Mississippi Cancer Registry Reporting Manual Revised 2016

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PROGRAM OVERVIEW

The Mississippi Cancer Registry (MCR) Reporting Manual has been created to assist hospital registries in reporting cancer cases to the MCR. This manual is being implemented due to the requirements from the National Program of Cancer Registries (NPCR), the North American Association for Central Cancer Registries (NAACCR) and the Commission on Cancer (CoC) Facility Oncology Required Data Standards (FORDS). There are also clarifications and rules that are in place in order to accurately complete abstraction of cancer cases.

In October 1992, Congress enacted the Cancer Registries Amendment Act (http://www.cdc.gov/cancer/npcr/npcrpdfs/publaw.pdf) that authorized the Centers for Disease Control and Prevention to establish a national program to support cancer registries. One of the goals of this program was to help establish statewide population-based cancer registries that would meet the minimum standards for quality and completeness set forth by the North American Association of Central Cancer Registries (NAACCR). In 1993, the Mississippi State Legislature authorized the Mississippi State Department of Health (MSDH) to establish a central population-based incidence cancer registry for the state of Mississippi (http://mcr.umc.edu/documents/StateLaw.pdf)

Cancer registration is an important and fundamental tool in assessing the true extent of cancer in Mississippi. The data collected through a statewide cancer registry can be used for epidemiological studies, medical research, and cancer control planning. This information is a valuable and essential tool in the identification of populations at high risk for cancer, the monitoring of cancer incidence trends, the facilitation of studies related to cancer prevention, the evaluation of cancer control initiatives, and the development of educational awareness programs.

The rules and regulations governing reporting of cancer cases to the Central Cancer Registry were presented to the State Department of Health for final adoption in April 1995. These rules and regulations which created a new Class IV level of reportable diseases became effective May 1995. Health Department regulations require that a cancer case be reported within six months of the first date of contact with the patient for the reportable condition.

The Mississippi Cancer Registry began collecting data on January 1, 1996. The MCR collects data that: 1) are compliant with required NPCR data elements; 2) are standard requirements designated by NAACCR for incidence reporting and endorsed by CDC; 3) assist in determining data quality; and 4) provide useful information, feedback and assistance to submitting facilities.

CONFIDENTIALITY

Per State Cancer Law (41-91-11) "Data obtained under this chapter directly from the medical records of a patient is for the confidential use of the department and the persons or public or private entities that the department determines are necessary to carry out the intent of this chapter. The data is privileged and may not be divulged or made public in a manner that discloses the identity of an individual whose medical records have been used for obtaining data

under this chapter."

DISCLOSURE OF DATA

The Mississippi Cancer Registry (MCR) may exchange patient-specific information with the reporting facility or clinical facility for the purpose of completing a case record, provided these facilities comply with all MCR confidentiality policies.

To achieve complete case ascertainment, the MCR may exchange patient-specific information with other state cancer registries if reciprocal data sharing agreements and confidentiality provisions are in place. The MCR may not provide information on a patient of a hospital that was obtained from another hospital (i.e., follow-up information).

The Mississippi Cancer Registry Advisory Committee, formed in December 2006, was tasked with developing the protocol for release of information for the purpose of research. The Committee consists of medical representatives from the different disciplines related to cancer, cancer registry professionals and also experts on human subject research. This protocol is complete and available to researchers who are interested in using registry data. Since the MCR is charged with data collection and not authorized to use funds for research, there is a fee for researchers that want to use the MCR data. The protocol and fee schedule are located on the MCR web site (http://mcr.umc.edu). Data obtained from the VA hospitals, Keesler Medical Center and certain other states cannot be used for research.

GENERAL INSTRUCTIONS

The following information provides some basic rules regarding cancer reporting to the MCR.

A. Healthcare providers including, but not limited to, hospitals, ambulatory surgery centers, laboratories, radiation therapy facilities, oncology facilities and physician offices are required to report cancer cases to the MCR. Hospitals need to abstract inpatient and outpatient cancer cases.
B. All required data items should be collected and reported to the MCR. The list is based on the rules and regulations of NPCR and NAACCR.
C. The ICD-O-3 coding scheme must be used for site and histology for cases diagnosed on or after January 1, 2001. The ICD-O-2 coding scheme must be used for cases diagnosed prior to January 1, 2001.
D. The Collaborative Staging Manual is to be used for cases diagnosed between January 1, 2004 and December 31, 2015. Site Specific Factors will continued to be used for cases diagnosed January 1, 2016 and later. AJCC TNM Staging is to be used for cases diagnosed January 1, 2016 and later. The SEER Summary Staging Manual – 2000 is to be used for staging for cases diagnosed between January 1, 2001 and December 31, 2003 and cases diagnosed January 1, 2015 and later. The SEER Summary Staging Guide, 1986 reprint, is to be used for cases diagnosed prior to January 1, 2001.
E. The Multiple Primary and Histology Coding Rules Manual is to be used for cases diagnosed January 1, 2007 and later.

F. All cases diagnosed and/or treated for cancer in your facility on or after January 1, 1996, must be abstracted and reported to the MCR.
G. Completed cases should be submitted to the MCR within six months of date of initial diagnosis for Class of Case 00 through 14 and within six months of the date of first contact for Class of Case 20 through 22.
H. All pathology reports that are read by hospital pathology laboratories, but the cases are not the responsibility of the hospital registry to abstract, should be forwarded to MCR for further investigation. MCR will be responsible for contacting the physicians on the pathology reports to obtain the information needed to include the case in the registry database.
I. It is important for all reporting facilities to submit data monthly. This will ensure that all data can be processed and submitted to the CDC by the established deadlines.

QUALITY CONTROL

Edits

All cases must pass edits when submitted to the MCR. Edits are built into Web Plus for data entry. No case can be released to the MCR from Web Plus if there are edits on that case. For file uploaders, edits will be run on your submission file. A copy of the state edit set has been provided to all hospital vendors. Since there is often a lag time in getting the edit set added to the hospital software, files with less than 10% edits will be accepted. Otherwise, the file will be rejected and require resubmission after the edits are corrected. The edit report will be provided to the facility.

Visual Review of Cases

All cases submitted to the MCR will be subject to a visual review of key data items. Items include age at diagnosis, sex, race fields, Spanish/Hispanic origin, date of diagnosis, primary site, laterality, histology, grade, staging fields, class of case, dates of first course treatment and treatment data fields. Other items may be included as time and resources permit. The items will be compared to the text submitted, so good text is important to this process. If problems are identified or codes are not justified in text, the facility will be contacted. This process serves to ensure the registry has high quality data.

Audits

The MCR Auditor conducts annual case finding and quality assurance (re-abstracting) audits as required by NPCR. The purpose of these audits is to ensure that all reportable cases are being identified and reported to the cancer registry and that all information submitted to the registry is of good quality and accurately coded. The audits are scheduled in advance to enable the facilities to prepare for the arrival of the registry staff or to set up remote access for the auditor. Case finding audits require a medical record disease index that is usually reviewed before the audit begins. Reviewing of charts, pathology case finding and re-abstracting are performed on site or by remote access to the facility's electronic medical records. A report is provided to the

medical record director and administrator which summarize the percentage of case ascertainment or completeness and any suggestions that would help to improve the reporting process.
Case finding audits are performed on inpatient and outpatient disease indices, pathology reports and other pertinent case finding documents such as: clinic sign-in logs, surgery logs, etc. These documents are reviewed and all reportable codes are compared with the MCR database for the facility being audited. All cases that are not identified in the database will have to be reconciled by the registrar at the audited facility. The registrar will have a minimum of 30 days to complete the reconciliation process and return an updated list to MCR with reasons why the identified cases were either not abstracted or not reportable. Cases that are reportable must be abstracted into their database and submitted to the MCR. All cases that were either diagnosed prior to January 1, 1996 or diagnosis/treatment was not performed at the reporting facility are removed from the reconciliation log and a percentage is calculated at that time. A report is sent to the medical record director and the administrator of the facility that summarizes the percentage of case ascertainment and provides suggestions to help improve the case ascertainment process.

Quality assurance or re-abstracting audits consist of the MCR Auditor re-abstracting specific fields selected by MCR and comparing with the original data that has been submitted. Any discrepancies are documented and sent to the audited facility in a summary report. Exceptions are taken into consideration if a case has been merged in the MCR database and the audited facility did not have this information. This could indicate that the other procedures were done elsewhere and not available to the audited facility at the time of abstraction.

REPORTING PROCEDURE

Reporting facilities with 25 or less confirmed cases per year may elect to report their cases on paper. Copies of the following from the medical record need to be sent in for each identified cancer case: Face Sheet, History and Physical, Operation Reports, Scans, X-Rays, Pathology, Chemotherapy, Radiation, and Name of Referring Physician. The paper reporting form should no longer be completed. These records need to be submitted on a monthly basis. It is recommended that the facility keep a copy of what is submitted to prevent duplicate case reporting. The submissions should be faxed to 601-815-5483. The fax machine is the property of the Mississippi Cancer Registry, so the data will not be received or viewed by anyone other than our staff. If you cannot fax the information, you may mail it to the following address:

Mississippi Cancer Registry
2500 N. State Street
Jackson, MS 39261-4583

Facilities with no cases for a given month need to send a letter to the MCR stating that there were no cases to report. For facilities that frequently have no cases, quarterly reporting is acceptable.

Facilities with more than 25 confirmed cases of cancer must report electronically monthly. Facilities with their own cancer registry software should submit a file of cases in the appropriate NAACCR layout to the secure website, https://mscrrweb1.umc.edu/webplus/LogOnEn.aspx. Facilities using Web Plus for direct data entry will abstract their cases and correct edit errors. Once the cases are complete and free of edits, the facility will release the abstracts to the MCR.

CASE FINDING

Cases can be identified via many sources. The pathology reports can provide cases diagnosed by histology, cytology, hematology, bone marrow, or autopsy. Other sources are clinic admission logs, daily discharges, disease indices, inpatient and outpatient surgery logs, radiotherapy consults, treatment reports and logs and oncology clinic treatment reports and logs. The pathology reports should never be the only source of case finding, due to the fact that cases not diagnosed, only treated at your facility, may not have a path report. Also, some cases are clinical diagnoses only. Oncology clinic logs will be a good source in locating these cases. Cases not diagnosed histologically will be either confirmed by the physician in the patient's medical record or on the medical record disease index. A system should be established that would enable you to review a copy of the disease index.

REPORTABLE NEOPLASMS

The Mississippi Cancer Registry produces lists of reportable conditions containing the ICD-9-CM codes and ICD-10-CM codes depending on year to aid hospitals in case finding. The reportable conditions do not change that often. However, the ICD-10-CM codes for reportable conditions may change as frequently as annually. We update the reportable list annually to reflect those changes, if necessary. The reportable list in its entirety will not be included in this manual since all of the hospitals are not abstracting the same month and year and may need different lists based on what month and year of cancer cases they are abstracting. The most current and all historical reportable lists can be found on our web site at the following link: https://www.umc.edu/Administration/Outreach_Services/Mississippi_Cancer_Registry/Reportable_Diseases.aspx.

Not only do these reportable lists contain information on what is reportable and the ICD-9-CM or ICD-10-CM codes for those conditions, but they also include conditions that should be excluded and conditions or procedures that should be screened for a reportable cancer case. Additionally, they provide a list of ambiguous terms that should be used to help in determining if a case is reportable.

Diagnosis Prior to Birth

Reportability requirements apply to diagnoses made in utero. Diagnoses made in utero are reportable only when the pregnancy results in a live birth. If you have no indication in the record of still birth, abortion or fetal death, assume that there was a live birth. When a

reportable condition is confirmed prior to birth and disease is not evident at birth due to regression, report the case based on the pre-birth diagnosis.

Reportability Examples

1. Positive histology from a needle aspiration/biopsy followed by negative resection. This case is reportable based on the positive needle biopsy.
2. Ovarian mucinous borderline tumor with foci of intraepithelial carcinoma. This case is reportable because there are foci of intraepithelial carcinoma (carcinoma in situ)
3. "Squamous cell carcinoma of the anus, NOS." Squamous cell carcinoma of the anus is reportable unless the primary site is confirmed to be the skin of the anus.

Not Reportable Examples

- 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.

Cases Diagnosed Clinically are Reportable

In the absence of 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 cancer or carcinoma). A clinical diagnosis may be recorded in the final diagnosis, on the face sheet or other parts of the medical record.

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

Exception 1: If the physician treats a patient for cancer in spite of the negative biopsy, report the case.

Exception 2: If enough time has passed that it is reasonable to assume that the physician has seen the negative pathology, but the clinician continues to call this a reportable disease, report the case. A reasonable amount of time would be equal to or greater than 6 months.

Brain or CNS "Neoplasms"

A brain or CNS 'neoplasm' identified by diagnostic imaging is reportable even when no other information is available (from biopsy or resection, for example).

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.

Ambiguous terms that are reportable:

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. If any of the reportable ambiguous terms precede a word that is synonymous with an in situ or invasive tumor, report the case.

   Example: The pathology report says: Breast biopsy with abnormal cells consistent with ductal carcinoma. Report the case.

   Negative example: The final diagnosis reads: Rule out lung cancer. Do not report this case.

2. For benign and borderline primary intracranial and CNS tumors, report the case if any reportable ambiguous term precedes the either the word "tumor" or the word "neoplasm."

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

      Example: Impression from a CT scan of the chest states probable malignant neoplasm of the lung. Discharge diagnosis states possible lung cancer. Report this case because probable lung cancer makes this case reportable.

   b. When there is a single report, accept the reportable term and report the case when 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.

Example: Abdominal CT reveals a 2cm liver lesion. "The lesion is consistent with hepatocellular carcinoma" appears in the discussion section of the report. The final diagnosis is "2 cm liver lesion, possibly hepatocellular carcinoma." Report this case. "Consistent with" is reportable.

Exception: Do not accession a case based ONLY on suspicious cytology.

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

   i. Do not report a case when resection, excision, biopsy, cytology, or physician's statement proves the ambiguous diagnosis is not reportable.

   Example 1: Stereotactic biopsy of the left breast is "focally suspicious for DCIS" and is followed by a negative needle localization excisional biopsy. Do not report 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 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 could not be excluded." Discharged back to the nursing home and no other information is available. Do not report the case. The suspicious CT finding was biopsied and not proven to be malignant. "Suggestive of" is not a reportable ambiguous term.

Hematopoietic and Lymphoid Neoplasms

For cases diagnosed January 1, 2010 or later, see the Reportability Instructions in the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* (http://seer.cancer.gov/tools/heme/index.html).

CORRECTIONS, DELETIONS AND ADDITIONS

When reviewing cases submitted to the MCR, delete any duplicate records, such as a case that is found to have been abstracted more than once. Also, delete a previously reported case if subsequent evidence disproves the presence of cancer, or if what was thought to be a new primary cancer is later found to be a manifestation of an earlier primary cancer. All deletions must be reported to the MCR. If your facility reports a class 43 and then the patient comes to your facility for treatment resulting in a class 20, 21, or 22, please resubmit that case to the MCR.

Example:
After a case of "probable lymphoma" had been reported, the patient was referred to a specialty center where additional workup and repeat biopsies were performed. The final diagnosis was changed to "atypical lymphocytic infiltrates," and physicians decided to follow the patient closely but not treat the condition. Since the patient is now deemed not to have cancer, delete the case from the hospital's registry and notify the MCR.

Changes to the Abstract

The information in an abstract should be changed for the following circumstances and should be reported to the MCR.

1. To correct abstracting errors

2. When clarifications or rule changes retroactively affect data item 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 after the registrar abstracted the case. Whenever these later reports give better information about the histology, grade of tumor, primary site, etc., change the codes to reflect the better information. Make sure these changes are reported to the MCR.

   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. Update all other fields affected by the change in primary site. Make sure these changes are reported to the MCR.

   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. Make sure these changes are reported to the MCR.

   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. Make sure to enter supporting documentation in the text.

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 2009. In January 2010, the patient is admitted with widespread

metastasis consistent with malignant argentaffin carcinoid. The registrar accessions the malignant argentaffin carcinoid as a 2010 diagnosis. Two months later, the pathologist reviews the slides from the May 2009 surgery and concludes that the carcinoid diagnosed in 2009 was malignant. Change the date of diagnosis to May 2009 and histology to 8241 and the behavior code to malignant (/3). Make sure these changes are reported to the MCR.

ADDITIONAL TREATMENT INFORMATION

If after a case is reported to the MCR, additional information on treatment is added to an abstract, the additional treatment should be reported to the MCR by resubmitting the abstract or by contacting us with the updated information.

CODING RULES AND EXAMPLES

CLASS OF CASE

All cases are assigned a class of case based on the nature of involvement of the facility in the care of the patient.

Analytic Cases

Cases diagnosed at the reporting facility and/or administered any of the first course of treatment there are analytic. A network clinic or outpatient center belonging to the facility is considered part of the facility. These cases would be given a class of case 00 through 22.

Nonanalytic Cases

Nonanalytic cases include class of case 30 through 99. The reporting facility did not diagnosis and/or provide the first course of treatment with the exception of class 38 and class 43. The reporting facility may have performed the autopsy and diagnosed the cancer (Class 38). For a class 43, a specimen was read at the reporting facility. However, the patient never physically entered the facility.

The MCR requires that classes of case 00-22, 30, 31, 32, 34, 36, 38, 43 be reported by all facilities. Class of case 34 and 36 would be used for cases of VIN III, VAIN III and AIN III which are not reportable to the COC but must be reported to the MCR. Cancer registries must also report class of case 40-42 if they collect these cases. New cancer programs should submit class of case 35 and 37 for cases diagnosed January 1, 1996 or later. **DO NOT** use class of case 99. If you are not sure of what class of case to use, please contact the MCR for assistance.

PATIENT ADDRESS AND RESIDENCY RULES

The patient's address at diagnosis is the patient's place of residence at the time of the original diagnosis. It does not change if the patient moves. If the patient has more than one primary

tumor, the address at diagnosis may be different for each primary.

The current address initially is the patient's residence at the time the patient was first seen at the accessioning facility for this primary. The current address is updated if the patient moves. If the patient has more than one primary tumor, the current address should be the same for each primary.

Normally a residence is the home named by the patient. Legal status and citizenship are not factors in residency decisions. Rules of residency are identical to or comparable with the rules of the Census Bureau's definition, "the place where he or she lives and sleeps most of the time or the place the person considers to be his or her usual home." Vital statistics rules may differ from Census rules. **Do not record the residence from the death certificate**. Review each case carefully.

RULES FOR PERSONS WITH AMBIGUOUS RESIDENCE:

Persons with more than one residence (summer and winter homes): Use the address the patient specifies if a usual residence is not apparent.

Persons with no usual residence (transients, homeless): Use the address of the place the patient was staying when the cancer was diagnosed. This could be a shelter or a diagnosing facility. In the supplemental address field, add the word "homeless" or "transients", as applicable.

Persons away at school: College students are residents of the school area. Boarding school students below the college level are residents of their parents' homes.

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

- Incarcerated persons
- Persons in nursing, convalescent, and rest homes
- Persons in homes, schools, hospitals, or wards for the physically disabled, mentally retarded, or mentally ill
- Long-term residents of other hospitals, such as Veterans Affairs (VA) hospitals.

Persons in the Armed Forces and on Maritime Ships: Members of the armed forces are residents of the installation area. Use the stated address for military personnel and their families. Military personnel may use the installation address or the surrounding community's address.

PRIMARY SITE

The primary site is defined as the organ or site in which the cancer originated or began. A metastatic site indicates that the primary (originating) tumor has spread from the original site to

other areas in the body. Cancer registries only code the primary site in this field, using the ICD-O-2 (cases diagnosed prior to January 1, 2001) or ICD-O-3 (cases diagnosed on or after January 1, 2001) manual to determine the correct site code. Indications of metastatic sites are used in the registry for identifying the extent of the patient's disease and for staging purposes.

- Unless otherwise instructed, use all available information, including pathology reports, scans, x-rays, MRIs, etc., to code the primary site.

- Code the site in which the primary tumor originated, even if extends onto/into and adjacent subsite.

  Example: The patient has a 2cm tumor in the right breast. The tumor originated in the lower inner quadrant and extends into the upper inner quadrant. Code the primary site to the lower inner quadrant of the breast (C50.3).

- Use subcategory ".8" (overlapping lesion code) when a single tumor overlaps the boundaries of two or more categories or subcategories and its point of origin cannot be determined. Overlapping applies to sites that are contiguous (adjacent) to one another.

  Example: A patient is diagnosed with right lung cancer. The physician states that the lesion involves both the upper and lower lobes, code to C34.8 since the point of origin is not stated.

- Code the site of the invasive tumor when there is an invasive tumor and an in situ tumor in different subsites of the same anatomic site and the port of origin cannot be determined.

  Example: Patient has an invasive breast tumor in the upper-outer quadrant of the left breast and in situ tumors in multiple quadrants of the left breast. Code the primary site to C50.4 (upper outer quadrant of breast)

- Code the last digit of the primary site 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: During a TURB, the physician describes multiple papillary tumors in the bladder neck (C67.5) and the lateral wall of the bladder (C67.2). Code the primary site as bladder, NOS (C67.9).

- Some histology/behavior terms in ICD-O-3 have a related site code in parenthesis; for example: Hepatoma (C22.0)
  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 (C25.0), 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: 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 (C50.9).

- 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 (C80.9).

- Code C42.2 (Spleen) as the primary site for angiosarcoma of spleen with mets to bone marrow.

- Gastrointestinal Stromal Tumor (GIST): Code the primary site to the location where the malignant GIST originated.

- 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 (C76.0-C76.8) if the physician advisor cannot identify a primary site.
  c. Code Unknown Primary Site (C80.9) if there is not enough information to assign an NOS or Ill-Defined Site Category.

- Code to Skin, NOS (C44.9) if a patient is diagnosed with metastatic melanoma and the primary site is unidentified.

- Complete primary site coding rules are described in the ICD-O-2 manual under the heading "Topography," pages xx-xxiii, and in the ICD-O-3 manual under *Coding Guidelines for Topography and Morphology.*

  Note: Kaposi's Sarcoma is coded to the site in which it originates. If the Kaposi's sarcoma is present in the skin and another site simultaneously, code to the specified skin site, (C44._). If the primary site is unknown or cannot be determined, code skin, NOS (C44.9).

  Note: 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 C49.9 rather than C80.9. 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.

Specific Tissue with Ill-Defined Sites

If any of the following histologies appears only with an ill-defined site description (e.g., "abdominal" or "arm"), code it to the tissue in which such tumors arise rather than the ill-defined region (C76._) of the body, which contains multiple tissues.

Histology	Description	Code to This Site
8720-8790	Melanoma	C44._, Skin
8800-8811, 8813-8830, 8840-8921, 9040-9044	Sarcoma except periosteal fibrosarcoma and dermatofibrosarcoma	C49._, Connective, Subcutaneous and Other Soft Tissues
8990-8991	Mesenchymoma	C49._, Connective, Subcutaneous and Other Soft Tissues
9120-9170	Blood vessel tumors, lymphatic vessel tumors	C49._, Connective, Subcutaneous and Other Soft Tissues
9580-9582	Granular cell tumor and alveolar soft part sarcoma	C49._, Connective, Subcutaneous and Other Soft Tissues
9240-9252	Mesenchymal chondrosarcoma and giant cell tumors	C40._, C41._, for Bone and Cartilage C49._, Connective Subcutaneous and Other Soft Tissues
8940-8941	Mixed tumor, salivary gland type	C07._ for Parotid Gland C08._ for Other and Unspecified Major Salivary Glands

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

For cases diagnosed January 1, 2010 and later, see the *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the Hematopoietic Database (DB) (http://seer.cancer.gov/tools/heme/) for instructions on coding the primary site for hematopoietic and lymphoid neoplasms.

For hematopoietic and lymphoid neoplasms diagnosed prior to January 1, 2010, use the following rules for coding primary site:

Code all leukemias except myeloid sarcoma (9930/3) to the bone marrow C42.1. Myeloid sarcoma is coded to the site of origin.

Primary Site Coding Lymphoma (Cases diagnosed prior to January 1, 2010)

Use the following guidelines to determine the primary site(s) for malignant lymphomas:

- Code lymphomas arising in lymphatic tissue or nodes to the site of origin. The lymphatic sites are Lymph Node(s) C77._, Tonsil C09._, Spleen C42.2, Waldeyer's Ring C14.2, and Thymus C37.9.
- Code extralymphatic lymphomas (lymphatic cells in nonlymphatic organs such as intestine or stomach) to the organ of origin (Intestine C26.0, Stomach C16.0-C16.9).
- If extranodal/extralymphatic site is suspected but is unknown, code C80.9.
- Code mycosis fungoides and cutaneous lymphomas to Skin (C44._).
- Code to Lymph Nodes, NOS (C77.9) when:
    1. the site of origin is not identified for a lymphoma
    2. a patient has diffuse lymphoma and a primary site is unknown or not specified
    3. a lymphoma mass is identified as "retroperitoneal," "inguinal," "mediastinal," or "mesentery," and no specific information is available to indicate what tissue is involved
    4. bone marrow metastases are present and the primary site of a lymphoma is unknown or not specified
- If origin of a lymphoma is unknown but is suggested by the histology code in ICD-O-3, code to the suggested site. Example: 9689/3 Splenic marginal zone B-cell lymphoma (C42.2)
- Code to Lymph Nodes, Multiple Regions (C77.8) when multiple lymph node chains are involved with disease.

Note: Carefully identify the origin of the tumor. Do not code the biopsy site or a metastatic site as the primary site. Lymphoma may be present in both an extranodal/extralymphatic organ and one or more lymph node chains. Code the primary site as the extranodal/extralymphatic organ or the lymph nodes as directed by the managing physician or physician advisor

MORPHOLOGY (HISTOLOGY, BEHAVIOR, AND GRADE):

The instructions for coding histology, behavior, and grade are found in the Morphology section of the ICD-O-3 "Coding Guidelines for Topography and Morphology" (ICD-O-3 pp. 27-34).

Note: Refer to International Classification of Diseases for Oncology, Third Edition (ICD-O-3) (cases diagnosed after January 1, 2001) coding rules for specific information. For cases diagnosed prior to January 1, 2001, use the International Classification of Diseases for Oncology, Second Edition (ICD-O-2).

Histology

Histologic type refers to the ***classification*** of malignancy described in the pathology or cytology report. Refer to the ICD-O manual to select the correct histologic code. The first three digits of the histology code will indicate the cancer cell type and usually the FINAL

pathology diagnosis is used to make the code determination. However, for cases diagnosed prior to January 1, 2007, if the **microscopic** description indicates a more specific histological diagnosis, use the more definitive code available. For cases diagnosed on or after January 1, 2007, refer to the *Multiple Primary and Histology Coding Rules* manual.

Example: On a pathology report dated January 1, 2004, the final pathologic diagnosis is **carcinoma** (8010) of the prostate. Microscopic description states **adenocarcinoma** (8140) of the prostate. Adenocarcinoma (8140) should be coded because it provides a more specific description of the **type** of cancer.

Further instructions and rules that clarify coding rules for histology are found under "Coding Guidelines for Topography and Morphology" in the ICD-O-3 manual. Further instructions and rules that clarify coding rules for histology are found on pages xxiv through xxix in the IC-O-2 manual.

The *Multiple Primary and Histology Coding Rules* should be used to code histology for solid tumors diagnosed on or after January 1, 2007.

For hematopoietic and lymphoid neoplasms diagnosed January 1, 2010 or later, use the histology coding rules in the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* to determine the correct histology.

