SEER PROGRAM CODING AND STAGING MANUAL 2014

Effective with cases diagnosed January 1, 2014



Surveillance Systems Branch Surveillance Research Program Division of Cancer Control and Population Sciences National Institutes of Health Public Health Service US Department of Health and Human Services

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PREFACE TO THE 2014 SEER PROGRAM CODING AND STAGING MANUAL

This manual may be downloaded in electronic format from the SEER website http://www.seer.cancer.gov/tools/codingmanuals/

Effective Date

The 2014 Surveillance, Epidemiology and End Results (SEER) Program Coding and Staging Manual is effective for cases diagnosed January 1, 2014, and forward. Previous editions of this manual are available on the <u>SEER website</u>. The 2014 SEER Program Coding and Staging Manual includes all errata and revisions that apply to cases diagnosed January 1, 2014 and forward.

Summary of Changes

The 2014 changes and additions to the SEER manual include Data item with significant changes Grade Data items added (by request) First Name Last Name Data items removed Census Tract 2000 Census Tract Certainty 2000 Multiplicity Counter Date of Multiple Tumors Date of Multiple Tumors Flag Type of Multiple Tumors Reported as One Primary Ambiguous Terminology Date of Conclusive Terminology Date of Conclusive Diagnosis Flag Code(s) added to SEER Coding System - Current SEER Coding System - Original

Data Items

This manual includes data item descriptions, codes, and coding instructions for cases diagnosed January 1, 2014 and forward.

Data items that are not required for 2014 diagnoses but were collected in years prior to 2014 must be transmitted to SEER as blanks for cases diagnosed in 2014 and subsequent years. Descriptions of historic data items, allowable codes, and coding rules can be found in <u>historic coding manuals</u>.

Submitting Questions

Submit technical questions, suggestions, and revisions related to this manual to <u>Ask A SEER Registrar</u> on the SEER website. SEER regions may also submit technical questions to NCI SEER using the web-based <u>SINQ system</u>. Relevant questions and answers from Ask A SEER Registrar and from the SINQ system will be incorporated into the next edition of the SEER manual. Note: Submit questions about the Collaborative Stage Data Collection System to the <u>CoC CAnswer</u>

Forum.

Collection and Storage of Date Fields

Dates may be collected and stored in any format, including the traditional format, (month, day, year [MMDDYYYY]), or the new date format, (year, month, day [YYYYMMDD]). The new format must be used for transmission (see below). See the <u>2010 NAACCR Implementation Guidelines and</u> <u>Recommendations</u> for converting dates collected and stored in the traditional format to the new format and vice versa, and for deriving the date flags from information collected in the traditional format.

Transmission Instructions for Date Fields

As of January 1, 2010, date fields must be transmitted in the year, month, day format (YYYYMMDD). The new transmission requirements are intended to improve the interoperability, or communication, of cancer registry data with other electronic record systems. Date fields are fixed-length and left-justified. Replace any missing component with spaces. If there are no known date components, the date field will be completely blank. For example:

- YYYYMMDD when complete date is known and valid
- YYYYMM when year and month are known and valid, and day is unknown
- YYYY when year is known and valid, and month and day are unknown
- Blank when no known date applies

Date flags associated with each date field were added as new data items in 2010. The date flags are used when all eight places of a date field are blank. The flags explain why the field is blank. Date flags replace nondate information that had previously been transmitted in date fields. Coding 999999999 to indicate "unknown" is an example of nondate information that was previously transmitted in date fields.

Note: Date of Diagnosis cannot be entirely blank. See the specific coding instructions for each date field.

Most SEER registries collect the month, day, and year. When the full date (YYYYMMDD) is transmitted for Date of Diagnosis and/or Date of Last Follow Up or Death, the seventh and eighth digits (day) will be held confidentially and only used for survival calculations when received by NCI SEER. The corresponding date flag is not affected (it will remain blank).

SEER Site-Specific Factors 1 - 6

Six data items have been set aside as place holders. These data items are not in use and must be left blank. These SEER site-specific factors are not part of the Collaborative Stage Data Collection System.

NAACCR Item #	Item Name	Codes
3700	SEER Site-Specific Fact 1	Blank
3702	SEER Site-Specific Fact 2	Blank
3704	SEER Site-Specific Fact 3	Blank
3706	SEER Site-Specific Fact 4	Blank
3708	SEER Site-Specific Fact 5	Blank
3710	SEER Site-Specific Fact 6	Blank

INTRODUCTION SEER PROGRAM

Two programs, the End Results Group and the Third National Cancer Survey, were predecessors of the Surveillance, Epidemiology, and End Results (SEER) Program.

SEER publishes the 2014 SEER Program Coding and Staging Manual to provide instructions and descriptions that are detailed enough to promote consistent abstracting and coding.

SEER CODING AND STAGING MANUAL CONTENTS

For all cases diagnosed on or after January 1, 2014, the instructions and codes in this manual take precedence over all previous instructions and codes.

The 2014 SEER Program Coding and Staging Manual explains the format and the definitions of the data items required by SEER. Documentation and codes for historical data items can be found in earlier versions of the SEER Program Code Manual. Earlier versions are available on the <u>SEER website</u>.

This coding manual does not prevent SEER contract registries or other registries that follow SEER rules from collecting additional data items useful for those regions.

REPORTABILITY

DATES OF DIAGNOSIS/RESIDENCY

SEER registries are required to collect data on persons who are diagnosed with cancer and who, at the time of diagnosis, are **residents** of the geographic area covered by the SEER registry. Cases diagnosed on or after January 1, **1973** are reportable to SEER. Registries that joined the SEER Program after 1973 have different reporting start dates specified in their contracts.

REPORTABLE DIAGNOSIS LIST

Definition of Reportable: Meeting the criteria for inclusion in a registry. Reportable cases are cases that the registry is required to collect and report. Reportability for SEER registries is established by NCI SEER. A "Reportable List" includes all diagnoses that are to be reported by the registry.

1. In Situ and Malignant/Invasive Histologies

- a. All histologies with a behavior code of /2 or /3 in the International *Classification of Diseases for Oncology*, Third Edition (ICD-O-3). *Note 1:* AIN III of the anus or anal canal (C210-C211), LIN III (laryngeal intraepithelial neoplasia) (C320-C329), SIN III (squamous intraepithelial neoplasia excluding cervix), VAIN III (C529), and VIN III (C510-C519) are reportable. *Note 2:* Urine cytology positive for malignancy is reportable
 - Code the primary site to C689 in the absence of any other information *Exception:* When a subsequent biopsy of a urinary site is negative, do not report the case
 - For 2013 diagnoses and forward, report these cases when they are encountered. Do not implement new/additional casefinding methods to capture these cases.
 - As always, do not report cytology cases with **ambiguous** terminology

- b. Exceptions: In situ and malignant/invasive histologies not required by SEER
 - Skin primary (C440-C449) with any of the following histologies Malignant neoplasm (8000-8005) Epithelial carcinoma (8010-8046) Papillary and squamous cell carcinoma (8050-8084) AIN III (8077) arising in perianal skin (C445) Basal cell carcinoma (8090-8110)

Note: If the registry collects basal or squamous cell carcinoma of **skin** sites C440-C449, sequence them in the 60-99 range and do not report them to SEER

ii. Carcinoma **in situ** of **cervix** (/2), cervical intraepithelial neoplasia (**CIN III**) or SIN III of the cervix (C530-C539)

Note: Collection **stopped** effective with cases diagnosed 1/1/1996 and later except as required in individual contracts

iii. Prostatic intraepithelial neoplasia (PINIII) (C619)

Prostatic intraepithelial neoplasia (**PIN III**) of the prostate (C619) *Note*: Collection **stopped** effective with cases diagnosed 1/1/2001 and later

2. Benign/Non-Malignant Histologies

- a. **Pilocytic/Juvenile astrocytomas** are reportable; code the histology and behavior as 9421/3
- b. Benign and borderline primary intracranial and CNS tumors with a behavior code of /0 or /1 in ICD-O-3 are collected for the following sites, effective with cases diagnosed 1/1/2004 and later. See the table below for required sites.

Required Sites for Benign and Borderline Primary Intracranial and Central Nervous System Tumors

General Term	Specific Sites	ICD-O-3 Topography
		Code
Meninges	Cerebral meninges	C700
	Spinal meninges	C701
	Meninges, NOS	C709
Brain	Cerebrum	C710
	Frontal lobe	C711
	Temporal lobe	C712
	Parietal lobe	C713
	Occipital lobe	C714
	Ventricle, NOS	C715
	Cerebellum, NOS	C716
	Brain stem	C717
	Overlapping lesion of brain	C718
	Brain, NOS	C719

General Term	Specific Sites	ICD-O-3 Topography Code
Spinal cord, cranial nerves, and other parts of the	Spinal cord	C720
central nervous system	Cauda equina	C721
	Olfactory nerve	C722
	Optic nerve	C723
	Acoustic nerve	C724
	Cranial nerve, NOS	C725
	Overlapping lesion of brain and central nervous system	C728
	Nervous system, NOS	C729
Pituitary, craniopharyngeal duct and pineal gland	Pituitary gland	C751
	Craniopharyngeal duct	C752
	Pineal gland	C753

Note: Benign and borderline tumors of the cranial bones (C410) are **not reportable**.

DIAGNOSIS PRIOR TO BIRTH

SEER reportability requirements apply to diagnoses made in utero. Diagnoses made in utero are reportable **only when the pregnancy results in a live birth**. In the absence of documentation of stillbirth, abortion or fetal death, assume there was a live birth and report the case.

Disease Regression

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 EXAMPLES

Example 1: "Atypical fibroxanthoma (superficial malignant fibrous histiocytoma)." The case is reportable because the information in parentheses provides more detail and confirms a reportable malignancy.

Example 2: Positive histology from needle biopsy followed by negative resection. This case is reportable based on positive needle biopsy.

Example 3: Biopsy-proven squamous cell carcinoma of the nipple with a subsequent areolar resection showing foreign body granulomatous reaction to suture material and no evidence of residual malignancy in the nipple epidermis. This case is reportable. The fact that no residual malignancy was found in the later specimen does not disprove the malignancy diagnosed by the biopsy.

Example 4: Final diagnosis from dermatopathologist: "ulcerated histologically malignant spindle cell neoplasm, consistent with atypical fibroxanthoma. Note: An exhaustive immunohistochemical work-up shows no melanocytic, epithelial or vascular differentiation. Atypical fibroxanthoma is a superficial form of a malignant fibrous histiocytoma." This case is reportable. The pathologist has the final say on behavior for a particular case. In this case, the pathologist states that this tumor is malignant.

Example 5: "Aggressive adult granulosa cell tumor with one of two lymph nodes positive for malignant metastatic granulosa cell tumor." This case is reportable because malignant granulosa cell tumor is reportable. The lymph node metastases prove malignancy.

Example 6: Carcinoid of the appendix found on appendectomy. Patient returns later with metastases in regional lymph nodes. This case is reportable because of the metastatic lymph nodes -- this a malignant

carcinoid. Code the diagnosis date to the date of the appendectomy and the first course of treatment date to the appendectomy date.

Example 7: Ovarian mucinous borderline tumor with foci of intraepithelial carcinoma. This case is reportable because there are foci of intraepithelial carcinoma (carcinoma in situ).

Example 8: "Squamous cell carcinoma of the anus, NOS." Squamous cell carcinoma of the anus (C210) is reportable.

Squamous cell carcinoma of the perianal skin (C445) is not reportable.

Example 9: GIST with lymph nodes positive for malignancy. Report the case and code the behavior as malignant (/3).

Example 10: Dermoid cyst of the brain is reportable.

Example 11: Tectal plate lipoma is a reportable brain tumor. It is a benign neoplasm of the mid brain (brain stem).

Example 12: Noninvasive mucinous cystic neoplasm (MCN) of the pancreas with high-grade dysplasia is reportable. For neoplasms of the pancreas, the term MCN with high-grade dysplasia replaces the term mucinous cystadenocarcinoma, non-invasive.

NON-REPORTABLE EXAMPLES

Example 1: Left thyroid lobectomy shows microfollicular neoplasm with evidence of minimal invasion. Micro portion of path report states "The capsular contour is focally distorted by a finger of the microfollicular nodule which appears to penetrate into the adjacent capsular and thyroid tissue." Do not report this case based on the information provided. There is no definitive statement of malignancy. Search for additional information in the record. Contact the pathologist or the treating physician.

Example 2: Sclerosing hemangioma of the lung with multiple regional lymph nodes involved with sclerosing hemangioma. This case is not reportable. The lymph node involvement is non-malignant. According to the WHO Classification of Lung Tumours, sclerosing hemangioma "behaves in a clinically benign fashion...Reported cases with hilar or mediastinal lymph node involvement do not have a worse prognosis."

Example 3: Carcinoid, NOS of the appendix that extends into mesoappendiceal adipose tissue. This case is not reportable. Extension does not make a carcinoid, NOS of the appendix reportable. Benign and borderline tumors can and do extend into surrounding tissue.

Example 4: Carcinoid tumorlets in the lung are not reportable.

Example 5: "VIN II-III" and "VIN II/III" are not reportable.

Example 6: Squamous cell carcinoma of the perianal skin (C445) is not reportable. Squamous cell carcinoma of the anus (C210) is reportable.

Example 7: Cases designated "BIRADS 4" or "BIRADS 5" without any additional information are not reportable.

The American College of Radiology defines Category 4 as "Suspicious abnormality." This is **not** reportable terminology – abnormality is **not** a reportable term.

Category 5 is defined as Highly suggestive of malignancy. "(Highly) suggestive" is **not** reportable ambiguous terminology (see <u>Ambiguous Terminology</u> below).

Example 8: Squamous cell carcinoma of the canthus (C441) is not reportable.

Example 9: Low-grade appendiceal mucinous neoplasm (LAMN) is not reportable. The WHO classification designates LAMN as /1 with uncertain malignant potential.

Example 10: Diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH) is not reportable. It is a generalized proliferation of scattered single cells, small nodules (neuroendocrine bodies), or linear proliferation of pulmonary neuroendocrine cells (PNCs), according to the WHO classification of lung tumors.

Example 11: Lentiginous melanocytic lesion is not reportable.

Example 12: Lobular intraepithelial neoplasia grade 1 is not reportable.

Example 13: Intraductal papillary mucinous neoplasms with low or moderate grade dysplasia, also called IPMN adenomas, are not reportable.

Example 14: Noninvasive mucinous cystic neoplasm (MCN) of the pancreas with low or intermediate grade dysplasia is not reportable.

Example 15: Subdural hygroma is not reportable – it is not a neoplasm. Subdural hygroma is a collection of cerebrospinal fluid in the sub-dural space. It may be related to a head injury.

Example 16: Brain lesions associated with multiple sclerosis are not reportable. These brain lesions are not neoplastic, they are part of the disease process of multiple sclerosis.

Example 17: HGSIL (high grade squamous intraepithelial lesion) of the vulva or vagina is not reportable

INSTRUCTIONS FOR SOLID TUMORS

Note: For hematopoietic and lymphoid neoplasms, see the Reportability Instructions in the *Hematopoietic Manual and Database*.

CASES DIAGNOSED CLINICALLY ARE REPORTABLE

In the absence of a histologic or cytologic confirmation of a reportable cancer, accession a case based on the **clinical diagnosis** (when a recognized medical practitioner says the patient has a cancer or carcinoma). A clinical diagnosis may be recorded in the final diagnosis on the face sheet or other parts of the medical record.

Note: A pathology report normally takes precedence over a clinical diagnosis. If the patient has a **negative** biopsy, the case would not be reported.

Exceptions

- 1. Patient receives **treatment** for cancer. Accession the case.
- 2. It has been **six months or longer** since the negative biopsy, and the physician continues to call this a reportable disease. Accession the case.

Brain or CNS "Neoplasms"

A brain or a CNS 'neoplasm' identified only by diagnostic imaging is reportable.

Introduction and General Instructions

AMBIGUOUS TERMINOLOGY

Ambiguous terminology may originate in any source document, such as a pathology report, radiology report, or clinical report. The terms listed below are reportable when they are used with a term such as cancer, carcinoma, sarcoma, etc.

Ambiguous terms that are reportable (used to determine reportability)

Apparent(ly) Appears Comparable with Compatible with Consistent with Favor(s) Malignant appearing Most likely Presumed Probable Suspect(ed) Suspicious (for) Typical (of)

Do not substitute synonyms such as "supposed" for presumed or "equal" for comparable. Do not substitute "likely" for "most likely."

HOW TO USE AMBIGUOUS TERMINOLOGY FOR CASE ASCERTAINMENT

- 1. In Situ and Invasive (Behavior codes /2 and /3)
 - a. 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.), accession the case.

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

Negative Example: The final diagnosis on the outpatient report reads: Rule out pancreatic cancer. Do not accession the case.

b. Discrepancies

- i. Accession the case based on the reportable ambiguous term when there are reportable and non-reportable ambiguous terms in the medical record.
 - 1. Do not accession a case when the original source document used a **non-reportable** ambiguous term and subsequent documents refer to history of cancer.

Example: Report from the dermatologist is "possible melanoma." Patient admitted later for unrelated procedure and physician listed history of melanoma. Give priority to the information from the dermatologist and do not report this case. "Possible" is **not** a reportable ambiguous term. The later information is less reliable in this case.

ii. Accept the reportable term and accession the case when there is a single report in which both reportable and non-reportable terms are used.

Introduction and General Instructions

Example: Abdominal CT reveals a 1 cm liver lesion. "The lesion is consistent with hepatocellular carcinoma" appears in the discussion section of the report. The final diagnosis is "1 cm liver lesion, possibly hepatocellular carcinoma." Accession the case. "Consistent with" is a reportable ambiguous term. Accept "consistent with" over the non-reportable term "possibly."

- *Exception:* Do **not** accession a case based ONLY on **suspicious** cytology. *Note:* "**Suspicious** cytology" means any cytology report diagnosis that uses an ambiguous term, including ambiguous terms that are listed as reportable on the preceding page.
- c. Use these terms when **screening** diagnoses on pathology reports, operative reports, scans, mammograms, and other diagnostic testing with the exception of tumor markers.
 - i. Do not accession a case when resection, excision, biopsy, cytology, or physician's statement proves the ambiguous diagnosis is not reportable.

Example 1: Mammogram shows calcifications suspicious for intraductal carcinoma. The biopsy of the area surrounding the calcifications is negative for malignancy. Do not accession the case.

Example 2: CT report states "mass in the right kidney, highly suspicious for renal cell carcinoma." CT-guided needle biopsy with final diagnosis "Neoplasm suggestive of oncocytoma. A malignant neoplasm cannot be excluded." Discharged back to the nursing home and no other information is available. Do not accession the case. The suspicious CT finding was biopsied and not proven to be malignant. "Suggestive of" is not a reportable ambiguous term.

Example 3: Stereotactic biopsy of the left breast is "focally suspicious for DCIS" and is followed by a negative needle localization excisional biopsy. Do not accession the case. The needle localization excisional biopsy was performed to further evaluate the suspicious stereotactic biopsy finding. The suspicious diagnosis was proven to be false.

Example 4: Esophageal biopsy with diagnosis of "focal areas suspicious for adenocarcinoma in situ." Diagnosis on partial esophagectomy specimen "with foci of high grade dysplasia; no invasive carcinoma identified." Do not accession the case. The esophagectomy proved that the suspicious biopsy result was false.

2. Benign and borderline primary intracranial and CNS tumors

- a. Use the above "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**", accession the case.

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

c. Discrepancies

- i. Accession the case based on the reportable ambiguous term when there are reportable and non-reportable ambiguous terms in the medical record.
 - 1. Do not accession a case when subsequent documents refer to history of tumor and the original source document used a **non-reportable** ambiguous term.
- ii. Accept the reportable term and accession the case when there is a single report and one section of a report uses a reportable term such as "apparently" and another section of the same report uses a term that is not on the reportable list.

Exception: Do not accession a case based ONLY on ambiguous **cytology** (the reportable term is preceded by an ambiguous term such as apparently, appears, compatible with, etc.).

- d. Use these terms when **screening** diagnoses on pathology reports, scans, ultrasounds, and other diagnostic testing other than tumor markers.
 - i. Do not accession the case when resection, excision, biopsy, cytology or physician's statement proves the ambiguous diagnosis is not reportable.

INSTRUCTIONS FOR HEMATOPOEITIC AND LYMPHOID NEOPLASMS

See the Reportability Instructions in the *Hematopoietic Manual and Database*.

CASEFINDING LISTS

Current and previous <u>casefinding lists</u> are available on the SEER website. Use the casefinding lists to screen prospective cases and identify cancer cases for inclusion in the registry.

A casefinding list is **not** the same as a <u>reportable list</u>. Casefinding lists are intended for searching a variety of cases so as not to miss any reportable cases.

Definition of Casefinding (case ascertainment): Process of identifying all reportable cases through review of source documents and case listings. Casefinding covers a range of cases that need to be assessed to determine whether or not they are reportable.

CHANGING INFORMATION ON THE ABSTRACT

The information originally collected on the abstract should be changed or modified under the following circumstances.

- 1. To **correct** coding or abstracting **errors** (for example, errors found during quality control activities).
- 2. When clarifications or rule changes retroactively affect data item codes.

Example: SEER adds codes to a data item and asks the registries to review a set of cases and update using the new codes.

3. When better information is available later.

Example 1: Consults from specialty labs, pathology report addendums or comments or other information have been added to the chart. Reports done during the diagnostic workup and placed

on the chart after the registrar abstracted the information may contain valuable information. Whenever these later reports give better information about the histology, grade of tumor, primary site, etc., change the codes to reflect the better information.

Example 2: The primary site was recorded as unknown at the time of diagnosis. At a later date, the physician determines that the cancer is primary to the testis. Change the primary site from unknown to testis.

Example 3: The original diagnosis was in situ. Metastases are diagnosed at a later date. Change the behavior code for the original diagnosis from in situ to invasive when no new primary has been diagnosed in the interim.

Example 4: Patient seen in Hospital A. The pathologic diagnosis was negative for malignancy. Patient goes to Hospital B and the slides from Hospital A are re-read. The diagnosis at Hospital B is reportable. Hospital B sends their slide report back to Hospital A. Hospital A reports the case based on the info from Hospital B. Enter supporting documentation in a text field.

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 2011. In January 2012 the patient is admitted with widespread metastasis consistent with malignant argentaffin carcinoid. The registrar accessions the malignant argentaffin carcinoid as a 2012 diagnosis. Two months later, the pathologist reviews the slides from the May 2011 surgery and concludes that the carcinoid diagnosed in 2011was malignant. Change the date of diagnosis to May 2011and histology to 8241 and the behavior code to malignant (/3).

DETERMINING MULTIPLE PRIMARIES: SOLID TUMORS

Apply the general instructions and instructions for determining multiple primaries in the <u>2007 Multiple</u> <u>Primary and Histology Coding Rules Manual.</u>

Apply the site-specific multiple primary rules in the 2007 Multiple Primary and Histology Coding Rules Manual.

Site-specific multiple primary rules cover the following

٠	Head and neck	C000-C148, C300-C329
٠	Colon	C180-C189
٠	Lung	C340-C349
٠	Melanoma of the skin	C440-C449 with Histology 8720-8780
٠	Breast	C500-C509
٠	Kidney	C649
٠	Ureter/Renal pelvis/Bladder	C659, C669, C670-C679, C680-C689
•	Benign brain	C700, C701, C709, C710-C719, C720-C725, C728, C729, C751- C753
•	Malignant brain	C700, C701, C709, C710-C719, C720-C725, C728, C729, C751- C753
•	Other sites	Excludes Head and Neck, Colon, Lung, Melanoma of Skin, Breast, Kidney, Renal Pelvis, Ureter, Bladder, Brain

Site-specific rules do not cover lymphoma and leukemia (9590-9992).

DETERMINING MULTIPLE PRIMARIES: HEMATOPOIETIC AND LYMPHOID NEOPLASMS

Apply the Multiple Primary Rules in the *<u>Hematopoietic Manual and Database</u>*.

SECTION I BASIC RECORD IDENTIFICATION

The Basic Record Identification fields provide a unique identifier for individual records or a set of records for each person and tumor in the SEER data system. The coded identifiers protect data confidentiality.

Note: For San Francisco, Los Angeles, San Jose/Monterey and Greater California the patient identifier identifies a unique patient across the entire state.

The combination of the SEER Participant Number, Patient ID Number, and Record Number identifies a unique patient record or tumor.

SEER PARTICIPANT

Item Length: 10 NAACCR Item #: 40 NAACCR Name: Registry ID

A unique code assigned to each SEER participating registry. The number identifies the registry sending the record and what population the data are based upon.

Code	Participant	Area Covered	Year SEER Reporting Started	Name
0000001501	Cancer Prevention Institute of California	5 counties	1973	San Francisco Oakland SMSA
0000001502	Connecticut Department of Public Health	Entire state	1973	Connecticut
0000001520	Karmanos Cancer Institute/Wayne State University	3 counties	1973	Metropolitan Detroit
0000001521	Research Corporation of Hawaii	Entire state	1973	Hawaii
0000001522	University of Iowa	Entire state	1973	Iowa
0000001523	University of New Mexico	Entire state	1973	New Mexico
0000001525	Fred Hutchinson Cancer Research Center	13 counties	1974	Seattle-Puget Sound
0000001526	University of Utah	Entire state	1973	Utah
0000001527	Emory University	5 counties	1975	Metropolitan Atlanta
0000001529	Alaska Native	Native American population of Alaska	1984	Alaska Native
0000001531	Cancer Prevention Institute of California	4 counties	1992	San Jose-Monterey
0000001533	University of New Mexico	Native American population of Arizona	1973	Arizona Indians
0000001535	University of Southern California	1 county	1992	Los Angeles
0000001537	Emory University	10 Counties	1978	Rural Georgia
0000001541	Public Health Institute, California	California except Los Angeles, San Francisco-Oakland, and San- Jose/Monterey	2000	Greater California
0000001542	University of Kentucky Research Foundation	Entire state	2000	Kentucky
0000001543	Louisiana State University HSC	Entire state	2000	Louisiana

Code	Participant	Area Covered	Year SEER Reporting Started	Name
0000001544	New Jersey Department of Health and Senior Services	Entire state	2000	New Jersey
0000001547	Emory University	Entire state other than metropolitan Atlanta and rural Georgia	2010	Greater Georgia
0000001551	Cherokee Nation – Oklahoma	Native American population	1997	Cherokee Nation

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PATIENT ID NUMBER

Item Length: 8 NAACCR Item #: 20 NAACCR Name: Patient ID Number

The participating SEER registry generates a unique number and assigns that number to one patient.

The SEER registry will assign this same number to all of the patient's subsequent tumors (records).

Enter preceding zeros if the number is less than 8 digits.

Example: Patient # 7034 would be entered as 00007034.

Note: For the state of California, the patient ID number is assigned for the entire state, not for the individual registries within the state.

