of the same or etiologically related cancer cases that occurs within a group of people in a geographic area over a defined period of time."**
To be a cancer cluster, a group of cancer cases must meet the following criteria. Until all of these parameters are met, the group of cancer cases is often referred to as a **suspected cancer cluster.**

- **A greater than expected number:** When the number of observed cases is greater than typically observed in a similar setting.
- **Of the same or etiologically related cancer cases:** Cases are of the same type, are within a family of tumors (e.g., Ewing's family of tumors), or have a known or suggested link to the same specific environmental or chemical exposures. It is possible to consider multiple cancer types when such a known exposure (e.g., radiation or a specific chemical) is linked to more than one cancer type or when more than one contaminant or exposure type has been identified.
- **Within a group of people:** The population in which the cancer cases are occurring is defined by its demographic factors (e.g., race, ethnicity, age, and sex).

- **In a geographic area:** The geographic area may be based upon pre-existing geopolitical boundaries (e.g., census tract, county, or ZIP code/ZIP code tabulation area). It may be defined according to the nature and extent of potential exposures that may cross multiple or partial boundaries. These geographic boundaries are used to determine the number of cancer cases as they relate to the total population in this predefined area. It is possible to create or obscure a cluster inadvertently by modifying the area of interest.
- **Over a period of time:** The time frame used to establish the beginning and end dates for analysis. The time period chosen for analysis will affect both the total cases observed and the calculation of the expected incidence of cancer in the population.

Cancer in Anytown, Virginia

In response to your specific concerns about cancer in *Anytown*, I looked at data for the most recent XX years available from the Virginia Cancer Registry. I examined the data for [insert cancers of concern]. I have attached a breakdown of cancer counts and age-adjusted incidence rates for the years XXXX through XXXX for your reference. Please be aware that actual counts and rates for small areas go up and down from year to year and do not provide the most reliable depiction of overall incidence.

[INSERT BRIEF EXPLANATION OF STATISTICAL TESTS RUN AND RESULTS.]

A comparison of the XXX for the years XXXX through XXXX revealed that cancer incidence for *Anytown* Health District *was/was not* higher than cancer incidence for a neighboring health district or for Virginia overall.

Summary

The development of cancer is a complex and not fully understood process. Given the differences between the various types of cancer and the complexity of the development of cancer, one must be careful not to think that all cancers are the same when considering cancer causation. Personal lifestyle factors account for most cases of cancer and are much more significant risk factors than are environmental exposures. Not all cancer can be prevented, but the best way to minimize your risk is to avoid factors known to be related to cancer and to participate in routine screening programs to catch cancer in early stages. Following these guidelines increases the chance of a favorable outcome. Examples of these examinations include rectal examinations, Pap tests, breast self-examinations, and mammography. Further, the EPA recommends all homes be tested for radon, regardless of geographic location or the zone designation of the county in which they are located.

I hope this information has been some assistance to you and thank you for sharing your concerns with us. Please email us or submit a cancer cluster request form if you have any further concerns.

Sincerely,
Your Name
Your Position
Virginia Cancer Registry

Cc: Health Director, *Area of Concern*