Behavior Code

The behavior code occupies the 5th space (digit) of the histologic code. This component of the histologic code indicates the way in which the neoplasm will act or behave – invasive (3), non-invasive (2), borderline malignancy (1), benign (0). Reporting facilities should report cases with behavior codes 2 and 3 according to the list of reportable conditions. Tumors of the central nervous system diagnosed on or after January 1, 2004 are the only benign (0) and borderline (1) cases that should be reported to the MCR. If the pathology report describes the cancer as metastatic, the registrar should be alerted that the primary site is not described on this report and must take steps to identify the primary site with a behavior code of 3. The hospital registry does not utilize behavior codes of 6 and 9.

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

For intracranial and CNS tumors, code the behavior from CT scan, MRI or PET report when there is no tissue diagnosis (pathology or cytology report). Code the behavior listed on the report.

Behavior code is coded as malignant (3) if there is documentation of any invasion present no matter how limited.

Example: Pathology report of the cervix reads: "squamous cell carcinoma in situ (8070/2)

with microinvasion of squamous cell carcinoma (8070/3). This case should be coded to the invasive behavior 8070/3.

Exception: If an invasive behavior is ambiguous on a biopsy and the subsequent surgery shows only in situ cancer, code the behavior as in situ (/2).

Example: Needle biopsy of a breast tumor shows ductal carcinoma in situ with a focus suspicious for invasion. Subsequent lumpectomy showed ductal carcinoma in situ. Code the ductal carcinoma in situ (8500/2).

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 the malignant behavior (/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 one with an in situ behavior (/2), assign the malignant behavior code (/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.

Grade or Differentiation

This code occupies the 6th position of the morphology code. This number describes the grade or differentiation characteristics of the cancer. In most cases, the pathology report is the source for this description.

Histology Coding Rules for a Single Tumor (Solid tumors diagnosed prior to January 1, 2007 and Hematopoietic and Lymphoid neoplasms diagnosed prior to January 1, 2010).
Source: ***Seer Program and Coding and Staging Manual 2004***

- The rules are in hierarchical order. Rule 1 has the highest priority.
- Use the rules in priority order.
- Use the first rule that applies to the case. (Do not apply any additional rules.)

1. Code the histology if only one type is mentioned in the pathology report.

2. Code the **invasive** histology when both invasive and in situ tumors are present.

   Example: Pathology report reads infiltrating ductal carcinoma and cribiform ductal carcinoma in situ. Code the invasive histology 8500/3.

   Exception: If the histology of the invasive component is carcinoma, NOS, adenocarcinoma, NOS, melanoma, NOS, or sarcoma, NOS, then code the histology

of the specific term associated with the in situ component and an invasive behavior code.

3. Use a **mixed** histology code if one exists.

   Example: 9085 Mixed germ cell tumor

4. Use a **combination** histology code if one exists.

   Example: 8255 Renal cell carcinoma, mixed clear cell and chromophobe types

5. Code the **more specific term** when one of the terms is 'NOS' and the other is a more specific description of the same histology.

   Example 1: Pathology report reads poorly differentiated carcinoma, probably squamous in origin. Code the histology as squamous cell carcinoma rather than the non-specific term "carcinoma."

   Example 2: The pathology report from a nephrectomy reads renal cell carcinoma (8312) (renal cell identifies the affected organ system rather than the histologic cell type) in one portion of the report and clear cell carcinoma (8310) (a histologic cell type) in another section of the report. Code clear cell carcinoma (8310); renal cell carcinoma (8312) refers to the renal system rather than the cell type, so renal cell is the less specific code.

6. Code the **majority** of tumor.

   a. Based on the pathology report description of the tumor.
   b. Based on the use of majority terms.

   Majority of Tumor:

Terms that mean the majority of tumor	**Terms that DO NOT mean the majority of tumor**
Predominantly	With foci of
With features of	Focus of/focal
Major	Areas of
Type (Effective 1/1/1999)	Elements of
With…Differentiation (Effective 1/1/1999)	Component (Effective 1/1/1999)

7. Code the **numerically higher** ICD-O-3 code. This is the rule with the lowest priority and should be used infrequently.

Histology Coding Rules for Multiple Tumors with Different Behaviors in the Same Organ Reported as a Single Primary (Cases diagnosed prior to January 1, 2007)

Source: ***SEER Program Coding and Staging Manual 2004***

1. Code the histology of the invasive tumor when one lesion is in situ (/2) and the other is invasive (/3).

   Example: At mastectomy for removal of a 2 cm invasive ductal carcinoma, an additional 5 cm area of intraductal carcinoma was noted. Code histology and behavior as invasive ductal carcinoma (8500/3).

Histology Coding Rules for Multiple Tumors in Same Organ Reported as a Single Primary (Cases diagnosed prior to January 1, 2007)
Source: ***SEER Program Coding and Staging Manual 2004***

1. Code the histology when multiple tumors have the same histology.
2. Code the histology to adenocarcinoma (8140/_; in situ or invasive) when there is an adenocarcinoma and an adenocarcinoma in a polyp (8210/_, 8261/_, 8263/_) in the same segment of the colon or rectum.
3. Code the histology to carcinoma (8010/_; in situ or invasive) when there is a carcinoma and a carcinoma in a polyp (8210/_) in the same segment of the colon or rectum.
4. Use a **combination** code for the following:
   a. Bladder: Papillary and urothelial (transitional cell) carcinoma (8130)
   b. Breast: Paget Disease and duct carcinoma (8541)
   c. Breast: Duct carcinoma and lobular carcinoma (8522)
   d. Thyroid: Follicular and papillary carcinoma (8340)
5. Code the more specific term when one of the terms is 'NOS' and the other is a more specific description of the same histology.
6. Code all other multiple tumors with different histologies as multiple primaries.

Rules for coding mixed or multiple histologies for solid tumors diagnosed on or after January 1, 2007.

To code multiple or mixed histologies present in one primary, the SEER 2007 *Multiple Primary and Histology Coding Rules* replace all previous multiple histology rules. These rules are effective for cases diagnosed January 1, 2007 and after. Do not use these rules to abstract cases diagnosed on or earlier than December 31, 2006.

- Use the rules to make a decision on coding the histology for all reportable solid malignant tumors.
- Use the multiple primary rules to determine whether the patient has a single primary or multiple primaries before coding the histology. Code the histology for each primary in a separate abstract.

Use the ***Site-specific Rules*** for the following primary site groups excluding leukemia and lymphoma (M9590-9989) and Kaposi sarcoma (M9140):

Brain (C70.0, C70.1, C70.9, C71.0-C71.9, C72.0-C72.5, C72.8, C72.9, C75.1-C75.3)
Breast (C50.0-C50.9)
Colon (C18.0-C18.9)
Head and neck (C00.0-C14.8, C30.0-C32.9)
Kidney (C64.9)
Lung (C34.0-C34.9)
Malignant melanoma of the skin (C44.0-C44.9 with Histology 8720-8780)
Renal pelvis, ureter, bladder, and other urinary (C65.9, C66.9, C67.0-C67.9, C68.0-C68.9)

Use the ***Other Sites Rules*** for all solid malignant tumors that occur in primary sites not coded in the site specific rules.

For hematopoietic and lymphoid neoplasms diagnosed January 1, 2010 or later, use the histology coding rules in the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* to determine the correct histology.

MULTIPLE PRIMARIES:

For solid tumors diagnosed prior to January 1, 2007 and Hematopoietic and Lymphoid neoplasms diagnosed prior to January 1, 2010:

- For hematopoietic and lymphoid neoplasms, use the ICD-O-3 Hematopoietic Primaries Table (http://seer.cancer.gov/icd-o-3/hematopoietic_primaries.d03152001.pdf) to decide whether differing histologies represent one or more primaries. Primary site and timing are not applicable for determining whether these malignancies represent one or more primaries.

- For nonmalignant tumors of the central nervous system, use the instructions below under the heading **Determining Multiple Primaries for Nonmalignant CNS Tumors** to decide whether the tumor(s) is one site or multiple sites.

- Use the instructions below under the heading **Site Differences** to decide whether the tumor(s) is one site or multiple sites.

- Follow the instructions below under the heading **Histology Differences** to decide whether tumors other than lymphomas, leukemia, or benign or borderline CNS tumors represent a single histology or mixed/multiple histologies.

- Follow the instructions below under the heading **Timing** to decide if one or more primaries are involved.

For solid tumors diagnosed January 1, 2007 or later:
The SEER 2007 *Multiple Primary and Histology Coding Rules* contain site-specific rules for lung, breast, colon, melanoma of the skin, head and neck, kidney, renal pelvis/ureter/bladder, and brain. A separate set of rules addresses the specific and general rules for all other sites. The multiple primary rules guide and standardize the process of determining the number of primaries.

Apply the 2007 multiple primary rules to the tumor(s) diagnosed on or after January 1, 2007, when the patient had a previous tumor(s) diagnosed prior to 2007.

> **Example 1:** Duct carcinoma of the right breast diagnosed in July 2006. In February 2007, duct carcinoma of the right breast is diagnosed in a separate tumor. Apply the 2007 rules to the tumor diagnosed in 2007. According to the 2007 rules, the 2007 tumor is not a new primary.
>
> **Example 2:** Duct carcinoma of the right breast diagnosed in July 2006. In February 2007, duct carcinoma of the left breast is diagnosed. Apply the 2007 rules to the 2007 diagnosis. According to the 2007 rules, the 2007 diagnosis is a new primary.

The SEER *Multiple Primary and Histology Coding Rules* do not apply to hematopoietic primaries (lymphoma and leukemia M9590-9989), or Kaposi Sarcoma (M9140) of any site. For hematopoietic and lymphoid neoplasms diagnosed prior to January 1, 2010, use the tables in Appendix D to decide whether differing histologies represent one or more primaries. Primary site and timing are not applicable for determining whether these malignancies represent one or more primaries. For hematopoietic and lymphoid neoplasms diagnosed January 1, 2010 and later, use the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and database (DB) to determine the correct number of primaries to report. Consider Kaposi sarcoma as one primary site.

Determining Multiple Primaries for Nonmalignant CNS Tumors (For cases diagnosed prior to January 1, 2007).
Source: ***Data Collection of Primary Central Nervous System Tumors: National Program of Cancer Registries Training Materials***

Determining if Site is Same or Different

Each **subsite** (fourth-digit level) as delineated in *ICD-O-3* is considered a separate site.

- If separate tumors with the same histology occur **in the same subsite**, they are considered the same tumor and one abstract is completed. Therefore, if multiple tumors of the same histology occur in the cerebrum (C71.0), they are considered the same tumor regardless of when they occur and only one abstract is completed.

- If separate tumors with the same histology occur **in different subsites**, they are different tumors and separate abstracts are completed. Therefore, if a tumor occurs in the cerebral meninges (C70.0), and a separate tumor occurs in the spinal meninges (C70.1), they are considered separate tumors. Likewise, if separate brain tumors of the same histology occur in the frontal lobe (C71.1) and in the occipital lobe (C71.4), they are also considered separate tumors.

- As with malignant tumors, if the first three digits are the same, and the fourth digit is a **9** or not otherwise specified (NOS) site, this is considered one site and should be coded to the **more specific site**. For example, if a tumor is identified as meninges, NOS (C70.9), and a separate tumor is identified as occurring in either the spinal (C70.1) or cerebral (C70.0) meninges, this is considered one tumor, and only one abstract should be completed using the more specific site code.

- Laterality is used to determine multiple primaries for nonmalignant CNS tumors for sites listed as being lateral. If multiple tumors of the same site and same histologic type are identified and **both sides** of a site (listed as lateral) are involved, the tumors should be considered to be separate tumors, and separate abstracts should be completed. For example, the right and left temporal lobes of the brain or the right and left acoustic nerves.

How to determine same vs. different histologies for benign and borderline primary intracranial and CNS tumors (C70.0-C72.9, C75.1-C75.3) (Based on histologic groupings)

Note: These rules do not apply to malignant primary intracranial and CNS tumors.

To determine if the histology in multiple nonmalignant CNS tumors is the same, follow these rules in priority order.

When multiple tumors are in the **same site**; the first three digits of the histology code are **the same**; and the codes are not found in the table below, then the histology is considered to be **the same**. Only one abstract should be completed

When multiple tumors are in the **same site**; the first three digits of the histology code are **different**, and the codes are not found in the table below, then the histology is considered to be **different**. Separate abstracts should be completed.

If all histologies are in the **same histologic group** in the table below, then the histology is considered to be the **same**, even though the first three digits are different. These two histologies represent a progression, differentiation, or subtype of a single histologic category. One abstract should be prepared.

Example: A patient has a diagnosis of a choroid plexus papilloma, NOS (9390/0), a nonspecific term, and subsequently has a diagnosis of atypical choroid plexus papilloma (9390/1), a more specific histology, in the same site. These terms are both in the grouping of choroids plexus neoplasms in the table below. The 9390/0 is the first diagnosis (earliest diagnosis date), but 9390/1 is more specific. Therefore, 9390/1 should be used.

Example: A patient has subependymoma (9383/1), a specific histology, and is subsequently diagnosed with a choroid glioma (9444/1), also a specific histology. Both histologies are listed in the table below under the ependymomas grouping. In this instance, because both histologies are specific and in the same grouping, the first histology of subependymoma (9383/1) should be coded even though the second histology has a higher code.

If the first three digits are the **same** as the first three digits for any histologies in **one** of the groupings in the table below, then the histology is considered to be **the same**.

Example: A patient has a gangliоglioma (9505/1) listed in the table below in the grouping neuronal and neuronal-glial neoplasm, as well as a separate Pacinian tumor (9507/0) which is not listed in the table below. These two tumors have the same first three digits. In this instance, the Pacinian tumor is considered the same as the gangliоglioma, and only one abstract should be completed. The first histology of

ganglioglioma (9505/1) should be coded even though the second histology has a higher code.

If the first three digits are the **same** and the histologies are from two **different** groups in the histologic groupings table, the histologies are considered to be **different**.

Example: A patient has a choroid plexus papilloma (9390/0), listed in the table below in the choroid plexus neoplasm grouping, as well as a myxopapillary ependymoma (9394), which is listed in the ependymoma grouping. In this case, even though the first three digits are the same, the histologies are considered to be different for these tumors because they are listed in different groupings in the table below. Thus, two abstracts should be completed.

Tumor	**ICD-O-3 Code Groupings**
Choroid plexus neoplasms	9390/0, 9390/1
Ependymomas	9383, 9394, 9444
Neuronal and neuronal-glial neoplasms	9384, 9412, 9413, 9442, 9505/1, 9506
Neurofibromas	9540/0, 9540/1, 9541, 9550, 9560/0
Neurinomatosis	9560/1
Neurothekeoma	9562
Neuroma	9570
Perineurioma, not otherwise specified	9571/0

Malignant Transformation

In rare cases, a diagnosed nonmalignant tumor transforms into a malignant tumor. In these cases, the behavior changes from code 0 or 1 to code 2 or 3.

When malignant transformation occurs in a **previously diagnosed nonmalignant tumor**, the tumors are considered **separate primaries**, and two abstracts should be completed because of the change from nonmalignant to malignant.

SITE DIFFERENCES (Cases diagnosed before January 1, 2007)

- The **third numeric digit** after the 'C' describes a subsite of the organ; it is **not used** to define individual (different) sites.

  Exception: For the following sites, a difference in the third numeric digit designates a different primary site**, except** NOS (C_ _.9) with a specific four-digit site code in the same site.

  - Colon (C18.0-C18.9) except polyps involving multiple segments (see Colon and Rectum Polyps).
  - Anus/anal canal (C21.0-C21.8)
  - Pleura (visceral, parietal, NOS) (C38.4)
  - Bone (C40.0-C41.9)
  - Melanoma of the skin (C44.0-44.9)
  - Peripheral nerves/autonomic nervous system (C47.0-C47.9)
  - Connective tissue (C49.0-C49.9)
  - Non-malignant meninges (C70.0–C70.9 with Behavior Code /0 or /1)
  - Non-malignant brain (C71.0–C71.8 with Behavior Code /0 or /1)
  - Non-malignant spinal cord, cranial nerves, and other parts of central nervous system
  - (C72.0–C72.8 with Behavior Code /0 or /1)

  Colon and Rectum Polyps

  - Simultaneous lesions and polyps in the same segment of the colon are a single primary.

  - Polyps may be present in more than one segment of the colon. If the diagnosis reads adenocarcinoma in multiple polyps, it is one primary, colon, NOS (C18.9).

  Familial Polyposis

  - This is a genetic disease characterized by polyps that increase in numbers and may cover the mucosal surface of the colon.

  - If multiple segments of the colon, rectosigmoid and/or rectum are involved with adenocarcinoma in adenomatous polyposis coli or adenocarcinoma in multiple adenomatous polyps, it is a single primary. Code the primary site to colon, NOS (C18.9).

- If the **first two numeric digits** after the C are **identical**, it is the **same site**.

  Possible Exception: Paired Organs

  - It is one primary if a physician states the tumor in one organ is metastatic from the other. Code the laterality to the side in which the primary originated. If the side of origin is unknown, code '4' for laterality.

- Code as separate primaries if the physician states these are independent primaries or there is no physician statement that one is metastatic from the other with the exception of the following:
  - Simultaneous bilateral involvement of the ovaries with the same histology is one primary. Laterality is coded '4' when the ovary of origin is unknown.
  - Bilateral retinoblastomas are a single primary with laterality of '4.'
  - Bilateral Wilms tumors are always a single primary with laterality of '4.'
- Laterality should not be used to determine single or multiple primaries of malignant brain and central nervous system tumors. Laterality is used in the determination of single or multiple primaries for benign and borderline brain and central nervous system tumors.

- If there is any difference in the first two numeric digits after the C, it is a **different** site.

  Exceptions: The following groups of three-character ICD-O-3 topography codes refer to single organs. Lesions within any combination of each group are considered to be the same primary site.

  - C01 Base of tongue; C02 Other and unspecified parts of tongue
  - C05 Palate; C06 Other and unspecified parts of mouth
  - C07 Parotid gland; C08 Other and unspecified major salivary glands
  - C09 Tonsil; C10 Oropharynx
  - C12 Pyriform sinus; C13 Hypopharynx
  - C23 Gallbladder; C24 Other and unspecified parts of biliary tract
  - C30 Nasal cavity and middle ear; C31 Accessory sinuses
  - C33 Trachea; C34 Bronchus and lung
  - C37 Thymus; C38.0 Heart; C38.1-C38.3 Mediastinum; C38.8 Overlapping lesion of heart, mediastinum, and pleura.
  - C51 Vulva; C52 Vagina; C57.7 Other specified female genital organs; C57.8-C57.9 Unspecified female genital organs
  - C56 Ovary; C57.0 Fallopian tube
  - C57.1 Broad ligament; C57.2 Round ligament
  - C57.3 Parametrium; C57.4 Uterine adnexa
  - C60 Penis; C63 Other and unspecified male genital organs
  - C64 Kidney; C65 Renal pelvis; C66 Ureter; C68 Other and unspecified urinary organs
  - C74 Adrenal gland; C75 Other endocrine glands and related structures

HISTOLOGY DIFFERENCES (Cases diagnosed before January 1, 2007)
Source: ***SEER Program and Coding and Staging Manual 2004***

The ICD-O-3 morphology code has five digits, for example 8500/3. The **fifth digit** of the ICD-O-3 morphology code is the behavior code. The first four characters are sometimes referred to as the histology code. Multiple terms may describe a single histology. Refer to the ICD-O-3 histology code to determine whether two or more lesions represent the same tumor histologically.

- If the first **three digits of the ICD-O-3 histology codes are the same**, it is the same histology.

- Lesion(s) with a single histology (the first three digits of the histology code are the same) containing invasive and in situ components are one primary. Code the behavior of the invasive component.

- A single lesion composed on one histologic type is a single primary, even if the lesion crosses site boundaries.

- A single lesion composed of multiple (different) histologic types is a single primary even if the lesion crosses site boundaries.

- If one lesion is invasive and another lesion of the same histologic type is in situ, or if two or more lesions have invasive and in situ components, this is a single primary.

- A difference in the first three digits of the ICD-O-3 histology code indicates a **different** histologic type.

  Exception 1:
  If one malignancy is stated to be carcinoma, NOS, adenocarcinoma, NOS, sarcoma, NOS, or melanoma, NOS and the second lesion is a more specific term, such as large cell carcinoma, mucinous adenocarcinoma, spindle cell sarcoma, or superficial spreading melanoma, consider this to be a **single** histology.

  Exception 2:
  For lymphatic and hematopoietic disease, refer to Appendix D to determine which histologies represent single or multiple primaries.

  Exception 3:
  Consider the following as a **single** histology, even though the first three digits of the ICD-O-3 morphology codes differ. Code the histology according to the rules for mixed histologies.

- Transitional cell carcinoma (8120-8131) of the bladder (C67._)

- Ductal (8500) and lobular (8520) adenocarcinoma of the breast (C50._)

Exception 4:
See page 20 for determining single or multiple primaries for benign or borderline primary intracranial or CNS tumors.

TIMING RULES (Cases diagnosed prior to January 1, 2007)

- If two malignancies of the same histology occur in the same site simultaneously (within two months of each other), there is only **one** primary.

  Exception 1:
  Each occurrence of melanoma of the skin is a new or **separate** primary **unless** a physician states otherwise.

  Exception 2:
  Two primary intracranial and central nervous system tumors (C70.0–C72.9, C75.1–C75.3) in which one is malignant (behavior of /2 or /3) and one is non-malignant (behavior of /0 or /1) are always separate primaries regardless of timing**. Complete two abstracts.**

- If a tumor with the same histology is identified in the same site at least two months after the initial/original diagnosis, this is a separate primary.

  Exception 1:
  When there is an in situ followed by an invasive cancer at the same site more than 2 months apart, report the invasive cancer as a second primary even if stated by the physician to be recurrence. This is true for all sites including bladder.

- Multiple lesions with different histologies in a single site are **separate** primaries, whether they occur simultaneously or at different times.

- If two malignancies of the same histology (following the rules under *Histology Differences*) and in the same site (following the rules under *Site Differences*, including rules for laterality for paired sites) are identified **more** than two months apart, then there are **two** primaries. Complete a separate report for each one.

  Exceptions:
  The following are recurrences of the original disease without time limits.
  - Invasive bladder primaries with morphology codes 8120-8130 (If there is an in situ followed by an invasive more than two months apart, report the invasive cancer as a second primary even if stated by the physician to be a recurrence)
  - Invasive adenocarcinoma of the prostate, site code C61.9.
  - Kaposi sarcoma (9140) of any site.

- Lymphoma and leukemia histologies that are determined from Appendix D to be the same primary.

EXAMPLES OF SINGLE OR MULTIPLE PRIMARY CODING (Cases diagnosed prior to January 1, 2007)

- A single lesion involving the tongue and floor of mouth is one primary.

- A single, large mucinous adenocarcinoma involving the sigmoid and descending colon segments is one primary.

- A single lesion containing both embryonal cell carcinoma and teratoma is a single primary and would be coded to 9081/3, mixed embryonal carcinoma and teratoma.

- A single lesion of the liver composed of neuroendocrine carcinoma (8246/3) and hepatocellular carcinoma (8170/3) is a single primary and would be coded to the more specific histology, neuroendocrine carcinoma 8246/3.

- At mastectomy for removal of a 2 cm invasive ductal carcinoma, an additional 5 cm area of intraductal carcinoma was noted. Abstract as one invasive primary.

- Adenocarcinoma in adenomatous polyp (8210) in sigmoid colon removed by polypectomy in December 2004. At segmental resection in January 2005, and adenocarcinoma in a tubular adenoma (8210) adjacent to the previous polypectomy site was removed. Count as one primary.

- Infiltrating duct carcinoma of the upper outer quadrant of the right breast diagnosed March 2004 and treated with lumpectomy. Previously unidentified mass in left inner quadrant right breast noted in July 2004 mammogram. This was removed and found to be infiltrating duct carcinoma. Abstract the case as two primaries.

DETERMINING MULTIPLE PRIMARIES AND HISTOLOGIES (Solid tumors diagnosed on or after January 1, 2007 and Hematopoietic and Lymphoid Neoplasms diagnosed on or after January 1, 2010)

For solid tumors diagnosed on or after January 1, 2007, refer to the *Multiple Primary and Histology Coding Rules* manual for determining the number of primaries and the correct histology for each primary abstracted.

For hematopoietic and lymphoid neoplasms diagnosed January 1, 2010 and later, use the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and database (DB) to determine the correct number of primaries, primary site, histology and grade to report.

STAGING

Collaborative Staging (CS) (http://cancerstaging.org/cstage/manuals/index.html) is to be used for cases diagnosed between January 1, 2004 and December 31, 2015. Site Specific Factors, Regional Nodes Positive and Examined, and Lymph-vascular Invasion from CS will continue to be used with cases diagnosed January 1, 2016 and later. SEER Summary Stage is used for cases diagnosed prior to January 1, 2004 and cases diagnosed on or after January 1, 2015. AJCC TNM staging will be used with cases diagnosed January 1, 2016 or later.

Timing Rule for CS (Cases diagnosed between January 1, 2004 and December 31, 2015)

The timing rule for CS coding was designed to make use of the most complete information possible to yield the "best stage" information for the tumor at the time of diagnosis—"use all information gathered through completion of surgery(ies) in first course of treatment or all information available within four months of the date of diagnosis in the absence of disease progression, whichever is *longer*." Disease progression is defined as further direct extension, regional lymph node involvement or distant metastasis known to have developed after the diagnosis was established. Information about tumor extension, lymph node involvement, or distant metastasis obtained after disease progression is documented should be excluded from the CS coding.

Ambiguous Terminology for CS (Do not use this list with AJCC TNM Staging)

If the wording in the patient record is ambiguous with respect to tumor spread, use the following guidelines.

Consider as Involvement/Extension		**DO NOT Consider as Involvement**
Adherent	Induration	Abuts
Apparent(ly)	Infringe/infringing	Approaching
Appears to	Into*	Approximates
Comparable with	Intrude	Attached
Compatible with	Invasion to, into, onto, out onto	Cannot be excluded/ruled out
Consistent with	Most likely	Efface/Effacing/Effacement
Contiguous/continuous with	Onto*	Encased/Encasing
Encroaching upon*	Overstep	Encompass(ed)
Extension to, into, onto, out onto	Presumed	Entrapped
Features of	Probable	Equivocal
Fixation to another structure**	Protruding into (unless encapsulated)	Extension to without invasion/involvement of
Fixed**	Suspected	Kiss/kissing
Impending perforation of	Suspicious	Matted (except for lymph nodes)
Impinging upon	To*	Possible
Impose/imposing on	Up to	Questionable

Incipient invasion		Reaching
		Rule out
		Suggests
* Interpreted as involvement whether the description is clinical or operative/pathological		Very close to
** Interpreted as involvement of other organ or tissue		Worrisome

Coding CS Values

The complete instructions and site-histology defined codes are available in the *Collaborative Staging Manual and Coding Instructions (CS Manual)*. Part I, Section 1 provides general instructions and the instructions and codes for generic (non site-specific) items. Part I, Section 2 provides information on lab tests, tumor markers, and site specific factors. Part II contains the site-specific instructions and codes.

The MCR collects the following CS Items: CS Tumor Size, CS Extension, CS Tumor Size/Extension Eval, CS Lymph Nodes, Regional Nodes Examined, Regional Nodes Positive, CS Mets at Diagnosis, Site Specific Factor 1 (Lung, Pleura, Retinoblastoma Brain and Central Nervous System and Breast cases only), Site Specific Factor 2 (Breast, corpus adenosarcoma, corpus carcinoma and corpus sarcoma cases only),Site Specific Factor 3 (Prostate Cases Only), Site Specific Factors 8-16 (Breast cases only), Site Specific 25 (Schema discriminator for various sites).