RECORD TYPE

Item Length: 1 NAACCR Item #: 10 NAACCR Name: RECORD TYPE

This is a computer-generated field that identifies the type of record that is being transmitted. A file should have records of only one type.

Code I	Description Incidence-only record type (nonconfidential coded data) Length = 3339
С	Confidential record type (incidence record plus confidential data) Length = 5564
А	Full case Abstract record type (incidence and confidential data plus text summaries; used for reporting to central registries) Length = 22824
U	Correction/Update record type (short format record used to submit corrections to data already submitted) Length = 1543
М	Record Modified since previous submission to central registry (identical in format to the "A" record type) Length = 22824
L	Pathology Laboratory

SEER RECORD NUMBER

Item Length: 2 NAACCR Item #: 2190 NAACCR Name: SEER Record Number

The Record Number is a unique sequential number. The highest number for each patient identifies the number of records that have been submitted to SEER for that particular patient. This data item is helpful in record linkage.

The record number is generated by the computer system for each SEER submission. The record numbers are sequential, starting with the number 01. The highest number assigned represents the total number of records submitted to SEER for that particular patient.

Code Description

••

••

- 01 One or first of more than one record for person
- 02 Second record for the person
- nn Last of nn records for person

SEER CODING SYSTEM -- ORIGINAL

Item Length: 1 NAACCR Item #: 2130 NAACCR Name: SEER Coding Sys--Original

SEER Coding System -- Original records the SEER coding system best describing the way the majority of SEER items in the record were originally coded. This is a computer-generated field.

~ .	
Code	Description
0	No SEER coding
1	Pre-1988 SEER Coding Manuals
2	1988 SEER Coding Manual
3	1989 SEER Coding Manual
4	1992 SEER Coding Manual
5	1998 SEER Coding Manual
6	2003 SEER Coding Manual
7	2004 SEER Coding Manual
8	2007 SEER Coding Manual
9	2007 SEER Coding Manual with 2008 changes
А	2010 SEER Coding Manual
п	

- B 2011 SEER Coding Manual
- C 2012 SEER Coding Manual
- D 2013 SEER Coding Manual
- E 2014 SEER Coding Manual

Code E is assigned for death certificate only (DCO) cases

SEER CODING SYSTEM -- CURRENT

Item Length: 1 NAACCR Item #: 2120 NAACCR Name: SEER Coding Sys--Current

SEER Coding System -- Current records the SEER coding system best describing the majority of SEER items as they are in the record (after conversion). This is a computer-generated field.

Code Description

- 0 No SEER coding
- 1 Pre-1988 SEER Coding Manuals
- 2 1988 SEER Coding Manual
- 3 1989 SEER Coding Manual
- 4 1992 SEER Coding Manual
- 5 1998 SEER Coding Manual
- 6 2003 SEER Coding Manual
- 7 2004 SEER Coding Manual
- 8 2007 SEER Coding Manual
- 9 2007 SEER Coding Manual with 2008 changes
- A 2010 SEER Coding Manual
- B 2011 SEER Coding Manual
- C 2012 SEER Coding Manual
- D 2013 SEER Coding Manual
- E 2014 SEER Coding Manual

Code E is assigned for death certificate only (DCO) cases

SECTION II INFORMATION SOURCE

TYPE OF REPORTING SOURCE

Item Length: 1 NAACCR Item #: 500 NAACCR Name: Type of Reporting Source

The Type of Reporting Source identifies the source documents that provided the best information when abstracting the case. This is not necessarily the original document that identified the case; rather, it is the source that provided the best information.

Code Description

- 1 Hospital inpatient; Managed health plans with comprehensive, unified medical records (new code definition effective with diagnosis on or after 1/1/2006)
- 2 Radiation Treatment Centers or Medical Oncology Centers (hospital affiliated or independent) (effective with diagnosis on or after 1/1/2006)
- 3 Laboratory Only (hospital affiliated or independent)
- 4 Physician's Office/Private Medical Practitioner (LMD)
- 5 Nursing/Convalescent Home / Hospice
- 6 Autopsy Only
- 7 Death Certificate Only
- 8 Other hospital outpatient units/surgery centers (effective with diagnosis on or after 1/1/2006)

Definitions

Comprehensive, unified medical record

• A hospital or managed health care system that maintains a single record for each patient. That record includes all encounters in affiliated locations.

Stand-alone medical record

- An independent facility; a facility that is not a part of a hospital or managed care system
- An independent medical record containing only information from encounters with that specific facility

Managed health plan

- Any facility where all of the diagnostic and treatment information is maintained in one unit record
- The abstractor is able to use the unit record when abstracting the case

Examples of such facilities: HMOs or other health plan such as Kaiser, Veterans Administration, or military facilities

Physician office: A physician office performs examinations and tests. Physician offices may perform limited surgical procedures.

Note: The category "physician's office" also includes facilities called surgery centers when those facilities cannot perform surgical procedures under general anesthesia.

Surgery center

- Surgery centers are equipped and staffed to perform surgical procedures under **general anesthesia**
- The patient usually does not stay overnight *Note:* If the facility cannot perform surgical procedures under general anesthesia, code as physician's office.

Information Source

Code	Label	Source Documents	Priority
1	Hospital inpatient; Managed health plans with comprehensive, unified medical records	 Hospital inpatient Offices/facilities with a comprehensive, unified record HMO physician office or group HMO-affiliated freestanding laboratory, surgery, radiation or oncology clinic Includes outpatient services of HMOs and large multi-specialty physician group practices with unified records 	1
2	Radiation Treatment Centers or Medical Oncology Centers (hospital-affiliated or independent)	 Facilities with a stand-alone medical record Radiation treatment centers Medical oncology centers (hospital affiliated or independent) There were no source documents from code 1 	2
3	Laboratory Only (hospital-affiliated or independent)	Laboratory with a stand-alone medical record There were no source documents from codes 1, 2, 8, or 4	5
4	Physician's Office/Private Medical Practitioner (LMD)	Physician's office that is NOT an HMO or large multi-specialty physician group practice There were no source documents from codes 1, 2 or 8	4
5	Nursing/Convalescent Home/Hospice	Nursing or convalescent home or a hospice There were no source documents from codes 1, 2, 8, 4, or 3	6
6	Autopsy Only	Autopsy The cancer was first diagnosed on autopsy. There are no source documents from codes 1, 2, 8, 4, 3, or 5	7
7	Death Certificate Only	Death certificate Death certificate is the only source of information; follow-back activities did not identify source documents from codes 1, 2, 8, 4, 3, 5 or 6. If another source document is subsequently identified, the Type of Reporting Source code must be changed to the appropriate code in the range of 1, 2, 8, 4, 3, 5 or 6.	8
8	Other hospital outpatient units/surgery centers	Other hospital outpatient units/surgery centers Includes, but not limited to, outpatient surgery and nuclear medicine services. There are no source documents from codes 1 or 2	3

Priority Order for Assigning Type of Reporting Source

Code the source that provided the best information used to abstract the case.

Example: The only patient record available for a physician office biopsy is the pathology report identified from a freestanding laboratory. Assign code 3 [Laboratory Only (hospital-affiliated or independent)]. Reporting source should reflect the lab where this case was identified. The MD office added nothing to the case, not even a confirmation of malignancy.

When multiple source documents are used to abstract a case, use the following priority order to assign a code for Type of Reporting Source: Codes: 1, 2, 8, 4, 3, 5, 6, 7.*Note:* Beginning with cases diagnosed 1/1/2006, the definitions for this field have been expanded. Codes 2 and 8 were added to identify outpatient sources that were previously grouped under code 1. Laboratory reports now have priority 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.

SEER recommends that you do **not** make changes to this field for historic cases in the central cancer registry database; i.e. cases diagnosed prior to January 1, 2006. Conversion of the old codes would be problematic and would require extensive and time-consuming review of original source documents.

SECTION III DEMOGRAPHIC INFORMATION

FIRST NAME

Item Length: 40 NAACCR Item #: 2240 NAACCR Name: Name - First

First name is collected by SEER registries for identification purposes; it is not submitted to NCI SEER.

Coding Instructions

- 1. Truncate first name if longer than 40 characters
- 2. Blanks spaces, hyphens, and apostrophes are allowed
 - a. Do **not** use other punctuation
- 3. Leave blank if the patient's first name is unknown
- 4. Update this field if the first name changes

LAST NAME

Item Length: 40 NAACCR Item #: 2230 NAACCR Name: Name - Last

Last name is collected by SEER registries for identification purposes; it is not submitted to NCI SEER.

Coding Instructions

- 1. Truncate name if longer than 40 characters
- 2. Blanks spaces, hyphens, and apostrophes are allowed
 - a. Do not use other punctuation
- 3. Code UNKNOWN if the patient's last name is unknown; do **not** leave blank
- 4. Update this field if the last name changes

Examples

Mc Donald: Recorded with space as Mc Donald

O'Hara: Recorded with apostrophe as O'Hara

Smith-Jones: Janet Smith marries Fred Jones and changes her last name to Smith-Jones

PLACE OF RESIDENCE AT DIAGNOSIS

SEER registries collect information on place of residence at diagnosis. Information relating to address is not transmitted to SEER. The SEER rules for determining residency at diagnosis are either identical or comparable to rules used by the US Census Bureau, to ensure comparability of definitions of cases (numerator) and the population at risk (denominator).

Coding Priorities/Sources

- 1. Code the **street address** of usual residence as stated by the patient. Definition: US Census Bureau Instructions: "The place where he or she lives and sleeps most of the time or the place the person says is his or her usual home." The residency rules of departments of vital statistics may differ from those of the US Census Bureau/SEER.
- 2. A post office box is not a reliable source to identify the residency at diagnosis. Post office box addresses do not provide accurate geographical information for analyzing cancer incidence. Use the post office box address only if no street address information is available after follow-back.
- 3. Use residency information from a **death certificate** only when the residency from other sources is coded as unknown. Review each case carefully and apply the US Census Bureau/SEER rules for determining residence. The death certificate may give the person's previous home address rather than the nursing home address as the place of residence; use the nursing home address as the place of residence.
- 4. Do not use **legal status** or **citizenship** to code residence.

Persons with More than One Residence

- 1. Code the residence where the patient spends the majority of time (usual residence).
- 2. If the usual residence is not known or the information is not available, code the residence the patient specifies at the time of diagnosis.

Examples: The above rules should be followed for "snowbirds" who live in the south for the winter months, "sunbirds" who live in the north during the summer months, and people with vacation residences that they occupy for a portion of the year.

Persons with No Usual Residence

Homeless people and transients are examples of persons with no usual residence. Code the patient's residence at the time of diagnosis such as the shelter or the hospital where diagnosis was confirmed.

Temporary Residents of SEER Area

Code the place of usual residence rather than the temporary address for: **Migrant** workers **Educators** temporarily assigned to a university in the SEER area Persons **temporarily residing** with family during cancer treatment **Military** personnel on **temporary** duty assignments (TDY) **Boarding school** students below college level (code the parent's residence)

Code the residence where the student is living while attending **college.**

Code the address of the institution for Persons in Institutions.

US Census Bureau definition: "Persons under formally authorized, supervised care or custody" are residents of the institution."

Persons who are incarcerated

Persons who are physically handicapped, mentally challenged, or mentally ill who are residents of homes, schools, hospitals or wards

Residents of nursing, convalescent, and rest homes

Long-term residents of other hospitals such as Veteran's Administration (VA) hospitals

Persons in the Armed Forces and on Maritime Ships (including Merchant Marine)

Armed Forces

For military personnel and their family members, code the address of the military installation or surrounding community as stated by the patient.

Personnel Assigned to Navy, Coast Guard, and Maritime Ships

The US Census Bureau has detailed rules for determining residency for personnel assigned to these ships. The rules refer to the ship's deployment, port of departure, destination, and its homeport. Refer to US Census Bureau Publications for detailed rules.

COUNTY

Item Length: 3 NAACCR Item #: 90 NAACCR Name: County at DX

Codes for county of residence for each SEER area are listed in Appendix A of this manual.

Use code 999 when it is known that a person is a resident of a particular SEER region, but the exact county is not known.
CENSUS TRACT 2010

Item Length: 6 NAACCR Item #: 135 NAACCR Name: Census Tract 2010

Census Tract 2010 is coded by the central registry. Census Tract 2010 records the census tract of a patient's residence at the time of diagnosis. The codes are the same codes used by the US Census Bureau for the Year 2010 census. This item is coded for cases diagnosed January 1, 2006, and forward. This field allows a central registry to add year 2010 Census tracts to cases diagnosed in previous years without losing the codes in the fields Census Tract 1970/80/90 and Census Tract 2000 which are only collected historically.

A census tract is a small statistical subdivision of a county that, in general, has between 2,500 and 8,000 residents. Local committees and the US Census Bureau establish census tract boundaries and try to keep the same boundaries from census to census to maintain historical comparability, though this is not always possible. When populations increase or decrease, old tracts may be subdivided, disappear, or have their boundaries changed. Because the census tracts do change, it is important to know which census tract definition is used to code them.

Codes

Census tract codes 000100-999998

Special Codes

Code	Description
000000	Area not census tracted
999999	Area census tracted, but census tract is not available
Blank	Census Tract 2010 not coded

Coding Instructions

- 1. Code the Census tract of the patient's residence at the time of diagnosis.
- 2. Census tract codes should be assigned based on a computer match (geocoding software).
- 3. Census tracts are identified by four-digit numbers ranging from 0001 to 9989 and a two-digit suffix.
- 4. Assign code 999999 when an area does have an assigned census tract but the census tract is not available.
- 5. Right justify the first four digits and zero fill to the left. Add the suffix as the fifth and sixth digits if it exists; otherwise, use 00 so all six positions are coded.

Example 1: Code census tract 516 and suffix 21 to 051621

Example 2: Census tract 409 and suffix does not exist should be coded 040900

CENSUS TRACT CERTAINTY 2010

Item Length: 1 NAACCR Item #: 367 NAACCR Name: Census Tr Certainty 2010

Census tract certainty is coded by the central registry. Census tract certainty records how the 2010 census tract was assigned for an individual record. Most of the time, this information is provided by a geocoding vendor service. Central registry staff should code this field manually when geocoding is not available through a vendor service. This item is coded for cases diagnosed January 1, 2006 and forward.

Code Description

- 1 Census tract based on complete and valid street address of residence
- 2 Census tract based on residence ZIP + 4
- 3 Census tract based on residence ZIP + 2
- 4 Census tract based on residence ZIP code only
- 5 Census tract based on ZIP code of post office box
- 6 Census tract/BNA based on residence city where city has only one census tract, or based on residence ZIP code where ZIP code has only one census tract
- 9 Not assigned, geocoding attempted
- Blank Not assigned, geocoding **not** attempted

Coding Priority

The codes are hierarchical with the numerically lower codes having priority.

- 1. Code 1 has priority over codes 2-6 and 9
- 2. Code 2 has priority over codes 3-6 and 9
- 3. Code 6 has priority over codes 3-5, and 9
- 4. Code 3 has priority over codes 4, 5, and 9
- 5. Code 4 has priority over codes 5 and 9
- 6. Code 5 has priority over code 9

Note: Codes 1-5 and 9 are usually assigned by a geocoding vendor, while code 6 is usually assigned through a special effort by the central registry.

Coding Instructions

Note: Avoid using the post office box mailing address to code the census tract whenever possible.

- 1. Assign code **1** when the census tract is assigned with certainty based on complete and valid street address
- 2. Assign codes 2-5when the census tract is based on residence ZIP code
 - a. Assign code 2 when
 - i. Street address is incomplete or invalid, but ZIP + 4 code is known OR
 - ii. Only rural route number is available, but ZIP + 4 code is known

- b. Assign code 3 when
 - i. Street address is incomplete or invalid, but ZIP + 2 code is known OR
 - ii. Only rural route number is available, but ZIP + 2 code is known
- c. Assign code **4** when
 - i. Street address is incomplete or invalid, but ZIP code is known OR
 - ii. Only rural route number is available, but ZIP code is known
- d. Assign code 5 when only the post office box ZIP code is known
- 3. Assign code **6** when
 - a. Address is unknown or incomplete and city has only one census tract OR
 - b. Only ZIP code of residence is known, and ZIP code has only one census tract
- 4. Assign code **9** when
 - a. ZIP code is missing OR
 - b. The complete address of the patient is unknown or cannot be determined OR
 - c. There is insufficient information to assign a census code

BIRTHPLACE – STATE

Item Length: 3 NAACCR Item #: 252 NAACCR Name: Birthplace - State

For cases diagnosed 1/1/2013 and later, Birthplace – State (#252) and Birthplace – Country (#254) replace Place of Birth (#250). See the <u>2013 NAACCR Implementation Guidelines</u> for further information.

Coding Instructions

Assign the most specific code possible from <u>Appendix B</u> of this manual.

BIRTHPLACE - COUNTRY

Item Length: 3 NAACCR Item #: 254 NAACCR Name: Birthplace - Country

For cases diagnosed 1/1/2013 and later, Birthplace – State (#252) and Birthplace – Country (#254) replace Place of Birth (#250). See the <u>2013 NAACCR Implementation Guidelines</u> for further information.

Coding Instructions

Assign the most specific code possible from <u>Appendix B</u> of this manual.

DATE OF BIRTH

Item Length: 8 NAACCR Item #: 240 NAACCR Name: Date of Birth

Date of Birth identifies the month, day and year of the patient's birth. Transmit date fields in the year, month, day format (YYYYMMDD). Leave the year, month and/or day blank when they cannot be calculated or are unknown.

Common Formats

YYYYMMDD	Complete date is known
YYYYMM	Year and month are known/calculated; day is unknown
YYYY	Year is known/calculated; month and day cannot be calculated or are unknown

Transmit Instructions

- 1. Transmit date fields in the year, month, day format (YYYYMMDD).
- 2. Leave the year, month and/or day blank when they cannot be calculated or are unknown.
 - a. Leave the year, month and day blank for death certificate only (DCO) cases when the date of birth is unknown and cannot be calculated
- 3. Most SEER registries collect the month, day, and year. When the full date (YYYYMMDD) is transmitted, the seventh and eighth digits (day) will be deleted when the data are received by SEER.

Codes for Year

Code the four-digit year

Codes for Month

Code Description

- 01 January
- 02 February
- 03 March
- 04 April
- 05 May
- 06 June
- 07 July
- 08 August
- 09 September
- 10 October
- 11 November
- 12 December

(Codes continued on next page)

Codes for Day

Coding Instructions

- 1. Code the date of birth
- 2. If the date of birth is unknown, but the Age at Diagnosis and Date of Diagnosis are known:
 - a. Calculate the year of birth by subtracting the patient's age at diagnosis from the year of diagnosis.
 - b. Leave the month and day blank.

Note: A zero must precede a single-digit month and a single-digit day. *Example*: September 5, 1970 would be transmitted as 19700905.

DATE OF BIRTH FLAG

Item Length: 2 NAACCR Item #: 241 NAACCR Name: Date of Birth Flag

Date flag fields were added beginning with diagnoses on or after 1/1/2010 as part of an initiative to standardize date fields. Date flags replace nondate information that had previously been transmitted in date fields. Coding 99999999 to indicate "unknown" is an example of nondate information that was previously transmitted in date fields.

Code	Label	Definition
	Blank	A valid date value is provided in Date of Birth
12	Unknown	A proper value is applicable but not known

Coding Instructions

- 1. Leave this item blank when Date of Birth has a full or partial date recorded
- 2. Assign code 12 when the date of birth cannot be determined
 - a. Assign code 12 for death certificate only (DCO) cases when the date of birth is unknown and cannot be calculated

AGE AT DIAGNOSIS

Item Length: 3 NAACCR Item #: 230 NAACCR Name: Age at Diagnosis

This data item represents the age of the patient at diagnosis for this cancer.

Code 000 001 002	Description Less than one year old One year old, but less than two years old Two years old
···· ····	(Actual age in years)
101	One hundred one years old
 120	One hundred twenty years old
999	Unknown age
Coding Instructions	

- 1. Measure the patient's age in completed years of life, i.e., age at the patient's last birthday.
- 2. Generally, the registry software program calculates the Age at Diagnosis using the Date of Birth and Date of Diagnosis.
- 3. Age at Diagnosis can be manually calculated using the date of birth and the date of diagnosis.

Cases Diagnosed In Utero

Record 000, less than one year old, for cases diagnosed in utero.

Generally, registry software programs calculate the Age at Diagnosis using the Date of Birth and Date of Diagnosis. The calculation may result in a negative number for a case diagnosed in utero – replace the negative number with 000. Code age 000 for all diagnoses within the first year of life or before.

RACE 1, 2, 3, 4, 5

Item Length: 2 NAACCR Item #: 160, 161, 162, 163, 164 NAACCR Name: Race 1, Race 2, Race 3, Race 4, Race 5

Race and ethnicity are defined by specific physical, hereditary and cultural traditions or origins, not necessarily by birthplace, place of residence, or citizenship. 'Origin' is defined by the US Census Bureau as the heritage, nationality group, lineage, or in some cases, the country of birth of the person or the person's parents or ancestors before their arrival in the United States.

The five race fields (Race 1 - Race 5) make it possible to code multiple races for one person, consistent with the 2000 Census. All resources in the facility, including the medical record, face sheet, physician and nursing notes, photographs, and any other sources, must be used to determine race. If a facility does not print race in the medical record but does maintain it in electronic form, the electronic data must also be reviewed.

Recommendation: Document how the race code(s) was (were) determined in a text field.

Code	Description
01	White
02	Black
03	American Indian, Aleutian, Alaskan Native or Eskimo
	(includes all indigenous populations of the western hemisphere)
04	Chinese
05	Japanese
06	Filipino
07	Hawaiian
08	Korean
10	Vietnamese
11	Laotian
12	Hmong
13	Kampuchean (including Khmer and Cambodian)
14	Thai
15	Asian Indian or Pakistani, NOS (Effective with 1/1/2010 dx)
16	Asian Indian (Effective with $1/1/2010 dx$)
17	Pakistani (Effective with 1/1/2010 dx)
20	Micronesian, NOS
21	Chamorro/Chamoru
22	Guamanian, NOS
25	Polynesian, NOS
26	Tahitian
27	Samoan
28	Tongan
30	Melanesian, NOS
31	Fiji Islander
32	New Guinean
88	No additional races (Race 2 – Race 5)
96	Other Asian, including Asian, NOS and Oriental, NOS
97	Pacific Islander, NOS

- 98 Other
- 99 Unknown

Priorities for Coding Multiple Races

1. Code **07** takes priority over all other codes.

Example: Patient is described as Japanese and Hawaiian. Code Race 1 as 07 (Hawaiian), Race 2 as 05 (Japanese).

- 2. Codes **02-32**, **96-98** take priority over code **01**.
- 3. Code only the specific race when both a specific race code and a non-specific race code apply.
 - a. Codes 04-17 take priority over code 96
 - b. Codes 16-17 take priority over code 15
 - c. Codes 20-32 take priority over code 97
 - d. Codes 02-32 and 96-97 take priority over code 98
 - e. Code 98 takes priority over code 99

Coding Instructions

- 1. Do **not** use patient name as the basis for coding race.
 - a. See Coding Instruction 15, Exception, for the only situation in which name is taken into account when coding race.
- 2. Code race using the highest priority source available according to the list below (a is the highest and c is the lowest) when race is reported differently by two or more sources.

Sources in Priority Order

- a. The patient's self-declared identification
- b. Documentation in the medical record
- c. Death certificate
- 3. Assign the same race code(s) for all tumors for one patient.
- 4. Code the race(s) of the patient in fields Race 1, Race 2, Race 3, Race 4, and Race 5.
 - a. Code **88** for the remaining race fields (Race 2 Race 5) when at least one race, but fewer than five races, are reported.
- 5. Use the associated text field to document
 - a. Why a particular race code was chosen when there are discrepancies in race information

Example: The patient is identified as Black in nursing notes and White in a dictated physical exam. Use a text field to document why one race was coded rather than the other.

- b. That no race information is available
- 6. Code as **01** (White) when
 - a. The race is described as White or Caucasian regardless of place of birth
 - b. There is a statement that the patient is Hispanic or Latino(a) and no further information is available

Example: Sabrina Fitzsimmons is a Latina. Code race as 01 (White). *Note*: Do not code 98 (Other) in this situation

Note: Persons of Spanish or Hispanic origin may be of any race, although persons of Mexican, Central American, South American, Puerto Rican, or Cuban origin are usually White.

- 7. Code race as **02** (Black) when the stated race is African-American, Black, or Negro.
- 8. Assign code 03 for any person stated to be
 - a. Native American (western hemisphere)
 - b. Indian, whether from North, Central, South, or Latin America.
- 9. Assign a specific code when a specific Asian race is stated. Do not use code 96 when a specific race is known.

Example: Patient is described as Asian in a consult note and as second generation Korean-American in the history. Code Race 1 as 08 (Korean) and Race 2 through Race 5 as 88.

Note: Do not code 96 (Other Asian including Asian, NOS and Oriental, NOS) in a subsequent race field when a specific Asian race has been coded.

10. Code the race based on birthplace information when the race is recorded as Oriental, Mongolian, or Asian and the place of birth is recorded as China, Japan, the Philippines, or another Asian nation.

Example 1: Race is recorded as Asian and the place of birth is recorded as Japan. Code race as 05 (Japanese) because it is more specific than 96.

Example 2: The person describes himself as an Asian-American born in Laos. Code race as 11 (Laotian) because it is more specific than 96.

11. Use the appropriate non-specific code 96 (Other Asian including Asian, NOS and Oriental, NOS), 97 (Pacific Islander, NOS) or 98 (Other) when there is no race code for a specific race.

Note: Document the specified race in a text field

- 12. Do not use code 96, 97, or 98 for "multi-racial." See Coding Examples below.
- 13. All race fields must be coded 99 (Unknown) when Race 1 is coded 99 (Unknown).

Note: Assign code 99 in Race 2-5 only when Race 1 is coded 99

- 14. Assign code 99 for death certificate only (DCO) cases when race is unknown.
- 15. Refer to Appendix D "Race and Nationality Descriptions from the 2000 Census and Bureau of Vital Statistics when race is unknown or not stated in the medical record and birth place is recorded.
 - a. In some cases, race may be inferred from the nationality. Use Appendix D to identify nationalities from which race codes may be inferred.

Example 1: Record states: "this native of Portugal..." Code race as 01 (White) per the Appendix.

Example 2: Record states: "this patient was Nigerian..." Code race as 02 (Black) per the Appendix.

Exception: Code Race 1 through Race 5 as 99 (Unknown) when patient's name is incongruous with the race inferred on the basis of nationality. Do not code the inferred race when then patient's name is incongruent with the race inferred on the basis of nationality.

Example 1: Patient's name is Siddhartha Rao and birthplace is listed as England. Code Race 1 through Race 5 as 99 (Unknown).