- Read the medical record carefully to identify the primary site and histology and determine their ICD-O-3 codes. While you are reviewing the record, make mental notes about the tissues and lymph nodes that are involved by tumor.
- If the histology is melanoma (8720-8790), Kaposi sarcoma (9140), retinoblastoma (9510-9514), lymphoma (9590-9699 and 9702-9729), mycosis fungoides (9700-9701), or hematopoietic and reticuloendothelial system (9731-9989), use the histology-specific schema for the appropriate histology-site combination.
- Otherwise, use the correct site-specific schema in Part II of the *CS Manual*.
- Code your cases.

SEER Summary Staging (Cases diagnosed prior to January 1, 2004 or diagnosed January 1, 2015 and later)

Summary staging is a basic way to categorize spread of disease from the point of origin. Summary Stage 2000 applies to every anatomic site and to lymphomas and leukemias. Summary stage uses both the clinical and pathologic information in determining the extent of disease. Gross observations at surgery are important when all malignant tissue is not removed. Be sure to also review all clinical information to assure accurate staging. However, when the pathologic information disproves either the clinical information or the surgical observations, pathologic information takes precedent. The *SEER Summary Staging Manual - 2000* manual can be found at http://seer.cancer.gov/tools/ssm/.
Summary stage should include all information available through the completion of surgery(ies) in the first course of treatment or within four months of diagnosis in the absence of disease progression, whichever is longer. Summary stage information obtained

after radiation or systemic therapy has begun may be included unless it is beyond the timeframe stated in the previous sentence. Autopsy reports are used in summary stage just like pathology reports. If the only information available for stage is the values for T, N, and M from AJCC staging, record the summary stage that corresponds to that information. If there is a discrepancy between the documentation available and the recorded TNM stage, the documentation should be used to record the summary stage.

All schemas apply to all histologies, unless otherwise noted. Some exceptions to this rule include Kaposi's sarcoma and lymphomas which should be staged based on histology schemes and not the primary site scheme. Site specific guidelines take precedence over the general guidelnes. Unlike with CS where site specific guidelines are prior to the coding rules, in Summary Stage 2000 manual, site specific guidelines are documented after the coding rules in each chapter.

The following is a list of ambiguous terms to determine whether or not tissue should be considered involved for summary stage.

Consider as Involvement/Extension		**DO NOT Consider as Involvement**
Adherent	Induration	Abuts
Apparent(ly)	Infringe/infringing	Approaching
Appears to	Into*	Approximates
Comparable with	Intrude	Attached
Compatible with	Invasion to, into, onto, out onto	Cannot be excluded/ruled out
Consistent with	Matted (for lymph nodes only)	Efface/Effacing/Effacement
Contiguous/continuous with	Most likely	Encased/Encasing
Encroaching upon*	Onto*	Encompass(ed)
Extension to, into, onto, out onto	Overstep	Entrapped
Features of	Presumed	Equivocal
Fixation to another structure**	Probable	Extension to without invasion/involvement of
Fixed**	Protruding into (unless encapsulated)	Kiss/kissing
Impending perforation of	Suspected	Matted (except for lymph nodes)
Impinging upon	Suspicious	Possible
Impose/imposing on	To*	Questionable
Incipient invasion	Up to	Reaching
		Rule out
		Suggests
* Interpreted as involvement whether the description is clinical or operative/pathological		Very close to
** Interpreted as involvement of other organ or tissue		Worrisome

AJCC TNM Staging (Cases diagnosed January 1, 2016 and later)

AJCC TNM Stage determines the anatomic extent of disease based on clinical, operative and pathologic findings. AJCC TNM Stage is used to make treatment decisions, assess prognosis, and measure outcomes. The rules in the current *AJCC Cancer Staging Manual* should be use to assign the clinical and pathologic T, N, M, and Stage Group. The following are general rules that apply to all sites.

- Clinical stage included any information obtained regarding the extent of disease before the initiation of definitive treatment (surgery, systemic or radiation therapy, active surveillance, or palliative care) or within four months after the date of diagnosis, whichever is shorter, as long as the cancer has not clearly progressed during that time.
- Pathologic stage includes any information obtained regarding the extent of disease through completion of definitive surgery as part of the first course of treatment or identified within four months after the date of diagnosis, whichever is longer, as long as there is no systemic or radiation therapy administered or the cancer has not clearly progressed during that time.
- When a patient has multiple primaries, stage each primary independently.
- If the stage group cannot be determined from the recorded components, then record it as unknown.
- When a patient with multiple simultaneous primaries has metastases, a biopsy may be able to distinguish the source of the distant disease. If the physician cannot determine which primary has metastasized, stage all primaries as having metastatic disease. If, at a later time, the physician identifies which primary has metastasized, update the stage(s) as appropriate.
- If a site/histology combination is not defined in the AJCC Manual, code 88 for clinical and pathologic T, N, and M as well as stage group.
- Even if complete AJCC TNM information is not available in the record, any piece of staging information should be collected and reported.
    - Example: If the T and N are available but not information is available on M, the T and N should be reported.

The AJCC items required to be completed are the following:

Clinical T
Clinical N
Clinical M
Clinical Stage Group
Clinical Stage (Prefix/Suffix) Descriptor
Staged By (Clinical Stage)
Pathologic T
Pathologic N
Pathologic M
Pathologic Stage Group

Pathologic Stage (Prefix/Suffix) Descriptor
Staged By (Pathologic Stage)

First Course of Treatment

Treatment includes all types of therapy intended to modify, control, remove or destroy proliferating cancer cells. The first course of treatment includes all therapy planned and administered during the first diagnosis of cancer. "Active surveillance" is also a form of treatment administered to some patients and coded in *RX Summ-Treatment Status*. "No treatment" which is also coded in *RX Summ-Treatment Status* is an option that occurs if the patient or patient's family refuses treatment, the physician recommends that no treatment be given, or the patient dies before starting treatment. For all malignancies except leukemias, any therapy administered after the discontinuation of first course of treatment is considered subsequent treatment. For leukemias, all therapy administered after the first relapse is secondary or subsequent treatment. Information on treatment can be found in the discharge plan, physician(s) treatment plan, or established protocol or accepted management guidelines in the absence of a treatment plan. If no plan, guideline or protocol is available and a physician cannot be consulted, use the following rule: "Initial treatment must begin within four months of the date of initial diagnosis." If no treatment is given, record the date the decision was made not to treat or date of death. If the patient undergoes "Active surveillance," record the date the decision for surveillance was made as the date of first course treatment.

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DATA ITEMS AND RECORD LAYOUT

The data items that are collected are those needed to produce age-, race-, sex-, and area-specific cancer incidence rates by cancer site and histologic type. General Summary Stage and Collaborative Staging are included for cancer control studies. Administrative items are included that facilitate death clearance, patient matching, inter-field edit reviews, and hospital admission tracking. The fields are listed in the order that they will be entered into Web Plus.

The following data items are required:

REPORTING FACILITY

Item Length: 10
NAACCR Item #540
FORDS 2016 pg. 336

Description
The Facility Identification Number is used to identify reporting facilities in the MCR database. This number is used to monitor data submissions and data accuracy.

Note: This number should be automatically coded by your software.

Examples:

Code	Reason
0006439999	6439999, General Hospital, Anywhere, MS
0010000099	10000099, Doctor's Medical Center, Anytown, MS

ABSTRACTOR

Item Length: 3
NAACCR Item #570
FORDS 2016 pg. 335

Definition:
Records the initials or assigned code of the individual abstracting the case.

This item is used for quality control by the MCR.

Coding Instructions:
- Code the initials of the abstractor.

- This code will be automatically generated in Web Plus.

MEDICAL RECORD NUMBER

Item Length: 11
NAACCR Item #2300
FORDS 2016 pg. 40

Definition:
Records the medical record number used by the facility to identify the patient. The *FORDS* manual instructs registrars to record the number assigned by the HIM Department, not a department specific number.

This number identifies the patient in a facility. It can be used by the MCR to reference a patient record and it helps to identify multiple reports on the same patient.

Coding Instructions:
- Record the medical record number.

Coding Examples:

Code (In addition to the medical record number)	Explanation
RT	RT (Radiation) Record standard abbreviations for departments that do not use HIM numbers.
SU	1-day surgery clinic without a number.
UNK	The medical record number is unknown.

DATE OF 1ST CONTACT Item Length: 8

NAACCR Item #580

FORDS 2016 pg. 118

Definition:

Date of first contact with the reporting facility as an inpatient or outpatient for diagnosis and/or treatment of this cancer.

Date of 1st Contact is one of several data items that can be used to measure timeliness of reporting by individual facilities to the MCR.

Coding Instructions:

- Date the patient first had contact with the facility as either an inpatient or outpatient for diagnosis and/or treatment of a reportable tumor.
- This may be the date of an outpatient visit for a biopsy, x-ray, or laboratory test, or the date a pathology specimen was collected at the hospital.
- For patients diagnosed in a staff physician office, the date of 1st contact should be the date the patient was seen at the reporting facility, not the date the patient was first seen in the staff physician office.
- When pathology-specimen-only tumors are collected (Class of Case 43), the date of specimen collection is the date of first contact.
- For autopsy only cases, the date of first contact is the same as the date of death.

Code	Definition
CCYYMMDD **CCYYMM** **CCYY**	The date the patient first had contact with the reporting facility for a diagnostic procedure; review or administration of treatment; palliative care; or, for pathology.
201104	Only description is "Spring" 2011
201107	Only description is "The middle of the year" 2011
201110	Only description is "Fall" 2011
Blank	When it is unknown when the first patient contact occurred. This situation is rare. Set the appropriate date flag.

Coding Examples:

Code	Explanation
20110212	Patient has an outpatient mammography that is highly suspicious for malignancy on February 12, 2011, and subsequently undergoes an excisional biopsy on February 14, 2011. Record the date of the mammography (February 12, 2011) as the date of first contact/first admission to this facility.
20110414	Patient undergoes a biopsy in a physician's office on April 6, 2011. The pathology specimen was sent to the reporting facility and read as malignant melanoma. The patient enters that same reporting facility on April 14, 2011 for wide re-excision.
20111108	Patient has an MRI of the brain at your facility on November 8, 2011 for symptoms including severe headache and disorientation. The MRI findings are consistent with astrocytoma. Surgery on December 2 removes all gross tumor. The date of first contact is November 8, 2011.
20110604	Patient is admitted to your facility on June 1, 2011 for COPD. During a chest x-ray on June 4, 2011, lung cancer is discovered. The date of first contact is June 4, 2011, since the date of 1st contact cannot be before the date of diagnosis.
201109	If the only information known is that the patient was admitted to the facility for cancer in September 2011 record the month and year.

DATE OF 1ST CONTACT FLAG

Item Length: 2
NAACCR Item #581
Valid Codes: 12, Blank
FORDS 2016 pg. 119

Definition:
This flag explains why no appropriate value is in the field Date of 1st Contact. Prior to 2010, date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions:

- If a valid date is coded in Date of 1st Contact, then leave this field blank. A valid date may be just a partial date.

- If date of 1st contact is completely unknown, then leave date of 1st contact blank and record 12 in this field indicating that the date is unknown.

Code	Definition
12	A proper value is applicable but unknown (e.g., date of 1st contact is unknown
Blank	A valid date value is provided in item Date of 1st Contact, or the date was not expected to have been transmitted.

Coding Examples:

Code	Explanation
Blank	Full date is known (CCYYMMDD) for Date of 1st Contact
Blank	Partial date is known (CCYYMM or CCYY) for Date of 1st Contact
12	Date is completely unknown for Date of 1st Contact

CLASS OF CASE

Item Length: 2
Allowable Values: 00, 10-14, 20-22, 30-38, 40-43, 49, 99
NAACCR Item #610
FORDS 2016 pg. 113-115

Definition:
Classifies cases recorded in the database.

The MCR requires all analytic (class 00- 22) and non-analytic cases including class of case 30-32, 34, 36, 38, and 43 to be reported by all facilities. Class of case 34 and 36 would be used for cases of VIN III, VAIN III and AIN III which are not reportable to the COC but must be reported to the MCR. Cancer registries must also report class of case 40-42 if they collect these cases. New cancer programs should submit class of case 35 and 37 for cases diagnosed January 1, 1996 or later.

Do not use class of case 49 or 99. These are reserved for the central cancer registry only.

This data item divides case records into analytic and nonanalytic categories. This allows reporting facilities to select cases for use within their facility or to be reported to the MCR.

Coding Instructions:

- Analytic cases are coded 00–22.
- Nonanalytic cases are coded 30–99.
- Use the code that best describes the patient's relationship to the reporting facility.
- Code 00 should be used only when it is known that the patient went somewhere else for treatment. If this information is not available, use code 10.
- Codes 34 and 36 should be used for VIN III, VAIN III and AIN III.
- A staff physician is a physician who is employed by the reporting facility, under contract with it, or a physician who has routine admitting privileges there.
- "In-transit" care is care given to a patient who is away from their primary source of care in order to prevent a break in their care. These cases would be coded as *Class of Case* 31. This would also include cases where the reporting facility is monitoring use of oral medications started somewhere else. If a patient begins infusion therapy or radiation therapy at another facility and then continues that care at the reporting facility, this is not a case of "in transit" care and should be codes as *Class of Case* 21.

Class of Case Definitions	
Case	**Includes**
Analytic Cases	
	Initial diagnosis at reporting facility or in a staff physician's office
Class 00	▪ Initial diagnosis at the reporting facility AND all treatment or a decision not to treat was done elsewhere.
Class 10	▪ Initial diagnosis at the reporting facility or in a physician's office with admitting privileges AND part or all of first course treatment or a decision not to treat was at the reporting facility, NOS.
Class 11	▪ Initial diagnosis in a physician's office with admitting privileges AND part of first course treatment was done at the reporting facility.
Class 12	▪ Initial diagnosis in physician's office with admitting privileges AND part of first course treatment was done at the reporting facility.
Class 13	▪ Initial diagnosis at the reporting facility AND part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere.
Class 14	▪ Initial diagnosis at the reporting facility AND all first course treatment or a decision not to treat was done at the reporting facility.
	Initial diagnosis elsewhere
Class 20	▪ Initial diagnosis elsewhere AND all or part of first course treatment was done at the reporting facility, NOS.
Class 21	▪ Initial diagnosis elsewhere AND part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere.
Class 22	▪ Initial diagnosis elsewhere AND all first course treatment or a decision not to treat was done at the reporting facility.
Nonanalytic Cases	
	Patient appears in person at reporting facility
Class 30	▪ Initial diagnosis and all first course treatment elsewhere AND reporting facility participated in diagnostic workup (for example, consult only, treatment plan only, staging workup after initial diagnosis elsewhere)
Class 31	▪ Initial diagnosis and all first course treatment elsewhere AND reporting facility provided in-transit care; or hospital provided care that facilitated treatment elsewhere (for example, stent placement)
Class 32	▪ Diagnosis AND all first course treatment provided elsewhere AND patient presents at reporting facility with disease recurrence or persistence (active disease)
Class 33	▪ Diagnosis AND all first course treatment provided elsewhere AND patient presents at reporting facility with disease history only (disease not active)
Class 34	▪ VIN III, VAIN III or AIN III AND initial diagnosis AND part or all of first course treatment by reporting facility.
Class 35	▪ Case diagnosed before program's Reference Date AND initial diagnosis AND all or part of first course treatment by reporting facility.

Case	Includes
Nonanalytic Cases	
	Patient appears in person at reporting facility
Class 36	▪ VIN III, VAIN III or AIN III AND initial diagnosis elsewhere AND all or part of first course treatment by reporting facility
Class 37	▪ Cases diagnosed before program's Reference Data AND initial diagnosis AND all or part of first course treatment by reporting facility.
Class 38	▪ Initial diagnosis established by autopsy at the reporting facility, cancer not suspected prior to death.
	Patient does not appear in person at reporting facility
Class 40	▪ Diagnosis AND all first course treatment given at the same physician's office with admitting privileges.
Class 41	▪ Diagnosis AND all first course treatment given in two or more different physician's offices with admitting privileges.
Class 42	▪ Non-staff physician, clinic or other facility, not part of reporting facility, accessioned by reporting facility for diagnosis and/or treatment by that entity (for example, hospital abstracts cases from an independent radiation facility)
Class 43	▪ Pathology or other lab specimen only
Class 49	▪ Death certificate only. **Used by central registry only.**
Class 99	▪ Nonanalytic case of unknown relationship to facility. Please contact the MCR before using this code.

Coding Examples:

Code	Explanation
00	Patient enters the reporting facility with dizziness and receives a clinical workup including CT and MRI of the brain. The results are positive for multiple metastatic deposits in both lobes of the brain. A CT of the lung is positive for hilar adenopathy. The patient is discharged to hospital B for treatment with a diagnosis of lung cancer.
14	Patient is admitted with hemoptysis. Workup reveals right upper lobe mass. A biopsy is positive for adenocarcinoma. The patient undergoes surgery followed by radiation therapy at the same facility.
21	Patient was diagnosed and had surgery at another facility for primary breast cancer. The patient then comes to your facility for radiation therapy.
32	Patient was diagnosed and treated for primary breast cancer four years prior to admission. Patient is admitted to your facility for recurrent breast cancer. She is treated with chemotherapy.
11	Patient diagnosed with breast cancer in Dr. Smith's office, who is a staff physician. The patient then comes to your hospital for surgery and radiation. She is then referred to an oncologist not associated with your facility and receives hormonal therapy.
43	Hospital pathology department received a tissue sample for evaluation which was positive for malignant melanoma. The patient never visited the hospital.

CASEFINDING SOURCE Item Length: 2

Allowable Values: 10, 20-29, 80, 99

NAACCR Data Item #501

Definition:

This variable codes the earliest source of identifying information. This data item will help reporting facilities, as well as, the MCR prioritize their casefinding activities. It will identify reportable tumors that were first identified through death clearance.

Coding Instructions:

Code the source that first identified the tumor.

Code	Definition
10	Reporting Hospital, NOS
20	Pathology Department Review (surgical pathology reports, autopsies, or cytology reports
21	Daily Discharge Review (daily screening of charts of discharged patients in the medical records department)
22	Disease Index Review (review of disease index in the medical records department)
23	Radiation Therapy Department/Center
24	Laboratory Reports (other than pathology reports, code 20)
25	Outpatient Chemotherapy
26	Diagnostic Imaging/Radiology (other than radiation therapy, code 23; includes nuclear medicine)
27	Tumor Board
28	Hospital Rehabilitation Services or Clinic
29	Other Hospital Source (including clinic, NOS or outpatient department, NOS)
80	Death Certificate (case identified through death clearance)
99	Unknown

TYPE OF REPORTING SOURCE Item Length: 1
Allowable Values: 1-8
NAACCR Data Item #500

Definition:
This variable codes the source documents used to abstract the majority of information on the tumor being reported. This may not be the source of the original case finding. For example, if a case is identified through a pathology laboratory report review and all source documents used to abstract the case are from a physician's office, code this item 4.

Coding Instructions:
- Code in the following priority order: 1, 2, 8, 4, 3, 5, 6, 7. This is a change to reflect the addition of codes 2 and 8 and to prioritize laboratory reports over nursing home reports. The source facilities included in the previous code 1 (hospital inpatient and outpatient) are split between codes 1, 2, and 8.

- This data item is intended to indicate the completeness of information available to the abstractor.

- Reports from health plans (e.g., Kaiser, Veterans Administration, military facilities) in which all diagnostic and treatment information is maintained centrally and is available to the abstractor are expected to be at least as complete as reports for hospital inpatients. This is the reason these sources are grouped with inpatients and given the code with the highest priority.

- Sources coded with '2' usually have complete information on the cancer diagnosis, staging, and treatment.

- Sources coded with '8' would include, but would not be limited to, outpatient surgery and nuclear medicine services. A physician's office that calls itself a surgery center should be coded as a physician's office. Surgery centers are equipped and staffed to perform surgical procedures under general anesthesia. If a physician's office calls itself a surgery center, but cannot perform surgical procedures under general anesthesia, code as a physician office.

Code	Definition
7	Death certificate only
8	Other hospital outpatient units/surgery centers.
1	Hospital inpatient; Managed health plans with comprehensive, unified medical records.
2	Radiation Treatment Centers or Medical Oncology Centers (hospital-affiliated or independent).
3	Laboratory only (hospital-affiliated or independent).
4	Physician's office/private medical practitioner (LMD)
5	Nursing/convalescent home/hospice.
6	Autopsy only

SEQUENCE NUMBER – HOSPITAL Item Length: 2

Allowable Values: 00–88, 99
NAACCR Item #560
FORDS 2016 pg. 38-39

Definition:
Indicates the sequence of malignant neoplasms and benign and borderline brain and central nervous system tumors over the lifetime of the patient even if all were not diagnosed/treated at the reporting facility.

Coding Instructions:

- Codes 00-59 and 99 indicate neoplasms of in situ or malignant behavior (Behavior equals 2 or 3). Codes 60-88 indicate neoplasms of non-malignant behavior (Behavior equals 0 or 1).

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

- Code 60 only if the patient has a single non-malignant primary. If the patient develops a subsequent nonmalignant primary, change the code for the first tumor from 60 to 61, and assign codes to subsequent non-malignant primaries sequentially.

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

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

- Because the time period for Sequence Number is the patient's lifetime, reportable neoplasms not included in the hospital registry are allotted a sequence number. For example, a registry may contain a single record for a patient with a sequence number of 02 because the first reportable neoplasm occurred before the hospital's reference date or was diagnosed and treated at another facility. Document all previous primaries and the date or approximate date of diagnosis. Also document where the patient was diagnosed/treated if known.

Malignant, in situ or invasive:

Code	Definition
00	One malignant primary only in the patient's lifetime.
01	First of two or more independent malignant primaries.
02-59	Actual sequence of two or more malignant primary tumors
99	Unspecified malignant sequence number or unknown Always try to record the sequence rather than code 99.

Benign and Borderline Brain and Central Nervous System Tumors

Code	Definition
60	Only one non-malignant primary.
61	First of two or more independent non-malignant primaries.
62-87	Actual sequence of two or more *in situ* or malignant primary tumors.
88	Unspecified number of non-malignant tumors in this category. Always try to record the sequence rather than code 88.

Coding Examples:

Code	Explanation
00	A patient with no history of previous cancer is diagnosed with melanoma *in situ* on April 13, 2003.
01	The sequence number is changed when a patient with melanoma diagnosed on April 13, 2003, is diagnosed with a subsequent prostate cancer on August 30, 2004
02	The sequence number assigned to a prostate diagnosed on August 30, 2004, following a melanoma diagnosed on April 13, 2003.
03	A patient is admitted to the hospital for surgery as part of their first course of treatment for breast cancer. The patient had been diagnosed with two previous primary cancers. The other primaries were not diagnosed or treated at your facility. No abstracts are completed for primaries 01 or 02. Document the previous primaries in the text field.
60	The sequence number assigned to a benign brain tumor diagnosed on November 1, 2005, following a melanoma diagnosed on April 13, 2003 and a prostate cancer diagnosed on August 30, 2004.

DEMOGRAPHICS

NAME – LAST

Item Length: 40
NAACCR Item #2230
FORDS 2016 pg. 42

Definition:
Last name of the patient

Coding Instructions:

- Truncate name if more than 40 letters long.
- Blanks, spaces, hyphens, and apostrophes are allowed. Do not use other punctuation.
- If the patient's last name is unknown, enter UNKNOWN.
- **If the name becomes available at a later admission, please send the correction to the MCR.**
- This field may be updated if the last name changes.

Examples:

Code	Reason
MC NAIR	Mc Nair
O'KEEFE	O'Keefe
JONES-VESSEY	Janet Jones marries Mike Vessey and changes her last name to Jones-Vessey.
UNKNOWN	If the patient's last name is unknown, enter UNKNOWN

NAME - FIRST

Item Length: 40
NAACCR Item #2240
FORDS 2016 pg. 43

Definition:
First name of the patient.

Coding Instructions:

- Truncate name if more than 40 letters long.
- Spaces, hyphens, and apostrophes are allowed. Do not use other punctuation.
- If the patient's first name is unknown, enter UNKNOWN.
- **If the name becomes available at a later admission, please send the correction to the MCR.**

Examples:

Code	Reason
MICHAEL	Patient is admitted as Michael Hogan. Enter Hogan as the last name and Michael as the first name.
UNKNOWN	If patient's first name is unknown, code UNKNOWN

NAME - MIDDLE

Item Length: 40
NAACCR Item #2250
FORDS 2016 pg. 44

Definition:
Middle name or, if middle name is unavailable, middle initial of the patient.

Coding Instructions:

- Truncate the name if more than 40 letters long.
- Blanks, spaces, hyphens, and apostrophes are allowed. Do not use other punctuation.
- Leave blank if the middle name or middle initial is unknown. Do not use abbreviations such as NMI or NMN to denote that the middle initial/name is unknown.
- This field may be updated if the name changes.

Examples:

Code	Reason
DAVID	Patient is admitted as John David Smith. Enter Smith as the last name, John as the first name, and David as the middle name.
D	Patient is admitted as John D. Smith. Enter Smith as the last name, John as the first name, and D as the middle name.
(leave blank)	If patient does not have a middle name or initial, or if the middle name or initial are unknown, do not fill in the space.

NAME - MAIDEN Item Length: 40

NAACCR Item #2390

Description

Maiden name of female patients who are or have been married.

This is used to link reports on a woman who changed her name between reports. It also is critical when using Spanish surname algorithms to categorize ethnicity.

Coding Instructions:

- Truncate the name if more than 40 letters long.

- If the maiden name is unknown or not applicable, leave the field blank. Any variation of 'unknown' or 'not applicable' is not allowable.

NAME - ALIAS Item Length: 40

NAACCR Item #2280

Description

Records an alternate name or "AKA" (also known as) used by the patient, if known. Note that maiden name is entered in Name-Maiden.

NAME - SUFFIX Item Length: 3

NAACCR Item #2270

Description

Title that follows a patient's last name, such as a generation order or credential status (e.g., "MD," "Jr.")

SOCIAL SECURITY NUMBER

Item Length: 9
NAACCR Item #2320
FORDS 2016 pg. 41

Definition:
Records the patient's Social Security number.

This data item can be used to identify patients with similar names.

Coding Instructions:
- Code the patient's Social Security number.
- A patient's Medicare claim number may not always be identical to the person's Social Security number.
- Code Social Security numbers that end with "B" or "D" as 999999999. This indicates the patient is using a spouse's social security number.
- **If the social security number becomes available at a later admission, update the number and send the correction to the MCR.**

Code	Definition
Fill spaces	Record the patient's Social Security number (SSN) without dashes or letter suffixes.
999999999	When the patient does not have a Social Security number or the information is not available.

BIRTH DATE

Item Length: 8
NAACCR Item #240
FORDS 2016 pg. 63

Definition:
Identifies the patient's birth date.

This data item is useful for patient identification and analyzing tumors by age groups.

Coding Instructions:

- Record the patient's date of birth as indicated in the patient record.
- For *in utero* diagnosis and treatment, record the actual date of birth.
- If age at diagnosis and year of diagnosis are known, but year of birth is unknown, then year of birth should be calculated and so coded. Month and day would be left blank.
- Every effort must be made to collect the correct birth date.
- Estimate the birth date and note in the text field that the birth date is estimated. It is better to estimate the date than code as unknown.
- **Corrections to birth date should be sent to the MCR.**

Code	Definition
YYYYMMDD **YYYYMM** **YYYY**	The date of birth is the year, month and day that the patient was born.
1937	A patient is admitted with unknown birth date. Note in the text field this is an ***estimated birth date***. Record for example, a patient who is about 70 would have an estimated birth date of 1937.