Example 2: Patient's name is Ping Chen and birthplace is Ethiopia. Code Race 1 through Race 5 as 99 (Unknown).

- 16. When the patient face-sheet indicates "Race Other", look for other descriptions of the patient's race. When no further race information is available, code race as 99 (Unknown) and document that patient face-sheet indicates "Race Other", and no further race information is available.
- 17. Patient photographs may be used with caution to determine race in the absence of any other information.
 - a. Use caution when interpreting a patient photograph to assist in determining race. Review the patient record for a statement to verify race. The use of photographs alone to determine race may lead to misclassification of race.

Coding Examples

Example 1: Patient is stated to be Japanese. Code as 05 (Japanese).

Example 2: Patient is stated to be German-Irish. Code as 01 (White).

Example 3: Patient is described as Arabian. Code as 01 (White).

Example 4: Patient described as a black female. Code as 02 (Black).

Example 5: 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.

Example 6: Patient describes herself as multi-racial (nothing more specific) and nursing notes say "African-American." Code Race 1as 02 (Black) and Race 2 through Race 5 as 88

Example 7: The patient is described as Asian-American with Korean parents. Code race as 08 (Korean) because it is more specific than 96 (Asian) [-American].

Example 8: Race 1 through Race 5 in the cancer record are coded as 99 (Unknown). The death certificate states race as black. Change cancer record for Race 1 to 02 (Black) and Race 2 through Race 5 to 88.

Example 9: Race 1 is coded in the cancer record as 96 (Asian). Death certificate gives birthplace as China. Change Race 1 in the cancer record to 04 (Chinese) and code Race 2 through Race 5 as 88.

History

- 1. Race 1 is the field used to compare with race data on cases diagnosed prior to January 1, 2000.
- 2. Race codes must be identical on each record when the patient has multiple tumors.
 - a. For cases with all diagnoses prior to January 1, 2000, Race 2 through Race 5 must be blank.
 - b. For cases that have multiple tumors with at least one primary diagnosed **on or after January 1, 2000**, race codes in Race 1, Race 2, Race 3, Race 4 and Race 5 must be identical on all records.
- 3. Codes **08-13** became effective with diagnoses on or after January 1, 1988.
- 4. Code **09** was **retired** effective with diagnoses on or after January 1, 2010.
- 5. Code 14 became effective with diagnoses on or after January 1, 1994.
- 6. Codes 15, 16 and 17 became effective with diagnoses on or after January 1, 2010.
- 7. Codes **20-97** became effective with diagnoses on or after January 1, 1991.
- San Francisco, San Jose-Monterey, and Los Angeles are permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1987; Greater California is permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1988. Other SEER registries may choose to recode cases diagnosed prior to 1991 using 14 and 20-97 if all cases in the following race codes are reviewed: 96 (Other Asian, including Asian, NOS and Oriental, NOS); 97 (Pacific Islander, NOS); 98 (Other); and 99 (Unknown).

RACE-NAPIIA

Item Length: 2 NAACCR Item #: 193 NAACCR Name: Race-NAPIIA (Derived API)

NAPIIA stands for NAACCR Asian and Pacific Islander Identification Algorithm. Race-NAPIIA recodes some single-race cases with a Race 1 [160] code of 96 to a more specific Asian race category, based on a computerized algorithm that uses the birthplace and name fields (first, last, and maiden names). For single-race cases with a code other than 96 in Race 1, the algorithm defaults to the code in Race 1. Race-NAPIIA will vary for multiple-race cases (those with information in Race 2 through Race 5, [161-164]) depending on the combination of race codes documented; refer to the technical documentation for specifics: http://www.naaccr.org/LinkClick.aspx?fileticket=3HnBhlmhkBs%3d&tabid=118&mid=458

In Version 1 of the algorithm, birth place can be used to indirectly assign a specific race to one of eight Asian race groups (Chinese, Japanese, Vietnamese, Korean, Asian Indian, Filipino, Thai, and Cambodian), and names can be used to indirectly assign a specific race to one of seven Asian groups (Chinese, Japanese, Vietnamese, Korean, Asian Indian, Filipino, and Hmong). Subsequent versions of NAPIIA may incorporate Pacific Islanders and may potentially incorporate name lists for Thai, Cambodian, and Laotians.

Note: Surname lists are just one component of the NAPIIA algorithm. A number of filters based on race, ethnicity, birthplace, or county of residence may preclude a patient from being assigned a race based on surname.

CodeDescription01White02Black03American Indian, Aleutian, or Eskimo
(includes all indigenous populations of the Western hemisphere)

- 04 Chinese
- 05 Japanese
- 06 Filipino
- 07 Hawaiian
- 08 Korean
- 10 Vietnamese
- 11 Laotian
- 12 Hmong
- 13 Kampuchean (Cambodian)
- 14 Thai
- 15 Asian Indian or Pakistani, NOS (Effective with 1/1/2010 dx)
- 16 Asian Indian (Effective with 1/1/2010 dx)
- 17 Pakistani (Effective with 1/1/2010 dx)
- 20 Micronesian, NOS
- 21 Chamorro/Chamoru
- 22 Guamanian, NOS
- 25 Polynesian, NOS
- 26 Tahitian
- 27 Samoan
- 28 Tongan
- 30 Melanesian, NOS
- 31 Fiji Islander
- 32 New Guinean
- 96 Other Asian, including Asian, NOS and Oriental, NOS
- 97 Pacific Islander, NOS
- 98 Other
- 99 Unknown

Note: Codes 20-97 were adopted for use effective with 1991 diagnoses. Code 14 was adopted for use effective with 1994 diagnoses. Codes 15-17 were adopted for use effective with 2010 diagnoses.

IHS LINK

Item Length: 1 NAACCR Item #: 192 NAACCR Name: IHS Link

The Indian Health Service (IHS) Link reports the result of linkage between the registry database and the Indian Health Service patient registration database. This linkage identifies American Indians who were misclassified as non-Indian in the registry. The computer linkage program will automatically assign the code for this data item.

SEER requires the IHS Link for cases diagnosed January 1, 1988, and forward. IHS link may be submitted for cases diagnosed in earlier years. The field will be blank unless an attempt was made to link the case with the records from the Indian Health Service.

Code Description

- 0 Record sent for linkage, no IHS match
- 1 Record sent for linkage, IHS match
- Blank Record not sent for linkage or linkage result pending

SPANISH SURNAME OR ORIGIN

Item Length: 1 NAACCR item #: 190 NAACCR Name: Spanish/Hispanic Origin

This data item is used to identify patients with Spanish/Hispanic surname or of Spanish origin. Persons of Spanish or Hispanic surname/origin may be of any race.

Code Description

- 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; excludes Dominican Republic)
- 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 of the categories 1-5.
- Spanish surname only (effective with diagnosis on or after 1/1/1994)
 The only evidence of the person's Hispanic origin is the surname or maiden name and there is no evidence that he/she is not Hispanic.
- 8 Dominican Republic (effective with diagnosis on or after 1/1/2005)
- 9 Unknown whether Spanish/Hispanic or not

Coding Instructions

- 1. Coding Spanish Surname or Origin is not dependent on race. A person of Spanish descent may be white, black, or any other race.
- 2. Assign code **7** when the only evidence of the patient's Hispanic origin is a surname or maiden name and there is no evidence that the patient is not Hispanic. Code **7** is ordinarily for central registry use only.
- 3. Portuguese, Brazilians and Filipinos are not presumed to be Spanish or non-Spanish.
 - a. Assign code **7** when the patient is Portuguese, Brazilian, or Filipino and their name appears on a Hispanic surname list.
 - b. Assign code **0** when the patient is Portuguese, Brazilian, or Filipino and their name does NOT appear on a Hispanic surname list.
- 4. Use all information to determine the Spanish/Hispanic Origin including
 - a. The ethnicity stated in the medical record
 - b. Hispanic origin stated on the death certificate
 - c. Birthplace
 - d. Information about life history and/or language spoken found in the abstracting process
 - e. A last name or maiden name found on a list of Hispanic/Spanish names
- 5. Assign code 9 for death certificate only (DCO) cases when Spanish/Hispanic origin is unknown.

COMPUTED ETHNICITY

Item Length: 1 NAACCR Item #: 200 NAACCR Name: Computed Ethnicity

Computed Ethnicity records the ethnicity based on last name and/or maiden name using a computer algorithm. The computer algorithm compares a list of names with the patient's surname and/or maiden name to test for Hispanic ethnicity. A computer algorithm must be used to compute ethnicity for all cases diagnosed January 1, 1994 and later. This data item is used in conjunction with the data item Computed Ethnicity Source.

The computer-derived ethnicity may differ from the manually assigned ethnicity (Spanish/Hispanic Origin).

Do not record results from NHIA in this field.

Code Description

- 0 No match [linkage] was run (for 1994 and later cases)
- 1 Non-Hispanic last name and non-Hispanic maiden name
- 2 Non-Hispanic last name, did not check maiden name, or patient was male
- 3 Non-Hispanic last name, missing maiden name
- 4 Hispanic last name, non-Hispanic maiden name
- 5 Hispanic last name, did not check maiden name or patient was male
- 6 Hispanic last name, missing maiden name
- 7 Hispanic maiden name (females only) (regardless of last name)
- Blank 1993 and earlier cases; no match [linkage] was run

Note: For SEER, blank is allowed only for tumors diagnosed in 1993 and earlier.

COMPUTED ETHNICITY SOURCE

Item Length: 1 NAACCR Item #: 210 NAACCR Name: Computed Ethnicity Source

Computed Ethnicity Source identifies the database, method, or computer algorithm that was used to determine ethnicity as recorded in the Computed Ethnicity. The two fields are used together to describe computed ethnicity data.

Do not record results of NHIA in this field.

Code	Description
0	No match [linkage] was run for 1994 and later cases
1	Census Bureau list of Spanish surnames, NOS
2	1980 Census Bureau list of Spanish surnames
3	1990 Census Bureau list of Spanish surnames
4	GUESS program
5	Combination list including South Florida names

- 5 Combination list including South Florida names
- 6 Combination of Census and other locally generated list
- 7 Combination of Census and GUESS, with or without other lists
- 8 Other type of match (Do not record results of NHIA in this field)
- 9 Unknown type of match
- Blank 1993 and earlier cases, no match [linkage] was run

Note: For SEER, blank is allowed only for tumors diagnosed in 1993 and earlier.

NHIA DERIVED HISPANIC ORIGIN

Item Length: 1 NAACCR Item #: 191 NAACCR Name: NHIA Derived Hisp Origin

The NAACCR Hispanic Identification Algorithm (NHIA) is a computerized algorithm that uses a combination of variables to directly or indirectly classify cases as Hispanic for analytic purposes.

Note: Surname lists are just one component of the indirect assignment of ethnicity or race by NHIA. A number of filters based on race, ethnicity, birthplace, or county attribute may preclude a patient from ever being indirectly assigned based on surname. Also, if a patient is coded as non-Hispanic, the registry may elect NOT to run the case through NHIA. A female patient's last name could, however, be used to classify the case as Hispanic for the NHIA variable after making it through the filters and exclusions. Persons are also included as Hispanic/Latino(a) when they are female cases with heavily Hispanic maiden names; female cases with missing maiden names and heavily Hispanic last names; female cases with missing maiden names and heavily Hispanic, or indeterminate maiden names and heavily Hispanic last names.

Code Description

- 0 Non-Hispanic
- 1 Mexican, by birthplace or other specific identifier
- 2 Puerto Rican, by birthplace or other specific identifier
- 3 Cuban, by birthplace or other specific identifier
- 4 South or Central American (except Brazil), by birthplace or other specific identifier
- 5 Other specified Spanish/Hispanic origin (includes European; excludes Dominican Republic), by birthplace or other specific identifier
- 6 Spanish, NOS; Hispanic, NOS; Latino, NOS
- 7 NHIA surname match only
- 8 Dominican Republic
- Blank Algorithm has not been run

SEX

Item Length: 1 NAACCR Item #: 220 NAACCR Name: Sex

Code the sex (gender) of the patient.

Codes Description

- 1 Male
- 2 Female
- 3 Other (hermaphrodite)
- 4 Transsexual
- 9 Not stated/Unknown

Definitions

Transsexual: Surgically altered gender

Transgendered: A person who identifies with or expresses a gender identity that differs from the one which corresponds to the person's sex at birth.

Coding Instructions

- 1. Code the natal sex when known over transsexual or transgender.
- 2. Assign code **3** for Intersexed (persons with sex chromosome abnormalities).
- 3. Assign code **4** for Transgendered.
- 4. When the patient's gender is not known
 - a. Assign code 1 when the primary site is C600-C639
 - b. Assign code 2 when the primary site is C510-C589
 - c. Assign code 9 for primary sites not included above

MARITAL STATUS AT DIAGNOSIS

Item Length: 1 NAACCR Item #: 150 NAACCR Name: Marital Status at DX

Code the patient's marital status at the time of diagnosis for the reportable tumor.

Code Description

- 1 Single (never married)
- 2 Married (including common law)
- 3 Separated
- 4 Divorced
- 5 Widowed
- 6 Unmarried or Domestic Partner (same sex or opposite sex, registered or unregistered, other than common law marriage) (effective for cases diagnosed 1/1/11 and forward)
- 9 Unknown

Note: If the patient has multiple tumors, marital status may be different for each tumor.

Coding instructions

- 1. Assign code **2** [Married (including common law)] when the patient declares him/herself as married. Marriage is a self-reported state.
- 2. Assign code **6** when the patient is not married and is in a domestic partner relationship other than common law marriage.
- 3. Assign code **9** for death certificate only (DCO) cases when marital status at the time of diagnosis is unknown.

Justification for Continued Collection

Marital Status was evaluated for possible retirement (discontinuation of collection). It will not be retired at this time because it is readily available and provides important information not available from any other data item.

- Availability: Marital status is readily available from medical records and easily coded. Completeness (i.e., non-missing value coded) is 95% in the SEER database for 1973-2007 diagnoses.
 Completeness is slightly lower, at 93%, for the most recent diagnosis year, 2007. There is very little difference in completeness by vital status (e.g., for 1973-2007 cases, completeness is 93% among those living and 96% among decedents).
- Utility: Marital status for both men and women is correlated with mortality, stage at diagnosis, tumor size at diagnosis, cancer screening, cancer treatment delay, and other healthcare seeking behaviors. It is an important factor to consider when reporting disparities in diagnosis and survival.

PRIMARY PAYER AT DIAGNOSIS

Item Length: 2 NAACCR Item # 630 NAACCR Name: Primary Payer at DX

Primary Payer at Diagnosis identifies the patient's primary insurance carrier or method of payment at the time of initial diagnosis and/or treatment.

Code	Label	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 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. "Gate-keeper model" is another term for describing this type of insurance.
21	Private Insurance: Fee-for-service	An insurance plan that does not have negotiated fee structure with the participating hospital. Type of insurance plan not coded as 20.
31	Medicaid	State government administered insurance for persons who are uninsured, below the 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 all incurred costs.
60	Medicare/Medicare, NOS	Federal government funded insurance for persons who are 62 years of age or older, or are chronically disabled (social security insurance eligible). Includes Medicare without supplement. 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. (See also, codes 63 and 64.)
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 insurance with state-administered Medicaid 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.
	und on post page)	Formerly CHAMPUS (Civilian Health and Medical Program of the Uniformed Services).

(Continued on next page)

Code	Label	Definition
66	Military	Military personnel or their dependents treated at a military facility
67	Veterans Affairs	Veterans treated in Department of Veterans Affairs facilities
68	Indian/Public Health Service	Patient receives care at an Indian Health Service facility or at another facility and medical 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	Patient's medical record does not indicate whether or not the patient is insured.

Coding Instructions

- 1. Code the type of insurance reported on the patient's admission record.
- 2. Code the **first** insurance mentioned when multiple insurance carriers are listed on one admission record.
- 3. Code the type of insurance reported **closest to the date of diagnosis** when there are multiple insurance carriers reported for multiple admissions and/or multiple physician encounters.
- 4. Code the patient's insurance at the time of **initial diagnosis and/or treatment**. Do not change the insurance information based on subsequent information.
- 5. Assign code **99** for death certificate only (DCO) cases when the primary payer at diagnosis is unknown.

SECTION IV DESCRIPTION OF THIS NEOPLASM

DATE OF DIAGNOSIS

Item Length: 8 NAACCR Item #: 390 NAACCR Name: Date of Diagnosis

The date of diagnosis is the month, day and year the reportable neoplasm was first diagnosed, clinically or microscopically, by a recognized medical practitioner.

Date of diagnosis must be transmitted in the YYYYMMDD format. Date of diagnosis may be recorded in the transmission format, or recorded in the traditional format (MMDDYYYY) and converted electronically to the transmission format. Regardless of the format, at least **Year** of diagnosis **must be known or estimated for cases transmitted to SEER**. Year of diagnosis **cannot be blank or unknown for cases transmitted to SEER**.

Transmitting Dates

Transmit date fields in the year, month, day format (YYYYMMDD). Transmit only known or estimated year of diagnosis, blanks will not be accepted. Leave the month, day and/or year* blank when they cannot be estimated or are unknown.

Common Formats

YYYYMMDD	Complete date is known
YYYYMM	Year and month are known/estimated; day is unknown
YYYY	Year is known/estimated; month and day cannot be estimated or are unknown
Blank	Year*, month, and day cannot be estimated or are unknown

*Cases NOT transmitted to SEER only

Transmit Instructions

- 1. Transmit date fields in the year, month, day format (YYYYMMDD).
- 2. Transmit only known or estimated year of diagnosis, blanks will not be accepted.
- 3. Leave the month and/or day blank when they cannot be estimated or are unknown.
- 4. Most SEER registries collect the month, day, and year of diagnosis. When the full date (YYYYMMDD) is transmitted, the seventh and eighth digits (day) will be held confidentially and only used for survival calculations when received by NCI SEER. The corresponding date flag is not affected (it will remain blank).

Instructions

Case transmitted to SEER

- 1. Follow-back must be done to obtain the date of diagnosis. If no information can be found, follow instruction 2.
- 2. Date of diagnosis must be estimated. See the coding instructions below for estimating date of diagnosis.
 - a. For reports dated December or January of a given year code the month of the report or the month of admission (instruction 10a viii). Coding the month of the report or the month of admission results in a better estimate of the date of diagnosis than coding month as 99 and having the computer assign July as the month of diagnosis, for example.

b. When the diagnosis date is stated to be spring, summer, fall, or winter, follow instructions 10a i, ii, iii, and iv.

Case **not** transmitted to SEER

- 1. Code the date of diagnosis if available
- 2. Code as unknown when there is no information available

Codes for Year

Code the four-digit year of diagnosis

Codes for Month

- 01 January
- 02 February
- 03 March
- 04 April
- 05 May 06 June
- 00 Julie 07 July
- 07 July 08 August
- 09 September
- 10 October
- 11 November
- 12 December

Codes for Day

Coding Instructions

- 1. Code the month, day and year the tumor was first diagnosed, clinically or microscopically, by a recognized medical practitioner.
 - a. When the first diagnosis includes reportable ambiguous terminology, record the date of that diagnosis.

Example: Area of microcalcifications in breast suspicious for malignancy on 2/13/14. Biopsy positive for ductal carcinoma on 2/28/14. The date of diagnosis 2/13/14.

2. When the **only** information available is a positive pathology or cytology report, code the date the biopsy was **done**, not the date the report was dictated or transcribed.

3. The first diagnosis of cancer may be **clinical** (i.e. based on clinical findings or physician's documentation)

Note: Do **not** change the date of diagnosis when a clinical diagnosis is subsequently confirmed by positive histology or cytology.

Example: On May 15, 2012, physician states that patient has lung cancer based on clinical findings. The patient has a positive biopsy of the lung in June 3, 2012. The date of diagnosis remains May 15, 2012

- 4. If **no information** about the date of diagnosis is available
 - a. Case transmitted to SEER
 - i. Use the date of admission as the date of diagnosis.
 - ii. In the absence of an admission date, code the date of first treatment as the date of diagnosis.
 - b. Case **not** transmitted to SEER.
 - i. Code month and year as unknown.
- 5. Positive **tumor markers** alone are **not** diagnostic of cancer. Use the date of clinical, histologic, or positive cytologic confirmation as the date of diagnosis.

Example 1: The patient has an elevated PSA and the physical examination is negative. The physician documents only that the patient is referred for a needle biopsy of the prostate. The biopsy is positive for adenocarcinoma. The date of diagnosis is the date of the biopsy (do not code the date of the PSA or the date the procedure was dictated or transcribed).

Example 2: The patient has an elevated PSA and the physical examination is negative. The physician documents that he/she suspects that the patient has prostatic cancer and is referring the patient for a needle biopsy. The needle biopsy is positive, confirming the physician's suspicion of cancer. The date of diagnosis is the date the physician documented that he/she **suspects** that the patient has prostatic cancer.

Note: Positive tumor markers alone are never used for case ascertainment.

6. Do not use cytology as a basis for diagnosis when **ambiguous terms** are used. **Ambiguous cytology** is **not** diagnostic of cancer. Use the date of clinical, histologic, or **positive** cytologic confirmation as the date of diagnosis.

Note 1: "Ambiguous" cytology means that the diagnosis is preceded by an <u>ambiguous term</u> such as apparently, appears, compatible with, etc.

Note 2: Do not use ambiguous cytology alone for case ascertainment.

- 7. Code the **earlier date** as the date of diagnosis when
 - a. A recognized medical practitioner says that, in **retrospect**, the patient had cancer at an earlier date.
 - b. The original slides are reviewed and the pathologist documents that cancer was present. Code the date of the original procedure as the diagnosis date.

Description of This Neoplasm

Example: The patient had an excision of a benign fibrous histiocytoma in January 2012. Six months later, a wide re-excision was positive for malignant fibrous histiocytoma. The physician documents in the chart that the previous tumor must have been malignant. Code the diagnosis date as January 2012.

Note: Do **not** back-date the diagnosis when

- a. The information on the previous tumor is unclear AND/OR
- b. There is **no review** of previous slides **AND/OR**
- c. There is **no physician's statement** that, in retrospect, the previous tumor was malignant.

Example: The patient had a total hysterectomy and a bilateral salpingo oophorectomy (BSO) in June 2012 with pathology diagnosis of papillary cystadenoma of the ovaries. In December 2012 the patient is diagnosed with widespread metastatic papillary cystadenocarcinoma. The slides from June 2012 are not reviewed and there is no physician statement saying the previous tumor was malignant. The date of diagnosis is December 2012.

- 8. Code the **date of death** as the date of diagnosis for autopsy-only cases.
- 9. Death certificate only (DCO) Cases
 - a. Use information on the death certificate to estimate the date of diagnosis.
 - b. If no information is available, record the date of death as the date of diagnosis.
- 10. Estimate the date of diagnosis if an exact date is not available. Use all information available to calculate the month and year of diagnosis.
 - a. Estimating the month
 - i. Code "spring" to April
 - ii. Code "summer" or "middle of the year" to July
 - iii. Code "fall" or "autumn" as October
 - iv. For "winter" try to determine whether the physician means the first of the year or the end of the year and code January or December as appropriate. If no determination can be made, use whatever information is available to calculate the month of diagnosis.
 - v. Code "early in year" to January
 - vi. Code "late in year" to December
 - vii. Use whatever information is available to calculate the month of diagnosis

Example 1: Admitted October 2012. History states that the patient was diagnosed 7 months ago. Subtract 7 from the month of admission and code date of diagnosis to March 2012

Example 2: Outpatient bone scan done January 2012 that states history of prostate cancer. The physician says the patient was diagnosed in 2012. Assume bone scan was part of initial work-up and code date of diagnosis to January 2012.

- viii. Code the month of admission when there is no basis for estimation
- ix. Leave month blank (or convert 99 to blank) if there is no basis for approximation

b. Estimating the year

- i. Code "a couple of years" to two years earlier.
- ii. Code "a few years" to three years earlier.
- iii. Use whatever information is available to calculate the year of diagnosis.
- iv. Code the year of admission when there is no basis for estimation.

Nursing Home and Hospice Residents (Not hospitalized for their cancer; no information other than nursing home or hospice records and/or death certificate)

- 1. Use the **best approximation** for the date of diagnosis when the only information available is that the patient **had cancer while in the nursing home** and it is unknown whether the patient had cancer when admitted.
- 2. Code the **date of admission** to the nursing home as the date of diagnosis when
 - a. The **only information available** is that the patient had cancer when admitted to the nursing home
 - b. The **only information available** is that the patient had cancer while in the nursing home, it is unknown whether the patient had cancer when admitted, and there is **no basis for approximation**.

Cases Diagnosed Before Birth

Record the actual date of diagnosis for diagnoses made in utero even though this date will precede the date of birth.

Example: Teratoma diagnosed via imaging at 37 weeks gestation (1/31/2012). Live birth by C-section 2/9/2012. Code the date of diagnosis as 01/31/2012.

DATE OF DIAGNOSIS FLAG

Item Length: 2 NAACCR Item #: 391 NAACCR Name: Date of Diagnosis Flag

Date flag fields were added beginning with diagnoses on or after 1/1/2010 as part of an initiative to standardize date fields. Date flags replace nondate information that had previously been transmitted in date fields. Coding 999999999 to indicate "unknown" is an example of nondate information that had been transmitted in date fields.

Code	Label	Definition
	Blank	A valid date value is provided in Date of Diagnosis
12	Unknown	A proper value is applicable but not known. (e.g., date of
		diagnosis is unknown) (Cases not transmitted to SEER only)

Coding Instructions

Case transmitted to SEER

1. Always leave blank. Date of Diagnosis will always have a full or partial date recorded.

Case not transmitted to SEER

- 1. Leave this item blank when Date of Diagnosis has a full or partial date recorded
- 2. Assign code 12 when the date of diagnosis cannot be determined

SEQUENCE NUMBER-CENTRAL

Item Length: 2 NAACCR Item #: 380 NAACCR Name: Sequence Number--Central

Sequence Number-Central describes the number and sequence of all reportable malignant, in situ, benign, and borderline primary tumors that occur over the lifetime of a patient.

This sequence number counts all tumors that were reportable in the year they were diagnosed even if the tumors occurred before the registry existed or before the registry participated in the SEER Program. See coding instructions below.

While the Sequence Number-Hospital (NAACCR Item #560) may be useful in determining Sequence Number-Central, the two sequence numbers do not have to be identical.

Rules for Determining Multiple Primaries and the reportability requirements for each diagnosis year should be used to decide which primaries need to be sequenced.

In Situ/Malignant as Federally Required based on Diagnosis Year

Code	Description
00	One primary in the patient's lifetime
01	First of two or more primaries
02	Second of two or more primaries
	 (Actual number of this primery)

- .. (Actual number of this primary)
- 59 Fifty-ninth or higher of fifty-nine or more primaries
- 99 Unspecified or unknown sequence number of Federally required in situ or malignant tumors. Sequence number 99 can be used if there is a malignant tumor and its sequence number is unknown. (If there is known to be more than one malignant tumor, then the tumors must be sequenced.)

Non-malignant Tumor as Federally Required based on Diagnosis Year

Code Description

- 60 Only one non-malignant tumor or central registry-defined neoplasm
- 61 First of two or more non-malignant tumors or central registry-defined neoplasms
- 62 Second of two or more non-malignant tumors or central registry-defined neoplasms
- 87 Twenty-seventh of twenty-seven
- 88 Unspecified or unknown sequence number of non-malignant tumor or central-registry defined neoplasms. (Sequence number 88 can be used if there is a non-malignant tumor and its sequence number is unknown. If there is known to be more than one non-malignant tumor, then the tumors must be sequenced.)
- 98 Cervix carcinoma in situ (CIS/CIN III, Diagnosis Years 1996-2002)

Type of Neoplasm/Sequence Number Series

Neoplasm	Sequence NumberCentral Numeric Series
All in situ (behavior code 2):	
Cervix CIS, CIN III (diagnosis year before 1996)	00-59
All other in situ including VIN III, VAIN III, AIN III	
Malignant (behavior code 3)	
Juvenile astrocytoma (diagnosis year 2001 and later)*	
Invasive following in situ – new primary defined by SEER	
Unspecified Federally required sequence number or unknown	99
Series 2: Non-malignant tumor as federally required	60-87,88
or state or regional registry defined **	
Examples:	
Non-malignant tumor/benign brain	60-87
Borderline ovarian (diagnosis year 2001+)	60-87
Other borderline/benign	60-87
Skin SCC/BCC	60-87
PIN III (diagnosis year 2001+)	60-87
Cervix CIS/CIN III (diagnosis year 2003+)	60-87
Unspecified non-malignant tumor or central registry-defined sequence number	88
Cervix CIS/CINIII (diagnosis year 1996-2002)	98

*Juvenile astrocytomas should be reported as 9421/3.

**Series 2 - The only tumors in Series 2 that SEER requires are benign/borderline intracranial and central nervous system (CNS) tumors.

Note: Conversion Guidance: The sequence numbers for neoplasms whose histologies were associated with behavior codes that changed from in situ/malignant to benign/borderline or vice versa during the conversion from ICD-O-2 to ICD-O-3 should not be changed.

In situ/Malignant Coding Instructions

- 1. Count all previous and current in situ/malignant reportable primaries which occur(red) over the lifetime of the patient, regardless of where he/she lived at diagnosis
 - a. A 'reportable' primary refers to the site/histology /behavior of the tumor and the years for which its reporting was required. Review of the reportability requirements in effect during the diagnosis year will be needed.
- 2. Code **00** when there is only **one** primary in the patient's lifetime
- 3. Sequence in situ/malignant primaries chronologically as 01 (first of one or more), 02 (second primary), 03 (third primary), and assign the appropriate sequence number to all primaries in the database when there are multiple primaries.

Example 1: The patient has a history of breast cancer in 1999. She has colon cancer in 2010. Assign sequence number 02 to the colon cancer and change the sequence number on the breast cancer from 00 to 01.

Example 2: In 1987, patient was diagnosed and treated for childhood leukemia in another state. After becoming a resident of a SEER region, the patient develops bladder cancer. The SEER registry assigns a sequence number of 02 to the bladder cancer. Document the first diagnosis in a text field.

a. Change the sequence number of the first primary from 00 to 01 when one patient has a primary with sequence 00 and then develops another reportable /2 or /3 primary

Exception: There are certain cancers that were only reportable for some years. The following are some examples (not a complete list):

- Borderline tumors of the ovary were reported for 1992-2000
- Reporting cervix in situ was required only before 1996 diagnosis year
- Refractory anemia is reported only for 2001+
- Myelodysplastic syndromes are reported only for 2001+
- Three newly reportable hematopoietic neoplasms as of 1/1/2010

Example 1: The patient was diagnosed with carcinoma in situ of the cervix in 1994. In 2012 the patient was diagnosed with lung cancer. The SEER registry assigns a sequence number of 01 to the carcinoma in situ of the cervix and a sequence number of 02 to the lung cancer.

Example 2: The patient was diagnosed with carcinoma in situ of the cervix in 2003. In 2012 the patient was diagnosed with lung cancer. The SEER registry is not required to collect the 2003 carcinoma in situ of the cervix and assigns a sequence number of 00 to the lung cancer.

- 4. Assign the lower sequence number to the primary with the worse prognosis when **two primaries** are diagnosed simultaneously
 - a. Base the prognosis decision on the primary site, histology, and extent of disease for each of the primaries.
 - b. If there is no difference in prognosis, the sequence numbers may be assigned in any order.

Non-Malignant Coding Instructions

- 1. Include all non-malignant primary tumors of the brain/CNS diagnosed in 2004 and forward regardless of where the patient lived at diagnosis
- 2. Assign sequence number **60** when there are no prior or subsequent non-malignant brain/CNS tumors
 - a. The sequence number is 60 when a patient has **no** prior reportable non-malignant tumors. If a tumor has a sequence 60 and there is another reportable non-malignant tumor, change the sequence number of the first primary is changed from 60 to 61.
- 3. Assign sequence numbers in chronological order according to the order in which they occur(red). Reportable benign and borderline brain tumors are restricted to primary site codes C700-C729, C751-C753 with behavior codes of /0 or /1.
 - a. Sequence multiple non-malignant tumors chronologically as 61 (first of two or more), 62 (second), etc.

- 4. Sequence a non-malignant brain/CNS tumor and a malignant brain/CNS tumor (2 or /3) independently when one patient has both. The non-malignant tumor has a sequence number of 60 and the malignant (/2 or /3) tumor has a sequence number of 00.
- 5. Sequence tumors other than those required by SEER in the 60-87 range when a registry chooses to collect non-reportable tumors. These non-reportable tumors are often referred to as "Reportable by agreement."

Example: Cervix in situ was diagnosed in 2003 and lung cancer was diagnosed in 2012. The cervix in situ, if collected by the registry, would be a sequence number 60 and the lung would be assigned a sequence number of 00.
PRIMARY SITE

Item Length: 4 NAACCR Item #: 400 NAACCR Name: Primary Site

For cases diagnosed 1-1-2001 and later, code the primary site using the topography codes listed in the *International Classification of Diseases for Oncology*, Third Edition (ICD-O-3).

The ICD-O-3 has topography codes listed in two sections; the first is a numeric listing by code number, the second is an alphabetic listing by anatomic site. The topography code consists of a lead character (the letter 'C') followed by two numeric digits, a decimal point, and then one additional numeric digit. The decimal point is not entered as part of the code.

Example: The pathology report says the primary site is the cardia of the stomach. The code C16.0 is found in the Alphabetic Index under either "stomach" or "cardia." Enter the code as C160; do not record the decimal point.

Coding Instructions for Solid Tumors

Site-Specific Topography Terms

See the Coding Guidelines for Topography and Morphology in the introduction of the ICD-O-3 for additional details

- 1. Unless otherwise instructed, use all available information to code the site.
- 2. Code the site in which the primary tumor originated, even if it extends onto/into an adjacent subsite.

Example 1: Final diagnosis is adenocarcinoma of the upper lobe of the right lung. Code the topography to lung, upper lobe (C341).

Example 2: The patient has a 4 cm tumor in the right breast. The tumor originated in the upper inner quadrant and extends into the lower inner quadrant. Code the primary site to upper inner quadrant of breast (C502).

Example 3: Patient has a right branchial cleft cyst; the pathology report identifies an adenocarcinoma arising in an ectopic focus of thyroid tissue within the branchial cleft cyst. Thyroidectomy pathology is negative. Code the primary site to branchial cleft (C104).

Example 4: The patient had a total hysterectomy with a bilateral salpingo-oophorectomy ten years ago for non-cancer reasons. She now has widespread cystadenocarcinoma in the peritoneum. Code the primary site to peritoneum, NOS (C482). (The chart may or may not state that the patient has extra-ovarian carcinoma.)

Example 5: Pathology report shows adenocarcinoma arising in a patch of endometriosis on the sigmoid colon. Code the primary site to sigmoid colon (C187), the site in which the cancer originated.

3. Code the last digit of the primary site code to '8' when a **single tumor overlaps** an adjacent **subsite**(s) of an organ and the point of origin cannot be determined.

Example: The patient has a 5cm tumor that involves the dorsal surface and anterior 2/3 of tongue. Code the primary site to C028 (overlapping lesion of tongue).

Description of This Neoplasm

4. Code the site of the **invasive** tumor when there is an invasive tumor and in situ tumor in different subsites of the same anatomic site.

Example 1: Patient has an invasive breast tumor in the upper-outer quadrant of the left breast and in situ tumor in multiple quadrants of the left breast. Code the primary site to C504 (upper outer quadrant of breast).

Example 2: Patient has in situ Paget disease of the right nipple and invasive duct carcinoma of the lower inner quadrant of the right breast. Code the primary site to C503 (lower inner quadrant).

5. Code the last digit of the primary site code to '9' for **single primaries**, when **multiple tumors arise** in **different subsites** of the same anatomic site and the point of origin cannot be determined.

Example 1: During a TURB, the physician describes multiple papillary tumors in the bladder neck (C675) and the lateral wall of the bladder (C672). Code the primary site as bladder, NOS (C679).

Example 2: Patient has an infiltrating duct tumor in the upper outer quadrant (C504) of the right breast and another infiltrating duct carcinoma in the lower inner (C503) quadrant of the right breast. Code the primary site as breast, NOS (C509).

- 6. Some histology/behavior terms in ICD-O-3 have a **related site code** in parentheses; for example: Hepatoma (C220).
 - a. Code the site as documented in the medical record and ignore the suggested ICD-O-3 code when a primary site is specified in the medical record.

Example: The pathology report says "infiltrating duct carcinoma of the head of the pancreas." The listing in ICD-O-3 is infiltrating duct carcinoma 8500/3 (C50_). Code the primary site to head of pancreas (C250), NOT to breast (C50_) as suggested by the ICD-O-3.

b. Use the site code suggested by ICD-O-3 when the primary site is the same as the site code suggested or the primary site is unknown

Example 1: The biopsy is positive for hepatoma, and no information is available about the primary site. Code the primary site to liver (C220) as suggested by ICD-O-3.

Example 2: An excision of the right axillary nodes reveals metastatic infiltrating duct carcinoma. The right breast is negative. The ICD-O-3 shows infiltrating duct carcinoma (8500) with a suggested site of breast (C50_). Code the primary site as breast, NOS (C509).

- 7. Code the primary site, not the metastatic site. If a tumor is metastatic and the primary site is unknown, code the primary site as unknown (C809).
- 8. See the site-specific Coding Guidelines in <u>Appendix C</u> for primary site coding guidelines for the following sites:

<u>Bladder</u>	Kaposi sarcoma
Breast	Lung
<u>Colon</u>	Rectosigmoid, rectum
Esophagus	

- 9. See below for primary site coding guidelines for Sarcoma.
- 10. Code C422 (Spleen) as the primary site for angiosarcoma of spleen with mets to bone marrow.
- 11. Gastrointestinal Stromal Tumors (GIST): Code the primary site to the location where the malignant GIST originated.
- 12. In the absence of any additional information, assign the codes listed for these primary sites

J J J	
Primary site	<u>Code</u>
Anal margin	C445
Angle of the stomach	C162
Book-leaf lesion (mouth)	C068
Colored / lipstick portion of upper lip	C000
Distal conus	C720
Edge of tongue	C021
Frontoparietal (brain)	C718
Gastric angular notch	C163
Infrahilar area of lung	C349
Leptomeninges	C709
Masticatory space	C069
Nail bed. thumb	C446
Pancreatobiliary	C269
Parapharyngeal space	C490
Perihilar bile duct	C240

- 13. When the medical record does not contain enough information to assign a primary site:
 - a. Consult a physician advisor to assign the site code.
 - b. Use the NOS category for the organ system or the Ill-Defined Sites (C760-C768) if the physician advisor cannot identify a primary site.
 - c. Code Unknown Primary Site (C809) if there is not enough information to assign an NOS or Ill-Defined Site category.

Sarcoma

The majority of sarcomas arise in mesenchymal or connective tissues that are located in the musculoskeletal system, which includes the fat, muscles, blood vessels, deep skin tissues, nerves, bones, and cartilage. The default code for sarcomas of unknown primary site is C499 rather than C809.

Sarcomas may also arise in the walls of hollow organs and in the viscera covering an organ. Code the primary site to the organ of origin.

Example: The pathology identifies a carcinosarcoma of the uterine corpus. Code the primary site to corpus uteri (C549).

Coding Instructions for Hematopoietic and Lymphoid Neoplasms (9590/3-9992/3)

See the <u>Hematopoietic Manual and Database</u> for instructions on coding the primary site for hematopoietic and lymphoid neoplasms.

LATERALITY

Item Length: 1 NAACCR Item #: 410 NAACCR Name: Laterality

Laterality describes the side of a paired organ or side of the body on which the reportable tumor originated. Determine whether laterality should be coded for each primary.

Starting with cases diagnosed January 1, 2004, and later, laterality is coded for select invasive, benign, and borderline primary intracranial and CNS tumors.

Code Description

- 0 Not a paired site
- 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 (effective with 1/1/2010 dx)
- 9 Paired site, but no information concerning laterality

Coding Instructions

- Assign code 0 when laterality is unknown for a death certificate only (DCO) case and the primary site is NOT C079-C081, C090-C091, C098-C099, C301, C310, C312, C341-C349, C384, C400-C403, C441-C443, C445-C447, C471-C472, C491-C492, C500-C509, C569, C570, C620-C629 C630-C631, C649, C659, C669, C690-C699, C700, C710-C714, C722-C725, C740-C749, or C754
- 2. Code laterality using codes 1-9 for all sites listed in the following table: Sites for Which Laterality Codes Must Be Recorded
 - a. Laterality **may** be coded for sites other than those required; for example, thyroid.
- 3. Code the side where the primary tumor **originated**
 - a. Assign code **3** if the laterality is not known but the tumor is confined to a single side of the paired organ.

Example: Pathology report: Patient has a 2 cm carcinoma in the upper pole of the kidney. Code laterality as 3 because there is documentation that the disease exists in only one kidney, but it is unknown if the disease originated in the right or left kidney.

- 4. Code **4** is seldom used EXCEPT for the following
 - i. Both ovaries involved simultaneously, single histology
 - ii. Diffuse bilateral lung nodules
 - iii. Bilateral retinoblastomas
 - iv. Bilateral Wilms tumors

Assign code 5 when the tumor originates in the midline of a site listed in 5.a.
 a. C700, C710-C714, C722-C725, C443, C445

Example 1: Patient has an excision of a melanoma located just above the umbilicus.

Example 2: Patient has a midline meningioma of the cerebral meninges.

- 6. Assign code **9** when
 - a. The neoplasm originated in a paired site and
 - 1. Laterality is unknown

AND

2. There is no statement that only one side of the paired organ is involved.

Example 1: Admitting history says patient was diagnosed with lung cancer based on positive sputum cytology. Patient is treated for painful bony metastases. There is no information about laterality in the diagnosis of this lung cancer.

Example 2: Widely metastatic ovarian carcinoma surgically debulked. Ovaries could not be identified in the specimen.

b. Laterality is unknown for a death certificate only (DCO) case with primary site C079-C081, C090-C091, C098-C099, C301, C310, C312, C341-C349, C384, C400-C403, C441-C443, C445-C447, C471-C472, C491-C492, C500-C509, C569, C570, C620-C629 C630-C631, C649, C659, C669, C690-C699, C700, C710-C714, C722-C725, C740-C749, or C754

ICD-O-3 Code	Site or Subsite
C079	Parotid gland
C080	Submandibular gland
C081	Sublingual gland
C090	Tonsillar fossa
C091	Tonsillar pillar
C098	Overlapping lesion of tonsil
C099	Tonsil, NOS
C300	Nasal cavity (excluding nasal cartilage, nasal septum)
C301	Middle ear
C310	Maxillary sinus
C312	Frontal sinus
C340	Main bronchus (excluding carina)
C341-C349	Lung
C384	Pleura

Sites for Which Laterality Codes Must Be Recorded

(Continued on next page)

ICD-O-3 Code	Site or Subsite
C400	Long bones of upper limb, scapula, and associated joints
C401	Short bones of upper limb and associated joints
C402	Long bones of lower limb and associated joints
C403	Short bones of lower limb and associated joints
C413	Rib, clavicle (excluding sternum)
C414	Pelvic bones (excluding sacrum, coccyx, symphysis pubis)
C441	Skin of the eyelid
C442	Skin of the external ear
C443	Skin of other and unspecific parts of the face
C445	Skin of the trunk
C446	Skin of upper limb and shoulder
C447	Skin of the lower limb and hip
C471	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C472	Peripheral nerves and autonomic nervous system of the lower limb and hip
C491	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C492	Connective, subcutaneous, and other soft tissues of the lower limb and hip
C500-C509	Breast
C569	Ovary
C570	Fallopian tube
C620-C629	Testis
C630	Epididymis
C631	Spermatic cord
C649	Kidney, NOS
C659	Renal pelvis
C669	Ureter
C690-C699	Eye and adnexa
C700	Cerebral meninges, NOS (Effective with cases diagnosed 1/1/2004)
C710	Cerebrum (Effective with cases diagnosed 1/1/2004)
C711	Frontal lobe (Effective with cases diagnosed 1/1/2004)
C712	Temporal lobe (Effective with cases diagnosed 1/1/2004)
C713	Parietal lobe (Effective with cases diagnosed 1/1/2004)
C714	Occipital lobe (Effective with cases diagnosed 1/1/2004)
C722	Olfactory nerve (Effective with cases diagnosed 1/1/2004)
C723	Optic nerve (Effective with cases diagnosed 1/1/2004)
C724	Acoustic nerve (Effective with cases diagnosed 1/1/2004)
C725	Cranial nerve, NOS (Effective with cases diagnosed 1/1/2004)
C740-C749	Adrenal gland
C754	Carotid body

Note: A laterality code of 1-4 or 9 **must** be assigned for the sites listed in the table above. Note that there is an effective date for assigning laterality for some of the sites. If the site is not listed on the table, code 0 may be assigned for laterality. Laterality **may** be coded for sites other than those required above. For example: Code 2 may be assigned for a tumor originating in the left lobe of thyroid.

DIAGNOSTIC CONFIRMATION

Item Length: 1 NAACCR Item #: 490 NAACCR Name: Diagnostic Confirmation

This data item records the best method used to confirm the presence of the cancer being reported. The best method could occur at any time throughout the entire course of the disease. It is not limited to the confirmation at the time of initial diagnosis.

Note: The codes and instructions for hematopoietic and lymphoid neoplasms are different from the codes for solid tumors. Codes and instructions for solid tumors follow. See page 72 for hematopoietic and lymphoid neoplasms.

Codes for Solid Tumors

Microscopically Confirmed

Code Description

- 1 Positive histology
- 2 Positive cytology
- 4 Positive microscopic confirmation, method not specified

Not Microscopically Confirmed

Code Description

- 5 Positive laboratory test/marker study
- 6 Direct visualization without microscopic confirmation
- 7 Radiology and other imaging techniques without microscopic confirmation
- 8 Clinical diagnosis only (other than 5, 6, or 7)

Confirmation Unknown

Code Description

9 Unknown whether or not microscopically confirmed; death certificate only

Coding Instructions for Solid Tumors

- 1. The codes are in **priority order**; code **1** has the **highest** priority. Always code the procedure with the lower numeric value when presence of cancer is confirmed with multiple diagnostic methods.
- 2. Change to a lower code, if at ANY TIME during the course of disease the patient has a diagnostic confirmation with a higher priority.

Example: Benign brain tumor diagnosed on MRI. Assign diagnostic confirmation code 7. Patient later becomes symptomatic and the tumor is surgically removed. Change diagnostic confirmation code to 1.

- 3. Assign code **1** when the microscopic diagnosis is based on
 - a. Tissue specimens from biopsy, surgery, autopsy or D&C
 - b. Bone marrow specimens (aspiration and biopsy)

- 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, or 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: 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 peritoneoscopy 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.

Example: CT diagnosis is possible lung cancer. Patient returns to the nursing home with a DNR order. Physician enters a diagnosis of lung cancer in the medical record. Code the diagnostic confirmation to 8: there is a physician's clinical diagnosis – clinical diagnosis made by the physician using the information available for the case.

- 10. Assign code 9
 - a. When it is unknown if the diagnosis was confirmed microscopically
 - b. For death certificate only (DCO) cases

Codes for Hematopoietic and Lymphoid Neoplasms (9590/3-9992/3)

Microscopically confirmed

Code Description

- 1 Positive histology
- 2 Positive cytology
- 3 Positive histology PLUS:
 - Positive immunophenotyping AND/OR
 - Positive genetic studies
 - (Effective for cases diagnosed 1/1/2010 and later)
 - Positive microscopic confirmation, method not specified
- (Continued on next page)

4

Description of This Neoplasm

Not Microscopically Confirmed

Code Description

- 5 Positive laboratory test/marker study
- 6 Direct visualization without microscopic confirmation
- 7 Radiology and other imaging techniques without microscopic confirmation
- 8 Clinical diagnosis only (other than 5, 6, or 7)

Confirmation Unknown

Code Description

9 Unknown whether or not microscopically confirmed; death certificate only

Coding Instructions for Hematopoietic and Lymphoid Neoplasms (9590/3-9992/3)

See the <u>Hematopoietic Manual and Database</u> for coding instructions.

MORPHOLOGY

Item Length: 5 NAACCR Item #: 521 NAACCR Name: Morph—Type&Behav ICD-O-3

This data item combines Histologic Type ICD-O-3 [NAACCR Item #522] with Behavior Code [NAACCR Item #523] for cases diagnosed after 1/1/2001. See the detailed instructions for data items Histologic Type ICD-O-3 (#522) and Behavior Code (#523) in this manual.

HISTOLOGIC TYPE ICD-O-3

Item Length: 4 NAACCR Item #: 522 NAACCR Name: Histologic Type ICD-O-3

The data item Histologic Type ICD-O-3 describes the microscopic composition of cells and/or tissue for a specific primary.

The 2007 Multiple Primary and Histology Coding Rules, the <u>Hematopoietic and Lymphoid Neoplasm</u> <u>Coding Manual</u>, the <u>Hematopoietic and Lymphoid Neoplasm Database</u>, and the International Classification of Diseases for Oncology, Third Edition (ICD-O-3) are the standard references for histology codes.

2014 ICD-O-3 Update

See the <u>NAACCR Guidelines for ICD-O-3 Update Implementation</u> for new terms and synonyms for existing ICD-O-3 histology codes.

Histology coding for Solid Tumors

Apply the general instructions and instructions for coding histologic type in the <u>2007Multiple Primary</u> <u>and Histology Coding Rules Manual</u>.

Apply the site-specific histology coding rules in the <u>2007Multiple Primary and Histology Coding Rules</u> <u>Manual</u>.

Site-specific histology coding rules cover the following:

- Head and neck C000-C148, C300-C329
- Colon C180-C189
- Lung C340-C349
- Melanoma C440-C449 with Histology 8720-8780
- Breast C500-C509
- Kidney C649
- Ureter/Renal pelvis/Bladder C659, C669, C670-C679, C680-C689
- Benign brain
 C700, C701, C709, C710-C719, C720-C725, C728, C729, C751-C753
 Malignant brain
 C700, C701, C709, C710-C719, C720-C725, C728, C729, C751-C753
 Other sites
 Excludes Head and Neck, Colon, Lung, Melanoma of Skin, Breast,
 - Kidney, Renal Pelvis, Ureter, Bladder, Brain

Histology Coding for Hematopoietic and Lymphatic Primaries

Apply the Histology Coding Rules in the <u>Hematopoietic Manual and Database</u>.

BEHAVIOR CODE

Item Length: 1 NAACCR Item #: 523 NAACCR Name: Behavior Code ICD-O-3

The data item Behavior Code describes the malignant potential of the tumor, ranging from /0 benign to /3 malignant (invasive).

Code Description

- 0 Benign (Reportable for intracranial and CNS sites only)
- 1 Uncertain whether benign or malignant, borderline malignancy, low malignant potential, and uncertain malignant potential (Reportable for intracranial and CNS sites only)
- 2 Carcinoma in situ; intraepithelial; noninfiltrating; noninvasive
- 3 Malignant, primary site (invasive)

Coding Instructions

Intracranial and CNS tumors

Intracranial and CNS tumors with behavior codes 0 (benign) and 1 (borderline malignancy) are reportable beginning with January 1, 2004 diagnoses.

Code the behavior from CT scan, Magnetic Resonance Imaging (MRI), or Positron Emission Tomography (PET) report when there is no tissue diagnosis (pathology or cytology report). Code the behavior listed on the scan. Do not use the WHO grade to code behavior.

Metastatic or Nonprimary Sites

Cases reported to SEER cannot have a metastatic (/6) behavior code. If the only pathologic specimen is from a **metastatic** site, code the appropriate histology code and the malignant behavior code (/3). The primary site and its metastatic site(s) have the same histology.

Code the behavior as malignant (/3) when malignant metastasis is present.

Example: GIST with lymph nodes positive for malignancy. Code the behavior as malignant (/3).

In situ

Clinical evidence alone cannot identify the behavior as in situ; a behavior code of /2 (in situ) must be based on pathologic examination.

In situ and Invasive

Code the behavior as malignant (/3) if any portion of the primary tumor is invasive no matter how limited; i.e. microinvasion.

Example: Pathology from mastectomy: Large mass composed of intraductal carcinoma with a single focus of invasion. Code the behavior as malignant (/3).

Re-code the behavior as malignant (/3) when metastases are attributed to a tumor originally thought to be in situ.

Example: Right colon biopsy reveals tubulovillous adenoma with microfocal carcinoma in situ; right hemicolectomy is negative for residual disease. Later core liver biopsy consistent with adenocarcinoma of gastrointestinal origin. Oncologist states most likely colon primary. Change the behavior code for the colon primary from /2 to /3.

ICD-O-3 Histology/Behavior Code Listing

Behavior is the fifth digit of the morphology code after the slash (/). The standard reference for coding behavior is the ICD-O-3. Pages 27 through 30 discuss behavior. The following general rules are found on pages 29-30.

- Usually a histologic term carries a clear indication of the likely behavior of the tumor, whether malignant or benign, and this is reflected in the behavior code assigned to it in the ICD-O.
- Although only a few histologic types of in situ neoplasms are actually listed in the ICD-O, the behavior code /2 could be attached to any histology code if an in situ form of the neoplasm is diagnosed.
- If the pathologist disagrees with the ICD-O behavior assignment in a particular case, code the behavior according to the pathologist's description of the behavior even if that histology/behavior combination is not listed in the ICD-O.