BIRTH DATE FLAG

Item Length: 2
NAACCR Item #241
Allowable Values: 12, Blank
FORDS 2016 pg. 64

Definition:
This flag explains why no appropriate value is in the field Birth date. Prior to 2010, date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions:
- If a valid date is coded in birth date, then leave this field blank. A valid date may be just a partial date.

- If birth date cannot be determined, then leave birth date blank and record 12 in this field indicating that the date is unknown.

Code	Definition
12	A proper value is applicable but unknown (e.g., birth date cannot be determined)
Blank	A valid date value is provided in item Birth date.

Coding Examples:

Code	Explanation
Blank	Full date is known (CCYYMMDD) for Birth date
Blank	Partial date is known (CCYYMM or CCYY) for Birth date
12	Date is completely unknown for Birth date and cannot be estimated

BIRTHPLACE—STATE

Item Length: 2
NAACCR Item #252
FORDS 2016 pg. 61

Definition:
USPS abbreviation for state, commonwealth, U.S. possession in which the patient was born. CanadaPost abbreviations for the Canadian provinces can also be recorded if the patient was born in Canada. If the patient has multiple primaries, this data item should be coded the same for each primary.

Coding Instructions:
- Use the most specific code.

Code	Definition	Code	Definition
AL	Alabama	MI	Michigan
AK	Alaska	MN	Minnesota
AZ	Arizona	MS	Mississippi
AR	Arkansas	MO	Missouri
CA	California	MT	Montana
CO	Colorado	NE	Nebraska
CT	Connecticut	NV	Nevada
DE	Delaware	NH	New Hampshire
DC	District of Columbia	NJ	New Jersey
FL	Florida	NM	New Mexico
GA	Georgia	NY	New York
HI	Hawaii	NC	North Carolina
ID	Idaho	ND	North Dakota
IL	Illinois	OH	Ohio
IN	Indiana	OK	Oklahoma
IA	Iowa	OR	Oregon
KS	Kansas	PA	Pennsylvania
KY	Kentucky	RI	Rhode Island
LA	Louisiana	SC	South Carolina
ME	Maine	SD	South Dakota
MD	Maryland	TN	Tennessee
MA	Massachusetts	TX	Texas

Code	Definition	Code	Definition
UT	Utah	ZZ	U.S., NOS; Canada, NOS; Country Unknown
VT	Vermont	AB	Alberta
VA	Virginia	BC	British Columbia
WA	Washington	MB	Manitoba
WV	West Virginia	NB	New Brunswick
WI	Wisconsin	NL	Newfoundland and Labrador
WY	Wyoming	NS	Nova Scotia
AS	American Samoa	NT	Northwest Territories
GU	Guam	NU	Nunavut
MP	Northern Mariana Islands	ON	Ontario
PW	Palau	PE	Prince Edward Island
PR	Puerto Rico	QC	Quebec
UM	U.S. Outlying Islands	SK	Saskatchewan
VI	Virgin Islands of the United States	US	Resident of United States, NOS
FM	Federated States of Micronesia	AA	APO/FPO for Armed Services America
MH	Marshall Islands	AE	APO/FPO for Armed Services Europe
TT	Trust Territories	AP	APO/FPO for Armed Services Pacific
XX	Country Known, Not U.S., Not Canada		
YT	Yukon Territories		
YY	Country Unknown, Not U.S., Not Canada		

Coding Examples:

Code	Explanation
MS	If the state in which the patient was born is Mississippi, then uses the USPS code for the state of Mississippi.
XX	Born in a country other than the U.S. (including US territories, commonwealths, and possessions) or Canada and the country is known.
YY	Born in a country other than the U.S. (including US territories, commonwealths, and possessions) or Canada and the country is unknown.
US	Patient was born in the U.S. (including U.S. territories, commonwealths, or possessions) but the state is not given.
ZZ	Place of birth is unknown

BIRTHPLACE—COUNTRY

Item Length: 3
NAACCR Item #254
FORDS 2016 pg. 62

Definition:
Code for the country where the patient was born. If the patient has multiple tumors, all records should contain the same code. Place of birth is helpful in patient matching and quality review of race and ethnicity.

Coding Instructions:
- Use the most specific code.

Code	Definition	Code	Definition
ABW	Aruba	BGD	Bangladesh
AFG	Afghanistan	BGR	Bulgaria
AGO	Angola	BHR	Bahrain
AIA	Anguilla	BHS	Bahamas
ALA	Aland Islands	BIH	Bosnia and Herzogovina
ALB	Albania	BLM	St. Barthelemy
AND	Andorra	BLR	Belarus
ARE	United Arab Emirates	BLZ	Belize
ARG	Argentina	BMU	Bermuda
ARM	Armenia	BOL	Bolivia
ASM	American Samoa	BRA	Brazil
ATA	Antarctica	BRB	Barbados
ATF	French Southern Territories	BRN	Brunei
ATG	Antigua and Barbuda	BTN	Bhutan
AUS	Australia	BVT	Bouvet Island
AUT	Austria	BWA	Botswana
AZE	Azerbaijan	CAF	Central African Republic
BDI	Burundi	CAN	Canada
BEL	Belgium	CHE	Switzerland
BEN	Benin	CHL	Chile
BES	Bonaire, Saint Eustatius and Saba	CHN	China
BFA	Burkina Faso	CIV	Cote d'Ivoire

Code	Definition	Code	Definition
CMR	Cameroon	FSM	Micronesia
COD	Congo, Democratic Republic of	GAB	Gabon
COG	Congo	GBR	United Kingdom
COK	Cook Islands	GEO	Georgia
COL	Columbia	GGY	Guernsey
COM	Comoros	GHA	Ghana
CPV	Cape Verde	GIB	Gibralter
CRI	Costa Rica	GIN	Guinea
CSK	Czechoslovakia	GLP	Guadelupe
CUB	Cuba	GMB	Gambia
CUW	Curacao	GNB	Guinea Bissau
CXR	Christmas Island	GNQ	Equatorial Guinea
CYM	Cayman Islands	GRC	Greece
CYP	Cyprus	GRD	Grenada
CZE	Czech Republic	GRL	Greenland
DEU	Germany	GTM	Guatemala
DJI	Djibouti	GUF	French Guiana
DMA	Dominica	GUM	Guam
DNK	Denmark	GUY	Guyana
DOM	Dominican Republic	HKG	Hong Kong
DZA	Algeria	HMD	Heard Island & McDonalds Islands
ECU	Ecuador	HND	Honduras
EGY	Egypt	HRV	Croatia
ENG	England	HTI	Haiti
ERI	Eritrea	HUN	Hungary
ESH	Western Sahara	IDN	Indonesia (Dutch East Indies)
ESP	Spain	IMN	Isle of Man
EST	Estonia	IND	India
ETH	Ethiopia	IOT	British Indian Ocean Territory
FIN	Finland	IRL	Ireland
FJI	Fiji	IRN	Iran
FLK	Falkland Islands	IRQ	Iraq
FRA	France	ISL	Iceland

FRO	Faroe Islands	ISR	Israel
Code	**Definition**	**Code**	**Definition**
ITA	Italy	MKD	Macedonia
JAM	Jamaica	MLI	Mali
JEY	Jersey	MLT	Malta
JOR	Jordan	MMR	Myanmar
JPN	Japan	MNE	Montenegro
KAZ	Kazakhstan	MNG	Mongolia
KEN	Kenya	MNP	Northern Mariana Islands
KGZ	Kyrgyzstan	MOZ	Mozambique
KHM	Cambodia	MRT	Mauritania
KIR	Kiribati	MSR	Montserrat
KNA	St. Kitts and Nevis	MTQ	Martinique
KOR	Korea, NOS	MUS	Mauritius
KOR	South Korea	MWI	Malawi
KWT	Kuwait	MYS	Malaysia
LAO	Laos	MYT	Mayotte
LBN	Lebanon	NAM	Namibia
LBR	Liberia	NCL	New Caledonia
LBY	Libya	NER	Niger
LCA	St. Lucia	NFK	Norfolk Island
LIE	Liechtenstein	NGA	Nigeria
LKA	Sri Lanka	NIC	Nicaragua
LSO	Lesotho	NIR	Northern Ireland (Ulster)
LTU	Lithuania	NIU	Niue
LUX	Luxembourg	NLD	Netherlands
LVA	Latvia	NOR	Norway
MAC	Macao	NPL	Nepal
MAF	Saint Martin (French part)	NRU	Nauru
MAR	Morocco	NZL	New Zealand
MCO	Monaco	OMN	Oman
MDA	Moldova	PAK	Pakistan
MDG	Madagascar	PAN	Panama
MDV	Maldives	PCN	Pitcairn Islands
MEX	Mexico	PER	Peru

MHL	Marshall Islands	PHL	Philippines
Code	**Definition**	**Code**	**Definition**
PLW	Palau(Trust Territory of Pacific Islands)	SVN	Slovenia
PNG	Papua New Guinea	SWE	Sweden
POL	Poland	SWZ	Swaziland
PRI	Puerto Rico	SXM	Sint-Maarten
PRK	North Korea	SYC	Seychelles
PRT	Portugal	SYR	Syria
PRY	Paraguay	TCA	Turks and Caicos
PSE	Palestine Territory, Occupied	TCD	Chad
PYF	French Polynesia	TGO	Togo
QAT	Qatar	THA	Thailand
REU	Réunion	TJK	Tajikistan
ROU	Romania	TKL	Tokelau Islands (New Zealand)
RUS	Russia	TKM	Turkmenistan
RWA	Rwanda	TLS	Timor-Leste
SAU	Saudi Arabia	TON	Tonga
SCT	Scotland	TTO	Trinidad and Tobago
SDN	Sudan	TUN	Tunisia
SEN	Senegal	TUR	Turkey
SGP	Singapore	TUV	Tuvalu
SGS	S Georgia & S Sandwich Islands	TWN	Taiwan
SHN	St Helena	TZA	Tanzania
SJM	Svalbard & Jan Mayen	UGA	Uganda
SLB	Solomon Islands	UKR	Ukraine
SLE	Sierra Leon	UMI	U.S. Minor Outlying Islands
SLV	El Salvador	URY	Uruguay
SMR	San Marino	USA	United States
SOM	Somalia	UZB	Uzbekistan
SPM	St Pierre and Miquelon	VAT	Vatican City
SRB	Serbia	VCT	St. Vincent & the Grenadines
SSD	South Sudan	VEN	Venezuela
STP	Sao Tome & Principe	VGB	British Virgin Islands
SUR	Suriname	VIR	U.S. Virgin Islands

SVK	Slovakia	VNM	Vietnam
Code	**Definition**	**Code**	**Definition**
VUT	Vanuatu		
WLF	Wallis and Fotuna		
WLS	Wales		
WSM	Samoa		
YEM	Yemen		
YUG	Yugoslavia		
ZAF	Republic of South Africa		
ZMB	Zambia		
ZWE	Zimbabwe		
ZZA	Asia, NOS		
ZZC	Central America, NOS		
ZZE	Europe, NOS		
ZZF	Africa, NOS		
ZZN	North America, NOS		
ZZP	Pacific, NOS		
ZZS	South America, NOS		
ZZU	Unknown		
ZZX	Non-US/Canada, NOS		

Coding Examples:

Code	Explanation
USA	United States
CAN	Canada
MEX	Mexico
ZZU	Place of Birth Unknown

ADDRESS AT DIAGNOSIS – NO & STREET

Item Length: 60
NAACCR Item #2330
FORDS 2016 pg. 45

Definition:
Identifies the patient's address (number and street) at the time of diagnosis.

If the patient has multiple tumors, the address at diagnosis may be different for each tumor. This field should not be updated if the patient's address changes.

Coding Instructions:

- Record the number and street address or the rural mailing address of the patient's usual residence when the tumor was diagnosed.

- The address should be fully spelled out with standardized use of abbreviations and punctuation per U.S. Postal Service postal addressing standards. The USPS Postal Addressing Standards, Pub 28, April 2010 can be found on the Internet at http://pe.usps.gov/cpim/ftp/pubs/pub28/pub28.pdf.

- Abbreviations should be limited to those recognized by the Postal Service standard abbreviations. They include, **but are not limited to**:

APT (apartment)	AVE (avenue)	BLDG (building)
BLVD (boulevard)	CIR (circle)	CT (court)
DEPT (department)	DR (drive)	E (east)
FL (floor)	N (north)	NE (northeast)
NW (northwest)	PKWY (parkway)	RD (road)
RM (room)	ST (street)	STE (suite)
S (south)	SE (southeast)	SW (southwest)
W (west)	CV (cove)	EXT (Extension)
HWY (highway)	PL (place)	RTE (route)

- Do not update this data item if the patient's address changes.

- See "Residency Rules" for further instructions.

- Punctuation marks should be avoided, except when punctuation is necessary to convey the meaning (a period in 39.2 RD, a slash in 100 ½ FIFTH ST, or a hyphen in 259-02 SMITH AVE)

- Leave blanks between numbers and words.

- If the patient's address is unknown, enter UNKNOWN.

Coding Examples:

Code	Definition
100 EASY ST APT 302	Use recognized USPS standardized abbreviations; do not use punctuation unless absolutely necessary to clarify an address; leave blanks between numbers and words
UNKNOWN	If the patient's address is unknown, enter UNKNOWN

SUPPLEMENTAL PATIENT ADDRESS, NUMBER & STREET AT DIAGNOSIS

Item Length: 60
NAACCR Item #2335
FORDS 2016 pg. 46

Definition:
Provides the ability to store additional address information such as the name of a place or facility, a nursing home, or the name of an apartment complex. If the patient has multiple tumors, the address at diagnosis may be different for every tumor.

Coding Instructions:

- Record the place or facility (i.e., a nursing home or name of an apartment complex) of the patient's usual residence when the tumor was diagnosed.
- Do not update this data item if the patient's address changes.
- See "Residency Rules" in Section One for further instructions.

Example:
SUNNY VIEW NURSING HOME

ADDRESS AT DIAGNOSIS - CITY Item Length: 50

NAACCR Item #70

FORDS 2016 pg. 47

Definition:

Name of the city in which the patient resides at the time of diagnosis. If the patient has multiple primaries, the city of residence may be different for each primary.

Coding Instructions:

- If the patient resides in a rural area, record the name of the city or town used in his or her mailing address.
- Do not update this data item if the patient's city/town of residence changes.
- See "Residency Rules" in Section One for further instructions.
- Do not use punctuation, special characters, or numbers.
- Abbreviate where necessary.
- If the patient's city or town is unknown type UNKNOWN.

Code	Definition
CITY NAME	Do not use punctuation, special characters, or numbers. Abbreviate when necessary.
UNKNOWN	If the patient's city or town is unknown.

ADDRESS AT DIAGNOSIS - STATE Item Length: 2

NAACCR Item #80

FORDS 2016 pg. 48-49

Definition:

USPS abbreviation for the state, territory, commonwealth, or U.S. possession in which the patient resides at the time of diagnosis. If the patient has multiple primaries, the state of residence may be different for each primary.

Coding Instructions:

- If the patient is a foreign resident, then code either XX or YY depending on the circumstance.
- If the patient is a U.S. resident, but the state is unknown, code US.
- If the patient is a Canadian resident and the province is unknown, code CD.

Code	Definition
MS	If the state in which the patient resides at the time of diagnosis and treatment is Mississippi, then use the USPS code for the state of Mississippi
US	Resident of the United States, NOS (state/commonwealth/territory/possession unknown)
CD	Resident of Canada, NOS (province/territory unknown)
XX	Resident of a country other than the U.S. or Canada (including territories, commonwealths, or possessions) and the **country is known.**
YY	Resident of a country other than the U.S. or Canada (including its territories, commonwealths, or possessions) and the **country is unknown**.
ZZ	Residence unknown

ADDRESS AT DIAGNOSIS – POSTAL CODE Item Length: 9

NAACCR Item #100

FORDS 2016 pg. 50

Definition:

Postal code of the patient's address at diagnosis. If the patient has multiple primaries, the postal code at diagnosis may be different for each primary.

Coding Instructions:

- For U.S. residents, use either the 5-digit or the extended 9-digit ZIP code. Blanks follow the 5-digit code.
- For Canadian residents, record the six-character alphanumeric postal code.
- When available, record the postal code for other countries.
- Do not update this data item if the patient's postal code changes.
- See "Residency Rules" in Section One for further instructions.

Code	Definition:
(fill spaces)	The patient's nine-digit U.S. extended postal code. Do not record hyphens.
38655_ _ _ _	When the nine-digit extended U.S. ZIP Code is not available, record the five-digit postal code, left justified, followed by four blanks.
888888888	Permanent address in a country other than Canada, United States, or U.S. possessions and postal code is unknown.
999999999	Resident of the U.S. (including its possessions, etc.) or Canada and the postal code is unknown

COUNTY AT DIAGNOSIS

Item Length: 3
Allowable Values: 001–997, 998, 999
NAACCR Item #90
FORDS 2016 pg. 52

Definition:
Code the county of the patient's residence at the time the reportable tumor is diagnosed. If the patient has multiple primaries, the county at diagnosis may be different for each primary.

Coding Instructions:
- Refer to the table below for a list of Mississippi Counties and their FIPS codes.
- For residents of states other than Mississippi and residents of other countries at the time of diagnosis, code 998 for diagnosis county.
- If the county of the patient is unknown, code 999.
- Do not update this data item if the patient's county of residence changes.

FIPS Code	County	FIPS Code	County	FIPS Code	County	FIPS Code	County
001	Adams	043	Grenada	085	Lincoln	127	Simpson
003	Alcorn	045	Hancock	087	Lowndes	129	Smith
005	Amite	047	Harrison	089	Madison	131	Stone
007	Attala	049	Hinds	091	Marion	133	Sunflower
009	Benton	051	Holmes	093	Marshall	135	Tallahatchie
011	Bolivar	053	Humphreys	095	Monroe	137	Tate
013	Calhoun	055	Issaquena	097	Montgomery	139	Tippah
015	Carroll	057	Itawamba	099	Neshoba	141	Tishomingo
017	Chickasaw	059	Jackson	101	Newton	143	Tunica
019	Choctaw	061	Jasper	103	Noxubee	145	Union
021	Claiborne	063	Jefferson	105	Oktibbeha	147	Walthall
023	Clarke	065	Jefferson Davis	107	Panola	149	Warren
025	Clay	067	Jones	109	Pearl River	151	Washington
027	Coahoma	069	Kemper	111	Perry	153	Wayne
029	Copiah	071	Lafayette	113	Pike	155	Webster
031	Covington	073	Lamar	115	Pontotoc	157	Wilkinson
033	DeSoto	075	Lauderdale	117	Prentiss	159	Winston
035	Forrest	077	Lawrence	119	Quitman	161	Yalobusha
037	Franklin	079	Leake	121	Rankin	163	Yazoo
039	George	081	Lee	123	Scott	998	Out of State
041	Greene	083	Leflore	125	Sharkey	999	Unknown

SEX

Item Length: 1
Allowable Values: 1–4, 9
NAACCR Item #220
FORDS 2016 pg. 73

Definition:
Identifies the sex of the patient.

Transsexual: A person who was assigned under one gender at birth based on physical characteristics but who self-identifies psychologically and emotionally as the other gender.

Transgender: See Transsexual

Transgendered person: 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:

- Record the patient's sex as indicated in the medical record.
- If the medical record indicates unknown for sex contact the patient's primary physician to identify the sex of the patient.
- When gender is not known
    - Assign code 1 when the primary site is C600-C639
    - Assign code 2 when the primary site is C510-C589
    - Assign code 9 for primary sites not included above.
- Natality was added in 2015 for transsexuals. However, the codes can also be used when abstracting cases diagnosed prior to 2015
- Assign code 3 for Intersexed (persons with sex chromosome abnormalities)
- Assign code 5 for transsexuals who are natally male or transsexuals with primary site of C600-C639
- Assign code 6 for transsexuals who are natally female or transsexuals with primary site of C510-C589
- Assign code 4 for transsexuals with unknown natal sex and primary site is NOT C501-C589 or C600-C639

Codes	Definition
1	Male
2	Female
3	Other (intersex, disorders of sexual development/DSD)
4	Transsexual, NOS
5	Transsexual, natal male
6	Transsexual, natal female
9	Not Stated/Unknown

RACE 1

Item length: 2
Allowable Values: 01–08, 10-17,
20–22, 25–28, 30–32, 96–99
NAACCR Item #160
FORDS 2016 pg. 66-67

Definition:
Identifies the primary race of the person. Race is coded separately from Spanish/Hispanic Origin. All tumors for the same patient should have the same race code. If the patient is multiracial, code all races using Race 2 through Race 5.

Coding Instructions:

- Race 1 is the field used to compare with race data on cases diagnosed prior to January 1, 2000.

- 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.
    a. The patient's self-declared identification
    b. Documentation in the medical record
    c. Death certificate

- Priorities for coding multiple races:
    a. Code 07 takes priority over all other codes.
    b. Codes 02-32, 96-98 take priority over code 01
    c. Codes 04-17 take priority over code 96
    d. Codes 16-17 take priority over code 15
    e. Codes 20-32 take priority over code 97
    f. Codes 02-32 and 96-97 take priority over code 98
    g. Code 98 takes priority over code 99

- Code as 01 (White) when the race is described as Caucasian regardless of place of birth or there is a statement that the patient is Hispanic or Latino(a) with no further information. DO NOT code 98 for Hispanic, NOS

- Code race as 02 (Black) when the stated race is African-American, Black or Negro.

- Assign code 03 for any person stated to be Native American (western hemisphere) or Indian (whether from North, Central, South or Latin America)

- Assign a specific code when a specific Asian race is stated. Code 96 is not applicable when a specific race is known.

- Code a 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.

- 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.

- When a 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 the face-sheet indicates "Race Other," and no further information is available.

- Do not use code 96, 97, or 98 for a patient described as "multiracial."

- If Race 1 is coded 99, then Race 2-5 must all be coded 99.

- Do not use patient name as the basis for coding race.

- Refer to Appendix D of the current *SEER Program Coding and Staging Manual* (http://www.seer.cancer.gov/tools/codingmanuals/index.html) to determine race when only nationality or place of birth is known.

    a. Example: Record states that the patient is a native of Portugal. Code race as 01 (White) per Appendix D.
    b. Exception: Code Race 1 through 5 as 99 (Unknown) when patient's name is incongruous with the race inferred on the basis of nationality.
        - Example: Patient's name is Siddhartha Rao and the birthplace listed is England. Code Race 1 through Race 5 as 99 (Unknown).

- Patient photographs may be used with caution to determine race in the absence of documented race information.

Code	Definition
01	White
02	Black
03	American Indian, Aleutian, Alaska 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, (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 further race documented
96	Other Asian, including Asian, NOS and, Oriental, NOS
97	Pacific Islander, NOS
98	Other
99	Unknown

Coding Examples for Race 1:

Codes	Explanation
01	A patient is noted to be Hispanic NOS. Code also ***Spanish/Hispanic Origin.***
08	Patient is described as Asian in a consult note and as second generation Korean-American in the history. Code Race 1 as 08 and Race 2 through Race 5 as 88. Do not code 96 in Race 2.
05	A patient has a Japanese father and a Caucasian mother. Code Race 1 to 05 Japanese, and Race 2 to white, 01. Always code the **least common code to the first race field.**
01	Patient is referred to as a native of Portugal
99	A patient's race is unknown. Race fields 2-5 must also be unknown.

RACE 2

Item length: 2
Allowable Values: 01–08, 10-17, 20–22, 25–28, 30–32, 88, 96–99
NAACCR Item #161
FORDS 2016 pg. 68

Definition:
Identifies the additional race of the person. Race is coded separately from Spanish/Hispanic Origin. All tumors for the same patient should have the same race code. If the patient is multiracial, code all races using Race 2 through Race 5. If a patient is White and another race, the other race should be coded as Race 1 and White should be coded as Race 2.

Coding Instructions: Refer to Race 1 for coding instructions.

Coding Examples for Race 2:

Codes	Explanation
01	A patient has a Japanese father and a Caucasian mother. Code Race 1 to 05 (Japanese), and Race 2 to 01 (White). Always code the **least common code to the first race field.**
05	Patient is described as Japanese and Hawaiian. Code Race 1 as 07 (Hawaiian) and Race 2 as 05 (Japanese)
88	Patient is referred to as a native of Portugal. Code Race 1 to 01 (White) and Race 2-5 to 88.
99	A patient's race is unknown. Race fields 1-5 must also be unknown.

RACE 3

Item length: 2
Allowable Values: 01–08, 10-17, 20–22, 25–28, 30–32, 88, 96–99
NAACCR Item #162
FORDS 2016 pg. 69

Definition:
Identifies the additional race of the person. Race is coded separately from Spanish/Hispanic Origin. All tumors for the same patient should have the same race code. If the patient is multiracial, code all races using Race 2 through Race 5.

Coding Instructions: Refer to Race 1 for coding instructions.

RACE 4

Item length: 2
Allowable Values: 01–08, 10-17, 20–22, 25–28, 30–32, 88, 96–99
NAACCR Item #163
FORDS 2016 pg. 70

Definition:
Identifies the additional race of the person. Race is coded separately from Spanish/Hispanic Origin. All tumors for the same patient should have the same race code. If the patient is multiracial, code all races using Race 2 through Race 5.

Coding Instructions: Refer to Race 1 for coding instructions.

RACE 5

Item length: 2
Allowable Values: 01–08, 10-17, 20–22, 25–28, 30–32, 88, 96–99
NAACCR Item #164
FORDS 2016 pg. 71

Definition:
Identifies the additional race of the person. Race is coded separately from Spanish/Hispanic Origin. All tumors for the same patient should have the same race code. If the patient is multiracial, code all races using Race 2 through Race 5.

Coding Instructions: Refer to Race 1 for coding instructions.

SPANISH/HISPANIC ORIGIN

Item Length: 1
Allowable Values: 0–9
NAACCR Item #190
FORDS 2016 pg. 72

Definition:
Identifies persons of Spanish or Hispanic origin. Persons of Spanish of Hispanic origin may be of any race. If the patient has a Hispanic name, but there is reason to believe they are not Hispanic (e.g., the patient is a woman known to be non-Hispanic who has a Hispanic married name), then code the patient as non-Hispanic.

This code is used by hospital and central registries to identify whether or not the person should be classified as "Hispanic" for purposes of calculating cancer rates.

Coding Instructions:

- 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.

- Portuguese, Brazilians and Filipinos are not presumed to be Spanish or non-Spanish

    - Assign code 7 when the patient is Portuguese, Brazilian, or Filipino and their name appears on a Hispanic surname list.
    - Assign code 0 when the patient is Portuguese, Brazilian, or Filipino and their name does NOT appear on a Hispanic surname list.

- The following information should be referred to determine the Spanish/Hispanic Origin code: stated ethnicity in the medical record, stated Hispanic origin on the death certificate, birthplace, information about the life history and/or language spoken found during the abstracting process, patient's last name or maiden name found on a list of Hispanic/Spanish names.

- A list of Hispanic surnames from the Census Bureau can be found at the following link: https://fcds.med.miami.edu/downloads/DataAcquisitionManual/dam2014/25%20Appendix%20E%20Census%20List%20of%20Spanish%20Surnames.pdf

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

Codes	Definition:
0	Non-Spanish; non-Hispanic
1	Mexican (includes Chicano)
2	Puerto Rican
3	Cuban
4	South or Central American (**except Brazil)**
5	Other specified Spanish/Hispanic origin (includes European; 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 category of 1–5.
7	**Spanish surname only.** The only evidence of the person's Hispanic origin is surname or maiden name and there is no contrary evidence that the person is not Hispanic.
8	Dominican Republic. For use with patients who were diagnosed with cancer on **January 1, 2005, or later.**
9	Unknown whether Spanish or not stated in patient record.

TEXT--USUAL INDUSTRY Item Length: 100
NAACCR Item #320

Description
Source: "A Cancer Registrar's Guide to Collecting Industry and Occupation"; DHHS (NIOSH) Publication No. 2011-173 (http://www.cdc.gov/niosh/docs/2011-173/pdfs/2011-173.pdf)

Text area for information about the patient's usual industry.

Used to identify new work-related health hazards; serves as an additional measure of socioeconomic status; identifies industrial groups or worksite-related groups in which cancer screening or prevention activities may be beneficial.

The patient's usual industry is the type of business or industry where the patient worked in his or her usual occupation.

Coding Instructions

- Be descriptive: Record the primary activity carried on by the industry at the location where the patient was employed.

  Inadequate: "automobile industry"
  Adequate: "automobile manufacturing"

- Be specific: In order to give a clear and exact description of the industry, the entry must indicate both a general and specific function for the employer.

General Industry (Inadequate)	Specific Industry (Adequate)
Mine	Copper mine
Manufacturer	Automobile manufacturer
Wholesale	Wholesale grocery
Retail	Retail bookstore
Construction	Road construction
Repair service	Shoe repair service

- Be complete: If the primary activity of the industry is unknown, record the name of the company (with city or town) in which the patient worked the most number of years before diagnosis.

  Inadequate: "ABC, Inc."
  Adequate: "ABC, Inc., Los Angeles, CA"

- Instructions for reporting government agencies:
  - Record the level: federal, state, county.

Inadequate: "fire department"
Adequate: "city fire department"

- Record the division of the agency, if available, to help clarify the specific activity of the patient.
- Use full name of division/agency:
  Inadequate: "Census"
  Adequate: "U.S. Census Bureau"

- If a person worked only at home, then record industry as "own home."
- If a patient worked at someone else's home for pay, then record industry as "private home."

- If patient ever worked outside the home, then report corresponding industry for longest-held job outside the home. Do not report "homemaker" in this case.
  Note: This is an exception to the rule that the occupation with the greatest number of years should be recorded as "usual" occupation.

- If the patient is under 14 years of age, then record industry as "child."

- If patient was a student at the time of diagnosis and had never held a job, then record industry as the type of school ("high school," "college")

- If patient was part of the military for most of his/her working life, then record industry as "military."

- If patient was not a student or homemaker and had never worked, then record industry as "none."

- "Unknown" should be entered only after you have tried your best to find job information in the medical record. It is better to enter "unknown" than to leave the field blank.

- A business at a person's home should be reported in the same manner as regular business establishments. If work is in an office located in a private home, report the specific business. Do not report an individual's name as the employer.
  Inadequate: "O'Keefe, Brown, & Smith"
  Adequate: "lawyer's office"

- Here are some common incomplete entries to avoid:
  - "Retired": If retired, enter the kind of work patient did during most of his or her working life if this can be determined. (Do not add "retired".)
    Inadequate: "retired plumber"
    Adequate: "plumber"

- "Institutionalized," "Disabled," or "Unemployed": Do not record such a description if patient was ever employed. Record longest-held occupation and industry.

- "Self-employed": If self-employed, specify the kind of work performed.
  Inadequate: "self-employed"
  Adequate: "automobile manufacturing"

- Make sure that the recorded usual occupation matches the recorded industry.

Occupation	**Business/Industry**
Timber cutter	Logging
Shoe designer	Leather footwear factory
Tire tester	Tire manufacturing
Petroleum analyst	Petroleum refining
Carpenter	Building construction
Carpet installer	Retail carpet sales and installation company
Registered nurse	Hospital
Miner	Coal Mine
Mechanic, auto	Engine repair shop
Insurance agent	Life insurance company
Student	Junior college

TEXT USUAL OCCUPATION Item Length: 100
NAACCR Item #310

Description
Source: "A Cancer Registrar's Guide to Collecting Industry and Occupation"; DHHS (NIOSH) Publication No. 2011-173 (http://www.cdc.gov/niosh/docs/2011-173/pdfs/2011-173.pdf)
The patient's usual occupation is the type of job the patient was engaged in for the longest time. It is not necessarily the highest paid job not the job considered the most prestigious, but the one that accounted for the greatest number of working years.

Coding Instructions

- Be descriptive: Record the word or words which most clearly describe the kind of work or type of duties performed by the patient.
  Inadequate: "teacher"
  Adequate: "preschool teacher," "high school teacher"

- Be specific: General or vague terms are not adequate since they do not always provide enough information to code. You are allowed 100 characters.
  Inadequate: "laborer"
  Adequate: "residential bricklayer"

General Occupation (Inadequate)	Specific Occupation (Adequate)
Contractor	Building construction contractor
Consultant	Computer database consultant
Assembler	Aircraft engine assembler
Technician	Civil engineering technician
Laborer	Dairy farm laborer
Engineer	Chemical engineer, railroad engineer

- Be complete: Occupation entries that give only the department or a place of work are inadequate.
  Inadequate: "worked in a warehouse", "worked in a shipping department"
  Adequate: "warehouse forklift operator"

- Here are some commonly confused occupations:
  - Contractor vs. skilled worker
    - A "contractor" mainly obtains contracts and supervises the work
    - A "skilled worker" works with his or her own tools as a carpenter, plasterer, plumber, or electrician.
  - Machine operator vs. machinist vs. mechanic
    - A "machine operator" operates machines.
    - A "machinist" sets up and operates machines.
    - A "mechanic" repairs, installs, and adjusts machines

- If a patient worked only at home, then record occupation as "homemaker."
- If a patient worked at someone else's home for pay, then record occupation as "housekeeper" (or "nurse," "babysitter," etc.)

- If patient ever worked outside the home, then report corresponding occupation for longest-held job outside the home. Do not report "homemaker" in such cases.
  Note: This is an exception to the rule that the occupation with the greatest number of years should be recorded as "usual" occupation.

- If the patient is under 14 years of age, then record occupation as "child."

- If patient was a student at time of diagnosis and had never held a job, then record occupation as "student."

- If patient was part of the military for most of his/her working life, then record occupation as "military."

- If the patient was not a student or homemaker and had never worked, then record occupation as "never worked."

- "Unknown" should be entered only after you have tried your best to find job information in the medical record. It is better to enter "unknown" than to leave blank.

- A business at a person's home should be reported in the same manner as a regular business establishment. If work is in an office located in a private home, report the specific business. Do not report an individual's name as the employer.
  Inadequate: "works from home"
  Adequate: "paralegal"

- If retired, enter the kind of work patient did during most of his or her working life if this can be determined. (Do not add "retired.") For example, record "plumber," not "retired plumber."

- Do not record descriptions such as "institutionalized," "disabled," or "unemployed" if patient was ever employed. Record longest-held occupation.

- If self-employed, specify the kind of work performed.
  Inadequate: "self-employed"
  Adequate: "self-employed auto mechanic"

- Record "manager" only if patient worked most of time managing a business, but include specifics in these cases.
  Inadequate: "manager"
  Adequate: "operations manager"

PRIMARY PAYER AT DIAGNOSIS

Item Length: 2
Allowable Values: 01, 02, 10, 20, 21, 31, 35, 60-68, 99
NAACCR Item #630
FORDS 2016 pg. 74-75

Description
Identifies the patient's primary payer/insurance carrier at the time of initial diagnosis and/or treatment. The Joint Commission on Accreditation of Healthcare Organizations requires the patient admission page document the type of insurance or payment structure that will cover the patient while being cared for at the hospital.

Coding Instructions
- Record the type of insurance reported on the patient's admission page.
- If the patient is diagnosed at the reporting facility, record the payer at the time of diagnosis.
- If the patient is diagnosed elsewhere or the payer at the time of diagnosis is not known, record the payer when the patient is initially admitted for treatment.
- Codes 21 and 65-68 are to be used for patients diagnosed on or after January 1, 2006.
- If more than one payer or insurance carrier is listed on the patient's admission page record the first.
- If the patient's payer or insurance carrier changes, do not change the code in the record.

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 the 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 a negotiated fee structure with the participating hospital. Type of insurance plan not coded as 20.

Code	Label	Definition
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 without supplement, Medicare, NOS	Federal government funded insurance for persons who are 62 years of age or older, or are chronically disabled (social security insurance eligible). Not described in codes 61, 62, 63
61	Medicare with supplement, NOS	Patient has Medicare and another type of unspecified insurance to pay costs not covered by Medicare.
62	Medicare-Administered through a Managed Care plan	Patient is enrolled in Medicare through a Managed Care plan (e.g. HMO or PPO). The Managed Care plan pays for all incurred costs.
63	Medicare with private supplement	Patient has Medicare and private insurance to pay costs not covered by Medicare.
64	Medicare with Medicaid eligibility	Federal government Medicare insurance with State Medicaid administered supplement.
65	TRICARE	Department of Defense program providing supplementary civilian-sector hospital and medical services beyond a military treatment facility to military dependents, retirees, and their dependents. Formally CHAMPUS (Civilian Health and Medical Program of the Uniformed Services).
66	Military	Military personnel or their dependents who are treated at a military facility.
67	Veterans Affairs	Veterans who are treated in Veterans Affair facilities.
68	Indian/Public Health Service	Patient who receives care at an Indian Health Service facility or at another facility, and the 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	It is unknown from the patient's medical record whether or not the patient is insured.

Coding Examples:

Code	Reason
01	An indigent patient is admitted with no insurance coverage.
20	A patient is admitted for treatment and the patient admission page states the primary insurance carrier is an HMO
62	A 65-year old male patient is admitted for treatment and the patient admission page states the patient is covered by Medicare with additional insurance coverage from a PPO.

CANCER IDENTIFICATION

DATE OF DIAGNOSIS

Item Length: 8
NAACCR Item #390
FORDS 2016 pg. 120

Definition:
Records the date of initial diagnosis by a recognized medical practitioner for the tumor being reported whether clinically or microscopically confirmed.

Coding Instructions:

- Use the first date of diagnosis whether clinically or histologically confirmed.
- If the physician states that in retrospect the patient had cancer at an earlier date, then use the earlier date as the date of diagnosis.
- Use the date therapy was started as the date of diagnosis if the patient receives a first course of treatment before a definitive diagnosis.
- Refer to the list of "Ambiguous Terms" in Section One for language that represents a diagnosis of cancer.
- The date of death is the date of diagnosis for a Class of Case 38 or 49.
- Use the actual date of diagnosis as the Date of Initial Diagnosis for an ***in utero*** diagnosis, for cases diagnosed January 1, 2009 or later.
- If the year is unknown, it should be approximated. The month and day would be unknown.
- If the only information provided is "spring", use April. Use July for "summer" or "mid-year" and October for "fall" or "autumn". In winter, attempt to determine whether the diagnosis was "late in the year" (use December with the applicable year) or "early in year" (use January with the respective year).

Code	Definition
CCYYMMDD	The date of initial diagnosis is the month, day, and year that this primary cancer was first diagnosed by a recognized medical practitioner. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.

Coding Examples:

Code	Explanation
20050630	Key June 30, 2005
20110312	A mammogram on March 12, 2011 reveals a mass in the upper-outer quadrant of a patient's right breast compatible with carcinoma. On March 20, 2011 the patient has an excisional breast biopsy that confirms infiltrating ductal carcinoma.
20110512	During a physical examination on May 12, 2011 the physician notes a prostate nodule that is suspicious for cancer. On June 15, 2011, an ultrasound guided needle biopsy of the prostate provides histologic confirmation of adenocarcinoma of the prostate.
201003	A patient has a total abdominal hysterectomy for endometriosis in March 2010. The patient is admitted to the hospital with abdominal pain and distention in November 2011. A laparoscopy with omental biopsy shows metastatic cystadenocarcinoma. Pathologists review the 2010 hysterectomy specimen. They identify an area of cystadenocarcinoma in the left ovary.
2010	Patient admitted to your facility June 7, 2011 for in-transit care for a lung cancer diagnosed in sometime in 2010.
201110	If information is limited to the description "Fall," 2011

DATE OF DIAGNOSIS FLAG

Item Length: 2
NAACCR Item #391
Allowable Values: 12, Blank

Definition:
This flag explains why no appropriate value is in the field Date of Diagnosis. Prior to 2010, date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions:

- If a valid date is coded in date of diagnosis, then leave this field blank. A valid date may be just a partial date.

- If date of diagnosis cannot be estimated or determined, then leave date of diagnosis blank and record 12 in this field indicating that the date is unknown.

Code	Definition
12	A proper value is applicable but cannot be determined or estimated (e.g., Date of diagnosis cannot be determined)
Blank	A valid date value is provided in item Date of Diagnosis.

Coding Examples:

Code	Explanation
Blank	Full date is known (CCYYMMDD) for Date of Diagnosis
Blank	Partial date is known (CCYYMM or CCYY) for Date of Diagnosis
12	Date is completely unknown for Date of Diagnosis

PRIMARY SITE

Item Length: 4
NAACCR Item #400
FORDS 2016 pg. 121

Definition:
Identifies the exact primary site of the tumor being reported using ICD-O-3.

Coding Instructions:

- Record the ICD-O-3 topography code for the site of origin for cases diagnosed on or after January 1, 2001 and the ICD-O-2 topography code for cases diagnosed before January 1, 2001.

- Consult the attending physician to identify the primary site or the most definitive site code if the medical record does not contain that information.

- Topography codes are indicated by a "C" preceding the three-digit code number (do not record the decimal point).

- See rules for coding Primary Site beginning on page 12.

Examples:

Code	Explanation
C508	Overlapping lesion of breast. Code overlapping lesion when a tumor involves both the upper inner quadrant and lower inner quadrant of the left breast.
C679	Bladder, NOS. Use subcategory 9 when multiple lesions arise in both the bladder trigone (C67.0) and lateral wall (C67.2).
C700	Code C70.0 (Cerebral Meninges) when patient is diagnosed with a meningioma of the frontal lobe of the brain.

LATERALITY

Item Length: 1
Allowable Values: 0–5, 9
NAACCR Item #410
FORDS 2016 pg. 122

Definition:
Identifies the side of a paired organ or the side of the body on which the reportable tumor originated. This applies to the primary site only.

Coding Instructions:

- Always code unknown primary site (C80.9), and lymphoma to 0 (not paired).

- Laterality must be coded 1-5 or 9 for all sites listed in the table below. Laterality may be assigned for sites not listed in the table or tumors in those sites may be assigned a laterality of 0.

- Code the side where the primary tumor originated. If it is known the a primary tumor is confined to one side a paired organ, but that side is unknown, use code 3.

- Code 4 would rarely be used except when both ovaries are involved simultaneously with a single histology, there are diffuse bilateral lung nodules, there are bilateral retinoblastomas or bilateral Wilms tumors.

- Code 5, midline lesion, where the right and left sides of a paired site are contiguous and the tumor is at the intersection of the right and left side. The only sites for which code 5 would be used are C700, C710-C714, C722-C725, C443, C445.

- Code 9 should be used only when the laterality is unknown and there is no information that the tumor is confined to one side of a paired organ.

The following is a list of paired organs:

Site Code	Definition
C07.9	Parotid gland
C08.0	Submandibular gland
C08.1	Sublingual gland
C09.0	Tonsillar fossa
C09.1	Tonsillar pillar
C09.8	Tonsil, overlapping site
C09.9	Tonsil, NOS
C30.0	Nasal cavity (excluding nasal cartilage and nasal septum)
C30.1	Middle ear
C31.0	Maxillary sinus
C31.2	Frontal sinus
C34.0	Main bronchus (excluding carina)
C34.1—C34.9	Lung
C38.4	Pleura
C40.0	Long bones of upper limb and scapula
C40.1	Short bones of upper limb
C40.2	Long bones of lower limb
C40.3	Short bones of lower limb
C41.3	Rib and clavicle (excluding sternum)
C41.4	Pelvic bones (excluding sacrum, coccyx, and symphysis pubis)
C44.1	Skin of eyelid
C44.2	Skin of external ear
C44.3	Skin of face (midline code 9)
C44.5	Skin of trunk (midline code 9)
C44.6	Skin of upper limb and shoulder
C47.1	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C47.2	Peripheral nerves and autonomic nervous system of lower limb and hip
C49.1	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C49.2	Connective, subcutaneous, and other soft tissues of lower limb and hip
C50.0- C50.9	Breast
C56.9	Ovary
C57.0	Fallopian tube
C62.0- C62.9	Testis
C63.0	Epididymis
C63.1	Spermatic cord
C64.9	Kidney, NOS

Site Code	Definition
C65.9	Renal pelvis
C66.9	Ureter
C69.0- C69.9	Eye and lacrimal gland
C70.0	Cerebral meninges, NOS (excluding diagnoses prior to 2004)
C71.0	Cerebrum (excluding diagnoses prior to 2004)
C71.1	Frontal Lobe (excluding diagnoses prior to 2004)
C71.2	Temporal Lobe (excluding diagnoses prior to 2004)
C71.3	Parietal Lobe (excluding diagnoses prior to 2004)
C71.4	Occipital Lobe(excluding diagnoses prior to 2004)
C72.2	Olfactory Nerve (excluding diagnoses prior to 2004)
C72.3	Optic Nerve (excluding diagnoses prior to 2004)
C72.4	Acoustic Nerve (excluding diagnoses prior to 2004)
C72.5	Cranial Nerve, NOS(excluding diagnoses prior to 2004)
C74.0- C74.9	Adrenal gland
C75.4	Carotid body

Code	Definition
0	Organ is not considered to be a paired site.
1	Origin of primary is right.
2	Origin of primary is left.
3	Only one side involved, right or left origin not specified.
4	Bilateral involvement, side of origin unknown, stated to be a single primary. This includes: ▪ Both ovaries simultaneously involved with a single histology ▪ Bilateral retinoblastoma ▪ Bilateral Wilms tumors
5	Paired site: midline tumor
9	Paired site, but lateral origin unknown

HISTOLOGIC TYPE ICD-O-3

Item Length: 4
NAACCR Item #522
FORDS 2016 pg. 123

Definition:
Identifies the microscopic anatomy of cells.

Coding Instructions:

- Record histology using the ICD-O-3 codes in the Numeric Lists/Morphology section (ICD-O-3, pp. 69–104) and in the Alphabetic Index (ICD-O-3, pp. 105–218).

- ICD-O-3 identifies the morphology codes with an "M" preceding the code number. Do not record the "M".

- For cases diagnosed prior to January 1, 2007, follow the coding rules outlined on pages 20 through 40 of ICD-O-3. For cases diagnosed on or after January 1, 2007, refer to the *2007 Multiple Primary and Histology Coding Rules*.

- Carefully review all pathology reports.

- Code the final pathologic diagnosis for solid tumors.

- Refer to rules in Section One for more information on coding histology.

➪ **Exception:**
For cases diagnosed prior to January 1, 2007, if the final diagnosis is "Not Otherwise Specified" (carcinoma, NOS; melanoma, NOS; sarcoma, NOS; lymphoma, NOS; or malignant tumor, NOS), then code the histology from the microscopic description if it identifies a more specific histologic type (higher ICD-O-3 code) such as adenocarcinoma, amelanotic melanoma, spindle cell sarcoma.

- The codes for cancer, NOS (8000) and carcinoma, NOS (8010) **are not interchangeable**. If the physician says that the patient has carcinoma, then code carcinoma, NOS (8010).

- For leukemias, lymphomas and other hematopoietic diseases, follow the instructions in the *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the Hematopoietic and Lymphoid Neoplasms Database.

2014 ICD-O-3 Update

See the *NAACCR Guidelines for ICD-O-3 Update Implementation* pages five and six http://www.naaccr.org/LinkClick.aspx?fileticket=u7d3sB71t5w%3d&tabid=126&mid=466
The terms and synonyms for existing ICD-O-3 histology codes listed in the document should be incorporated into your ICD-O-3 manual.

2015 ICD-O-3 Update

Effective for 2015 diagnoses, code 8240/1 for Carcinoid tumor, NOS of appendix (C181) is obsolete. Code Carcinoid tumor, NOS of appendix to 8240/3 as this is now reportable (behavior code 3) in 2015.

Effective for 2015 diagnoses, one reportable histology codes is obsolete
8157/3 Enteroglucagonoma, malignant

Use histology code 8152/3 for Enteroglucagonoma, malignant as Enteroglucagonoma is now a related term for Glucagonoma.

New histology terms and codes have been introduced for ICD-O-3, but many cannot be used for 2015 and 2016 diagnoses because they are not included among the acceptable histology codes for the Collaborative Stage algorithms. See the *NAACCR Guidelines for ICD-O-3 Update Implementation* page 7 for new terms and codes.
http://www.naaccr.org/LinkClick.aspx?fileticket=u7d3sB71t5w%3d&tabid=126&mid=466

Examples

Code	Definition
8210	Final pathologic diagnosis from a resection of a lesion in the sigmoid colon is adenocarcinoma, NOS. Pathology from the colonoscopy recorded adenocarcinoma in a polyp.
8310	Renal Cell Carcinoma, Clear Cell Type

BEHAVIOR CODE ICD-O-3

Item Length: 1
Allowable Values: 0–3
NAACCR Item #523
FORDS 2016 pg. 124-125

Definition:
Records the behavior of the tumor being reported. The fifth digit of the morphology code is the behavior code.

Coding Instructions:

- Code 3 if any invasion is present, no matter how limited.

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

- If the specimen is from a metastatic site, code the histology of the metastatic site and code 3 for behavior.

- If the pathologist disagrees with the behavior code listed with a particular histology in ICD-O-3, then code the behavior stated by the pathologist.

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

- Clinical evidence is not sufficient to code the behavior as in situ; an in situ behavior (Code 2) must be based on pathologic examination.

- For intracranial and CNS tumors, code the behavior from scans when there is no tissue diagnosis. Do not use the WHO grade to code behavior

Note: The ICD-O-3 behavior code for juvenile astrocytoma (9421/1) is coded as 3. Gastrointestinal stromal tumors (GIST) and thymomas are often non-malignant. However, they must be abstracted and coded with a behavior code 3 if they have multiple foci, positive lymph nodes, or metastasis.

Code	Label	Definition
0	Benign	Benign
1	Borderline	Borderline. Uncertain whether benign or malignant. Low malignant potential Uncertain malignant potential.
2	In situ and/or carcinoma in situ Synonyms with 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, noninfiltrating (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) Non-invasive (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_) Adenocarcinoma in an adenomatous polyp with no invasion of stalk
3		Invasive or microinvasive.

Coding Examples:

Code	Explanation
3	The pathology report stated intraductal carcinoma (8500/2) with focal areas of invasion. Code the behavior code to the invasive component, infiltrating ductal carcinoma (8500/3).
3	The pathology report stated large in situ intraductal carcinoma (8500/2) with an area of microinvasion. Code the behavior to invasive even if only microinvasion.

GRADE

Item Length: 1
Allowable Values: 1–9
NAACCR Item #440
FORDS 2016 pg. 126-127

Definition:
Describes the tumor's resemblance to normal tissue. Well differentiated (Grade 1) is the most like normal tissue, and undifferentiated (Grade 4) is the least like normal tissue. For leukemias and lymphomas, this field is used to indicate T-, B-, Null-, or NK-cell origin.

Coding Instructions:
For cases diagnosed **prior to 2014**, refer to grade rules in the *FORDS* 2011 manual for coding rules:
https://www.facs.org/~/media/files/quality%20programs/cancer/coc/fords/fords_for_2011_01012011.ashx

For cases diagnosed in **2014 and later**, the following grade rules apply:

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 Hematopoietic and Lymphoid Neoplasm Manual [http://seer.cancer.gov/tools/heme/Hematopoietic_Instructions_and_Rules/].

2. Determine the Cell Indicator by applying the "Grade of Tumor Rules" within the current Hematopoietic and Lymphoid Neoplasm Manual to code the grade. [http://seer.cancer.gov/tools/heme/Hematopoietic_Instructions_and_Rules/]

Grade codes for hematopoietic and lymphoid neoplasms

Terminology	Grade Code
T-cell; T-precursor	5
B-Cell; Pre-B; B-precursor	6
Null cell; Non T-non B	7
NK cell (natural killer 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 forsolid tumors.")

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

3. Four levels of similarity; also called a four-grade system. The four-grade system describes the tumor as
    a. Grade I; also called well-differentiated
    b. Grade II; also called moderately differentiated
    c. Grade III; also called poorly differentiated
    d. Grade IV; also called undifferentiated or anaplastic

Breast and prostate 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 codegrade 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 (8020/34)
    Carcinoma, anaplastic (8021/34)
    Follicular adenocarcinoma, well differentiated (8331/31)
    Thymic carcinoma, well differentiated (8585/31)
    Sertoli-Leydig cell tumor, poorly differentiated (8631/33)
    Sertoli-Leydig cell tumor, poorly differentiated with heterologous elements (8634/33)
    Undifferentiated sarcoma (8805/34)
    Liposarcoma, well differentiated (8851/31)
    Seminoma, anaplastic (9062/34)
    Malignant teratoma, undifferentiated (9082/34)
    Malignant teratoma, intermediate type (9083/32)
    Intraosseous osteosarcoma, well differentiated (9187/31)
    Astrocytoma, anaplastic (9401/34)
    Oligodendroglioma, anaplastic (9451/34)
    Retinoblastoma, differentiated (9511/31)
    Retinoblastoma, undifferentiated (9512/34)

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 Special Grade System Rules 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	Assign Grade Code	Exception for Breast and Prostate Grade Code
Differentiated, NOS	I	1	
Well differentiated	I	1	
Only stated as 'Grade I'	I	1	
Fairly well differentiated	II	2	
Intermediate differentiation	II	2	
Low grade	I-II	2	1
Mid 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	II	2	
Only stated as 'Grade II'	II	2	

Description	Grade	Assign Grade Code	Exception for Breast and Prostate Grade Code
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).

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.

CS Site-Specific Factor 7
Nottingham or Bloom-Richardson (BR) Score/Grade

Description	CS Code	Grade Code
Score of 3	030	1
Score of 4	040	1
Score of 5	050	1
Score of 6	060	2
Score of 7	070	2
Score of 8	080	3
Score of 9	090	3
Low Grade, 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

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 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.

Historic Perspective

Gleason score	Description					
	CS Code	Grade Code	AJCC 7th	SEER 2003-2013	AJCC 6th	SEER prior to 2003
2	002	1	G1	G1	G1	G1
3	003	1	G1	G1	G1	G1
4	004	1	G1	G1	G1	G1
5	005	1	G1	G2	G2	G2
6	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

LYMPH-VASCULAR INVASION Item Length: 1

Allowable Values: 0-1, 8-9
NAACCR Item #1182
FORDS 2016 pg. 128

Definition:

Lymph-vascular invasion is defined as the presence of tumor cells found inside small blood vessels or lymphatic channels within the tumor and surrounding tissues in the primary site. The tumor cells have broken free of the primary tumor and now have the capability to float throughout the body. Other names for lymph-vascular invasion are LVI, lymphovascular invasion, vascular invasion, blood vessel invasion, and lymphatic invasion. Vascular invasion is not the same as direct tumor extension from the primary tumor into adjacent blood vessels; LVI cells are not attached to or growing into the wall of the blood vessel. Lymphatic invasion is not the same as involvement of regional lymph nodes. Lymph-vascular invasion does not include perineural invasion.