The pathologist has the final say on the behavior of the tumor. ICD-O-3 may have only one behavior code, in situ (/2) or malignant (/3), listed for a specific histology. If the pathology report describes the histology as in situ and the ICD-O-3 histology code is listed only with a malignant behavior code (/3), assign the in situ behavior code (/2). If the pathology report describes histology as malignant and the ICD-O-3 histology code is listed only with an in situ behavior code (/2), assign the malignant behavior code (/3). See the Morphology and Behavior Code Matrix discussion on page 29 in ICD-O-3.

Example: The pathology report says large cell carcinoma in situ. The ICD-O-3 lists large cell carcinoma only with a malignant behavior (8013/3). Code the histology and behavior as 8013/2 as specified by the pathologist.

Synonyms for in situ

AIN III (C211) Behavior code '2' Bowen disease (not reportable for C440-C449) Clark level I for melanoma (limited to epithelium) Confined to epithelium Hutchinson melanotic freckle, NOS (C44) Intracystic, non-infiltrating (carcinoma) Intraductal (carcinoma) Intraepidermal, NOS (carcinoma) Intraepithelial, NOS (carcinoma) Involvement up to, but not including the basement membrane Lentigo maligna (C44) LIN III (C320-C329) Lobular, noninfiltrating (C50_) (carcinoma) Noninfiltrating (carcinoma) Noninvasive (carcinoma) No stromal invasion/involvement

Papillary, noninfiltrating or intraductal (carcinoma) Precancerous melanosis (C44_) Queyrat erythroplasia (C60_) SIN III Stage 0 (except Paget's disease (8540/3) of breast and colon or rectal tumors confined to the lamina propria) VAIN III (C529) VIN III (C51_)

GRADE, DIFFERENTIATION OR CELL INDICATOR

Item Length: 1 NAACCR Item #: 440 NAACCR Name: Grade

Grade, Differentiation for solid tumors (Codes 1,2,3,4,9) and Cell Indicator for Lymphoid Neoplasms (Codes 5,6,7,8,9)

Note: These instructions pertain to the data item Grade, Differentiation or Cell Indicator.

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

Cell Indicator (Codes 5, 6, 7, 8) 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 cell type not determined, not stated, or not applicable.

Coding Grade for Hematopoietic and Lymphoid Neoplasms

- 1. Determine the histology based on the current <u>Hematopoietic and Lymphoid Neoplasm Manual</u> (PDF)
- 2. Determine the Cell Indicator by applying the "Grade of Tumor Rules" within the current <u>Hematopoietic and Lymphoid Neoplasm Manual</u> (PDF)

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 cell)	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 differentiated
 - b. Grade II, moderately differentiated
 - c. Grade III, poorly differentiated (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 grades may convert differently than other sites. These exceptions are noted in "Coding for Solid Tumors", #7-8 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 site 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 $(8020/\underline{34})$ Carcinoma, anaplastic $(8021/3\underline{4})$ Follicular adenocarcinoma, well differentiated $(8331/3\underline{1})$ Thymic carcinoma, well differentiated $(8585/3\underline{1})$ Sertoli-Leydig cell tumor, poorly differentiated $(8631/3\underline{3})$ Sertoli-Leydig cell tumor, poorly differentiated with heterologous elements $(8634/3\underline{3})$ Undifferentiated sarcoma $(8805/3\underline{4})$ Liposarcoma, well differentiated $(8851/3\underline{1})$ Seminoma, anaplastic $(9062/3\underline{4})$ Malignant teratoma, undifferentiated $(9082/3\underline{4})$ Malignant teratoma, intermediate type $(9083/3\underline{2})$ Intraosseous osteosarcoma, well differentiated $(9187/3\underline{1})$

Description of This Neoplasm

Oligodendroglioma, anaplastic $(9451/3\underline{4})$ Retinoblastoma, differentiated $(9511/3\underline{1})$ Retinoblastoma, undifferentiated $(9512/3\underline{4})$

- 4. In situ and/or combined in situ/invasive components:
 - a. If a grade is given for an in situ tumor, code it. Do NOT code grade for dysplasia such as high grade dysplasia.
 - b. 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 isn't clear whether it is a differentiation or nuclear grade and a 2-, 3-, or 4- grade system was used, code it.
 - e. Terminology (use Coding for Solid Tumors #8)
- 6. Use the information from the special grade systems first. If no special grade can be coded, continue with Coding for Solid Tumors #7-9.

Special grade systems 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 <u>Special Grade System Rules</u> section 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 Needle Core Biopsy/Transurethral Resection of Prostate (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 these tables to code grade for any other groups including WHO (CNS tumors), WHO/ISUP (bladder, renal pelvis), or FIGO (female gynecologic sites) grades.

- 7. 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	Intermediate grade	3	2
3/3	High grade	4	3

c. Four-grade system: Any four-grade system including Edmondson and 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

8. Terminology: use the 'Description' column or the 'Grade' column to code grade. Breast & Prostate use the same grade code with a few noted exceptions.

Description	Grade	Assigned Grade Code	Exception for Breast and Prostate Grade Code
Differentiated, NOS	Ι	1	
Well differentiated	Ι	1	
Only stated as 'Grade I'	Ι	1	
Fairly well differentiated	Π	2	
Intermediate differentiation	Π	2	
Low grade	I-II	2	1

(Continued on next page)

Description	Grade	Assigned Grade Code	Exception for Breast and Prostate Grade Code
Mid differentiated	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	Π	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 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	4	
Non-high grade		9	

- 9. If no description fits or grade is unknown prior to neoadjuvant therapy, code as a 9 (unknown).
 - a. Assign code 9 for death certificate only (DCO) cases when grade is unknown.

Special Grade Systems Rules

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

Use Bloom Richardson (BR) or Nottingham score/grade to code grade based on CSv2 site-specific factor 7 (SSF) as stated below. If your registry does not collect this SSF, use the description in the table below to determine grade. If you collect this SSF, codes 030-130 could be automatically converted into the grade field.

BR could also 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

- a. BR scores 3-9
- b. BR grade (low, intermediate, high)

BR score may be expressed as a range, 3-9. The score is based on three morphologic features: degree of tubule formation/histologic grade, mitotic activity, nuclear pleomorphism/nuclear grade of tumor cells. If a report uses words such as low, intermediate, or high rather than numbers, use the table below to code grade.

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.

Description	CSCode	GradeCode
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, Bloom-Richardson (BR) grade 1, score not given	110	1
Medium (Intermediate) Grade, BR grade 2, score not given	120	2
High Grade, BR grade 3, score not given	130	3

CS Site-Specific Factor Nottingham or Bloom-Richardson (BR) Score/Grade

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

The Fuhrman Nuclear Grade should be used to code grade for kidney parenchyma only based on CSv2 SSF 6 as stated below. Do not use for kidney renal pelvis. If your registry does not collect this SSF, use the description in the table to determine grade. If you collect this SSF, the information could be automatically converted into the grade field if it is coded 010-040. 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

SoftTissue (sites excluding lymphomas: soft tissue, heart, mediastinum, peritoneum, and retroperitoneum; for CS users: SoftTissue, HeartMediastinum, Peritoneum, Retroperitoneum schemas): Grade for Sarcomas

The Grade for Sarcomas should be used to code grade based on CSv2 SSF 1 as stated below. If your registry does not collect this SSF, use the description in the table to determine grade. If you collect this SSF, the information could be automatically converted into the grade field if it is coded 010-200. 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 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 (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 SSFs. If you collect these SSFs, the information could be converted into the grade field automatically.

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 patterns (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

Description of This Neoplasm

the information because it could refer to either a score or a 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.

Cleaser seere	li -			Description					
Gleason score	CS Code Grade Code AJ		AJCC 7th	SEER 2003-2013	AJCC 6th	SEER prior 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	G2	G2	G2			
б	006	1	G1	G2	G2	G2			
7	007	2	G2	G3	G3	G2			
8	008	3	G3	G3	G3	G3			
9	009	3	G3	G3	G3	G3			
10	010	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 in order to have the grade field in sync with AJCC 7th ed. 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 field (SSF 6) and then it was split into two fields in CSv2 based on the tissue used for the test: needle biopsy/TURP (SSF 8) and prostatectomy/autopsy (SSF 10). 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 analyses this recode could be based on the CS SSFs and the original grade code.

Computer algorithm to derive grade for prostate based on SSF 8 and SSF 10: if SSF 8 or SSF 10 has known values for Gleason's, the information could be used to automatically derive the grade field.

SSE 9 Code		SSF 10 Grade Code										
SSF 8 Code	002	003	004	005	006	007	008	009	010	988	998	999
002	1	1	1	1	1	2	3	3	3	*	1	1
003	1	1	1	1	1	2	3	3	3	*	1	1
004	1	1	1	1	1	2	3	3	3	*	1	1
005	1	1	1	1	1	2	3	3	3	*	1	1

(Continued on next page)

		SSF 10 Grade Code											
SSF 8 Code	002	003	004	005	006	007	008	009	010	988	998	999	
006	1	1	1	1	1	2	3	3	3	*	1	1	
007	2	2	2	2	2	2	3	3	3	*	2	2	
008	3	3	3	3	3	3	3	3	3	*	3	3	
009	3	3	3	3	3	3	3	3	3	*	3	3	
010	3	3	3	3	3	3	3	3	3	*	3	3	
988	*	*	*	*	*	*	*	*	*	*	*	*	
998	1	1	1	1	1	2	3	3	3	*	*	*	
999	1	1	1	1	1	2	3	3	3	*	*	*	

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* Grade can't be automatically calculated based on SSF 8 and SSF 10; Go to Step 7

ICD-O-2 CONVERSION FLAG

Item Length: 1 NAACCR Item #: 1980 NAACCR Name: ICD-O-2 Conversion Flag

For cases diagnosed 2001 and forward, this computer-generated code reflects how the conversion of site and morphology codes from ICD-O-3 to ICD-O-2 was accomplished. The original ICD-O-3 code is retained.

Code Description

- 5 Morphology converted from ICD-O-3 to ICD-O-2 without review
- 6 Morphology converted from ICD-O-3 to ICD-O-2 with review

Blank Not converted

ICD-O-3 CONVERSION FLAG

Item Length: 1 NAACCR Item #: 2116 NAACCR Name: ICD-O-3 Conversion Flag

This is a computer-generated code specifying how the conversion of site and morphology codes from ICD-O-2 to ICD-O-3 was accomplished.

Code Description

- 0 Morphology (Morph--Type&Behav ICD-O-3) originally coded in ICD-O-3
- 1 Morphology (Morph--Type&Behav ICD-O-3) converted from (Morph--Type&Behav ICD-O-2) without review
- 3 Morphology (Morph--Type&Behav ICD-O-3) converted from (Morph--Type&Behav ICD-O-2) with review
- Blank Not converted

Code **0** is assigned for death certificate only (DCO) cases

Leave blank for cases coded in prior ICD-O version and not converted to ICD-O-3

SEER SUMMARY STAGE 1977

Item Length: 1 NAACCR Item #: 760 NAACCR Name: SEER SUMMARY STAGE 1977

This data item is required only for SEER registries that elect to have SEER submit their data to NAACCR. Tumors diagnosed before January 1, 2001 should be assigned a summary stage according to *SEER Summary Staging Guide*.

SEER Summary Stage 1977 is limited to information available within 2 months of the date of diagnosis.

Note: See also the data item Derived SEER Summary Stage 1977 [NAACCR Item #3010] for the value of SEER Summary Stage 1977 as generated by the Collaborative Staging algorithm.

Data may be submitted using either manually entered SEER Summary Stage 1977 code or a Collaborative Stage-generated code.

Code Description

- 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

SEER SUMMARY STAGE 2000

Item Length: 1 NAACCR Item #: 759 NAACCR Name: SEER SUMMARY STAGE 2000

This data item is required only for SEER registries that elect to have SEER submit their data to NAACCR. Tumors diagnosed January 1, 2001, or after should be assigned a summary stage according to *SEER Summary Staging Manual 2000*.

Summary Stage 2000 should include all information available through completion of surgery(ies) in the first course of treatment or within 4 months of diagnosis in the absence of disease progression, whichever is longer.

Note: See also the data item Derived SS2000 [NAACCR Item #3020] for the value of SEER Summary Stage 2000 as generated by the Collaborative Staging algorithm.

Data may be submitted using either manually entered SEER Summary Stage 2000 code or Collaborative Stage - generated code.

Code Description

- 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

SECTION V COLLABORATIVE STAGE DATA COLLECTION SYSTEM

SEER requirements: Collaborative Stage Release 02.05 is required for all cases as of 1/1/2014. CSv02.05 includes a new database which contains information on which CS fields are required by each of the standard setting organizations. The database contains the requirements for all CSv2 releases: http://seer.cancer.gov/csreqstatus/index.html

Press 'Get Started', the green button on the right, to start the program. Then press the "+" in the middle of the page to generate a CS requirements report/table for SEER and/or CoC, NPCR, CCCR which can also be downloaded in Excel or exported to CSV. From the report, access the written 'Instructions for Implementation' (far left) or directly access through http://seer.cancer.gov/csreqstatus/pdf/0205/seer.pdf

The main web page for CS is <u>https://cancerstaging.org/cstage/Pages/default.aspx</u>. There is a Registrar Information Page for CSv02.05 (<u>https://cancerstaging.org/cstage/registrars/Pages/version0204.aspx</u>) which contains links to manuals, release notes, etc. The manuals were released in html help format and not PDF for v02.05. The following may be of interest to cancer registrars.

- Coding manual: <u>https://cancerstaging.org/cstage/coding/Pages/Version-02.05.aspx</u> .
- Site Specific Schema: <u>https://cancerstaging.org/cstage/schema/Pages/version0205.aspx</u>
- Implementation Guide: <u>https://cancerstaging.org/cstage/software/Documents/Implementation%20documents%20CSV020</u> <u>5%20Revised 1 14 14 forPDF.pdf</u>
- Release Notes: <u>https://cancerstaging.org/cstage/coding/Documents/ReleaseNotesv0205.pdf</u>
- CAnswer forum: <u>http://cancerbulletin.facs.org/forums/</u>

SECTION VI FIRST COURSE OF THERAPY

For all diseases (including benign and borderline malignancy intracranial & CNS tumors) <u>except</u> leukemia and hematopoietic diseases

Definitions

Active Surveillance: See Watchful Waiting

Cancer tissue: Proliferating malignant cells; an area of active production of malignant cells. Cancer tissue includes primary tumor and metastatic sites where cancer tissue grows. Cells in fluid such as pleural fluid or ascitic fluid are not "cancer tissue" because the cells do not grow and proliferate in the fluid.

Concurrent therapy: A treatment that is given at the same time as another. *Example*: chemotherapy and radiation therapy

Disease recurrence: For solid tumors, see the 2007 <u>Multiple Primary and Histology Coding Rules</u> <u>Manual</u> and for hematopoietic and lymphoid neoplasms see the <u>Hematopoietic Manual</u> and the <u>hematopoietic database</u> to determine disease recurrence.

First course of therapy: All treatments administered to the patient after the original diagnosis of cancer in an attempt to destroy or modify the cancer tissue. See below for detailed information on timing and treatment plan documentation requirements.

Neoadjuvant therapy: Systemic therapy or radiation therapy given prior to surgery to shrink the tumor.

Palliative treatment: The World Health Organization describes palliative care as treatment that improves the quality of life by preventing or relieving suffering. Palliative therapy is also part of the first course of therapy when the treatment destroys or modifies cancer tissue. Palliative therapy may also be part of the first course of therapy if it destroys proliferating cancer tissue.

Example: The patient was diagnosed with stage IV cancer of the prostate with painful boney metastases. The patient starts radiation treatment intended to shrink the tumor in the bone and relieve the intense pain. The radiation treatments are palliative because they relieve the bone pain; the radiation is also first course of therapy because it destroys proliferating cancer tissue.

Surgical Procedure: Any surgical procedure coded in the fields Surgery of Primary Site, Scope of Regional Lymph Node Surgery, or Surgery of Other Regional or Distant Sites.

Treatment: Procedures that destroy or modify primary (primary site) or secondary (metastatic) cancer tissue.

Treatment failure: The treatment modalities did not destroy or modify the cancer cells. The tumor either became larger (disease progression) or stayed the same size after treatment.

Watchful waiting: A treatment option for patients with slow, indolent diseases, such as prostate cancer. The physician closely monitors the patient and delays treatment until the patient becomes symptomatic or exhibits other signs of disease progression, such as rising PSA. Also referred to as Active Surveillance.

Treatment Timing

Use the following instructions in hierarchical order.

1. Use the **documented** first course of therapy (treatment plan) from the medical record. First course of therapy ends when the treatment plan is **completed**. (No matter how long it takes to complete the plan).

Example 1: The first course of therapy for a breast cancer patient is surgery, chemotherapy, and radiation. The patient completes surgery and chemotherapy. Bone metastases are diagnosed before the radiation was started. The physician says that the patient will start the radiation treatment as planned. Code the radiation as first course of therapy since it was given in agreement with the treatment plan and the treatment plan was not changed as a result of disease progression.

Example 2: Hormonal therapy (e.g. Tamoxifen) after surgery, radiation, and chemotherapy. First course ends when hormonal therapy is completed, even if this takes years, unless there is documentation of disease progression, recurrence, or treatment failure (see #2 below).

2. First course of therapy ends when there is documentation of disease progression, recurrence, or treatment failure.

Example 1: The documented treatment plan for sarcoma is pre-operative (neoadjuvant) chemotherapy, followed by surgery, then radiation or chemotherapy depending upon the pathology from surgery. Scans show the tumor is not regressing after pre-operative chemotherapy. Plans for surgery are cancelled, radiation was not administered, and a different type of chemotherapy is started. Code only the first chemotherapy as first course. Do not code the second chemotherapy as first course because it is administered after documented treatment failure.

Example 2: The documented treatment plan for a patient with locally advanced breast cancer includes mastectomy, chemotherapy, radiation to the chest wall and axilla, and hormone therapy. The patient has the mastectomy and completes chemotherapy. During the course of radiation therapy, the liver enzymes are rising. Workup proves liver metastases. The physician stops the radiation and does not continue with hormone therapy (the treatment plan is altered). The patient is placed on a clinical trial to receive Hercepton for metastatic breast cancer. Code the mastectomy, chemotherapy, and radiation as first course of treatment. Do not code the Hercepton as first course of therapy because it is administered after documented disease progression.

3. When there is **no documentation** of a treatment plan or progression, recurrence or a treatment failure, first course of therapy ends one year after the date of diagnosis. Any treatment given after one year is second course of therapy in the absence of a documented treatment plan or a standard of treatment.

Coding Instructions

- 1. Code all treatment fields to 00 (Not done) when physician decides to do **watchful waiting/active surveillance** for a patient who has prostate cancer. The first course of therapy is no treatment. When the disease progresses or the patient becomes symptomatic, any prescribed treatment is second course.
- 2. Code the treatment as first course of therapy if the patient refuses treatment but changes his/her mind and the prescribed treatment is implemented less than one year from the date of diagnosis, AND there is no evidence of disease progression.

- 3. The first course of therapy is **no treatment** when the patient **refuses** treatment. Code the treatment fields to Refused.
 - a. Keep the refused codes even if the patient later changes his/her mind and decides to have the prescribed treatment
 - i. more than one year after diagnosis
 - OR
 - ii. when there is evidence of disease progression before treatment is implemented
- 4. Code all treatment that was started and administered, whether completed or not.

Example: The patient completed only the first dose of a planned 30-day chemotherapy regimen. Code chemotherapy as administered.

5. Code the treatment on both abstracts when a patient has multiple primaries and the treatment given for one primary also affects/treats the other primary.

Example 1: The patient had prostate and bladder cancer. The bladder cancer was treated with a TURB. The prostate cancer was treated with radiation to the prostate and pelvis. The pelvic radiation includes the regional lymph nodes for the bladder. Code the radiation as treatment for both the bladder and prostate cases.

Example 2: The patient had a hysterectomy for ovarian cancer. The pathology report reveals a previously unsuspected microinvasive cancer of the cervix. Code the hysterectomy as surgical treatment for both the ovarian and cervix primaries.

6. Code the treatments only for the site that is affected when a patient has multiple primaries and the treatment affects only one of the primaries.

Example: The patient has colon and tonsil primaries. The colon cancer is treated with a hemicolectomy and the tonsil primary is treated with radiation to the tonsil and regional nodes. Do not code the radiation for the colon. Do not code the hemicolectomy for the tonsil.

7. Code the treatment given as first course even if the correct primary is identified later when a patient is diagnosed with an unknown primary.

Example: The patient is diagnosed with metastatic carcinoma, unknown primary site. After a full course of chemotherapy, the primary site is identified as prostate. Code the chemotherapy as first course of treatment.

a. Do not code treatment added to the plan when the primary site is discovered as first course. This is a change in the treatment plan.

Example: The patient is diagnosed with metastatic carcinoma, unknown primary site. After a full course of chemotherapy, the primary site is identified as prostate. Hormonal treatment is started. Code the chemotherapy as first course of treatment. The hormone therapy is second course because it was not part of the initial treatment plan.

First Course for Leukemia and Hematopoietic Diseases

Leukemia

Leukemia is grouped or typed by how quickly the disease develops and worsens. **Chronic** leukemia gets worse **slowly**; **acute** leukemia, **quickly**.

Leukemias are also grouped by the **type** of **white blood cell** that is affected: **lymphoid** leukemia and **myeloid** leukemia.

Definitions

Consolidation: Repetitive cycles of chemotherapy given immediately after the remission.

Induction: Initial intensive course of chemotherapy.

Maintenance: Chemotherapy given for a period of months or years to maintain remission.

Remission: The bone marrow shows normal cellular characteristics (is normocellular), with less than 5% blasts, no signs or symptoms of the disease, no signs or symptoms of central nervous system leukemia or other extramedullary infiltration, and all of the following laboratory values within normal limits: white blood cell count and differential, hematocrit/hemoglobin level, and platelet count.

Treatment for leukemia is divided into three phases

- 1. Remission induction (chemotherapy and/or biologic response modifiers)
- 2. CNS prophylaxis or consolidation (irradiation to brain, chemotherapy)
- 3. Remission continuation or maintenance (chemotherapy or bone marrow transplants)

Coding First Course of Therapy for Leukemia and Hematopoietic Diseases

- 1. If a patient has a partial or complete remission during the first course of therapy
 - a. Code all therapy that is "remission-inducing" as first course
 - b. Code all therapy that is "consolidation" as first course
 - c. Code all therapy that is "remission-maintaining" as first course

Note: Do not record treatment given after the patient relapses (is no longer in remission)

- 2. Some patients do not have a remission. A change in the treatment plan indicates a failure to induce remission. If the patient does not have a remission:
 - a. Record the treatment given in an attempt to induce a remission
 - b. Do not record treatment administered after the change in treatment plan

Other Hematopoietic

Do <u>not</u> collect blood transfusions (whole blood, platelets, etc.) as treatment Collect phlebotomy for polycythemia vera ONLY. Collect blood-thinners and/or anti-clotting agents for 9740/3 Mast cell sarcoma 9741/3 Systemic mastocytosis 9742/3 Mast cell leukemia 9875/3 Chronic myelogenous leukemia BCR/ABL1 positive 9950/3 Polycythemia vera 9961/3 Primary myelofibrosis 9962/3 Essential thrombocythemia 9963/3 Chronic neutrophilic leukemia 9975/3 Myelodysplastic/myeloproliferative neoplasm, unclassifiable

Record all treatments as described above.

Follow the guidelines in the <u>Hematopoietic Manual and Database</u> to identify treatments.

DATE THERAPY INITIATED

Item Length: 8 NAACCR Item #: 1260 NAACCR Name: Date Initial RX SEER

Record the start date of the first course of therapy. This is the start date of any type of treatment for this tumor; surgery, chemotherapy, radiation therapy, or other types of therapy. Treatment may be given in a hospital or non-hospital setting.

Date Therapy Initiated must be transmitted in the YYYYMMDD format. Date Therapy Initiated may be recorded in the transmission format, or recorded in the traditional format (MMDDYYYY) and converted electronically to the transmission format.

Transmitting Dates

Transmit date fields in the year, month, day format (YYYYMMDD). Leave the year, month and/or day blank when they cannot be estimated or are unknown.

Common Formats

YYYYMMDD	Complete date is known
YYYYMM	Year and month are known/estimated; day is unknown
YYYY	Year is known/estimated; month and day cannot be estimated or are unknown
Blank	Year, month, and day cannot be estimated or are unknown

Transmit Instructions

- 1. Transmit date fields in the year, month, day format (YYYYMMDD).
- 2. Leave the year, month and/or day blank when they cannot be estimated or are unknown.
 - a. Leave the year, month and day blank for death certificate only (DCO) cases when the date of therapy is unknown and cannot be estimated
- 3. Most SEER registries collect the month, day, and year for date therapy initiated. When the full date (YYYYMMDD) is transmitted, the seventh and eighth digits (day) will be deleted when the data are received by SEER.

Codes for Year

Code the four-digit year of date therapy initiated

Codes for Month

Code Description

- 01 January
- 02 February
- 03 March
- 04 April
- 05 May
- 06 June 07 July
- 07 July 08 August

Code Description

- 09 September
- 10 October
- 11 November
- 12 December

Codes for Day

Code	
01	
02	
03	
 31	

Coding Instructions

- 1. Code the **start date** of the first therapy. The first therapy may be recorded in the following data items:
 - Surgery of Primary Site
 - Scope of Regional Lymph Node Surgery
 - Surgical Procedure of Other Sites
 - Radiation Therapy
 - Chemotherapy
 - Hormone Therapy
 - Code the date that the prescription was written
 - Immunotherapy
 - Hematologic Transplant and Endocrine Procedures
 - Other Therapy
- 2. Code the date of **excisional biopsy** as the date therapy initiated when it is the first treatment. Code the date of a biopsy documented as incisional if further surgery reveals no residual or only microscopic residual.

Example: Breast core needle biopsy with diagnosis of infiltrating duct carcinoma; subsequent reexcision with no residual tumor noted. Code the date of the needle biopsy as the excisional biopsy date.

3. Record the actual date of treatment when treatment is performed prior to birth. Record the type of treatment in the appropriate data item, for example, Surgery of Primary Site, or Radiation.

Example: 1-3-2012 fetus diagnosed with malignant teratoma. The teratoma is resected in utero 1-10-2012. Live birth on 4-18-2012. Code the date therapy initiated as January 10, 2012.

- 4. Code the **date** unproven therapy was initiated as the date therapy initiated.
- 5. Code the date of admission to the hospital for inpatient or outpatient treatment when the exact date of the first treatment is **unknown**.