Coding Instructions:

1. **Code from pathology report(s)**. Code the absence or presence of lymph-vascular invasion as described in the medical record.

    a. The primary sources of information about lymph-vascular invasion are the pathology check lists (synoptic reports) developed by the College of American Pathologists. If the case does not have a checklist or synoptic report, code from the pathology report or a physician's statement, in that order.

    b. Do not code perineural invasion in this field.

    c. Information to code this field can be taken from any specimen from the primary tumor (biopsy or resection.)

    d. If lymph-vascular invasion is identified in any specimen, it should be coded as present/identified.

    e. For cases with benign or borderline behavior, code the lymph-vascular invasion documented (negative or positive) and, if not documented, code unknown.

    f. For cases treated with neoadjuvant therapy, refer to table below in order to code this field. However, if documentation in the medical record indicates information that conflicts with this table, code lymph-vascular invasion with the documentation in the medical record.

LVI on pathology report PRIOR to neoadjuvant therapy	LVI on pathology report AFTER neoadjuvant therapy	*Code LVI to:*
0 - Not present/Not identified	0 - Not present/Not identified	*0 - Not present/Not identified*
0 - Not present/Not identified	1 - Present/Identified	*1 - Present/Identified*
0 - Not present/Not identified	9 - Unknown/Indeterminate	*9 - Unknown/Indeterminate*
1 - Present/Identified	0 - Not present/Not identified	*1 - Present/Identified*
1 - Present/Identified	1 - Present/Identified	*1 - Present/Identified*
1 - Present/Identified	9 - Unknown/Indeterminate	*1 - Present/Identified*
9 - Unknown/Indeterminate	0 - Not present/Not identified	*9 - Unknown/Indeterminate*
9 - Unknown/Indeterminate	1 - Present/Identified	*1 - Present/Identified*
9 - Unknown/Indeterminate	9 - Unknown/Indeterminate	*9 - Unknown/Indeterminate*

2. Use of codes.

a. Use code 0 when the pathology report indicates that there is no lymph-vascular invasion. This includes cases of purely in situ carcinoma, which biologically have no access to lymphatic or vascular channels below the basement9 - Unknown/Indeterminate membrane.

b. Use code 1 when the pathology report or a physician's statement indicates that lymph-vascular invasion (or one of its synonyms) is present in the specimen.

c. Use code 8 for the following primary sites.

Hodgkin and Non-Hodgkin lymphoma
Leukemias
Hematopoietic and reticuloendothelial disorders
Myelodysplastic syndromes including refractory anemias and refractory cytopenias
Myeloproliferative disorders

d. Use code 9 when

i. there is no microscopic examination of a primary tissue specimen

ii. the primary site specimen is cytology only or a fine needle aspiration

iii. the biopsy is only a very small tissue sample

iv. it is not possible to determine whether lymph-vascular invasion is present

v. the pathologist indicates the specimen is insufficient to determine lymph-vascular invasion

vi. lymph-vascular invasion is not mentioned in the pathology report

vii. primary site is unknown

e. Clarification between codes 8 and 9:

i. Code 8 should only be used in the following situations: 1. Standard-setter does not require this item and you are not collecting it. 2. Those histologies noted above described in code 8 for which LVI is always not applicable.

ii. For those cases where there is no information/documentation from the pathology report or other sources, use code 9

Code	Definition
0	Lymph-vascular Invasion stated as Not Present
1	Lymph-vascular Invasion Present/Identified
8	Not applicable
9	Unknown/Indeterminate/not mentioned in path report

DIAGNOSTIC CONFIRMATION Item Length: 1

Allowable Values: 1, 2, 4–9
NAACCR Item #490
FORDS 2016 pg. 129-131

Definition:
Records the best method of diagnostic confirmation of the cancer being reported **at any time** in the patient's history.

The codes and instructions for hematopoietic and lymphoid neoplasms are different from the codes for solid tumors. See below.

Codes for Solid Tumors

Code	Definition
Microscopically Confirmed	
1	Positive histology.
2	Positive cytology.
4	Positive microscopic confirmation, method not specified.
Not Microscopically Confirmed	
5	Positive laboratory test/marker study
6	Direct visualization without microscopic confirmation
7	Radiography and other imaging techniques without microscopic confirmation
8	Clinical diagnosis only (other than 5, 6, or 7).
Confirmation Unknown	
9	Unknown whether or not microscopically confirmed.

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 the 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 specimen from biopsy, frozen section, 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 1: The presence of alpha-fetoprotein for liver cancer
   Example 2: 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 the 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 cases

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

Code	Definition
Microscopically Confirmed	
1	Positive histology.
2	Positive cytology.
3	Positive histology PLUS: (ONLY for hematopoietic and lymphoid neoplasms (9590/3-9992/3). Effective for cases diagnosed 1/1/2010) • Positive immunophenotyping AND/OR • Positive genetic studies
4	Positive microscopic confirmation, method not specified.
Not Microscopically Confirmed	
5	Positive laboratory test/marker study
6	Direct visualization without microscopic confirmation
7	Radiography and other imaging techniques without microscopic confirmation
8	Clinical diagnosis only (other than 5, 6, or 7).
Confirmation Unknown	
9	Unknown whether or not microscopically confirmed.

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

1. There is no priority order or hierarchy for coding the Diagnostic Confirmation for hematopoietic or lymphoid neoplasms. Most commonly the specific histology type is determined through immunophenotyping or genetic testing.

   Note: See the glossary in the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* for definitions of immunophenotyping and genetic testing.

2. See the Hematopoietic Database for information on the definitive diagnostic confirmation method(s) for the specific neoplasm being abstracted.

3. Assign code 1 when the microscopic diagnosis is based on:

   a. Tissue specimens form biopsy, frozen section, surgery, or autopsy
   b. Bone marrow specimens (aspiration and biopsy)
   c. For leukemias only, complete blood count (CBC), white blood count (WBC), and peripheral blood smear

   Note: Use code 1 when ONLY the tissue, bone marrow, or blood was used to diagnose the specific histology. Do not use code 1 if the diagnosis was based on immunophenotyping or genetic testing using tissue, bone marrow, or blood.

4. Code 2 would rarely be used for hematopoietic or lymphoid neoplasms. Use code 2 when the microscopic diagnosis is based on

a. Examination of cells (other than tissue) including but not limited to: spinal fluid, peritoneal fluid, or pleural fluid.
b. Paraffin block specimens from concentrated spinal, pleural or peritoneal fluid.

5. Assign code 3 when BOTH a histology positive for cancer AND also positive immunophenotyping and/or positive genetic testing are available.

   Example 1: Bone marrow examination is positive for acute myeloid leukemia (9861/3). Genetic testing shows AML with inv(16)(p13.1q22) (9871/3). Code the Diagnostic Confirmation 3, positive histology and positive genetic testing.
   Example 2: Skin biopsy positive for cutaneous T-cell lymphoma, NOS (9709/3). Immunophenotyping shows CD8 positive. Diagnosis is primary cutaneous CD 8 positive aggressive epidermitropic T-cell lymphoma (9709/3). Code the Diagnostic Confirmation 3, positive histology and positive genetic testing.

6. Assign code 4 when there is information that the diagnosis of cancer was microscopically confirmed, but the type of confirmation is unknown.

7. Assign code 5 when the diagnosis of a hematopoietic or lymphoid neoplasm is based ONLY on laboratory tests or marker studies that are diagnostic for that specific cancer.

   Note: See the glossary in the *2010 Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* for definitions of immunophenotyping and genetic testing which are marker studies for hematopoietic and lymphoid neoplasms.

   Example: The only information available is that the patient had a positive JAK2 done on a blood sample and is diagnosed with polycythemia vera. Code 5 for diagnosis based on a marker study that is diagnostic of polycythemia vera.

8. Assign code 6 when the diagnosis is based only on
   a. The surgeon's operative report from a surgical exploration or endoscopy and no tissue was examined.
   b. Gross autopsy findings (no tissue or cytologic confirmation)

9. Assign code 7 when the only confirmation of malignancy was diagnostic imaging such as computerized axial tomography (CT), magnetic resonance imaging (MRI), or ultrasounds/sonography.

10. Assign code 8 when the case was diagnosed by any clinical method not mentioned in the preceding codes. A number of hematopoietic and lymphoid neoplasms are diagnosed clinically; these are called "diagnoses of exclusion" (the tests for the disease are equivocal and the physician does a clinical diagnosis based on the information from the equivocal tests and the patient's clinical presentation).

Note: The hematopoietic DB will identify clinical diagnosis as the definitive diagnostic method.

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

AGE AT DIAGNOSIS

Item Length: 3
Allowable Values: 000–120, 999
NAACCR Item #230
FORDS 2016 pg. 65

Definition:
The item must be computer generated.

Records the age of the patient at diagnosis in complete years.

Coding Instructions:
If the patient has multiple primaries, then the age at diagnosis may be different for subsequent primaries.

STAGE/PROGNOSTIC FACTORS

SUMMARY STAGE 2000

Item Length: 1
Allowable Values: 0–5, 7-9
NAACCR Item #759
FORDS 2016 pg. 173

Definition:
Code this data item for cases diagnosed between January 1, 2001 and December 31, 2003 and cases diagnosed January 1, 2015 and later.

Provides a site-specific description of the extent of disease at diagnosis. Summary Stage 2000 describes disease spread at diagnosis for cancers. It is a prognostic factor used in the analysis of patient care and outcomes.

Coding Instructions:

- This field must not be blank for cases diagnosed prior to January 1, 2004 and cases diagnosed January 1, 2015 and later.
- Summary stage should include all information available through the completion of the surgery(ies) in the first course of treatment or within four months of diagnosis in the absence of disease progression, whichever is longer.
- The summary stage must be documented in the text field.
- Refer to the SEER Summary Staging Manual 2000 for site-specific coding instructions. This information can be found online at: http://www.seer.cancer.gov/Publications/SummaryStage/

Code	Definition
0	In situ
1	Localized
2	Regional by direct extension
3	Regional lymph nodes only involved
4	Regional both (codes 2 and 3)
5	Regional NOS
7	Distant metastasis or systemic disease
8	Not Applicable (Used for benign and borderline brain and CNS tumors)
9	Unknown if extension or metastasis (unstaged, unknown, or unspecified) or death certificate only cases.

CS SITE SPECIFIC FACTOR 25

Item Length: 3
Allowable Values: 000-999
NAACCR Item #2879
FORDS 2016, pg. 211

Description
CS Site Specific Factor is used to discriminate between CS staging schemas.

Coding Instructions

- Refer to the *CS Manual* (https://cancerstaging.org/cstage/schema/Pages/version0205.aspx) for instructions on coding CS Site Specific Factor 25

- Record 988 for sites/histology where there is no schema discriminator. Web Plus will instruct you when to code 988.

TUMOR SIZE SUMMARY Item Length: 3

Allowable Values: 000-990, 998, 999
NAACCR Item #756
FORDS 2016 pg. 142-144

Description
This data item records the most accurate measurement of a solid primary tumor, usually measured on the surgical resection specimen. Tumor size can indicate extent of disease and be used for quality assurance.

Coding Instructions

- **All measurements should be in millimeters(mm)**

- **Record size in the specified order:**

    1. Size measured on the surgical resection specimen, when **surgery is administered as the first definitive treatment. No pre-surgical treatment has been administered.**
        - If there is a discrepancy among tumor size measurements in the various sections of the pathology report, code the size from the synoptic report (also known as the CAP protocol or pathology checklist). If only a text report is available, use final diagnosis, microscopic, or gross examination, in that order.
    2. If neoadjuvant therapy followed by surgery, do not record the size of the pathologic specimen. Code the largest size of tumor prior to neoadjuvant treatment. If unknown, codes size as 999.
    3. If no surgical resection, then largest measurement of the tumor from physical exam, imaging, or other diagnostic procedures prior to any other form of treatment (See Coding Rules below).
    4. If 1, 2, and 3 do not apply, the largest size from all information available within four months of the date of diagnosis, in the absence of disease progression.

- **Coding Rules**
    1. Tumor size is the diameter of the tumor, not the depth or thickness of the tumor.
    2. **Recording less than/greater than Tumor Size**
        - If a tumor size is reported as less than x mm or less than x cm, the reported tumor size should be 1 mm less; for example if size is <10 mm, code size as 009. Often these are given in cm such as <1 cm which is coded as 009, <2 cm is coded as 019, <3 cm is coded as 029, <4 cm is coded as 039, <5 cm is coded as 049. If stated as less than 1 mm uses code 001.
        - If tumor size is reported as more than x mm or more than x cm, code size as 1 mm more; for example if size is <10 mm, size should be

coded as 011. Often these are given in cm such as >1 cm, which is coded as 011, >2 cm is coded as 021, >3 cm is coded as 031, >4 cm is coded as 041, >5 cm is coded as 051. If described as anything greater than 989 mm (98.9 cm) code as 989.

- If tumor size is reported to be between two sizes, record rumor size as the midpoint between the two: i.e., add the two sized together and then divide by two ("between 2 and 3 cm" is coded as 025).

3. **Rounding**
    - Round the tumor size only if it is described in fractions of millimeters. If the largest dimension of a tumor is less than 1 millimeter (between 0.1 and 0.9 mm), record size as 001 (do not round down to 000). If tumor size is greater than 1 millimeter, round tenths of millimeters in the 5-9 range up to the nearest whole millimeter. Do not round tumor size expressed in centimeters to the nearest whole centimeters (rather, move the decimal point one space to the right, converting the measurement to millimeters).
4. **Priority of imaging/radiographic techniques**
    - Information on size from imaging/radiographic techniques can be used to code size when there is no more specific size information from a pathology or operative report, but it should be taken as low priority, over physical exam.
5. **Tumor size discrepancies among imaging and radiographic reports**
    - If there is a difference in reported tumor size among imaging and radiographic techniques, unless the physician specifies which imaging is most accurate, record the largest size in the record, regardless of which imaging technique reports it.
6. **Always code the size of the primary tumor, not the size of the polyp, ulcer, cyst, or distant metastasis.**
    - If the tumor is described as a "cystic mass," and only the size of the entire mass is given, code the size of the entire mass, since the cysts are part of the tumor itself.
7. **Record the size of the invasive component, if given.**
    - If both an in situ and invasive component are present and the invasive component is measured, record the size of the invasive component even if it is smaller.
    - If the size of the invasive component is not given, record the size of the entire tumor from the surgical report, pathology report, radiology report or clinical examination.
8. **Record the largest dimension or diameter of the tumor, whether it is from an excisional biopsy specimen or the complete resection of the primary tumor.**
9. **Record the size as stated for purely in situ lesions.**
10. **Disregard microscopic residual or positive surgical margins when coding tumor size.**

- Microscopic residual tumor does not affect the overall tumor size. The status of primary tumor margins may be recorded in a separate data item.

11. **Do not add the size of pieces of chips together to create a whole.**
    - The pieces or chips may not be from the same location, or they may represent only a very small portion of a large tumor. However, if the pathologist states an aggregate or composite size (determined by fitting the tumor pieces together and measuring the total size), record that size. If the only measurement describes pieces or chips, record tumor size as 999.
12. **Multifocal/multicentric tumors**
    - If the tumor is multi-focal or if multiple tumors are reported as a single primary, code the size of the largest invasive tumor or if all of the tumors are in situ, code the size of the largest in situ tumor.
13. **Tumor size code 999 is used when size is unknown or not applicable.**
    - Site/morphologies where tumor size is not applicable are listed here.

      Hematopoietic, Reticuloendothelial, and Myeloproliferative neoplasms: histology codes 9590-9992
      Kaposi Sarcoma
      Melanoma Choroid
      Melanoma Ciliary Body
      Melanoma Iris
14. **Document the information to support coded tumor size in the appropriate text data item of the abstract.**

Code	Definition
000	No mass/tumor found
001	1 mm or described as less than 1 mm
002-988	Exact size in millimeters (2 mm to 988 mm)
989	989 millimeters or larger
990	Microscopic focus or foci only and no size of focus is given
998	SITE-SPECIFIC CODES Alternate descriptions of tumor size for specific sites: Familial/multiple polyposis: Rectosigmoid and rectum (C19.9, C20.9) Colon (C18.0, C18.2-C18.9) **If no size is documented:** Circumferential: Esophagus (C15.0-C15.5, C15.8-C15.9) Diffuse; widespread: 3/4s or more; linitis plastic: Stomach and Esophagus Ge Junction (C16.0-C16.6, C16.8-C16.9) Diffuse, entire lung or NOS: Lung and main stem bronchus (C34.0-C34.3, C34.8-C34.9) Diffuse: Breast (C50.0-C50.6, C50.8-C50.9)
999	Unknown; size not stated Not documented in patient record Size of tumor cannot be assessed Not applicable

Coding Examples:

Code	Explanation
028	Chest x-ray shows 3.5 cm mass; the pathology report from the surgery states that the same mass is malignant and measures 2.8 cm (28 mm).
032	Pathology report states lung carcinoma is 2.1 cm x 3.2 cm x 1.4 cm. Record the largest dimension 032 (32 mm)
022	Patient has a 2.2 cm mass in the oropharynx; fine needle aspiration of mass confirms squamous cell ca. Patient receives a course of neoadjuvant combination chemotherapy. Pathologic size after total resection is 2.8. cm Record tumor size as 022 (22 mm) from the imaging prior to the neoadjuvant therapy.
007	Breast cancer described as 6.5 millimeters in size. Round up tumor size as 007.
002	Cancer in polyp described as 2.3 millimeters in size. Round down tumor size as 002.
001	Focus of cancer described as 1.4 mm in size. Round down as 001.
005	5.2 mm breast cancer. Round down to 5 mm and code as 005.
014	Tumor is mixed in situ and invasive adenocarcinoma, total 3.7 cm in size, of which 1.4 cm is invasive. Record tumor size as 014 (14 mm)
023	A breast tumor with infiltrating duct carcinoma with extensive in situ component, total size 2.3 cm. Record tumor size as 023 (23 mm)
019	Duct carcinoma in situ measuring 1.9 cm with an area of invasive ductal carcinoma. Record tumor size as 019 (19 mm)
051	Tumor is described as 2.4 x 5.1 x 1.8 cm in size. Record tumor size as 051 (51 mm)

AJCC CLINICAL T Item Length: 4

NAACCR Item #940

FORDS 2016, pg. 157-158

Description

Describes the tumor size and/or extension of the primary tumor prior to the start of treatment. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the clinical T documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no clinical stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the clinical T.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the clinical T.

- Occult carcinoma of the lung is coded as cTX.

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c1B	cT1b	c3	cT3
cX	cTX	c1B1	cT1b1	c3A	cT3a
c0	cT0	c1B2	cT1b2	c3B	cT3b
pA	pTa	c1C	cT1c	c3C	cT3c
pIS	pTis	c1D	cT1d	c3D	cT3d
pISU	pTispu	c2	cT2	c4	cT4
pISD	pTispd	c2A	cT2a	c4A	cT4a
c1MI	cT1mi, cT1mic	c2A1	cT2a1	c4B	cT4b
c1	cT1	c2A2	cT2a2	c4C	cT4c
c1A	cT1a	c2B	cT2b	c4D	cT4d
c1A1	cT1a1	c2C	cT2c	c4E	cT4e
c1A2	cT1a2	c2D	cT2d	88	Not applicable

AJCC CLINICAL N

Item Length: 4
NAACCR Item #950
FORDS 2016, pg. 159

Description

Describes the presence or absence of lymph node metastasis and the extent of the regional node involvement prior to the start of treatment. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.
- Code the clinical N documented by the first treating physician or the managing physician recoded in the medical record.
- If there is no clinical stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.
- Refer to the *AJCC Cancer Staging Manual* for staging rules.
- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the clinical N.
- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the clinical N.

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c1B	cN1b	c3A	cN3a
cX	cNX	c1C	cN1c	c3B	cN3b
c0	cN0	c2	cN2	c3C	cN3c
c0A	cN0a	c2A	cN2a	c4	cN4
c0B	cN0b	c2B	cN2b	88	Not applicable
c1	cN1	c2C	cN2C		
c1A	cN1a	c3	cN3		

AJCC CLINICAL M

Item Length: 4
NAACCR Item #960
FORDS 2016, pg. 160

Description

Describes the presence or absence of distant metastasis prior to the start of treatment. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the clinical M documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no clinical stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the clinical M.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the clinical M.

Code	Definition	Code	Definition
(blank)	Not recorded	p1	pM1
c0	cM0	p1A	pM1a
c0I+	cM0(i+)	p1B	pM1b
c1	cM1	p1C	pM1c
c1A	cM1a	p1D	pM1d
c1B	cM1b	p1E	pM1e
c1C	cM1c	88	Not applicable
c1D	cM1d		
c1E	cM1e		

CLINICAL STAGE (PREFIX/SUFFIX) DESCRIPTOR Item Length: 1

Allowable Values: 0-3, 5, 9

NAACCR Item #980

FORDS 2016, pg. 162

Description

Code the AJCC clinical stage (prefix/suffix) descriptor of the tumor prior to the start of treatment. The stage descriptor indicates cases that need separate analysis but do not change the stage group. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the clinical stage descriptor documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no clinical stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, leave this data item blank.

Code	Label	Description
0	None	There are no prefix or suffix descriptors that would be used for this case.
1	E-Extranodal, lymphomas only	A lymphoma case involving an extranodal site.
2	S-Spleen, lymphomas only	A lymphoma case involving the spleen.
3	M-Multiple primary tumors in a single site	This is one primary with multiple tumors in the primary site at the time of diagnosis.
5	E&S-Extranodal and spleen, lymphomas only	A lymphoma case with involvement of both an extranodal site and the spleen.
9	Unknown; not stated in the patient record	A prefix or suffix would describe this stage, but it is not known which would be correct.

AJCC CLINICAL STAGE GROUP Item Length: 4

NAACCR Item #960

FORDS 2016, pg. 161

Description

Records the anatomic extent of disease prior to the start of treatment based on the clinical T, N, and M data values. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the clinical stage group documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no clinical stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the clinical stage group.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the clinical stage group.

- When some, but not all, T, N, and/or M values can be determined, interpret the values that are missing as "X" for the purpose of assigning the stage group.

Code	Definition	Code	Definition	Code	Definition
0	Stage 0	1S	Stage IS	3C1	Stage IIIC1
0A	Stage 0A	2	Stage II	3C2	Stage IIIC2
0IS	Stage 0is	2A	Stage IIA	4	Stage IV
1	Stage I	2A1	Stage IIA1	4A	Stage IVA
1A	Stage IA	2A2	Stage IIA2	4A1	Stage IVA1
1A1	Stage IA1	2B	Stage IIB	4A2	Stage IVA2
1A2	Stage IA2	2C	Stage IIC	4B	Stage IVB
1B	Stage IB	3	Stage III	4C	Stage IVC
1B1	Stage IB1	3A	Stage IIIA	OC	Occult
1B2	Stage IB2	3B	Stage IIIB	88	Not applicable
1C	Stage IC	3C	Stage IIIC	99	Unknown

STAGED BY (CLINICAL STAGE)

Item Length: 2
Allowable Values: 00, 10-15, 20, 30, 40, 50, 60, 88, 99
NAACCR Item #980
FORDS 2016, pg. 163-164

Description

Identifies the individual who assigned the AJCC clinical stage and stage group. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.
- Record the role of the individual who assigned the clinical stage and stage group.
- For codes 10-20, all elements of the clinical stage and the stage group must be assigned by the same person.
- Use code 00 when the tumor was not staged or the stage is unknown.
- If the physician assigning the stage cannot be identified as a surgeon, radiation oncologist, or medical oncologist, use code 10.
- If you can clearly tell from the treatment provided that the physician is a surgeon, use code 11.
- If a pathologist assigns the T and/or the N and the registrar uses the rest of the record to assign the M and the stage group, used code 30.
- If staging came from an outside facility and you know the role of the physician staging the cancer, record the applicable code 10-40. Otherwise, use code 50.
- The T, N, and M, as well as, the stage group must be record if applicable. Exception: Lymphoma does not have T, N, and M, only stage group.
- The clinical and pathologic stage may be assigned by different individuals.

Code	Label	Definition
00	Not staged	Clinical staging was not assigned; no information was found in the medical record to assign clinical stage
10	Physician, NOS, or physician type not specified in codes 11-15	Clinical staging assigned by a physician not described under codes 11-15 (i.e., dentist, gynecologist, urologist)
11	Surgeon	Clinical staging assigned by the surgeon only
12	Radiation oncologist	Clinical staging assigned by the radiation oncologist only
13	Medical Oncologist	Clinical staging assigned by the medical oncologist only
14	Pathologist	Clinical staging assigned by the pathologist only
15	Multiple Physicians; tumor board, etc.	Clinical staging assigned by multiple physicians such as during a tumor board meeting
20	Cancer registrar	Clinical staging assigned by the cancer registrar only
30	Cancer registrar and physician	Clinical staging assigned by the cancer registrar and any of the physicians specified in codes 10-15. This would include the cancer registrar assigning the stage and a physician approving it.
40	Nurse, physician assistant, or other non-physician medical staff	Clinical stage assigned by medical non-physician staff such as a nurse or physician assistant (PA)
50	Staging assigned at another facility	Clinical staging assigned at another facility, person's role unknown
60	Staging by Central Registry including consolidation of multiple sources	Clinical staging assigned by Central Registry personnel based on information from one facility or multiple facilities
88	Case is not eligible for staging	The site/histology combination is not defined in the AJCC Manual
99	Staged but unknown who assigned stage	A stage was found in the medical record but it is unknown who assigned it

Coding Examples:

Code	Explanation
10	Initial stage assigned by the Primary Care Family Medicine Physician
30	The only information in the medical record on stage is T2, nodes negative. Registrar enters the T listed, N0 and adds the M and stage group
88	A child is diagnosed with Neuroblastoma

AJCC PATHOLOGIC T Item Length: 4

NAACCR Item #880

FORDS 2016, pg. 165-166

Description

Describes the tumor size and/or extension of the primary tumor after the completion of surgery. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the pathologic T documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no pathologic stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the pathologic T.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the pathologic T.

- Occult carcinoma of the lung is coded as cTX.

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p1B	pT1b	p3	pT3
pX	pTX	p1B1	pT1b1	p3A	pT3a
p0	pT0	p1B2	pT1b2	p3B	pT3b
pA	pTa	p1C	pT1c	p3C	pT3c
pIS	pTis	p1D	pT1d	p3D	pT3d
pISU	pTispu	p2	pT2	p4	pT4
pISD	pTispd	p2A	pT2a	p4A	pT4a
p1MI	pT1mi, pT1mic	p2A1	pT2a1	p4B	pT4b
p1	pT1	p2A2	pT2a2	p4C	pT4c
p1A	pT1a	p2B	pT2b	p4D	pT4d
p1A1	pT1a1	p2C	pT2c	p4E	pT4e
p1A2	pT1a2	p2D	pT2d	88	Not applicable

AJCC PATHOLOGIC N

Item Length: 4
NAACCR Item #890
FORDS 2016, pg. 167

Description

Describes the presence or absence of lymph node metastasis and the extent of the regional node involvement after the completion of surgery. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.
- Code the pathologic N documented by the first treating physician or the managing physician recoded in the medical record.
- If there is no pathologic stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.
- Refer to the *AJCC Cancer Staging Manual* for staging rules.
- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the pathologic N.
- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the pathologic N.

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p0A	pN0a	p2C	pN2c
pX	pNX	p0B	pN0b	p3	pN3
c0	cN0	p1	pN1	p3A	pN3a
p0	pN0	p1A	pN1a	p3B	pN3b
p0I-	pN0i-	p1B	pN1b	p3C	pN3c
p0I+	pN0i+	p1C	pN1c	p4	pN4
p0M-	pN0m-	p2	pN2	88	Not applicable
p0M+	pN0m+	p2A	pN2a		
p1M1	pN1mi	p2B	pN2b		

AJCC PATHOLOGIC M

Item Length: 4
NAACCR Item #900
FORDS 2016, pg. 168

Description

Describes the presence or absence of distant metastasis following the completion of surgery. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the pathologic M documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no pathologic stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the pathologic M.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the pathologic M.

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p1C	pM1c	c1C	cM1c
c0	cM0	p1D	pM1d	c1D	cM1d
c0I+	cM0(i+)	p1E	pM1e	c1E	cM1e
p1	pM1	c1	cM1	88	Not applicable
p1A	pM1a	c1A	cM1a		
p1B	pM1b	c1B	cM1b		

PATHOLOGIC STAGE (PREFIX/SUFFIX) DESCRIPTOR Item Length: 1

Allowable Values: 0-6, 9
NAACCR Item #920
FORDS 2016, pg. 170

Description
Code the AJCC clinical stage (prefix/suffix) descriptor of the tumor after the completion of surgery. The stage descriptor indicates cases that need separate analysis but do not change the stage group. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions
- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.
- Code the pathologic stage descriptor documented by the first treating physician or the managing physician recoded in the medical record.
- If there is no pathologic stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.
- Refer to the *AJCC Cancer Staging Manual* for staging rules.
- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, leave this data item blank.

Code	Label	Description
0	None	There are no prefix or suffix descriptors that would be used for this case.
1	E-Extranodal, lymphomas only	A lymphoma case involving an extranodal site.
2	S-Spleen, lymphomas only	A lymphoma case involving the spleen.
3	M-Multiple primary tumors in a single site	This is one primary with multiple tumors in the primary site at the time of diagnosis.
4	Y-Classification after initial multimodality therapy	Neoadjuvant treatment given before staging
5	E&S-Extranodal and spleen, lymphomas only	A lymphoma case with involvement of both an extranodal site and the spleen.
6	M&Y – Multiple primary tumors and initial multimodality therapy	A case meeting the parameters of both codes 3 and 4
9	Unknown; not stated in the patient record	A prefix or suffix would describe this stage, but it is not known which would be correct.

AJCC PATHOLOGIC STAGE GROUP Item Length: 4

NAACCR Item #910

FORDS 2016, pg. 169

Description

Records the anatomic extent of disease after the completion of surgery based on the pathologic T, N, and M data values. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.

- Code the pathologic stage group documented by the first treating physician or the managing physician recoded in the medical record.

- If there is no pathologic stage documented by the managing physician, the registrar will code the stage based on the information available in the medical record.

- Refer to the *AJCC Cancer Staging Manual* for staging rules.

- If a site/histology combination is not defined in the *AJCC Cancer Staging Manual*, code 88 for the pathologic stage group.

- For in situ tumors that cannot be staged according the AJCC manual, record 88 for the pathologic stage group.

- When some, but not all, T, N, and/or M values can be determined, interpret the values that are missing as "X" for the purpose of assigning the stage group.

- If pathologic M is either X or blank and clinical M is coded as 0, 1, 1A, 1B, or 1C, then pT, PN, and cM may be used to assign the pathologic stage group.

Code	Definition	Code	Definition	Code	Definition
0	Stage 0	1S	Stage IS	3C1	Stage IIIC1
0A	Stage 0A	2	Stage II	3C2	Stage IIIC2
0IS	Stage 0is	2A	Stage IIA	4	Stage IV
1	Stage I	2A1	Stage IIA1	4A	Stage IVA
1A	Stage IA	2A2	Stage IIA2	4A1	Stage IVA1
1A1	Stage IA1	2B	Stage IIB	4A2	Stage IVA2
1A2	Stage IA2	2C	Stage IIC	4B	Stage IVB
1B	Stage IB	3	Stage III	4C	Stage IVC
1B1	Stage IB1	3A	Stage IIIA	OC	Occult
1B2	Stage IB2	3B	Stage IIIB	88	Not applicable
1C	Stage IC	3C	Stage IIIC	99	Unknown

STAGED BY (PATHOLOGIC STAGE)

Item Length: 2
Allowable Values: 00, 10-15, 20, 30, 40, 50, 60, 88, 99
NAACCR Item #930
FORDS 2016, pg. 171-172

Description

Identifies the individual who assigned the AJCC pathologic stage and stage group. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- Only reporting facilities with cancer registries or with a CTR doing their abstracting will code the AJCC TNM data items. All other reporting facilities will document information necessary for the MCR staff to stage their cases.
- Record the role of the individual who assigned the pathologic stage and stage group.
- For codes 10-20, all elements of the pathologic stage and the stage group must be assigned by the same person.
- Use code 00 when the tumor was not staged or the stage is unknown.
- If the physician assigning the stage cannot be identified as a surgeon, radiation oncologist, or medical oncologist, use code 10.
- If you can clearly tell from the treatment provided that the physician is a surgeon, use code 11.
- If a pathologist assigns the T and/or the N and the registrar uses the rest of the record to assign the M and the stage group, used code 30.
- If staging came from an outside facility and you know the role of the physician staging the cancer, record the applicable code 10-40. Otherwise, use code 50.
- The T, N, and M, as well as, the stage group must be record if applicable. Exception: Lymphoma does not have T, N, and M, only stage group.
- The clinical and pathologic stage may be assigned by different individuals.

Code	Label	Definition
00	Not staged	Clinical staging was not assigned; no information was found in the medical record to assign clinical stage
10	Physician, NOS, or physician type not specified in codes 11-15	Clinical staging assigned by a physician not described under codes 11-15 (i.e., dentist, gynecologist, urologist)
11	Surgeon	Clinical staging assigned by the surgeon only
12	Radiation oncologist	Clinical staging assigned by the radiation oncologist only
13	Medical Oncologist	Clinical staging assigned by the medical oncologist only
14	Pathologist	Clinical staging assigned by the pathologist only
15	Multiple Physicians; tumor board, etc.	Clinical staging assigned by multiple physicians such as during a tumor board meeting
20	Cancer registrar	Clinical staging assigned by the cancer registrar only
30	Cancer registrar and physician	Clinical staging assigned by the cancer registrar and any of the physicians specified in codes 10-15. This would include the cancer registrar assigning the stage and a physician approving it.
40	Nurse, physician assistant, or other non-physician medical staff	Clinical stage assigned by medical non-physician staff such as a nurse or physician assistant (PA)
50	Staging assigned at another facility	Clinical staging assigned at another facility, person's role unknown
60	Staging by Central Registry including consolidation of multiple sources	Clinical staging assigned by Central Registry personnel based on information from one facility or multiple facilities
88	Case is not eligible for staging	The site/histology combination is not defined in the AJCC Manual
99	Staged but unknown who assigned stage	A stage was found in the medical record but it is unknown who assigned it

TNM EDITION NUMBER

Item Length: 2
Allowable Values: 00-06, 88, 99
NAACCR Item #1060
FORDS 2016, pg. 366

Description

Identifies the *AJCC Cancer Staging Manual* edition used to stage the case. The AJCC developed the TNM staging system to be able to evaluate trends in treatment and cancer control. Physicians use AJCC TNM staging to plan treatment and evaluate outcomes of patients. In 2016, 'c' and 'p' prefixes were added to the codes for both clinical and pathological T, N, and M to allow abstractors to code based on the current AJCC rules.

Coding Instructions

- This item is autocoded by the software provider
- The current version of the AJCC Manual is the 7th edition. Site/histology combinations with a staging chapter in the manual will be coded to 07.
- Site/histology combinations that cannot be staged using the AJCC Manual will be coded 88.

CS SITE-SPECIFIC FACTOR 1 Item Length: 3
Allowable Values: 000-999
NAACCR Item #2880

Note: Code this variable for **BREAST, BRAIN, CNS OTHER, INTRACRANIAL GLAND, MYCOSIS FUNGOIDES, PLACENTA, PROSTATE**

Definition:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Breast
Use the following link to view the Notes and Codes for SSF1 for breast:
http://web2.facs.org/cstage0205/breast/Breast_jag.html

The following information applies to both Estrogen Receptor (CS SSF1) and Progesterone Receptor (CS SSF2) Assays. Estrogen receptor (ER) positivity and progesterone receptor (PR) positivity are favorable prognostic factors in breast cancer, as well as endometrial carcinoma and meningioma. Positive results indicate a favorable response to endocrine (hormonal) therapy. Combined ER and progesterone receptor (PR) positivity is associated with increased response to antiestrogen therapies.

There are a variety of ways to report information on ER and PR results, but there is almost always a summary statement that the result is positive or negative.

Example 1

Test Name Assay Type	Staining Intensity Average	Percent Positive (%)	Result
Estrogen Receptor	3+	72	Positive
Progesterone Receptor	3+	57	Positive

Example 2 The neoplastic cells show mild (1+/4+) cytoplasmic staining with the estrogen receptor marker. The neoplastic cells exhibit abundant (3+/4+) nuclear staining with progesterone receptor marker.

Example 3 ER positive (72%); PR positive (68%)

- Record the pathologist's interpretation of the assay value from the tumor specimen. Results from the ER or PR assay done prior to neoadjuvant therapy take priority. If assays are performed on more than one specimen and any result is interpreted as positive, code as 010 Positive/elevated. If there are no results prior to neoadjuvant treatment, code the results from a post-treatment specimen. Do not report the results of an ER or PR done as part of a multigene test such as OncotypeDX or MammaPrint.
    - Use code 010 when the ER or PR is reported as positive or elevated.

- Use code 020 when the ER or PR is reported as negative or normal.
- Use code 030 when the ER or PR is reported as borderline; undetermined whether positive or negative.
  Note: New guidelines for interpreting test results do not provide for a borderline result. Therefore, the code for borderline will rarely, if ever, be used for diagnoses 2010 forward. The new guidelines state that any test which results in 1% of the cells staining positive is a positive test. If <1% of cells stain, the test is considered negative.
- Code 988 should never be used.
- Use code 996 when the ER or PR test was ordered but the results are not interpretable.
- Use code 997 when the ER or PR test was ordered but the results are not in the medical record.
- Use code 998 when there is a statement in the medical record that the test was not done, not ordered and/or not performed, for example, if the tumor tissue is completely in situ.
- Use code 999 when
  - There is no information in the medical record about the ER or PR test
  - It is unknown whether the ER or PR test was performed
  - The patient has only a clinical diagnosis of breast cancer

- The two most common ways to report ER and PR results are the proportion score (PS) and the intensity score (IS). Both the PS and IS are based on immunohistochemical staining of tumor cells. The PS reports the percentage of tumor cells with positive nuclear staining. The IS is the degree of nuclear positivity; in other words, the average intensity of all positive tumor cells on a scale from pale to dark. In some reports, these two scores are combined for a total score (TS, the sum of the PS and the IS). The Allred score, "H" score, or Quick score may be reported. Each of these is a total score for proportion and intensity. For each of these, results of 0 (None + None) or 2 (<1% +1 Weak) are considered negative and any sum from 3 to 8 is considered positive.

Proportion Score (PS)	
0	None
1	>0 to <1%
2	1% to 10%
3	10% to 33%
4	33% to 66%
5	>66%

Intensity Score (IS)	
0	None
1	Weak
2	Intermediate
3	Strong

- Older ER and PR reports may have different cut-offs for negative and positive results. Immunoperoxidase (immunohistochemical) staining of tumor cell nuclei:

<5% negative
5-19% borderline; also expressed as 1+ or +
≥ 20% positive; 20-80%; also expressed as 2+ or ++
> 80% also expressed as 3+ or +++

- Another less frequently used assay is the amount of cytosol protein in the tumor sample. This is reported in femtomoles per milligram.
  Femtomoles (fmol/mg) of cytosol protein per milligram
  <6 negative
  6-10 borderline
  >10 positive
  >100 highly positive

Brain, Other CNS and Intracranial Gland
WHO Grade Classification
Source document: pathology report

Use the following link to view the notes and specific codes for SSF1 for Brain, Other CNS and Intracranial glands: http://web2.facs.org/cstage0205/brain/Brain_jpo.html

The World Health Organization (WHO) has promoted a histologic grading classification for central nervous system tumors since 1979. The most recent version was published in 2007 as part of the WHO classification of central nervous system tumors. Tumor grade is the most important prognostic indicator for response to therapy and outcomes for brain and spinal cord tumors. According to WHO, the classification is more of a "malignancy scale" than a strict histologic grading system. Therefore, the HWO grade is different from the ICD-O grade/differentiation value that is stored with the morphology code. WHO grade ranges from I (low proliferative potential and possibly surgically curable-essentially benign behavior) through IV (cytologically malignant, mitotically active neoplasms that are rapidly fatal). Most CNS tumors are assigned a WHO grade, so there is usually a one-for-one correspondence between the ICD-O morphology code and the WHO grade.

- Code the WHO grade as documented in the pathology report: Grade I – code 010; Grade II – code 020; Grade 3 – code 030; Grade IV – coded 040. Do not convert terminology such as well-, moderately-, or poorly differentiated to code this field.
  - Code 988 should never be used.
  - Use code 998 if there was no histologic examination of the primary site (clinical diagnosis)
  - Use code 999 if the WHO grade is unknown, not stated, or not documented in the medical record.

Mycosis Fungoides
Peripheral Blood Involvement
Source document: pathology report, clinical laboratory reports of blood analysis (tissue and blood smaples)

Other names:

Peripheral blood involvement; circulating Sezary cells
T-cell clonality: T-cell receptor (TCR) gene rearrangement
Monoclonal clone +, clone positive
Polycloncal: clone -, clone negative

Use the following link to view the notes and the codes for Mycosis Fungoides:
http://web2.facs.org/cstage0205/mycosisfungoides/MycosisFungoides_jaj.html

Mycosis fungoides is the most common type of primary cutaneous T-cell lymphoma. Sezary syndrome is a more aggressive type of primary cutaneous T-cell lymphoma in which a specific type of malignant T lymphocytes (Sezary cells) is present in the circulating blood. Staging of mycosis fungoides includes analysis of the circulating blood for Sezary cells. This analysis can be done by microscopy or flow cytometry. Results of microscopy are reported as counts of Sezary cells per cubic millimeter or the percentage of Sezary cells as a proportion of total lymphocytes. Flow cytometry looks for specific cell surface markers such as CD26.

Information about peripheral blood involvement and T-cell clonality identified by polymerase chain reaction (PCR) or Southern blot analysis is combined in a "B" category unique to mycosis fungoides staging in the TNM system. The basic categories are B0 (no significant blood involvement); B1 (low blood tumor burden); and B2 (high blood tumor burden). Any mention of B2 puts the case into Stage IV. B0 and B1 are subcategorized by clonality. In the sixth edition of TNM and CS version 1, mycosis fungoides site-specific factor 1 described only the presence or absence of Sezary cells in circulating blood. In the seventh edition and CS version 2, the structure of SSF1 is more complex. Codes 001 to 003 have been made obsolete and new codes and definitions have been created to account for peripheral blood involvement and clonality. The lack of monoclonality (clone negative) generally indicates a better prognosis.

Code a statement of peripheral blood involvement and clonality (if given) as reported by the clinician from tissue and/or blood samples. If the physician does not provide a B rating but counts or percentages of neoplastic cells, flow cytometry test results, and/or clonality test results are performed, use the appropriate code for the amount of blood involvement with "clone unknown".

Placenta

Prognostic Scoring Index

Use the following link to view to notes and codes for SSF1 for the Placenta:
http://web2.facs.org/cstage0205/placenta/Placenta_jaq.html

The Prognostic Index is a non-anatomic risk factor scoring system that adds a fourth dimension to the stage grouping of gestational trophoblastic tumors (GTT) of the placenta. The score subcategorizes GTTs into low risk or high risk based on a point system. The eight risk factors and their point scores are listed in Note 1 at the link above.

Code the clinician's statement of the total point value for the Prognostic Index in priority over the clinician's statement of risk.

- Use code 000 if the clinician states no risk factors.
- Use code 010 if the point value is between 1 and 6.
- Use code 110 if the point value is 7 or more.
- If there is no statement of point value, look for a statement of low risk (code 010) or high risk (code 110), or a statement of Substage A (code 050) or Substage B (code 150).
- Use code 200 if the clinician indicates that risk factors are present but does not state whether they are low or high risk.
- If none of these clinician statements is available, the registrar may attempt to determine the point value and risk. If any one of the factors is unknown, stop trying to assign score, unless the risk category—low or high—has already been determined with the known factors.
- Use code 999 if risk factors are not assessed or are not documented in the medical record.

Prostate
PSA Lab Value
Source documents: clinical laboratory report (blood or serum test), history, clinician note, pathology report
Other names: Prostate specific antigen, serum PSA, total PSA

Use the following link to view to notes and codes for SSF1 for the Prostate:
http://web2.facs.org/cstage0205/prostate/Prostate_jav.html

Normal reference range: varies by age and race of patient. The reference range should be shown on the clinical laboratory report. In general, normal findings are 0 – 4.0 nanograms per milliliter (ng/ml). Optimal normal range is 0 – 2.6 ng/ml. Nanograms per milliliter may be reported as micrograms per liter (μg/L or ug/L). The number to be recorded in SSF1 is the same for both measurements.

Serum PSA is the most sensitive tumor marker for monitoring individuals with prostate cancer, including progression of disease and response to therapy. Although originally not intended to be a screening test, this relatively simple blood test has become a very common method of detecting new prostate cancer in its earliest stages. PSA can be totally negative when prostate cancer is found on digital rectal exam. In such cases, PSA will not be helpful in monitoring for recurrence. Serum PSA is not the same as free PSA or precursor PSA—do not record values from either of these tests in this field.

- Record the highest PSA value prior to, and closest to, diagnostic biopsy of prostate and initiation of treatment in the range 001 to 979. This site-specific factor is a 3 digit field with an implied decimal point between the second and third digits. If the PSA result is between 0 and 0.1 ng/ml, round up and code as 001. Results for SSF1 and SSF2 should be from the same test.

  Examples 12.4 – code as 124. 4.2 – code as 042. 94 - code as 940

  Note: If there are PSA tests prior to diagnosis and other PSA tests after diagnosis but before treatment, use the PSA before diagnosis. If there are multiple PSA tests within three months prior to diagnosis and treatment, record the highest value. If all PSA tests are greater than 3 months, prior to diagnosis and treatment, record the most recent one.

  Example 1: PSA on January 5, 2010 is 5.8. PSA on January 29 2010 is 5.2. Biopsy February 22, 2010 is positive for adenocarcinoma. *Code the highest PSA (from January 5) as 058.*

  Example 2: PSA on December 19, 2010 is 44.3. PSA on March 11, 2011 is 42.8. DRE on May 1, 2011 indicated palpable nodularity in both lobes of the prostate consistent with cancer so treatment with Casodex initiated without needle core biopsy being performed. *Code the highest PSA (from March 11) as 428.*

- A clinician may document an adjusted PSA value due to the patient taking medication for benign prostatic hypertrophy (BPH). Record the adjusted PSA value ONLY if documented by the clinician in the medical record. The registrar does not adjust the PSA value due to BPH medication use.
- Use code 980 if the actual value of the test exceeds 98.0.
- Use code 997 if the PSA was ordered but the results are not in the medical record.
- Use code 998 if there is a statement in the medical record that the PSA was not done or was not ordered.
- Use code 999 when there is no information in the medical record about whether a PSA was done.

CS SITE-SPECIFIC FACTOR 2

Item Length: 3
Allowable Values: 000–999
NAACCR Item #2890

Note: Code this variable for **BREAST**

Definition:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Progesterone Receptor (PR) Assay
Refer to information on "Breast" in Site Specific Factor 1 for coding instructions.

Use the following link to view the Notes and Codes for SSF2 for breast:
http://web2.facs.org/cstage0205/breast/Breast_kac.html

CS SITE SPECIFIC FACTOR 5

Item Length: 3
Allowable Values: 000–999
NAACCR Item #2920

Note: Code this variable for **GIST PERITONEUM** (PRIMARY SITES C48.0-C48.2, C48.8 AND HISTOLOGIES 8935-8936)

Definition:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Mitotoc Count
Source documents: pathology report
Other names: mitotic rate, mitotic index (a ratio-do not record this measurement), mitotic activity

Use the following link to view the Notes and Codes for SSF5 for GIST Peritoneum:
http://web2.facs.org/cstage0205/gistperitoneum/GISTPeritoneum_nav.html

Mitotic count is a way of describing the potential aggressiveness of a tumor. For GIST tumors, the count is translated into a mitotic rate that is used with T, N, and M to stage group a case.

Record the number of cells actively dividing as determined by the pathologist. GIST (appendix, colon, esophagus, peritoneum, rectum, small intestine, stomach): count per 50 HPF or 5 square millimeters. The usual high power is 40x magnification.

This site-specific factor is a three-digit field with an implied decimal point between the second and third digits. For example, if the mitotic count is reported as 0.5 mitoses per 10 HPF for a neuroendocrine tumor, record as 005. If the mitotic rate is reported as 12 mitoses per 50 HPF for a gastrointestinal stromal tumor, record as 120.

- Use code 000 if there are no mitoses present in the high power field area designated for the primary cancer (10, 40, 50 HPF).
- Codes in the range 001 to 008 are used when the number of mitoses is reported as a decimal number (part of a whole mitotic figure).
- Use code 009 when the pathologist states that the mitotic rate is less than 1 mitosis per HPF area.
- Codes in the 010 to 100 range are used when there are between 1 and 10 mitoses per HPF area.

- Codes 990 – 992 can be used for general statements that the mitotic rate is up to the cut point for low mitotic rate for the primary site being coded or more than the cut point for a high mitotic rate.
- Use code 996 when the unit of measurement is not consistent with the primary site specification. For example, the pathologist states that a neuroendocrine tumor of the colon has a mitotic rate of 6 per 40 HPF.
- Use code 998 when there has been no specimen from the primary site.
- Use code 999 if there is no mention of a mitotic rate in the pathology report.

CS SITE SPECIFIC FACTOR 6 Item Length: 3
Allowable Values: 000–999
NAACCR Item #2930

Note: Code this variable for **GIST ESOPHAGUS (**PRIMARY SITES C15.0-C15.5, C15.8-C15.9 AND HISTOLOGIES 8935-8936)**, GIST SMALL INTESTINE** (PRIMARY SITES C17.0-C17.3, C17.8-C17.9 AND HISTOLOGIES 8935-8936)**, GIST STOMACH** (PRIMARY SITES C16.0-C16.6, C16.8-C16.9 AND HISTOLOGIES 8935-8936)

Definition:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Mitotoc Count
Source documents: pathology report
Other names: mitotic rate, mitotic index (a ratio-do not record this measurement), mitotic activity

Use the following link to view the Notes and Codes for SSF5 for GIST Esophagus:
http://web2.facs.org/cstage0205/gistesophagus/GISTEsophagus_oph.html

Use the following link to view the Notes and Codes for SSF5 for GIST Small Intestine:
http://web2.facs.org/cstage0205/gistsmallintestine/GISTSmallIntestine_oph.html

Use the following link to view the Notes and Codes for SSF5 for GIST Stomach:
http://web2.facs.org/cstage0205/giststomach/GISTStomachschema.html

Mitotic count is a way of describing the potential aggressiveness of a tumor. For GIST tumors, the count is translated into a mitotic rate that is used with T, N, and M to stage group a case.

Record the number of cells actively dividing as determined by the pathologist. GIST (appendix, colon, esophagus, peritoneum, rectum, small intestine, stomach): count per 50 HPF or 5 square millimeters. The usual high power is 40x magnification.

This site-specific factor is a three-digit field with an implied decimal point between the second and third digits. For example, if the mitotic count is reported as 0.5 mitoses per 10 HPF for a neuroendocrine tumor, record as 005. If the mitotic rate is reported as 12 mitoses per 50 HPF for a gastrointestinal stromal tumor, record as 120.

- Use code 000 if there are no mitoses present in the high power field area designated for the primary cancer (10, 40, 50 HPF).
- Codes in the range 001 to 008 are used when the number of mitoses is reported as a decimal number (part of a whole mitotic figure).

- Use code 009 when the pathologist states that the mitotic rate is less than 1 mitosis per HPF area.
- Codes in the 010 to 100 range are used when there are between 1 and 10 mitoses per HPF area.
- Codes 990 – 992 can be used for general statements that the mitotic rate is up to the cut point for low mitotic rate for the primary site being coded or more than the cut point for a high mitotic rate.
- Use code 996 when the unit of measurement is not consistent with the primary site specification. For example, the pathologist states that a neuroendocrine tumor of the colon has a mitotic rate of 6 per 40 HPF.
- Use code 998 when there has been no specimen from the primary site.
- Use code 999 if there is no mention of a mitotic rate in the pathology report.

CS SITE-SPECIFIC FACTOR 8

Item Lengths: 3
Allowable Values: 000–999
NAACCR Item #2862

Note: Code this variable for **BREAST** AND **PROSTATE**

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Breast
HER2: Immunohistochemistry (IHC) Test Lab Value
Source documents: pathology report (usually in an addendum to the report), specialized lab tests, reference laboratory report
Other names: Her2, Her2 neu, c-erbB2, c-neu

Use the following link to view the Notes and Codes for SSF8 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sab.html

Code the IHC score in a range of 000 to 030, with additional codes for tests not done and other explanations for missing information.

Immunohistochemistry or IHC is the most commonly used test for HER2 and is usually the initial HER2 test done. IHC is a special staining process performed on fresh or frozen breast cancer tissue removed during biopsy. The stains used carry various names, such as CB11 (anti HER2 mouse monoclonal antibody), 4B5 (anti HER2 rabbit monoclonal antibody), SP1, SP2, and SP3 (rabbit monoclonal antibodies), HercepTest®, Pathway® and others. IHC is used to show whether or not the cancer cells have HER2 receptors and/or hormone receptors on their surface. The IHC test gives a score of 0 (no expression) to 3+ (strong complete tumor cell membrane expression) that indicate the amount of HER2 receptor protein on the cells in a sample of breast cancer tissue. If the tissue scores 0 to 1+, it is called "HER2 negative," and Herceptin is not considered effective for tumors with IHC score of 0 or 1+. When the result is 2+, the HER2 status of the tumor is not clear. This often leads to testing the tumor with FISH. If the tissue score is 3+, it is called "HER2 positive," and the patient is likely to receive Herceptin as part of first course therapy. (The symbols 1+, 2+, and so forth should be read as "1 plus" or "2 plus" rather than "1 positive" or "2 positive.") It is important to note that results of the IHC test may vary from lab to lab and that some labs are more experience with testing for HER2 than others. The IHC results are most reliable for fresh or frozen tissue samples. IHC tends to be an unreliable way to test tissue that's preserved in wax or other chemicals.

Prostate
Gleason's Score on Needle Core Biopsy/Transurethral Resection of Prostate (TURP)

Source documents: pathology reports from needle biopsies or transurethral resection of prostate/bladder that contains prostate tissue

Use the following link to view the Notes and Codes for SSF8 for Prostate:
http://web2.facs.org/cstage0205/prostate/Prostate_sax.html

The Gleason system for grading prostate cancer is the one recommended by the AJCC and College of American Pathologists. Site-specific factor 8 codes information on Gleason score from core needle biopsy or transurethral resection of the prostate (TURP) *only*. Gleason score provided on prostate tissue on a transurethral resection of bladder (TURB) specimen can also be used in site-specific factor 8. This information is used for clinical stage grouping in AJCC seventh edition and in predictive nomograms, such as the Kattan nomograms and the Partin tables, which guide individual treatment decisions. (Information on Gleason score from prostatectomy or autopsy is collected in SSF 10) The pathologist determines the Gleason score by looking at prostate tissue under the microscope. The cancer protocol for prostate published by the College of American Pathologists (CAP checklist or synoptic report) provides specific instructions to the pathologist for describing score from diagnostic procedures and prostatectomy specimens.