- 6. Leave blank
 - a. When no treatment is given during the first course
 - b. When Treatment Status is coded 2, Active surveillance (watchful waiting)
 - c. When it is known the patient had first course therapy, but it is impossible to estimate the date
 - d. When it is unknown whether the patient had treatment
 - e. For death certificate only (DCO) cases when the date is unknown and cannot be estimated
 - f. Autopsy only cases

Estimating Dates

Estimating the **month**

- 1. Code "spring of" to April.
- 2. Code "summer" or "middle of the year" to July.
- 3. Code "fall" or "autumn" as October.
- 4. For "winter of," try to determine whether the physician means the first of the year or the end of the year and code January or December as appropriate. If no determination can be made, use whatever information is available to calculate the month.
- 5. Code "early in year" to January.
- 6. Code "late in year" to December.
- 7. Use whatever information is available to calculate the month.
- 8. Code the month of admission when there is no basis for estimation.
- 9. Leave month blank if there is no basis for approximation.

Estimating the year

- 1. Code "a couple of years" to two years earlier.
- 2. Code "a few years" to three years earlier.
- 3. Use whatever information is available to calculate the year.
- 4. Code the year of admission when there is no basis for estimation.
DATE THERAPY INITIATED FLAG

Item Length: 2 NAACCR Item #: 1261 NAACCR Name: Date Initial RX SEER Flag

Date flag fields were added beginning with diagnoses on or after 1/1/2010 as part of an initiative to standardize date fields. Date flags replace nondate information that had previously been transmitted in date fields. Coding 999999999 to indicate "unknown" is an example of nondate information that was previously transmitted in date fields.

Code	Label	Definition
	Blank	A valid date value is provided in Date of Initial Treatment
10	No information	No information whatsoever can be inferred
11	Not applicable	No proper value is applicable in this context
12	Unknown	A proper value is applicable but not known

Coding Instructions

- 1. Leave this item blank if Date of Initial Treatment has a full or partial date recorded
- 2. Assign code 10 when it is unknown whether any treatment was administered
 - a. For death certificate only (DCO) cases
- 3. Assign code **11** when no treatment is given during the first course, the first course is active surveillance (watchful waiting) or the initial diagnosis was at autopsy
- 4. Assign code **12** if the Date of Initial Treatment cannot be determined, and the patient did receive first course treatment

TREATMENT STATUS

Item Length: 1 NAACCR Item #: 1285 NAACCR Name: RX Summ--Treatment Status

Treatment Status documents active surveillance (watchful waiting). Before this data item was implemented, active surveillance or watchful waiting was deduced from the codes in each of the treatment fields.

This data item is effective for cases diagnosed January 1, 2010 and later.

Code	Label	Definition
0	No treatment given	The patient did not receive any treatment
1	Treatment given	The patient received treatment
2	Active surveillance (watchful waiting)	The patient was under active surveillance or watchful waiting during the first course of treatment
9	Unknown if treatment given	It is unknown whether or not the patient received treatment

Coding Instructions

- 1. Assign code 1 when the patient receives treatment collected in any of the following fields
 - a. Surgery of primary site
 - b. Scope of regional lymph node surgery
 - c. Surgical procedure of other site
 - d. Radiation
 - e. Chemotherapy
 - f. Hormone therapy
 - g. Immunotherapy
 - h. Hematologic transplant and endocrine procedures
 - i. Other therapy
- 2. Assign code 9 for death certificate only (DCO) cases
- 3. Leave blank for cases diagnosed prior to January 1, 2010

SURGERY OF PRIMARY SITE

Item Length: 2 NAACCR Item #: 1290 NAACCR Name: RX Summ--Surg Prim Site

Surgery of Primary Site describes a surgical procedure that removes and/or destroys tissue of the primary site that is performed as part of the initial diagnostic and staging work-up or first course of therapy. Site-specific surgery codes are included under Appendix C of this manual.

General Coding Structure

(See Appendix C for site-specific codes)

Code Description

- 00 None; no surgical procedure of primary site; diagnosed at autopsy only
- 10-19 Site-specific codes. Tumor destruction; no pathologic specimen or unknown whether there is a pathologic specimen
- 20-80 Site-specific codes. Resection; pathologic specimen
- 90 Surgery, NOS. A surgical procedure to the primary site was done, but no information on the type of surgical procedure is provided.
- 98 Special codes for hematopoietic, reticuloendothelial, immunoproliferative, myeloproliferative diseases; ill-defined sites; and unknown primaries (See site-specific codes for the sites and histologies), except death certificate only
- 99 Unknown if surgery performed

Coding Instructions

- 1. Code **00** if **no surgery** is performed on the primary site or if case was diagnosed at **autopsy**; excludes all sites and histologies that would be coded as 98.
- 2. Use the site-specific coding scheme corresponding to the primary site or histology.
- 3. Code the most **invasive**, **extensive**, **or definitive** surgery if the patient has multiple surgical procedures of the primary site even if there is no residual tumor found in the pathologic specimen from the more extensive surgery.

Example: Patient has a needle biopsy of prostate that is positive for adenocarcinoma. The patient chooses to have a radical prostatectomy. The pathologic examination of the prostatectomy specimen shows no residual tumor. Code the radical prostatectomy.

- 4. Code an **excisional biopsy**, even when documented as **incisional**, when:
 - a. All disease is removed (margins free) OR
 - b. All gross disease is removed and there is only microscopic residual at the margin

Note 1: Do not code an excisional biopsy when there is macroscopic residual disease.

Note 2: Shave or punch biopsies are most often diagnostic. Code as a surgical procedure **only** when the entire tumor is removed and margins are clear.

5. Code total **removal of the primary site** when a previous procedure resected a portion of the site and the current surgery removed the rest of the organ. The previous procedure may have been cancer directed or non-cancer directed surgery.

First Course of Therapy

6. Code the removal of regional or distant **tissue/organs** when they are resected in continuity with the primary site (**en bloc**) and that regional organ/tissue is listed in the Surgery of Primary Site codes. Specimens from an en bloc resection may be submitted to pathology separately.

Example: Code an en bloc removal when the patient has a hysterectomy and an omentectomy.

- 7. Code surgery for extra-lymphatic lymphoma using the **site-specific** surgery coding scheme for the primary site. Do **not** use the lymph node scheme.
- 8. Code **80** or **90** only when there is no specific information.
- 9. Code **98** for the following sites unless the case is death certificate only:
 - a. Hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease
 - i. Primary sites: C420, C421, C423, or C424 (all histologies)
 - ii. Histologies: 9727, 9733, 9740-9742, 9764-9809, 9832, 9840-9931, 9945-9946, 9950-9967, 9975-9992 (all sites)
 - b. Unknown or ill-defined sites (C760-C768, C809) (all histologies)
- 10. Code 99 for death certificate only (DCO) cases

SCOPE OF REGIONAL LYMPH NODE SURGERY

Item Length: 1 NAACCR Item #: 1292 NAACCR Name: RX Summ--Scope Reg LN Sur

Scope of Regional Lymph Node Surgery describes the procedure of removal, biopsy, or aspiration of **regional** lymph nodes performed during the initial work-up or first course of therapy.

Instructions for coding **sentinel lymph node biopsies** (SLNBx) have been clarified for 2012 and later diagnoses.

Additional instructions for breast primaries (C500-C509) follow the general coding instructions.

Code Description

- 0 No regional lymph nodes removed or aspirated; diagnosed at autopsy.
- 1 Biopsy or aspiration of regional lymph node, NOS
- 2 Sentinel lymph node biopsy [only]
- 3 Number of regional lymph nodes removed unknown, not stated; regional lymph nodes removed, NOS
- 4 1 to 3 regional lymph nodes removed
- 5 4 or more regional lymph nodes removed
- 6 Sentinel node biopsy and code 3, 4, or 5 at same time or timing not noted
- 7 Sentinel node biopsy and code 3, 4, or 5 at different times
- 9 Unknown or not applicable

Coding Instructions

- 1. Use the **operative report** as the primary source document to determine whether the operative procedure was a SLNBx, or a more extensive dissection of regional lymph nodes, or a combination of both SLNBx and regional lymph node dissection. The operative report will designate the surgeon's planned procedure as well as a description of the procedure that was actually performed. 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 regional lymph node dissection or a combination of these two procedures. Do **not** use the number of lymph nodes removed and pathologically examined as the sole means of distinguishing between a SLNBx and a regional lymph node dissection.
- 2. Code regional lymph node procedures in this data item. Record distant lymph node removal in Surgical Procedure of Other Site.
 - a. Include lymph nodes that are coded as regional in the Collaborative Stage Data Collection System.

Example: Melanoma with no primary skin site identified. One axillary lymph node removed revealing melanoma. No other tumors found. The axillary lymph node is coded as regional for CS lymph node coding. Include this lymph node in Scope of Regional LN Surgery

3. Record all surgical procedures that remove, biopsy, or aspirate regional lymph node(s) whether or not there were any surgical procedures of the primary site. The regional lymph node surgical procedure(s) may be done to **diagnose** cancer, **stage** the disease, or as a part of the initial **treatment**.

Example: Patient has a sentinel node biopsy of a single lymph node. Assign code 2 (Sentinel lymph node biopsy [only]).

- 4. Include lymph nodes obtained or biopsied during any procedure within the first course of treatment. A separate lymph node surgery is not required.
 - a. Code the removal of intra-organ lymph nodes in Scope of Regional LN Surgery.

Example: Local excision of breast cancer. Specimen includes an intra-mammary lymph node. Assign code 4 (1 to 3 regional lymph nodes removed).

5. Add the number of all of the lymph nodes removed during each surgical procedure performed as part of the first course of treatment. The Scope of Regional Lymph Node field is **cumulative**.

Example: Patient has excision of a positive cervical node. The pathology report from a subsequent node dissection identifies three cervical nodes. Assign code 5 (4 or more regional lymph nodes removed).

- a. Lymph node aspirations
 - i. Do not double-count when a regional lymph node is aspirated and that node is in the resection field. Do not add the aspirated node to the total number.
 - ii. Count as an additional node when a regional lymph node is aspirated and that node is NOT in the resection field. Add it to the total number.
- 6. Code the removal of regional nodes for both primaries when the patient has **two primaries with common regional lymph nodes**.

Example: Patient has a cystoprostatectomy and pelvic lymph node dissection for bladder cancer. Pathology identifies prostate cancer as well as the bladder cancer and 4/21 nodes positive for metastatic adenocarcinoma. Code Scope of Regional Lymph Node Surgery to 5 (4 or more regional lymph nodes removed) for both primaries.

- 7. Assign code **0** when
 - a. Regional lymph node removal procedure was **not** performed **OR**
 - b. The operative report lists a lymph node dissection, but **no nodes were found by the pathologist**.
- 8. Assign code **2** when
 - a. The operative report states that a **SLNBx was performed OR**
 - b. The operative report describes a procedure using injection of a dye, radio label, or combination to identify a lymph node (possibly more than one) for removal/examination.

Note: 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 or selectively removed (or harvested) as part of the SLNBx procedure by the surgeon. Code this as a SLNBx (code 2). If review of the operative report confirms that a regional lymph node dissection followed the SLNBx, code these cases as 6.

- 9. Codes **3**, **4**, **and 5**: The operative report states that a regional lymph node dissection was performed (a SLNBx was not done during this procedure or in a prior procedure).
 - a. Code **3**: Check the operative report to ensure this procedure is **not** a SLNBx only (code 2), or a SLNBx with a regional lymph node dissection (code 6 or 7).
 - b. Code **4** should be used infrequently. Review the operative report to ensure the procedure was **not** a SLNBx only.
 - c. Code **5**: If a relatively small number of 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 regional lymph node dissection during the same, or separate, procedure (code 6 or 7).

Note: 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, surgeons usually perform a more extensive dissection of regional lymph nodes. **Code these cases as 2** if no further dissection of regional lymph nodes was undertaken, **or 6** when regional lymph nodes were dissected during the same operative event.

- 10. Code **6**: SLNBx and regional lymph node dissection (code 3, 4, or 5) during the same surgical event, or timing not known
 - a. Generally, SLNBx followed by a regional lymph node completion will yield a relatively large number of nodes. However it is possible for these procedures to harvest only a few nodes.
 - b. If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only.
 - c. 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**.
- 11. Code 7: SLNBx and regional lymph node dissection (code 3, 4, or 5) in separate surgical events.
 - a. Generally, SLNBx followed by regional lymph node completion will yield a relatively large number of nodes. However, it is possible for these procedures to harvest only a few nodes.
 - b. If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only.
- 12. Code **9:** The status of regional lymph node evaluation should be known for surgically treated cases (i.e., cases coded 19-90 in the data item Surgery of Primary Site [NAACCR Item #1290]). Review surgically treated cases coded 9 in Scope of Regional Lymph Node Surgery to confirm the code.
 - a. Assign code 9 for:

- i. Primary sites
 - 1. Brain (C700-C709) OR
 - 2. Spinal cord (C710-C719) OR
 - 3. Cranial nerves and other parts of the central nervous system (C720-C729, C75.1-C75.3)
 - 4. Unknown or ill-defined sites (C760-C768, C809) (all histologies) (including cases diagnosed at autopsy).
- ii. Lymphoma with primary site in lymph nodes (C770-C779) AND
 - 1. 9590-9597 OR
 - 2. 9650-9719 OR
 - 3. 9724-9738
- iii. Hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease
 - 1. Primary sites: C420, C421, C423, or C424 (all histologies)
 - 2. Histologies: 9727, 9750, 9760-9764, 9800-9820, 9823, 9826, 9831-9920, 9931-9992 (all sites)
 - iv. Death certificate only (DCO) cases

Coding Instructions - Sentinel lymph node biopsy (SLNBx), breast primary C500-C509

- 1. Use the **operative report** as the primary source document to determine whether the operative procedure was a SLNBx, an axillary node dissection (ALND), or a combination of both SLNBx and ALND. The operative report will designate the surgeon's planned procedure as well as a description of the procedure that was actually performed. 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 ALND, or a combination of these two procedures. Do not use the number of lymph nodes removed and pathologically examined as the sole means of distinguishing between a SLNBx and a ALND.
- 2. Code 1
 - a. 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 lymph node dissection, use the appropriate code 2-7.
- 3. Code 2
 - a. If a relatively large number of lymph nodes, 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).
 - b. 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. Use code 2 if no ALND was performed, or 6 when ALND was performed during the same operative event. Enter the appropriate number of nodes examined and positive in the data items *Regional Lymph Nodes Examined* (NAACCR Item #830) and *Regional Lymph Nodes Positive* (NAACCR Item #820).

- 4. Codes **3**, **4**, **and 5**: 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 regional lymph node dissection during the same procedure (code 6 or 7).
- 5. Code **6**
 - a. 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.
 - b. 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.
- 6. Code **7**
 - a. 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.
 - b. If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only, or whether a SLNBx plus an ALND was performed.

SURGICAL PROCEDURE OF OTHER SITE

Item Length: 1 NAACCR Item #: 1294 NAACCR Name: Rx Summ--Surg Oth Reg/Dis

Surgical Procedure of Other Site describes the surgical removal of distant lymph node(s) or other tissue(s) or organ(s) beyond the primary site.

Code Description

- 0 None; diagnosed at autopsy
- 1 Non-primary surgical procedure performed
- 2 Non-primary surgical procedure to other regional sites
- 3 Non-primary surgical procedure to *distant lymph node(s)*
- 4 Non-primary surgical procedure to distant site
- 5 Combination of codes 2, 3, or 4
- 9 Unknown

Coding Instructions

- 1. Code **0** when no surgical procedures were performed that removed distant lymph node(s) or other tissue(s) or organ(s) beyond the primary site.
- 2. The codes are **hierarchical**.
 - a. Codes 1-5 have priority over codes 0 and 9
- 3. Assign code 1
 - a. When any surgery is performed to remove tumors and the primary site is unknown or illdefined (C76.0-76.8, C80.9)
 - b. When any surgery is performed for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease (C42.0, C42.1, C42.3, C42.4 or M-9740-9992)
- 4. Do **not** code tissue or organs such as an appendix that were removed **incidentally**, and the organ was not involved with cancer.

Note: Incidental removal of organs means that tissue was removed for reasons other than removing cancer or preventing the spread of cancer. Examples of incidental removal of organ(s) would be removal of appendix, gallbladder, etc., during abdominal surgery.

5. Assign code 9 for death certificate only (DCO) cases

REASON FOR NO SURGERY OF PRIMARY SITE

Item Length: 1 NAACCR Item #: 1340 NAACCR Name: Reason for No Surgery

No surgery of the primary site was performed. This data item records the reason that surgical resection was not part of the first-course of treatment.

Code Description

- 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** firstcourse treatment; autopsy only cases
- 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 the patient's record.
- 7 Surgery of the primary site was **not** performed; it was **recommended** by the patient's physician, but was **refused** by the patient, the patient's family member, or the patient's guardian. The refusal was noted in the 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** if surgery of the primary site was **recommended or performed**

Coding Instructions

- 1. Assign code **0** when Surgery of Primary Site is coded in the range of 10-90 (surgery of the primary site was performed)
- 2. Assign a code in the **range of 1-8** if Surgery of Primary Site is coded 00 or 98. *Note:* Referral to a surgeon **is equival**ent to a recommendation for surgery.
 - a. Assign code **1** when
 - i. There is no information in the patient's medical record about surgery AND
 o It is known that surgery is not usually performed for this type and/or stage of cancer OR
 - There is no reason to suspect that the patient would have had surgery of primary site.
 - ii. The treatment plan offered multiple treatment options and the patient selected treatment that did not include surgery of the primary site.

Example: Prostate cancer patient is offered three treatment options: a. Radical prostatectomy, b. Radiation therapy, or c. Hormone therapy. The patient chose to have radiation therapy. Assign code 1. Surgery of the primary site was not performed because it was **not part of the planned** first-course treatment. The treatment plan was for the patient to receive **ONE** of three treatment modality options: surgery OR radiation OR hormone therapy. At no time did the physician recommend that the patient have surgery AND radiation therapy because at no time did the treatment plan include both radiation AND surgery. Recording that a patient refused the treatment modality means that the

patient refused recommended therapy. This is a quality control check explaining why the patient did not receive the expected treatment for their cancer (patient's choice versus physician's choice, or facility's lack of providing quality care).

- iii. Patient elected to pursue no treatment following the discussion of surgery. Discussion does not equal a recommendation.
- iv. Watchful waiting/active surveillance (prostate)
- b. Assign code **6** when
 - i. It is **KNOWN** that surgery was recommended **AND**
 - ii. It is **KNOWN** that surgery was **not** performed **AND**
 - iii. There is no documentation explaining why surgery was not done

Example: The medical record has a recommendation that the patient have surgery. No further admissions or documentation of surgery found; the primary care physician replies that the patient did **NOT have surgery. No further information is given; it is unknown if the patient refused surgery or if there were co-morbid conditions that prevented the surgical procedure.**

- c. Assign code 7 when the patient
 - i. Refuses recommended surgery
 - Or
 - ii. Makes a blanket statement that he/she refused all treatment when surgery is a customary option for the primary site/histology
 - Assign code 1 when surgery is not normally performed for the site/histology

Note: Coding Reason for No Surgery of Primary Site as "refused" does not affect the coding of the other treatment fields (e.g. Radiation, Chemotherapy, Hormone Therapy, etc.). Code 7 means surgery is exactly what was recommended by the physician and the patient refused. If two treatment alternatives were offered and surgery was not chosen, code Reason no surgery of primary site as 1 [Surgery of the primary site was not performed because it was not part of the planned first-course treatment].

d. Assign code **8** when surgery is recommended, but it is unknown if the patient actually had the surgery.

Example: There is documentation in the medical record that the primary care physician referred the patient to a surgical oncologist. Follow-back to the surgical oncologist and primary care physician yields no further information. Assign code 8, it is known that surgery was recommended but there is no information on whether or not the patient actually had the surgical procedure.

Note: Review cases coded 8 periodically for later confirmation of surgery

- 3. Assign code 9
 - a. When there is no documentation that surgery was recommended or performed
 - b. For death certificate only (DCO) cases
 - c. Autopsy-only cases

RADIATION

Item Length: 1 NAACCR Item #: 1360 NAACCR Name: RX Summ--Radiation

Record the method or source of radiation administered as a part of the first course of treatment. Record all radiation that is given as part of first course therapy, even if it is palliative.

The Commission on Cancer (CoC) does not require the collection of the radiation summary data field effective 1/1/2002. If this data item is not reported by a CoC hospital, SEER central registries can generate the code for this field by combining information from the **Radiation Regional Treatment Modality** [NAACCR Item #1570] **and/or Radiation Boost Treatment Modality** [NAACCR Item #3200] fields required by CoC. Tables for deriving the radiation summary field are included in this section.

Code Description

- 0 None; diagnosed at autopsy
- 1 Beam radiation
- 2 Radioactive implants
- 3 Radioisotopes
- 4 Combination of 1 with 2 or 3
- 5 Radiation, NOS method or source not specified
- 7 Patient or patient's guardian refused radiation therapy
- 8 Radiation recommended, unknown if administered
- 9 Unknown if radiation administered

Coding Instructions

- 1. Assign code **0** when
 - a. There is no information in the patient's medical record about radiation AND
 - i. It is known that radiation is not usually performed for this type and/or stage of cancer OR
 - ii. There is no reason to suspect that the patient would have had radiation
 - b. The treatment plan offered multiple treatment options and the patient selected treatment that did not include radiation
 - c. Patient elected to pursue no treatment following the discussion of radiation treatment. Discussion does not equal a recommendation.
 - d. Watchful waiting/active surveillance (prostate)
 - e. Patient diagnosed at autopsy
 - f. Radiotherapy recommended, but patient died before receiving radiotherapy

Note: SEER does not collect the Reason For No Radiation field. However, those who abstract using software that captures this data item can identify these cases.

- 2. Assign code **1** for
 - a. Beam radiation directed to cancer tissue. The source of the beam radiation is not coded. Sources may include, but are not limited to: X-ray, cobalt, linear accelerator, neutron beam, betatron, intensity modulated radiation therapy (IMRT), spray radiation, stereotactic radiosurgery such as gamma knife, cyberknife, and proton beam.
 - b. Total body irradiation (TBI) prior to a bone marrow transplant
- 3. Assign code **2** when the radiation is delivered by interstitial implant, seeds, needles or intracavitary applicators. The radioactive material used in implants includes, but is not limited to: cesium, radium, radon, radioactive gold, and iodine.

Example: Brachytherapy with 125 seeds. Assign code 2. Seeds are always low dose therapy because they are left in place and the radioactivity decays over time.

- 4. Assign code **3**
 - a. When radioactive isotopes are given orally, intracavitary or by intravenous injection. Radioactive isotopes include but are not limited to: I-131 or P-32.
 - b. For 90-Yttrium and for 131-Iodine when given with Rituxan as treatment for lymphoma. (Code Rituxan as **chemotherapy**).

Note: Rituxan is given in combination with the monoclonal antibody Zevalin conjugated to 90-Yttrium or the monoclonal antibody Bexxar conjugated to 131-Iodine in the treatment of NHL. The monoclonal antibody is only the delivery agent for the radioisotope. Do not code Zevalin or Bexxar as chemotherapy. See the definition of <u>Monoclonal Antibodies</u>.

- 5. Assign code **4** when the patient has beam radiation **and** either radioactive implants or radioisotopes.
- 6. Assign code 7 when
 - a. The patient refused recommended radiotherapy
 - b. The patient made a blanket refusal of all recommended treatment and radiotherapy is a customary option for the primary site/histology
 - c. The patient refused all treatment before any was recommended and radiotherapy is a customary option for the primary site/histology
- 7. Assign code 8 when
 - a. Radiation has been recommended, but there is no confirmation of its actually being delivered
 - b. The only information available is that the patient was referred to a radiation oncologist

Note: Review cases coded 8 periodically for later confirmation of radiation therapy

Example: Mammocyte intracavitary radiation therapy device was placed in the breast, but there is no documentation of radiation actually being given. Assign code 8. Check this case periodically and update the code when further information becomes available.

- 8. Assign code 9 when
 - a. There is no documentation that radiation was recommended or performed
 - b. For death certificate only (DCO) cases when it is unknown whether or not radiation was administered.

Coding for Tumor Embolization

The American College of Surgeons Commission on Cancer (CoC), the Centers for Disease Control and Prevention National Program of Cancer Registries (NPCR), and the SEER Program have collaborated to clarify and refine coding directives for tumor embolization and are jointly issuing the following instructions.

Definitions

Chemoembolization

A procedure in which the blood supply to the tumor is blocked surgically or mechanically and anticancer drugs are administered directly into the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time.

Radioembolization

Embolization combined with injecting small radioactive beads or coils into an organ or tumor.

Tumor embolization

The intentional blockage of an artery or vein to stop the flow of blood through the desired vessel.

Coding Instructions

Code as brachytherapy when the tumor embolization is performed using a radioactive agent or radioactive seeds.

Example: Yttrium-90 microsphere radioembolization is an FDA-approved, non-surgical procedure used to treat inoperable liver cancer. With yttrium-90 microsphere radioembolization, a catheter is inserted through a tiny incision in the groin and threaded through the arteries until it reaches the hepatic artery. Once the catheter is properly placed in the hepatic artery, millions of tiny beads, or microspheres, which contain the radioactive element yttrium-90, are released into the blood stream. These microspheres lodge in the smaller blood vessels that feed the tumor. In addition to preventing blood flow to the tumor, the microspheres emit radiation that helps destroy the cancerous cells.

Do not code pre-surgical embolization of hypervascular tumors with particles, coils or alcohol. Presurgical embolization is typically performed to prevent excess bleeding during the resection of the primary tumor. Examples where pre-surgical embolization is used include meningiomas, hemangioblastomas, paragangliomas, and renal cell metastases in the brain.

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3
actic radiosurgery, NOS
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a Knife
therapy, NOS
therapy, intracavitary, LDR
therapy, intracavitary, HDR
therapy, interstitial, LDR
therapy, interstitial, HDR
1
sotopes, NOS
ım-89
um-90
nation modality, specified
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NOS

Translation of Regional Treatment Modality and/or Boost Treatment Modality Field to Radiation

If a code for radiation is not received from hospital registrars, the summary code can be derived from the following sources: Rad-Boost RX Modality, Rad-Regional RX Modality, and/or Reason For No Radiation. (See table on next page)

Rad—Boost RX Modality	Rad—Regional RX Modality	RX SummRadiation
00	00, 99	0*
00	20-43	1
00	50-55	2
00	60-62	3
00	80-85	4
00	98	5
20-43	00, 20-43, 98, 99	1
20-43	50-55, 60-62, 80-85	4
50-55	00, 50-55, 98, 99	2
50-55	20-43, 80-85	4
50-55	60-62	3
60-62	00, 50-55, 60-62, 98, 99	3
60-62	20-43, 80-85	4
80-85	00-99	4
98	00, 98, 99	5
98, 99	20-43	1
98, 99	50-55	2
98, 99	60-62	3
98, 99	80-85	4
99	00	0*
99	99	9

Derivation of Summary Code when No Radiation Code is Received

* Reason for No Radiation is reviewed for asterisked items only. If Reason for No Radiation is 7, Rx Summ--Radiation is 7; If Reason for No Radiation is 8, Rx Summ--Radiation code is 8.

RADIATION SEQUENCE WITH SURGERY

Item Length: 1 NAACCR Item #: 1380 NAACCR Name: RX Summ--Surg/Rad Seq

This field records the order in which surgery and radiation therapies were administered for those patients who had **both surgery and radiation**. For the purpose of coding the data item Radiation Sequence with Surgery, 'Surgery' is defined as a Surgical Procedure to the Primary Site (codes 10-90) or Scope of Regional Lymph Node Surgery (codes 1-7) or Surgical Procedure of Other Site (codes 1-5).

Code Description

- 0 No radiation and/or surgery as defined above;
- Unknown if surgery and/or radiation given
- 2 Radiation before surgery
- 3 Radiation after surgery
- 4 Radiation both before and after surgery
- 5 Intraoperative radiation therapy
- 6 Intraoperative radiation with other radiation given before or after surgery
- 7 Surgery both before and after radiation (for cases diagnosed 1/1/2012 and later)
- 9 Sequence unknown, but both surgery and radiation were given

Coding Instructions

- 1. Assign code **0** when
 - a. The patient did not have either surgery or radiation
 - b. The patient had surgery but not radiation
 - c. The patient had radiation but not surgery
 - d. It is unknown whether or not the patient had surgery and/or radiation
 - For death certificate only (DCO) cases
- 2. Assign codes **2-9** when first course of therapy includes both cancer-directed surgery and radiation therapy.
 - a. Assign code **4** when there are **at least two episodes or fractions** of radiation therapy. *Example:*
 - 1. Preoperative radiation therapy was administered to shrink a large, bulky lesion.
 - 2. Resection was performed.
 - 3. Postoperative radiation therapy was administered after resection.
 - b. Assign code 7 when there are at least two surgeries; radiation was administered between one surgical procedure and a subsequent surgical procedure.

Example 1:

- 1. Sentinel lymph node biopsy.
- 2. Radiation therapy
- 3. Surgery of primary site.

Code Radiation Sequence with Surgery as 7 (surgery both before and after radiation).

Example 2:

- 1. Lymph node aspiration.
- 2. Radiation.
- 3. Surgery of primary site.

Code Radiation Sequence with Surgery as 7 (surgery both before and after radiation) BECAUSE lymph node aspiration is coded in Scope of Regional Lymph Node Surgery.

CHEMOTHERAPY

Item Length: 2 NAACCR Item #: 1390 NAACCR Name: RX Summ--Chemo

The data item Chemotherapy records the chemotherapy given as a part of the first course of treatment or the reason that chemotherapy was not given.

See <u>SEER*Rx</u> for chemotherapy drug codes and for information on the drug's function.

Code Description

- 00 None, chemotherapy was **not** part of the planned first course of therapy; diagnosed at autopsy
- 01 Chemotherapy administered as first course therapy, but the type and number of agents is not documented in the 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 (comorbid conditions, advanced age, etc.).
- 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 the treatment was **refused** by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the 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 the patient record.

Important update effective for diagnosis date January 1, 2013 forward

A comprehensive review of chemotherapeutic drugs currently found in the SEER*RX - Interactive Drug Database was performed and in keeping with the U.S. Food and Drug Administration (FDA), the six (6) drugs listed in the table below have changed categories from Chemotherapy to BRM/Immunotherapy. *This change is effective for cases diagnosed January 1, 2013 forward*. For cases diagnosed prior to January 1, 2013, code these six (6) drugs as chemotherapy. Coding instructions related to this change have been added to the remarks field for the applicable drugs in SEER*Rx.

Drug Name(s)	Previous Category	New Category	Effective Date See Note
Alemtuzumab/Campath	Chemotherapy	BRM/Immuno	1/1/2013
Bevacizumab/Avastin	Chemotherapy	BRM/Immuno	1/1/2013
Rituximab	Chemotherapy	BRM/Immuno	1/1/2013
Trastuzumab/Herceptin	Chemotherapy	BRM/Immuno	1/1/2013
Pertuzumab/Perjeta	Chemotherapy	BRM/Immuno	1/1/2013
Cetuximab/Erbitux	Chemotherapy	BRM/Immuno	1/1/2013

Note: Use the date of diagnosis, not the date of treatment, to determine whether to code these drugs as chemotherapy or BRM/Immunotherapy

Example: Patient diagnosed with breast cancer November 1, 2012 and begins receiving Rituximab January 30, 2013 as part of first course therapy. Code the Rituximab in the chemotherapy data field.

Definitions

Chemotherapy recommended: A consult recommended chemotherapy, or the attending physician documented that chemotherapy was recommended. A referral to a clinical oncologist is equivalent to a recommendation.

Multiple agent chemotherapy: Planned first course of therapy included two or more chemotherapeutic agents and those agents were administered. The planned first course of therapy may or may not have included other agents such as hormone therapy, immunotherapy, or other treatment in addition to the chemotherapeutic agents.

Single agent chemotherapy: Only one chemotherapeutic agent was administered to destroy cancer tissue during the first course of therapy. The chemotherapeutic agent may or may not have been administered with other drugs classified as immunotherapy, hormone therapy, ancillary, or other treatment.

Coding Instructions

- 1. Code the chemotherapeutic agents whose actions are chemotherapeutic only; **do not code** the method of **administration**.
- 2. When chemotherapeutic agents are used as radiosensitizers or radioprotectants, they are given at a much lower dosage and do not affect the cancer. Radiosensitizers and radioprotectants are classified as ancillary drugs. **Do not code as chemotherapy**.

Note: Do not assume that a chemo agent given with radiation therapy is a radiosensitizer. Seek additional information. Compare the dose given to the dose normally given for treatment. For additional information, see

- The <u>National Cancer Institute's Physician Data Query (PDQ)</u>, Health Professional Version
- And/Or
- <u>The National Comprehensive Cancer Network (NCCN) Clinical Practice</u> <u>Guidelines in Oncology</u>
- 3. The physician may change a drug during the first course of therapy because the patient cannot tolerate the original agent.
 - a. This is a continuation of the first course of therapy when the chemotherapeutic agent that is substituted belongs to the same group (alkylating, antimetabolites, natural products, or other miscellaneous).
 - b. Do **not** code the new agent as first course therapy when the original chemotherapeutic agent is changed to one that is NOT in the same group. Code only the original agent as first course.
- 4. Code as treatment for both primaries when the patient receives chemotherapy and has in situ carcinoma in one breast and inflammatory in the other breast. Chemotherapy would likely affect both primaries.
- 5. Assign code **00** when
 - a. There is no information in the patient's medical record about chemotherapy AND

- It is known that chemotherapy is not usually performed for this type and/or stage of cancer
 OR
- ii. There is no reason to suspect that the patient would have had chemotherapy.
- b. If the treatment plan offered multiple treatment options and the patient selected treatment that did not include chemotherapy.
- c. Patient elects to pursue no treatment following the discussion of chemotherapy. Discussion does not equal a recommendation.
- d. Watchful waiting/active surveillance (CLL).
- e. Patient diagnosed at autopsy.

Example: Patient is diagnosed with plasma cell myeloma. There is no mention of treatment or treatment plans in the medical record. Follow-back finds that the patient died three months after diagnosis. There are no additional medical records or other pertinent information available. Assign code 00 since there is no reason to suspect that the patient had been treated.

- 6. Do not code combination of ancillary drugs administered with single agent chemotherapeutic agents as multiple chemotherapy. For example the administration of 5-FU (antimetabolite) and Leucovorin (ancillary drug) is coded to single agent (Code 02).
- 7. Assign code **82** when chemotherapy is a customary option for the primary site/histology but it was not administered due to patient risk factors, such as:
 - a. Advanced age.
 - b. **Comorbid** condition(s) (heart disease, kidney failure, other cancer, etc.).
- 8. Assign code **87** when
 - a. The patient refused recommended chemotherapy
 - b. The patient made a blanket refusal of all recommended treatment and chemotherapy is a customary option for the primary site/histology
 - c. The patient refused all treatment before any was recommended and chemotherapy is a customary option for the primary site/histology
- 9. Assign code 88 when the only information available is
 - a. The patient was referred to an oncologist
 - b. Insertion of port-a-cath

Note: Review cases coded 88 periodically for later confirmation of chemotherapy

- 10. Assign code **99** when there is no documentation that chemotherapy was recommended or administered
 - a. For death certificate only (DCO) cases

Chemotherapeutic Agents

Chemotherapeutic agents are chemicals that affect cancer tissue by means other than hormonal manipulation. Chemotherapeutic agents can be divided into five groups

- Alkylating agents
- Antimetabolites
- Natural Products
- Targeted therapy
- Miscellaneous

Alkylating Agents

Alkylating agents are **not cell-cycle-specific**. Although they are toxic to all cells, they are most active in the resting phase of the cell. Alkylating agents directly damage DNA to prevent the cancer cell from reproducing. Alkylating agents are used to treat many different cancers including acute and chronic leukemia, lymphoma, Hodgkin disease, multiple myeloma, sarcoma, and cancers of the lung, breast and ovary. Because the drugs damage DNA they can cause long-term damage to the bone marrow and can, in rare cases, lead to acute leukemia. The risk of leukemia from alkylating agents is "dose-dependent." Examples of alkylating agents include:

- Mustard gas derivatives/nitrogen mustards: Mechlorethamine, Cyclophosphamide, Chlorambucil, Melphalan, and Isosfmide
- Ethylemines: Thiotepa and Hexamethylmelamine
- Aklysulfonates: Busulfan
- Hydrazines and Trizines: Alkretamine, Procarbazine, Decarbazine, and Temozolomide
- Nitrusureas: Camustine, Lomustine and Streptozcin. Nitrosureas are unique because they can cross the blood-brain barrier and can be used in treating brain tumors
- Metal salts: Carboplatin, Cisplatin, and Oxaliplating

Antimetabolites

Antimetabolites are **cell-cycle specific**. Antimetabolites are very similar to normal substances within the cell. When the cells incorporate these substances into the cellular metabolism, they are unable to divide. Antimetabolites are classified according to the substances with which they interfere.

- Folic acid antagonist: Methotrexate
- Pyrimidine antagonist: 5-Florouracil, Foxuridine, Cytarabine, Capecitabine, and Gemcitabine
- Purine antagonist: 6-Mercaptopurine and 6-Thioguanine
- Adenosine deaminase inhibitor: Cladribine, Fludarabine, Nelarabine, and Pentostatin

Natural Products

- Plant Alkaloids are cell-cycle specific which means they attack the cells during various phases of division. They block cell division by preventing microtubule function. Microtubules are vital for cell division. Without them, division cannot occur. Plant alkaloids, as the name implies, are derived from certain types of plants.
 - Vinca alkaloids: Vincristine, Vinblastine, and Vinorelbine
 - Taxanes: Paclitaxel and Docetaxel
 - Podphyllotoxins: Etoposide and Tenisopide
 - Camptothecan analogs: Innotecan and Topotecan

- 2. Antitumor antibiotics are also **cell-cycle specific** and act during multiple phases of the cell cycle. They are made from natural products and were first produced by the soil fungus Streptomyces. Antitumor antibiotics form free radicals that break DNA strands, stopping the multiplication of cancer cells.
 - Anthracyclines: Doxorubicin, Danorubicin, Epirubicin, Mitoxantone, and Idabicin
 - Chromomycins: Dactinomycin and Plicamycin
 - Miscellaneous: Mitomycin and Bleomycin
- 3. Topoisomerase inhibitors interfere with the action of topoisomerase enzymes (topoisomerase I and II). They control the manipulation of the structure of DNA necessary for replication.
 - Topoisomerase I inhibitors: Ironotecan, topotecan
 - Topoisomerase II inhibitors: Amasrine, etoposide, etoposide phosphate, teniposide

Targeted therapy

Targeted therapy agents are a group of newer cancer drugs that act directly against abnormal proteins in cancer cells

Molecular targeted therapy

MTT. Agents in this type of therapy are vastly different from the traditional chemotherapeutic agents. These new drugs are designed to target unique or abnormally-expressed molecules within cancer cells while sparing normal cells.

Miscellaneous

Miscellaneous Antineoplastics that are unique

- Ribonuclotide reductase inhibitor: Hydroxyurea
- Adrenocortical steroid inhibiotor: Mitotane
- Enzymes: Asparaginase and Pegaspargse
- Antimicrotubule agent: Estramustine
- Retinoids: Bexatene, Isotretinoin, Tretinoin (ATRA)

Coding for Tumor Embolization

The American College of Surgeons Commission on Cancer (CoC), the Centers for Disease Control and Prevention National Program of Cancer Registries (NPCR), and the SEER Program have collaborated to clarify and refine coding directives for tumor embolization and are jointly issuing the following instructions.

Definitions

Chemoembolization

A procedure in which the blood supply to the tumor is blocked surgically or mechanically and anticancer drugs are administered directly into the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time.

Radioembolization

Embolization combined with the injection of small radioactive beads or coils into an organ or tumor.

Tumor embolization

The intentional blockage of an artery or vein to stop the flow of blood through the desired vessel.

Coding Instructions

Code as Chemotherapy when the embolizing agent(s) is a chemotherapeutic drug(s). Use <u>SEER*Rx</u> to determine whether the drugs used are classified as chemotherapeutic agents. Use codes 01, 02, 03 as specific information regarding the agent(s) is documented.

Example: The patient has hepatocellular carcinoma (primary liver cancer). From a procedure report: Under x-ray guidance, a small catheter is inserted into an artery in the groin. The catheter's tip is threaded into the artery in the liver that supplies blood flow to the tumor. Chemotherapy is injected through the catheter into the tumor and mixed with particles that embolize or block the flow of blood to the tumor.

Do not code pre-surgical embolization of hypervascular tumors with particles, coils or alcohol. Presurgical embolization is typically performed to prevent excess bleeding during the resection of the primary tumor. Examples where pre-surgical embolization is used include meningiomas, hemangioblastomas, paragangliomas, and renal cell metastases in the brain.

HORMONE THERAPY

Item Length: 2 NAACCR Item #: 1400 NAACCR Name: RX Summ--Hormone

The data item Hormone Therapy records therapy administered as first course treatment that affects cancer tissue by adding, blocking, or removing the action or production of hormones.

See <u>SEER*Rx</u> for hormone therapy drug codes.

Note: **Surgical removal** of **organs** for hormone manipulation is **not** coded in this data item. Code these procedures in the data field Hematologic Transplant and Endocrine Procedures.

Code Description

- 00 None, hormone therapy was not part of the planned first course of therapy; not usually administered for this type and/or stage of cancer; diagnosed at autopsy only
- 01 Hormone therapy administered as first course therapy
- 82 Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.)
- 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 the 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 the 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.

Coding Instructions

- 1. Code the hormonal agent given as part of combination chemotherapy (e.g. MOPP or COPP), whether it affects the cancer cells or not.
- 2. Assign code **00** when
 - a. There is no information in the patient's medical record about hormone therapy AND
 - i. It is known that hormone therapy is not usually performed for this type and/or stage of cancer

OR

- ii. There is no reason to suspect that the patient would have had hormone therapy
- b. If the treatment plan offered multiple treatment options and the patient selected treatment that did not include hormone therapy
- c. Patient elected to pursue no treatment following the discussion of hormone therapy treatment. Discussion does not equal a recommendation.
- d. Watchful waiting, active surveillance (prostate)
- e. Patient diagnosed at autopsy

f. Hormone treatment was given for a non-reportable condition or as chemoprevention prior to diagnosis of a reportable condition

Example 1: Tamoxifen given for hyperplasia of breast four years prior to breast cancer diagnosis. Code 00 in Hormone therapy. Do not code tamoxifen given for hyperplasia as treatment for breast cancer.

Example 2: Patient with a genetic predisposition to breast cancer is on preventative hormone therapy. Do not code hormone therapy given before cancer is diagnosed.

- 3. Assign code **87** when
 - a. The patient refused recommended hormone therapy
 - b. The patient made a blanket refusal of all recommended treatment and hormone therapy is a customary option for the primary site/histology
 - c. The patient refused all treatment before any was recommended and hormone therapy is a customary option for the primary site/histology
- 4. Assign code **88** when the only information available is that the patient was referred to an oncologist.

Note: Review cases coded 88 periodically for later confirmation of hormone therapy

- 5. Assign code **99** when there is no documentation that hormone therapy was recommended or performed.
 - a. For death certificate only (DCO) cases

Coding Examples

Example 1: Endometrial cancer may be treated with progesterone. Code all administration of progesterone to patients with endometrial cancer in this field. Even if the progesterone is given for menopausal symptoms, it has an effect on the growth or recurrence of endometrial cancer.

Example 2: Follicular and papillary cancers of the thyroid are often treated with thyroid hormone to suppress serum thyroid-stimulating hormone (TSH). If a patient with papillary and/or follicular cancer of the thyroid is given a thyroid hormone, code the treatment in this field.

Example 3: Bromocriptine suppresses the production of prolactin, which causes growth in pituitary adenoma. Code Bromocriptine as hormone treatment for pituitary adenoma.

Hormone Categories

Hormones may be divided into several categories

- Androgens: Fluoxymesterone
- Anti-androgens: Bicalutamide (Casodex), flutamide (Eulexin), and nilutamde (Nilandron)
- Corticosteroids: Adrenocorticotrophic agents
- Estrogens
- Progestins

(Continued on next page)

- Estrogen antagonists, Anti-estrogens: Fulvestrant (Faslodex), tamoxifen, and toremifene (Fareston).
- Aromatase inhibitors, Antiaromatase: Anastrozole (Arimidex), exemestane (Aromasin), and letrozole (Femara)
- GnRH or LH-RH: Lupron, Zoladex
- Polypeptid hormone release suppression: Octreotide
- Somatostatin analog: Octreotide
- Thyroid hormones: Levothyroxine, liothyronine, Synthroid

IMMUNOTHERAPY

Item Length: 2 NAACCR Item #: 1410 NAACCR Name: RX Summ--BRM

The data item Immunotherapy records immunotherapeutic (biological therapy, biotherapy or biological response modifier) agents administered as first course of therapy. See SEER*RX for immunotherapy codes.

Immunotherapy **uses** the body's **immune system**, either directly or indirectly, to fight cancer or to reduce the side effects that may be caused by some cancer treatments. Record only those treatments that are administered to affect the cancer cells.

See <u>SEER*Rx</u> for immunotherapy drug codes.

Immunotherapy is **designed** to:

- 1. Make **cancer cells** more **recognizable** and therefore more **susceptible** to destruction by the immune system.
- 2. Boost the killing power of immune system cells, such as T-cells, NK-cells, and macrophages.
- 3. Alter the growth patterns of cancer cells to promote behavior like that of healthy cells.
- 4. **Block** or **reverse** the process that **changes** a normal cell or a pre-cancerous cell into a cancerous cell.
- 5. **Enhance** the body's ability to **repair** or **replace** normal cells damaged or destroyed by other forms of cancer treatment, such as chemotherapy or radiation.
- 6. **Prevent** cancer cells from **spreading** to other parts of the body.

Code Description

- 00 None, immunotherapy was not part of the planned first course of therapy
- 01 Immunotherapy was administered as first course therapy
- 82 Immunotherapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.)
- 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 noted in the patient's 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 the patient record.
- 88 Immunotherapy was recommended, but it is unknown if it was administered
- 99 It is unknown if immunotherapy was recommended or administered because it is not stated in patient record.

Important update effective for diagnosis date January 1, 2013 forward

A comprehensive review of chemotherapeutic drugs currently found in the SEER*RX - Interactive Drug Database was performed and in keeping with the U.S. Food and Drug Administration (FDA), the six (6) drugs listed in the table below have changed categories from Chemotherapy to BRM/Immunotherapy. *This change is effective for cases diagnosed January 1, 2013 forward*. For cases diagnosed prior to January 1, 2013, code these six (6) drugs as chemotherapy. Coding instructions related to this change have been added to the remarks field for the applicable drugs in SEER*Rx.

Drug Name(s)	Previous Category	New Category	Effective Date See <i>Note</i>
Alemtuzumab/Campath	Chemotherapy	BRM/Immuno	1/1/2013
Bevacizumab/Avastin	Chemotherapy	BRM/Immuno	1/1/2013
Rituximab	Chemotherapy	BRM/Immuno	1/1/2013
Trastuzumab/Herceptin	Chemotherapy	BRM/Immuno	1/1/2013
Pertuzumab/Perjeta	Chemotherapy	BRM/Immuno	1/1/2013
Cetuximab/Erbitux	Chemotherapy	BRM/Immuno	1/1/2013

Note: Use the date of diagnosis, not the date of treatment, to determine whether to code these drugs as chemotherapy or BRM/Immunotherapy

Example: Patient diagnosed with breast cancer January 5, 2013 and begins receiving Rituximab January 30, 2013 as part of first course therapy. Code the Rituximab in the BRM/Immuno data field.

Definitions

Types of immunotherapy

Cancer Vaccines: Cancer vaccines are still in the experimental phase and are not coded in this data item. They may be coded in the field Other Therapy. Currently clinical trials use cancer vaccines for brain, breast, colon, kidney, lung, melanoma, and ovary.

Interferons: Interferons belong to a group of proteins called cytokines. They are produced naturally by the white blood cells in the body. Interferon-alpha is able to slow tumor growth directly as well as activate the immune system. It is used for a number of cancers including multiple myeloma, chronic myelogenous leukemia (CML), hairy cell leukemia, and malignant melanoma.

Interleukins (IL-2) are often used to treat kidney cancer and melanoma.

Monoclonal Antibodies: Monoclonal antibodies (Mab) are produced in a laboratory. The artificial antibodies are used in a variety of ways in systemic therapy and can be chemotherapy, immunotherapy, or ancillary drugs. Some are injected into the patient to seek out and disrupt cancer cell activities. When the monoclonal antibody disrupts tumor growth, it is coded as chemotherapy. Other Mabs are linked to radioisotopes (conjugated monoclonal antibodies). The Mab finds and attaches to the target tumor cells and brings with it the radioisotope that actually kills the tumor cell. The monoclonal antibody itself does nothing to enhance the immune system. Conjugated monoclonal antibodies such as tositumomab (Bexxar) or ibritumomab (Zevalin) are coded to the part of the drug that actually kills the cells, usually radioisotopes. A third function of Mabs is to enhance the immune response against the cancer, either by identifying tumor cells that are mimicking normal cells, or by boosting the body's natural defenses that destroy foreign cells. Consult <u>SEER*Rx</u> for the treatment category in which each monoclonal antibody should be coded.

Coding Instructions

- 1. Assign code 00
 - a. When there is no information in the patient's medical record about immunotherapy AND
 - i. It is known that immunotherapy is **not** usually given for this type and/or stage of cancer **OR**
 - ii. There is **no reason to suspect** that the patient would have had immunotherapy
 - b. If the treatment plan offered multiple treatment options and the patient selected treatment that did not include immunotherapy.
 - c. Patient elects to pursue no treatment following the discussion of immunotherapy. Discussion does not equal a recommendation.
 - d. Watchful waiting, active surveillance (prostate)
 - e. Patient diagnosed at autopsy
 - f. For anti-thymocyte globulin treatment. Anti-thymocyte globulin is used to treat transplant rejection. Do not code as immunotherapy.
- 2. Assign code **87** when
 - a. The patient refused recommended immunotherapy
 - b. The patient made a blanket refusal of all recommended treatment and immunotherapy is a customary option for the primary site/histology
 - c. The patient refused all treatment before any was recommended and immunotherapy is a customary option for the primary site/histology
- 3. Assign code **88** when the only information available is that the patient was referred to an oncologist.

Note: Review cases coded 88 periodically for later confirmation of immunotherapy

- 4. Assign code 99
 - a. When there is no documentation that immunotherapy was recommended or performed **AND**
 - b. Immunotherapy is usually given for this type and/or stage of cancer
 - c. Or for death certificate only (DCO) cases

HEMATOLOGIC TRANSPLANT AND ENDOCRINE PROCEDURES

Item Length: 2 NAACCR Item #: 3250 NAACCR Name: RX Summ--Transplnt/Endocr

This data item records systemic therapeutic procedures administered as part of the first course of treatment. These procedures include bone marrow transplants (BMT) and stem cell harvests with rescue (stem cell transplant), endocrine surgery and/or radiation performed for hormonal effect (when cancer originates at another site), and a combination of transplants and endocrine therapy.

Code Description

- 00 None, transplant procedure or endocrine therapy was not a part of the first course of therapy; not customary therapy for this cancer; diagnosed at autopsy only
- 10 Bone marrow transplant, NOS. A bone marrow transplant procedure was administered as first course therapy, but the type was not specified
 - 11 Bone marrow transplant autologous
 - 12 Bone marrow transplant allogeneic
- 20 Stem cell harvest (stem cell transplant) and infusion
- 30 Endocrine surgery and/or endocrine radiation therapy as first course therapy
- 40 Combination of transplant procedure with endocrine surgery and/or endocrine radiation (Code 30 in combination with 10, 11, 12, or 20) as first course therapy
- 82 Transplant procedure and/or endocrine therapy was not recommended/administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.)
- 85 Transplant procedures and/or endocrine therapy was not administered because the patient died prior to planned or recommended therapy
- 86 Transplant procedures and/or endocrine therapy was not administered; it was recommended by the patient's physician but was not administered as part of first course therapy. No reason was noted in the patient record.
- 87 Transplant procedures and/or endocrine therapy were not administered; this treatment was recommended by the patient's physician but was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the patient record.
- 88 Transplant procedures and/or endocrine therapy was recommended, but it is unknown if it was administered.
- 99 It is unknown if a transplant procedure or endocrine therapy was recommended or administered because it is not stated in patient record.

Definitions

Bone marrow transplant (BMT): Procedure used to restore stem cells that were destroyed by chemotherapy and/or radiation. Replacing the stem cells allows the patient to undergo higher doses of chemotherapy.

BMT Allogeneic: Receives bone marrow or stem cells from a donor.

BMT Autologous: Uses the patient's own bone marrow and/or stem cells. The tumor cells are filtered out and the purified blood and stem cells are returned to the patient.

Note: Used for breast cancer, lymphoma, leukemia, aplastic anemia, myeloma, germ cell tumors, ovarian cancer, and small cell lung cancer.

Conditioning: High-dose chemotherapy with or without radiation administered prior to transplants such as BMT and stem cells to kill cancer cells. This conditioning also destroys normal bone marrow cells so the normal cells need to be replaced (rescue). The high dose chemotherapy is coded in the Chemotherapy field and the radiation is coded in the Radiation field.

Hematopoietic growth factors: A group of substances that support hematopoietic (blood cell) colony formation. The group includes erythropoietin, interleukin-3, and colony-stimulating factors (CSFs). The growth-stimulating substances are ancillary drugs and not coded.

Non-myeloablative therapy: Uses immunosuppressive drugs pre- and post-transplant to ablate (destroy) the bone marrow. These are not recorded as therapeutic agents.

Peripheral Blood Stem Cell Transplantation (PBSCT): Rescue that replaces stem cells after conditioning.

Rescue: Rescue is the actual BMT or stem cell transplant done after conditioning.

Stem cells: Immature cells found in bone marrow, blood stream, placenta, and umbilical cords. The stem cells mature into blood cells.

Stem cell transplant: Procedure to replenish supply of healthy blood-forming cells. Also known as bone marrow transplant or umbilical cord blood transplant, depending on the source of the stem cells.

Umbilical cord stem cell transplant: Treatment with stem cells harvested from umbilical cord blood.

Coding Instructions

- 1. Assign code **00**
 - a. When there is no information in the patient's medical record about transplant procedure or endocrine therapy

AND

i. It is known that transplant procedure or endocrine therapy is not usually performed for this type and/or stage of cancer

OR

- ii. There is no reason to suspect that the patient would have had transplant procedure or endocrine therapy.
- b. If the treatment plan offered multiple treatment options and the patient selected treatment that did not include transplant procedure or endocrine therapy.
- c. Patient elects to pursue no treatment following the discussion of transplant procedure or endocrine therapy. Discussion does not equal a recommendation.
- d. Watchful waiting/active surveillance (CLL)
- e. Patient diagnosed at autopsy
- 2. Assign code **10** if the patient has "mixed chimera transplant (mini-transplant or non-myeloablative transplant). These transplants are a mixture of the patient's cells and donor cells.
- 3. Codes **11 and 12** have priority over code 10 (BMT, NOS).

First Course of Therapy

- 4. Assign code **12** (allogeneic) for a syngeneic bone marrow transplant (from an identical twin) or for a transplant from any person other than the patient.
- 5. Assign code **20** when the patient has a stem cell harvest followed by a rescue or reinfusion (stem cell transplant, including allogenic stem cell transplant) as first course therapy. If the patient does not have a rescue, code the stem cell harvest as 88, recommended, unknown if administered. Use code 20 for umbilical cord stem cell transplant (single or double).
- 6. Assign code **30** for endocrine radiation and/or surgery. Endocrine organs are testes and ovaries. Endocrine radiation and/or surgical procedures must be bilateral, or must remove the remaining paired organ for hormonal effect.
- 7. Assign code 87
 - a. If the patient **refused** recommended transplant or endocrine procedure.
 - b. If the patient made a **blanket refusal** of all recommended treatment and the treatment coded in this data item is a customary option for the primary site/histology.
 - c. If the patient **refused all treatment** before any was recommended.
- 8. Assign code **88** when the only information available is that the patient was referred to an oncologist.

Note: Review cases coded 88 periodically for later confirmation of transplant procedure or endocrine therapy

- 9. Assign code **99** when there is no documentation that transplant procedure or endocrine therapy was recommended or performed
 - **a.** For death certificate only (DCO) cases

SYSTEMIC TREATMENT/SURGERY SEQUENCE

Item Length: 1 NAACCR Item #: 1639 NAACCR Name: RX SUMM-Systemic/SurSeq

This field records the sequence of any systemic therapy and surgery given as first course of therapy for those patients who had both systemic therapy and surgery. For the purpose of coding systemic treatment sequence with surgery, 'Surgery' is defined as a Surgical Procedure to the Primary Site (codes 10-90) or Scope of Regional Lymph Node Surgery (codes 1-7) or Surgical Procedure of Other Site (codes 1-5).

Systemic therapy is defined as

- Chemotherapy
- Hormone therapy
- Biological response therapy/immunotherapy
- Bone marrow transplant
- Stem cell harvests
- Surgical and/or radiation endocrine therapy

Code	Label	Definition	Example(s) / Notes
0	No systemic therapy and/or surgical treatment; Unknown if surgery and/or systemic therapy given	The patient did not have both systemic therapy and surgery. It is unknown whether or not the patient had surgery and/or systemic therapy.	Death certificate only (DCO) case
2	Systemic therapy before surgery	The patient had systemic therapy prior to surgery	
3	Systemic therapy after surgery	The patient had systemic therapy after surgery	
4	Systemic therapy both before and after surgery	Systemic therapy was administered prior to surgery and also after surgery	<i>Note</i> : Code 4 is intended for situations with at least two episodes or courses of systemic therapy
5	Intraoperative systemic therapy	The patient had intraoperative systemic therapy.	
6	Intraoperative systemic therapy with other systemic therapy administered before or after surgery	The patient had intraoperative systemic therapy and also had systemic therapy before and/or after surgery	<i>Note</i> : The systemic therapy administered before or after surgery does not have to be the same type as the intraoperative systemic therapy
7	Surgery both before and after systemic therapy (effective for cases diagnosed 1/1/2012 and later)	Systemic therapy was administered between two separate surgical procedures	<i>Example</i> : patient has LN dissection, followed by chemo, followed by primary site surgery.
9	Sequence unknown	 The patient had systemic therapy and also had surgery. It is unknown whether the systemic therapy was administered prior to surgery, after surgery, or intraoperatively. 	

OTHER THERAPY

Item Length: 1 NAACCR Item #: 1420 NAACCR Name: RX Summ—Other

Other Therapy identifies treatment given that cannot be classified as surgery, radiation, systemic therapy, or ancillary treatment. This data item includes all complementary and alternative medicine used by the patient in conjunction with conventional therapy or in place of conventional therapy.

Code Description

- 0 None
- 1 Other
- 2 Other-Experimental
- 3 Other-Double Blind
- 6 Other-Unproven
- 7 Refusal
- 8 Recommended, unknown if administered
- 9 Unknown

Coding Instructions

- 1. Assign code **0** when
 - a. There is no information in the patient's medical record about other therapy
 - AND
 - i. It is known that other therapy is not usually performed for this type and/or stage of cancer **OR**
 - ii. There is no reason to suspect that the patient would have had other therapy
 - b. If the treatment plan offered multiple treatment options and the patient selected treatment that did not include other therapy.
 - c. Patient elects to pursue no treatment following the discussion of other therapy. Discussion does not equal a recommendation.
 - d. Patient diagnosed at autopsy.
- 2. Assign code 1 for
 - a. Hematopoietic treatments such as: phlebotomy or aspirin
 - Note: Do not code blood transfusion as treatment.
 Rationale: Blood transfusions may be used for any medical condition that causes anemia. It would be virtually impossible for the registrar to differentiate between blood transfusions used for a co-morbidity (i.e., anemia) from those given as prophylactic treatment of a hematopoietic neoplasm.
 - b. PUVA (Psoralen (P) and long-wave ultraviolet radiation (UVA)) in the **RARE** event that it is used as treatment for extremely thin melanomas or cutaneous T-cell lymphomas (e.g. mycosis fungoides)
 - c. Photophoresis. This treatment is used ONLY for thin melanoma or cutaneous T-cell lymphoma (mycosis fungoides).

First Course of Therapy

- d. Cancer treatment that could not be assigned to the previous treatment fields (surgery, radiation, chemotherapy, immunotherapy, or systemic therapy)
- 3. Assign code **2** for any experimental or newly developed treatment, such as a clinical trial, that differs greatly from proven types of cancer therapy.

Note: Hyperbaric oxygen has been used to treat cancer in clinical trials, but it is also used to promote tissue healing following head and neck surgeries. Do not code the administration of hyperbaric oxygen to promote healing as an experimental treatment.

- 4. Assign code **3** when the patient is enrolled in a double blind clinical trial. When the trial is complete and the code is broken, review and recode the therapy.
- 5. Assign code 6 for
 - a. **Unconventional** methods whether they are the only therapy or are given **in combination** with conventional therapy
 - b. Alternative therapy ONLY if the patient receives no other type of treatment
- 6. Assign code 8 When other therapy was recommended by the physician but there is no information that the treatment was given.
- 7. Assign code 9 when there is no documentation that other therapy was recommended or performed
 - a. For death certificate only (DCO) cases

A quote from the website for the National Cancer Institute (NCI), Office of Cancer Complementary and Alternative Medicine (OCCAM) defines Complementary and Alternative Medicine (CAM) as any medical system, practice, or product that is not thought of as "western medicine" or standard medical care.

- Complementary medicine means it is used along with standard medicine, also called conventional medicine.
- Alternative medicine is used in place of standard treatments.

CAM treatments may include dietary supplements, megadose vitamins, herbal preparations, acupuncture, massage therapy, magnet therapy, spiritual healing, and meditation.

The OCCAM was established to coordinate and enhance activities of the NCI in complementary and alternative medicine research as it relates to the prevention, diagnosis, and treatment of cancer, cancer-related symptoms and side effects of conventional cancer treatment.

See complete information on types of complementary and alternative medicine specific to cancer at <u>http://www.cancer.gov/cam/</u>. For additional information on cancer and other diseases, please visit <u>http://nccam.nih.gov/health/whatiscam/</u>.
Coding for Tumor Embolization

The American College of Surgeons Commission on Cancer (CoC), the Centers for Disease Control and Prevention National Program of Cancer Registries (NPCR), and the SEER Program have collaborated to clarify and refine coding directives for tumor embolization and are jointly issuing the following instructions.

Definitions

Chemoembolization

A procedure in which the blood supply to the tumor is blocked surgically or mechanically and anticancer drugs are administered directly into the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time.

Radioembolization

Embolization combined with injecting small radioactive beads or coils into an organ or tumor.

Tumor embolization

The intentional blockage of an artery or vein to stop the flow of blood through the desired vessel.

Coding Instructions

Code as "Other Therapy" when tumor embolization is performed using alcohol as the embolizing agent. Use code 1.

Example: For head and neck primaries: Ideally, an embolic agent is chosen that will block the very small vessels within the tumor but spare the adjacent normal tissue. Liquid embolic agents, such as ethanol or acrylic, and powdered particulate materials can penetrate into the smallest blood vessels of the tumor.

Use code 1 for embolization of a tumor in a site other than the liver when the embolizing agent is unknown.

Do not code pre-surgical embolization of hypervascular tumors with particles, coils or alcohol. Presurgical embolization is typically performed to prevent excess bleeding during the resection of the primary tumor. Examples where pre-surgical embolization is used include meningiomas, hemangioblastomas, paragangliomas, and renal cell metastases in the brain.

SECTION VII FOLLOW UP INFORMATION

DATE OF LAST FOLLOW UP OR OF DEATH

Item Length: 8 NAACCR Item #: 1750 NAACCR Name: Date of Last Contact

This data item records the date of last follow up or the date of death. SEER requires the registries to update the follow up information on all cases on an annual basis. The exception is carcinoma in situ of the cervix diagnosed on or after 1/1/1996.

Date of Last Follow Up or Death must be transmitted in the YYYYMMDD format. Date of Last Follow Up or Death may be recorded in the transmission format, or recorded in the traditional format (MMDDYYYY) and converted electronically to the transmission format.

Transmitting Dates

Transmit date fields in the year, month, day format (YYYYMMDD). Leave the year, month and/or day blank when they cannot be estimated or are unknown.

Common Formats

YYYYMMDD	Complete date is known
YYYYMM	Year and month are known/estimated; day is unknown
YYYY	Year is known/estimated; month and day cannot be estimated or are unknown
Blank	Year, month, and day cannot be estimated or are unknown

Transmit Instructions

- 1. Transmit date fields in the year, month, day format (YYYYMMDD).
- 2. Leave the year, month and/or day blank when they cannot be estimated or are unknown.
- 3. Most SEER registries collect the month, day, and year. When the full date (YYYYMMDD) is transmitted, the seventh and eighth digits (day) will be held confidentially and only used for survival calculations when received by NCI SEER. The corresponding date flag is not affected (it will remain blank).

Codes for Year

Code the four-digit year

Codes for Month

- 01 January
- 02 February
- 03 March
- 04 April 05 May
- 05 May 06 June
- 07 July
- 08 August

Code Description

- 09 September
- 10 October
- 11 November
- 12 December

Codes for Day

Code	
01	
02	
03	
31	

Coding instructions

- 1. Code the date the patient was actually seen by the physician or contacted by the hospital registry as the follow-up date. Do not code the date the follow-up report was received.
- 2. Do not change the follow-up date unless new information is available.
- 3. The field is associated with the patient, not the cancer, so all records (primary sites) for the same patient will have the same follow-up date.
- 4. Record the date of death for death certificate only (DCO) cases

Estimating Dates

Estimating the month

- 1. Code "spring of" to April
- 2. Code "summer" or "middle of the year" to July
- 3. Code "fall" or "autumn" as October
- 4. For "winter of," try to determine whether the physician means the first of the year or the end of the year and code January or December as appropriate. If no determination can be made, use whatever information is available to calculate the month.
- 5. Code "early in year" to January
- 6. Code "late in year" to December
- 7. Use whatever information is available to calculate the month
- 8. Code the month of admission when there is no basis for estimation
- 9. Leave month blank if there is no basis for approximation

Estimating the year

- 1. Code "a couple of years" to two years earlier
- 2. Code "a few years" to three years earlier
- 3. Use whatever information is available to calculate the year
- 4. Code the year of admission when there is no basis for estimation

DATE OF LAST FOLLOW UP OR DEATH FLAG

Item Length: 2 NAACCR Item #: 1751 NAACCR Name: Date of Last Contact Flag

Date flag fields were added beginning with diagnoses on or after 1/1/2010 as part of an initiative to standardize date fields. Date flags replace nondate information that had previously been transmitted in date fields. Coding 99999999 to indicate "unknown" is an example of nondate information that was previously transmitted in date fields.

Code	Label	Definition
	Blank	A valid date value is provided in Date of Last Follow up or Death
12	Unknown	A proper value is applicable but not known

Coding Instructions

- 1. Leave this item blank when Date of Last Follow up or Death has a full or partial date recorded
- 2. Assign code 12 when the date of last follow up or death cannot be determined

VITAL STATUS

Item Length: 1 NAACCR Item #: 1760 NAACCR Name: Vital Status

SEER requires the registries to update the follow up information on all cases on an annual basis. The exception is carcinoma in situ of the cervix diagnosed on or after 1/1/1996. This field records the vital status of the patient on the date of last follow up.

Code	Description	
1	Alive	
4	Dead	

The field is associated with the patient, not the cancer, so if the patient has multiple primary tumors, vital status should be the same for all tumors.

Coding instructions

1. Assign code 4 for death certificate only (DCO) cases

ICD CODE REVISION USED FOR CAUSE OF DEATH

Item Length: 1 NAACCR Item #: 1920 NAACCR Name: ICD Revision Number

SEER requires the registries to update the follow up information on all cases on an annual basis. The exception is carcinoma in situ of the cervix diagnosed on or after 1/1/1996. This field shows the revision of the International Classification of Diseases (ICD) used to code the underlying cause of death.

If the patient has multiple tumor records, the ICD Code Revision Used for Cause of Death must be identical on each record.

Code Description

- 0 Patient alive at last follow up
- 1 ICD-10 (1999+ deaths)
- 7 ICD-7
- 8 ICDA-8
- 9 ICD-9

Coding instructions

1. Assign code **1** for death certificate only (DCO) cases

UNDERLYING CAUSE OF DEATH

Item Length: 4 NAACCR Item #: 1910 NAACCR Name: Cause of Death

This is the official underlying cause of death coded from the death certificate using ICD-7, ICDA-8, ICD-9, or ICD-10 codes.

Special Codes

Code	Description
0000	Patient alive at last contact
7777	State death certificate or listing not available
7797	State death certificate or listing available, but underlying cause of death not coded

Coding Instructions for ICD-10

- 1. Ignore (do not record) decimal points when copying codes.
- 2. The cause of death code is commonly four characters. Ignore (do not code) a fifth character if present.
- 3. Left justify the codes; if less than four characters, left justify and add a 9 to the right.
- 4. If the underlying cause of death code is not available, do not attempt to code the underlying cause of death unless you have a trained ICD-10 nosologist on staff or on consult.

Priority Order for use of source documents to assign codes, with 1 having the highest priority.

- 1. Use the underlying cause of death as coded by a state health department even if the code seems to be in error.
- 2. Report the coded underlying cause of death code from another source such as NDI Plus or state data exchange.
- 3. Code the underlying cause of death if a trained ICD-10 nosologist is on staff or under contract.
- 4. Code the underlying cause of death 7797 when the death certificate is available but the underlying cause of death code is not coded and cause of death is not available from another source such as NDI Plus or state data exchange.
- 5. Code **7777** when the death certificate is **not** available AND the coded underlying cause of death is not available from other sources such as NDI or state data exchange.

Example: Medical doctor states patient died, but death certificate not available (not on state death file, not available through federal or state agencies); code 7777.

Beginning with deaths in 1999, the United States agreed to code all deaths using the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD-10). The ICD-10 codes have up to four characters: a letter followed by 2 or 3 digits.

Examples:

Underlying Cause of Death	ICD-10	SEER Code
Malignant neoplasm of the thyroid	C73	C739
Acute appendicitis with peritonitis	K35.0	K350
Malignant neoplasm of stomach	C16.9	C169

If the patient has multiple records, the underlying cause of death must be identical on each record.

TYPE OF FOLLOW UP

Item Length: 1 NAACCR Item #: 2180 NAACCR Name: SEER Type of Follow up

Type of Follow Up identifies the source of information used to code the patient's vital status. SEER requires registries to collect this data item.

Code Description

- 1 "Autopsy Only" or "Death Certificate Only" case
- 2 Active follow up case
- 3 In situ cancer of the cervix uteri only
- 4 San Francisco-Oakland only: Case not originally in active follow up, but in active follow up now

Coding Instructions

- 1. All cases (other than in situ cancers of the cervix uteri) must be followed annually, including benign and borderline intracranial and CNS tumors diagnosed 1/1/2004 and forward.
- 2. Cases of in situ cancer of the cervix diagnosed on or after 1/1/1996 are not reportable; follow up is not required.

Note: Follow up information should be updated on cases diagnosed before 1/1/1996 when information is available.

SECTION VIII ADMINISTRATIVE CODES

Each calendar year the SEER participants submit records to NCI for all persons/cancers diagnosed since the participant started reporting. Many of these records have been updated with information received by the participant since the prior data submission. NCI edits the information to ensure correctness and comparability of reporting. Some of these edits identify conditions that require additional review. To eliminate the need to review the same cases each submission, the Administrative Codes section contains a set of indicators used to show that the information in a record has already been reviewed.

SITE/TYPE INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2030 NAACCR Name: Over-Ride Site/Type

Site/Type Interfield Review (Interfield Edit 25)

This field is used to flag those cases where the primary site and histology are unusual.

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed as reported: The coding of an unusual combination of primary site and histologic type has been reviewed

HISTOLOGY/BEHAVIOR INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2040 NAACCR Name: Over-Ride Histology

Histology/Behavior Interfield Review (Field Item Edit Morph and Interfield Edit 31)

This field is used to identify whether a case was reviewed and coding confirmed for those cases where the behavior code differs from the ICD-O-3 behavior code i.e.: ICD-O-3 only lists a behavior code of /3 and the case was coded /2, or the ICD-O-3 only lists behavior codes of /0 and /1 and the case is coded /3. It is also used to flag those cases that are in situ and not microscopically confirmed.

Code Description

blank Not reviewed or reviewed and corrected

- 1 Reviewed and confirmed that the pathologist states the primary to be "in situ" or "malignant" although the behavior code of the histology is designated as "benign" or "uncertain" in ICD-O-2 or ICD-O-3(flag for a "Morphology Type & Behavior" edit)
- 2 Reviewed and confirmed that the behavior code is "in situ," but the case is not microscopically confirmed (flag for a "Diagnostic Confirmation, Behavior Code" edit)
- 3 Reviewed and confirmed that conditions 1 and 2 both apply

AGE/SITE/HISTOLOGY INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 1990 NAACCR Name: Over-Ride Age/Site/Morph

Age/Site/Histology Interfield Review (Interfield Edit 15)

This field is used to identify whether a case was reviewed and coding confirmed for those cases with an unusual site/histology combination for a given age-group.

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed that age/site/histology combination is correct as reported
- 2 Reviewed and confirmed that case was diagnosed *in utero*
- 3 Reviewed and confirmed that conditions 1 and 2 both apply

SEQUENCE NUMBER/DIAGNOSTIC CONFIRMATION INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2000 NAACCR Name: Over-ride SeqNo/DxConf

Sequence Number/Diagnostic Confirmation Interfield Review (Interfield Edit 23)

This field is used to identify whether a case was reviewed and coding confirmed for those cases where a patient has separate primary records and one of them has not been microscopically confirmed. The unconfirmed primary should be reviewed to determine whether it is a true primary or metastasis from a previous one.

Code Description

blank Not reviewed, or reviewed and corrected

1 Reviewed and confirmed as reported: Multiple primaries of special sites in which at least one diagnosis has not been microscopically confirmed have been reviewed

SITE/HISTOLOGY/LATERALITY/SEQUENCE INTERRECORD REVIEW

Item Length: 1 NAACCR Item #: 2010 NAACCR Name: Over-Ride Site/Lat/SeqNo

Site/Histology/Laterality/Sequence Number Interrecord Review (Interrecord Edit 09)

This field is used to identify whether a case was reviewed and coding confirmed for cases having multiple primaries with the same histology and the same primary site. This review ensures that over-reporting does not happen.

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed as reported: Multiple primaries of the same histology (3 digit) in the same primary site group have been reviewed

SURGERY/DIAGNOSTIC CONFIRMATION INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2020 NAACCR Name: Over-Ride Surg/DxConf

Surgery/Diagnostic Confirmation Interfield Review (Interfield Edit 46 and Interfield Edit 76)

This field is used to identify whether a case was reviewed and coding confirmed for cases where the patient had surgery but the specimen was so small that it was not possible to confirm the diagnosis microscopically.

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed as reported: A patient who had (cancer-directed) surgery, but the tissue removed was not sufficient for microscopic confirmation

TYPE OF REPORTING SOURCE/SEQUENCE NUMBER INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2050 NAACCR Name: Over-Ride Report Source

Type of Reporting Source/Sequence Number Interfield Review (Interfield Edit 04)

This field is used to identify whether a case was reviewed and coding confirmed for cases where the second or subsequent primary added to a patient's record was a Death-Certificate-Only case. The DCO case should be reviewed to determine that it is not a metastasis from the prior primary.

- blank Not reviewed, or reviewed, and corrected
- 1 Reviewed and confirmed as reported: A second or subsequent primary with a reporting source of death certificate only has been reviewed and is indeed an independent primary

SEQUENCE NUMBER/ILL-DEFINED SITE INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2060 NAACCR Name: Over-Ride III-define Site

Sequence Number/Ill-defined Site Interfield Review (Interfield Edit 22)

This field is used to identify whether a case was reviewed and coding confirmed when a subsequent primary has an ill-defined primary site code. The ill-defined site should be reviewed to determine that it is not the same as a previous tumor.

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed as reported: A second or subsequent primary reported with an illdefined primary site (C76.0-C76.8, C80.9) has been reviewed and is an independent primary

LEUKEMIA OR LYMPHOMA/DIAGNOSTIC CONFIRMATION INTERFIELD REVIEW

Item Length: 1 NAACCR Item #: 2070 NAACCR Name: Over-Ride Leuk, Lymphoma

Leukemia or Lymphoma/Diagnostic Confirmation Interfield Review (Interfield Edit 48)

This field is used to identify whether a case was reviewed and coding confirmed for leukemia or lymphoma cases that have not been microscopically confirmed.

IF48 identifies lymphoma cases with a diagnostic confirmation code of 6 (direct visualization) or 8 (clinical), and leukemia cases with a diagnostic confirmation code of 6 (direct visualization).

Code Description

blank Not reviewed, or reviewed and corrected

1 Reviewed and confirmed as reported: A patient was diagnosed with leukemia or lymphoma and the diagnosis was not microscopically confirmed

OVER-RIDE FLAG FOR SITE/BEHAVIOR (IF39)

Item Length: 1 NAACCR Item #: 2071 NAACCR Name: Over-Ride Site/Behavior

Over-ride Flag for Site/Behavior (Interfield Edit 39)

This field is used to identify whether a case was reviewed and coding confirmed for cases where the behavior is coded to a 2/ and the primary site is nonspecific, such as female genital tract, NOS.

Code Description

blank Not reviewed, or reviewed and corrected

1 Reviewed and confirmed as reported: A patient has an in situ cancer of a nonspecific site and no further information about the primary site is available

The IF39 edit does not allow in situ cases of nonspecific sites, such as gastrointestinal tract, NOS; uterus, NOS; female genital tract, NOS; male genital organs, NOS; and others. This over-ride indicates that the conflict has been reviewed.

OVER-RIDE FLAG FOR SITE/EOD/DIAGNOSIS DATE (IF40)

Item Length: 1 NAACCR Item #: 2072 NAACCR Name: Over-Ride Site/EOD/DX Dt

Over-ride Flag for Site/EOD/Diagnosis Date (Interfield Edit 40 and Interfield Edit 176)

This field is used to identify whether a case was reviewed and coding confirmed for cases where the patient has a localized disease with the primary site coded to a non-specific site, like colon, NOS.

Code Description

blank Not reviewed, or reviewed and corrected

1 Reviewed and confirmed as reported: A patient had "localized" disease with a non-specific site and no further information about the primary site is available

The IF40 and IF176 edits do not allow "localized" disease with non-specific sites, such as mouth, NOS; colon, NOS (except histology 8220); bone, NOS; female genital system, NOS; male genital organs, NOS; and others. This over-ride indicates that the conflict has been reviewed.

OVER-RIDE FLAG FOR SITE/LATERALITY/EOD (IF41)

Item Length: 1 NAACCR Item #: 2073 NAACCR Name: Over-Ride Site/Lat/EOD

Over-ride Flag for Site/Laterality/EOD (Interfield Edit 41 and Interfield Edit 177)

This field is used to identify whether a case was reviewed and coding confirmed for cases with a non-specific laterality code.

Code Description

blank Not reviewed, or reviewed and corrected

1 Reviewed and confirmed as reported: A patient had laterality coded non-specifically and extension coded specifically

The IF41 and IF177 edits for paired organs does not allow EOD/CS Extension to be specified as in situ, localized, or regional by direct extension if laterality is coded as "bilateral, side unknown," or "laterality unknown." This over-ride indicates that the conflict has been reviewed.

OVER-RIDE FLAG FOR SITE/LATERALITY/MORPHOLOGY (IF42)

Item Length: 1 NAACCR Item #: 2074 NAACCR Name: Over-Ride Site/Lat/Morph

Over-ride Flag for Site/Laterality/Morphology (Interfield Edit 42)

This field is used to identify whether a case was reviewed and coding confirmed for paired-organ primary site cases with an in situ behavior and the laterality is not coded right, left, or one side involved, right or left origin not specified.

Code Description

- blank Not reviewed, or reviewed and corrected
- 1 Reviewed and confirmed as reported: A patient had behavior code of in situ and laterality is not stated as right: origin of primary; left: origin of primary; or only one side involved, right or left origin not specified

The IF42 edit does not allow behavior code of in situ with non-specific laterality codes. This over-ride indicates that the conflict has been reviewed.