Code the Gleason score from pathology reports prior to any neoadjuvant treatment. The notes above the tables in Site-Specific Factor 8 are extensive and describe how to handle situations where information about Gleason Score may not be complete.

The Gleason score is the sum of the values for the primary and secondary patterns. The score ranges from 2 (1 + 1) to 10 (5 + 5). The SSF8 code is three digits, with the Gleason score in the right-most digit(s) and with leading zeros.

Coding examples

Code	Explanation
006	Gleason 3 + 3
007	Gleason 7 (Assume a number in the range 6-10 is a score and code as stated.)
999	Gleason 4 (Assume a number in the range 2 to 5 is a pattern and code the total score to 999.)
010	Gleason 10/10
998	No needle biopsy or TURP performed
999	No Gleason information on needle biopsy or TURP

CS SITE SPECIFIC FACTOR 9

Item Lengths: 3
Allowable Values: 000–999
NAACCR Item #2863

Note: Code this variable for **BREAST**

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
HER2: Immunohistochemistry (IHC) Test Interpretation

Use the following link to view the Notes and Codes for SSF9 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sac.html

Site-specific factor 9 codes the interpretation of the IHC score. Read the code definitions carefully.

Immunohistochemistry or IHC is the most commonly used test for HER2 and is usually the initial HER2 test done. IHC is a special staining process performed on fresh or frozen breast cancer tissue removed during biopsy. The stains used carry various names, such as CB11 (anti HER2 mouse monoclonal antibody), 4B5 (anti HER2 rabbit monoclonal antibody), SP1, SP2, and SP3 (rabbit monoclonal antibodies), HercepTest®, Pathway®, and others. IHC is used to show whether or not the cancer cells have HER2 receptors and/or hormone receptors on their surface. The IHC test gives a score of 0 (no expression) to 3+ (strong complete tumor cell membrane expression) that indicates the amount of HER2 receptor protein on the cells in a sample of breast cancer tissue. If the tissue scores 0 to 1+, it is called "HER2 negative," and Herceptin is not considered effective for tumors with IHC scores of 0 or 1+. When the result is 2+, the HER2 status of the tumor is not clear. This often leads to testing the tumor with FISH (see below). If the tissue score is 3+, it is called "HER2 positive," and the patient is likely to receive Herceptin as part of first course therapy. (The symbols 1+, 2+, and so forth should be read as "1 plus" or "2 plus" rather than "1 positive" or "2 positive.") It is important to note that results of the IHC test may vary from lab to lab and that some labs are more experienced with testing for HER2 than others. The IHC test results are most reliable for fresh or frozen tissue samples. IHC tends to be an unreliable way to test tissue that's preserved in wax or other chemicals.

Definitions of "positive" and "negative" interpretations for the test vary from one lab to another. Each may have a different range for normal values.

- Look for the interpretation of the test by patient's clinician or the facility pathologist as first priority.

- In the absence of the local doctor's interpretation, look on the actual lab report for that particular lab's reference values and use that information to assign the appropriate

interpretation code. The codes for interpretation are similar to other site-specific factors that are evaluated as positive/elevated, negative/normal, borderline, and so forth.

- If neither a physician interpretation nor a lab reference range can be found, do not attempt to interpret the results; code as 999 unknown.

CS SITE-SPECIFIC FACTOR 10 Item Length: 3
Allowable Values: 000–999
NAACCR Items #2864

Note: Code these fields for **GIST PERITONEUM** (PRIMARY SITES C48.0-C48.2, C48.8 AND HISTOLOGIES 8935-8936) AND **PROSTATE**

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
GIST Peritoneum
Location of Primary Tumor

Use the following link to view the Notes and Codes for SSF10 for GIST Peritoneum:
http://web2.facs.org/cstage0205/gistperitoneum/GISTPeritoneum_sqj.html

The GIST Peritoneum schema includes a site-specific factor for location of the primary tumor because all of the peritoneum structures are coded to C48.1, but two separate stage tables are used to derive the TNM values. Code 020, Omentum, uses the GIST stomach stage tables. All other specified structures in the peritoneum use the GISTSmallIntestine stage tables.

Prostate
Gleason's Score on Prostatectomy/Autopsy
Source documents: pathology report from prostatectomy or autopsy report
Other names: Gleason sum, combined Gleason grade

Use the following link to view the Notes and Codes for SSF10 for Prostate:
http://web2.facs.org/cstage0205/prostate/Prostate_saz.html

This site-specific factor codes information on Gleason score from prostatectomy or autopsy *only*. This information is used for pathologic stage grouping in AJCC seventh edition. (Information on Gleason score from core needle biopsy or TURP is collected in SSF 8.)

The Gleason score is the sum of the values for the primary and secondary patterns. The score ranges from 2 (1 + 1) to 10 (5 + 5). The SSF10 code is three digits, with the Gleason score in the right-most digit(s) and with leading zeros.

Note: If a tertiary pattern is documented in the prostatectomy pathology report, do not add it to SSF10.

Coding examples

Code	Explanation
006	Gleason 3 + 3
007	Gleason 7 (Assume a number in the range 6-10 is a score and code as stated.)
999	Gleason 4 (Assume a number in the range 2 to 5 is a pattern and code the total score to 999.)
010	Gleason 10/10
998	No prostatectomy performed
999	Diagnosed at autopsy but no Gleason information

CS SITE SPECIFIC FACTOR 11 Item Lengths: 3
Allowable Values: 000–999
NAACCR Item #2865

Note: Code these fields for **APPENDIX** (PRIMARY SITE C18.1 AND HISTOLOGIES 8000-8152, 8154-8231, 8243-8245, 8247, 8248, 8250-8934, 8940-9136, 9141-9582, 9700-9701), **BREAST**, **GIST APPENDIX** (PRIMARY SITE C18.1 AND HISTOLOGIES 8935-8936), **GIST COLON** (PRIMARY SITES C18.0, 18.2-C18.9 AND HISTOLOGIES 8935-8936), AND **GIST RECTUM** (PRIMARY SITES C19.9, C20.9 AND HISTOLOGIES 8935-8936)

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Appendix
Histopathologic Grading
Source documents: pathology report

Use the following link to view the Notes and Codes for SSF11 for Appendix:
http://web2.facs.org/cstage0205/appendix/Appendixschema.html

The histopathologic grading of mucinous adenocarcinomas (morphology codes 8480, 8481 and 8490) appears to have prognostic value for appendiceal carcinomas. Mucinous adenocarcinomas have a better prognosis and are graded differently from intestinal-type adenocarcinomas—a two-grade system, low or high. Adenocarcinomas of the appendix use a standard four-grade system. Grade is used in deriving AJCC stage groups IVA (low grade mucinous adenocarcinoma or well-differentiated adenocarcinoma with intraperitoneal metastasis) and IVB (high grade mucinous adenocarcinoma or moderately and poorly differentiated adenocarcinoma with non-peritoneal metastasis).

- Code histopathologic grade for all appendix carcinomas as described in the pathology report prior to any neoadjuvant treatment.
- Mucinous adenocarcinoma: Use code 011 for low grade. Use code 021 for high grade.
- Non-mucinous adenocarcinomas (codes other than 8480, 8481, and 8490):
    - Use code 010 for Grade 1 or well differentiated.
    - Use code 020 for Grade 2 or moderately differentiated.
    - Use code 030 for Grade 3 or poorly differentiated.
    - Use code 040 for Grade 4 or undifferentiated.

- Use code 998 if there was no histologic confirmation or the patient did not have surgery.
- Use code 999 if there is no information in the record about histopathologic grade.

Breast
Fluorescence In Situ Hybridization (FISH) Lab Value and Interpretation

Use the following link to view the Notes and Codes for SSF11 for Breast:
http://web2.facs.org/cstage0205/breast/Breastschema.html

Interpretation of FISH results are reported in SSF11. The FISH test is another method of testing for overexpression of the HER2 gene that uses fluorescent pieces of DNA that attach only to the HER2 gene copies in cells, which can then be counted under a special microscope. FISH tests include PathVysion®, HER2 FISH pharmDx™, and INFORM®. The FISH technique is more expensive than IHC and takes longer to get the results, but it is also thought to be more accurate. The result is expressed as a ratio of the number of copies of the HER2 receptors to the control rather than as a score. The result is reported as a number with the remainder of the ratio expression implied. For example, the report may indicate a ratio of 2.2 [: 1].

In SSF11, code the local doctor's interpretation of the FISH test, if available; otherwise, look at the results on the lab report. For FISH, the definition of positive, negative or borderline varies from lab to lab. The code structure for this field is similar to other lab tests requiring an interpretation. If a FISH test was performed and the results are interpreted in the chart, record as positive, negative or borderline. If the test results are in the chart but there is no interpretation and no laboratory guideline given, code SSF11 as 999.

GIST Appendix, GIST Colon, GIST Rectum
Mitotic Count
Source documents: pathology report
Other names: mitotic rate, mitotic index (a ratio-do not record this measurement), mitotic activity

Use the following link to view the Notes and Codes for SSF11 for GIST Appendix:
http://web2.facs.org/cstage0205/gistappendix/GISTAppendix_spk.html

Use the following link to view the Notes and Codes for SSF11 for GIST Colon:
http://web2.facs.org/cstage0205/gistcolon/GISTColon_spk.html

Use the following link to view the Notes and Codes for SSF11 for GIST Rectum:
http://web2.facs.org/cstage0205/gistrectum/GISTRectum_spk.html

Mitotic count is a way of describing the potential aggressiveness of a tumor. For GIST tumors, the count is translated into a mitotic rate that is used with T, N, and M to stage group a case.

Record the number of cells actively dividing as determined by the pathologist. GIST (appendix, colon, esophagus, peritoneum, rectum, small intestine, stomach): count per 50 HPF or 5 square millimeters. The usual high power is 40x magnification.

This site-specific factor is a three-digit field with an implied decimal point between the second and third digits. For example, if the mitotic count is reported as 0.5 mitoses per 10 HPF for a neuroendocrine tumor, record as 005. If the mitotic rate is reported as 12 mitoses per 50 HPF for a gastrointestinal stromal tumor, record as 120.

- Use code 000 if there are no mitoses present in the high power field area designated for the primary cancer (10, 40, 50 HPF).
- Codes in the range 001 to 008 are used when the number of mitoses is reported as a decimal number (part of a whole mitotic figure).
- Use code 009 when the pathologist states that the mitotic rate is less than 1 mitosis per HPF area.
- Codes in the 010 to 100 range are used when there are between 1 and 10 mitoses per HPF area.
- Codes 990 – 992 can be used for general statements that the mitotic rate is up to the cut point for low mitotic rate for the primary site being coded or more than the cut point for a high mitotic rate.
- Use code 996 when the unit of measurement is not consistent with the primary site specification. For example, the pathologist states that a neuroendocrine tumor of the colon has a mitotic rate of 6 per 40 HPF.
- Use code 998 when there has been no specimen from the primary site.
- Use code 999 if there is no mention of a mitotic rate in the pathology report.

CS SITE-SPECIFIC FACTOR 13 Item Lengths: 3
Allowable Values: 000–999
NAACCR Items #2867

Note: Code these fields for **BREAST** and **TESTIS**.

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Breast
HER2: Chromogenic In Situ Hybridization (CISH) Interpretation
Source documents: pathology report (usually in an addendum to the report), specialized lab tests, reference laboratory report
Other names: Her2, Her2 neu, c-erbB2, c-neu

Use the following link to view the Notes and Codes for SSF13 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sag.html

Interpretation of CISH results are reported in SSF 13. CISH is the most recent technique for determining HER2 status, and may be called SPOT-Light® on the report. It has only been approved in the United States since July 2008. CISH works in a manner similar to FISH, by using small DNA probes to count the number of HER2 genes in breast cancer cells. But this test looks for color changes (not fluorescence) and doesn't require a special microscope, which makes it less expensive. In addition, unlike other tests, it can be used on tissue samples that have been stored in the lab. CISH is in widespread use in Canada, and because of its advantages, CISH may replace FISH testing in the US.

CISH results are expressed as the mean (average) number of Her-2/neu gene copies per cell. In other words, CISH is the ratio of the number of gene copies detected, divided by the number of tumor cell nuclei counted; for example, 253 gene copies divided by 60 nuclei counted=4.22.

Record the interpretation of the CISH test, which has a similar code structure to the HER2 IHC and HER2 FISH interpretation fields. For CISH, the definition of positive, negative or borderline varies from lab to lab. If a CISH test was performed and the results are interpreted in the chart, code as positive, negative or borderline. Usually, the results will be either positive or negative, because if the result of counting the mean number of gene copies per cell from 30 cells is between 4.0 and 6.0, another 30 cells are counted and the mean from those 60 cells is interpreted according to the following scoring guidelines:

Non-amplification: 1-5 signals/nucleus in tumor cells. Result: negative
Amplification: >5 signals/nucleus, or cluster of amplified signals/nucleus in >50% of tumor cells. Result: positive

Testis
Post-Orchiectomy Alpha Fetoprotein (AFP) Range
Source documents: clinical laboratory report (blood serum radioimmunoassay or enzyme assay (EIA)); sometimes in history and physical or clinical statement in pathology report
Other names: αFP, aFP, Alpha Fetoprotein, Alpha-fetoprotein, α-fetoprotein; fetal alpha globulin

Normal Reference Range Adult men and non-pregnant women: 0-15 ng/ml (SI: 0-15 μg/L)

Measurements: micrograms/liter (μg/L or ug/l) is equivalent to nanograms per milliliter (ng/ml)

Use the following link to view the Notes and Codes for SSF13 for Testis:

http://web2.facs.org/cstage0205/testis/Testis_sfe.html

Alpha-fetoprotein (AFP) is a protein normally made by immature liver cells in the fetus. In adults, high AFP levels (> 500 ng/ml) in the blood occur only in hepatocellular carcinoma (>1000), liver metastases (from a primary elsewhere), and germ cell tumors of the testes and ovaries. Elevated AFP values are found in non-seminomatous malignancies and mixed tumors of the testis. AFP is used with HCG (SSFs 8 and 9) to identify the specific cell type of testicular cancer. AFP is not secreted by pure seminoma or teratoma. If AFP > 500 ng/ml, the underlying condition is unlikely to be benign. If AFP > 10,000 ng/ml at diagnosis, the patient is likely to have a poor prognosis.

Record the AFP range after orchiectomy (post-orchiectomy) and before any additional treatment begins. The AFP Range is actually a category used to map the S (serum tumor marker) element for stage grouping testicular cancer in the TNM system.

The half life of alpha fetoprotein is 5 to 7 days, but it may take weeks or months for this tumor marker to return to normal. After orchiectomy, the AFP should fall to < 25 ng/ml in 25-35 days. If elevated AFP persists, this is an indication of residual tumor. If the first post-orchiectomy test remains elevated, continue reviewing subsequent lab work until the AFP returns to normal or plateaus. Use that test to code this field or code the last test result before adjuvant treatment begins.

- For the rare case where an orchiectomy is not performed or where the patient receives neoadjuvant therapy, code the initial AFP range in SSF13.
- For SSF13 (AFP Range), use code 990 when the post-orchiectomy AFP range is unknown but the pre-orchiectomy AFP was in the normal range.
- Use code 991 when the physician or medical record indicates that the post-orchiectomy AFP range remains elevated.

- Use code 992 when the post-orchiectomy AFP range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which ones) were normal.
- Use code 993 when the post-orchiectomy AFP range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which ones) remain elevated.
- Use code 997 when the post-orchiectomy AFP test was done but the actual lab result was not stated, for example, when a post-orchiectomy AFP test is reported with an interpretation only (see site-specific factor 13).
- See above for other common codes and definitions.

CS SITE-SPECIFIC FACTOR 14

Item Length: 3
Allowable Values: 000–999
NAACCR Items #2868

Note: Code these fields for **BREAST**.

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
HER2: Result of Other or Unknown Test
Source documents: pathology report (usually in an addendum to the report), specialized lab tests, reference laboratory report
Other names: Her2, Her2 neu, c-erbB2, c-neu

Use the following link to view the Notes and Codes for SSF14 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sbf.html

Site-specific factor 14 documents other types of HER2 testing, in other words, not IHC, FISH or CISH. The most likely scenario will be a statement in the CAP Protocol or elsewhere in the chart that the patient is HER2 positive or HER2 negative, with no indication of how this information was determined and no test results in chart. This may be particularly true for cases diagnosed or treated outside the reporting facility or cases being reported by freestanding radiation therapy or ambulatory surgery centers. Other possibilities are SISH (silver in-situ hybridization) test and RISH (rapid in situ hybridization against mRNA), which are still experimental. The code structure is the same as the IHC, FISH and CISH test interpretation fields.

- Code a statement of HER2 status (positive, negative, borderline) by the clinician/pathologist in this field when there is no information about the specific HER2 test in the chart.

CS SITE-SPECIFIC FACTOR 15 Item Length: 3
Allowable Values: 000–999
NAACCR Items #2869

Note: Code these fields for **BREAST** and **TESTIS**.

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Breast
HER2: Summary Result of Testing
Source documents: pathology report (usually in an addendum to the report), specialized lab tests, reference laboratory report
Other names: Her2, Her2 neu, c-erbB2, c-neu

Use the following link to view the Notes and Codes for SSF15 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sbg.html

Site specific factor 15 can be derived from SS Factors 9, 11, 13, and 14.

- When there is only one test done (IHC, FISH or CISH, repeat the result of that test in this field.
- When more than one HER2 test is done, code the final result in this field.
- If the results of one test are available and a second test is known to have been performed but the results are not available, use code 997.
- To determine which result to code in this field, use the following guidelines:
    - Gene-amplification tests (in situ hybridization) are considered to be a more reliable test of the over-expression of the HER2 gene. Thus, if both an IHC and a gene-amplification test (FISH, CISH, etc.) were done, code the result of the gene-amplification test in site-specific factor 15, except as noted below.
        - If the gene-amplification test was given first and the result was borderline/equivocal and an IHC was done to clarify these equivocal results, code the result of the IHC.
    - Code 988 should never be used.

Testis
Post-Orchiectomy Human Chorionic Gonadotropin (hCG) Range

Source documents: clinical laboratory report (blood or serum test), sometimes in history and physical or clinical statement in pathology report
Other names: Human chorionic gonadotropin, b-hCG, beta subunit HCG, beta hCG, β-hCG

Use the following link to view the Notes and Codes for SSF15 for Testis:
http://web2.facs.org/cstage0205/testis/Testis_sfg.html

Normal Reference Range

< 2 ng/ml (SI: < 2 μg/L or <2 ug/L) 1 ng/ml of HCG is approximately 5 mIU/ml.

< 5 mIU/mL (< 5 IU/L) To record mIU/mL in ng/ml, divide the test result by 5.

Measurements: International Units/liter (IU/L) is equivalent to milli-International Units per milliliter (mIU/ml)

Human chorionic gonadotropin is a hormone produced by the placenta and some germ cell tumors. Two subunits, alpha and beta, can be measured in blood or serum. The alpha subunit is a non-specific marker for pancreatic and pituitary tumors. Beta-hCG levels are never found in normal healthy men. When the presence of beta-hCG is detected in serum, it always indicates a malignancy. Beta-hCG is secreted by some non-seminomatous germ cell tumors and mixed tumors and is used with AFP to identify the specific cell type of testicular cancer. Beta-hCG is also useful in monitoring response to therapy. After orchiectomy, the hCG should be undetectable within 5 to 8 days. If elevated hCG persists, this is an indication of residual tumor.

Record the hCG range after orchiectomy (post-orchiectomy) and before any additional treatment begins. The hCG Range is actually a category used to map the S (serum tumor marker) element for stage grouping testicular cancer in the TNM system.

The half life of human chorionic gonadotropin is 1 to 3 days, but it may take much longer for this tumor marker to return to normal. If the first post-orchiectomy test remains elevated, continue reviewing subsequent lab work until the hCG returns to normal or plateaus. Use that test to code this field, or code the last test result before adjuvant treatment begins.

- For the rare case where an orchiectomy is not performed or where the patient receives neoadjuvant therapy, code the initial hCG range in SSF15.
- For SSF15 Post-Orchiectomy hCG Range, use code 990 when the post-orchiectomy hCG range is unknown but the pre-orchiectomy hCG was in the normal range.
- Use code 991 when the physician or medical record indicates that the post-orchiectomy hCG range remains elevated.
- Use code 992 when the post-orchiectomy hCG range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which one) were normal.

- Use code 993 when the post-orchiectomy hCG range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which one) remain elevated.
- Use code 997 when the post-orchiectomy hCG test was done but the actual lab result was not stated, for example, when a post-orchiectomy hCG test is reported with an interpretation only (see site-specific factor 15).

CS SITE-SPECIFIC FACTOR 16

Item Length: 3
Allowable Values: 000–999
NAACCR Items #2870

Note: Code these fields for **BREAST** and **TESTIS**.

Description:
Identifies additional information needed to generate stage, or prognostic factors that have an effect on stage or survival.

Coding Instructions:
Breast
Combinations of ER, PR and HER2 Results

Use the following link to view the Notes and Codes for SSF16 for Breast:
http://web2.facs.org/cstage0205/breast/Breast_sah.html

This is another summary field that allows researchers to rapidly identify those women who are "triple negative" – ER negative, PR negative and HER2 negative – a group compromising approximately 15% of all breast cancer cases. Younger women, African American women and Hispanic women are more likely to be triple negative than older women and Caucasians, meaning they are less likely to respond to hormone therapy or Herceptin as part of their breast cancer treatment.

SSF16 uses information from Site-Specific Factors 1, 2, and 15.

- The first digit reflects the result of the ER testing (recorded in SSF1).
  - Record 0 as the first digit if the ER test was negative.
  - Record 1 as the first digit if the ER test was positive.

- The second digit reflects the result of the ER testing (recorded in SSF2).
  - Record 0 as the second digit if the PR test was negative.
  - Record 1 as the second digit if the PR test was positive.

- The third digit reflects the result of the HER2 testing (recorded in SSF15)
  - Record 0 as the third digit if the HER2 test was negative
  - Record 1 as the third digit if the HER2 test was positive.

- If the result of any of the three tests (ER, PR, or HER2) is borderline/equivocal, unknown or not performed, code as 999.

- The "triple negative" patients are coded 000 in this field and the "triple positive" patients are coded 111 in this field.

Testis

Post-Orchiectomy Lactate Dehydrogenase (LDH) Range
Source documents: clinical laboratory report; may be included in a liver or hepatic panel/profile, a cardiac panel, or a general metabolic panel of tests
Other names: Lactate dehydrogenase, lactase dehydrogenase, lactic acid dehydrogenase

Use the following link to view the Notes and Codes for SSF16 for Testis:
http://web2.facs.org/cstage0205/testis/Testis_sfh.html

Normal reference range: varies widely by laboratory, patient age, and the units of measurement. Examples of reference range lab values:

Lab A Total LDH 71 – 207 U/L
Lab B Total LDH 300 – 600 U/L
Lab C Total LDH 45 – 90 U/L
Lab D Total LDH 150 – 250 U/L

When cells (normal or tumor) are damaged or destroyed, an enzyme called lactate dehydrogenase (LDH) is released into the bloodstream. LDH is an indirect indication of possible tumor burden or damage to an organ, which may be caused by metastatic involvement of liver or lung, or a myocardial infarction. The total LDH should be the test value that is coded, but there are five fractions of LDH that measure tissue specific cellular damage: LD1 and LD2: heart, red blood cells and kidneys; LD3: lung; LD4 and LD5: liver, skin and skeletal muscles. LDH is elevated in 60% of patients with non-seminomatous germ cell tumors of the testis. LDH is not a screening test, nor is it diagnostic testicular cancer.

Serum Lactate Dehydrogenase (LDH)

For testis, only the LDH Range is coded. The test that is coded in site-specific factor 16 must be done after orchiectomy and before any further treatment begins. LDH is non-specific for testicular cancer. Although part of the criteria for the S category in the TNM system, LDH is not routinely performed unless the patient has evidence of bulky or distant disease.

If the first post-orchiectomy test remains elevated, continue reviewing subsequent lab work until the LDH returns to normal or plateaus. Use that test to code these two fields, or code the last test result before adjuvant treatment begins.

- For the rare case where an orchiectomy is not performed or where the patient receives neoadjuvant therapy, code the initial LDH range in SSF16
- Code 988 should not be used by any registry in the US or Canada, as this field is required by all standards setters.
- Use code 990 when the post-orchiectomy LDH range is unknown but the pre-orchiectomy LDH was in the normal range.

- Use code 991 when the physician or medical record indicates that the post-orchiectomy LDH range remains elevated.
- Use code 992 when the post-orchiectomy LDH range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which one) were normal.
- Use code 993 when the post-orchiectomy LDH range is not documented but there is a physician statement that post-orchiectomy serum tumor markers (not specified which one) remain elevated.

TREATMENT – 1ST COURSE

DATE OF FIRST COURSE OF TREATMENT - COC Item Length: 8
NAACCR Item #1270
FORDS 2016 pg. 229

Definition:
Records the date on which treatment (surgery, radiation, systemic, or other therapy) of the patient was initiated at any facility. This includes the date a decision was made not to treat.

Coding Instructions:
- Record the earliest of the following dates:
  - Date of First Surgical Procedure
  - Date Radiation Started
  - Date Systemic Therapy Started
  - Date Other Treatment Started

- In cases of non-treatment, in which a physician decides not to treat a patient or a patient's family or guardian declines all treatment, the date of first course of treatment is the date this decision was made.

- If active surveillance ("watchful waiting") was selected, record the date of that decision.

Code	Definition
YYYYMMDD **YYYYMM** **YYYY**	The date of first course of treatment is the year, month, day (YYYYMMDD) of the beginning of treatment (surgery, radiation, systemic, or other therapy) at any facility. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.

Coding Examples

Code	Explanation
20110301	A patient has an incisional, core, or fine needle biopsy on February 12, 2011 and subsequently undergoes an excisional biopsy or radical surgical procedure on March 1, 2011. Record the date of the excisional biopsy or radical surgery (March 1, 2011) as the date of first course of treatment. Do not record the date of the incisional, core, or fine needle biopsies as the date of first course of treatment. **Note:** If a biopsy is stated to be incisional, but no residual cancer was found at a later resection, assume the biopsy was excisional.
201107	Admitting note stated the patient was diagnosed in June 2011, and treated in July 2011. Code as July 2011.
20110804	A patient has an excisional biopsy on August 11, 2011 followed by a radical surgical procedure on September 18, 2011. Record the date of the excisional biopsy (August 11, 2011) as the date of first course of treatment.
20110421	A patient begins receiving preoperative radiation therapy on April 21, 2011 and subsequent surgical therapy on June 2, 2011. Record the date of the preoperative radiation therapy (April 21, 2011) as the date of first course of treatment.
201101	A patient is diagnosed with cancer at your facility and receives radiation therapy in January 2011 at another facility before returning to your facility for surgery on February 2, 2011. Record the date of the radiation therapy (January 2011) as the date of first course of treatment, since the exact day of treatment is unknown.

DATE OF FIRST COURSE OF TREATMENT FLAG Item Length: 2

Allowable Values: 10-12, Blank

NAACCR Item #1261

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Definition:

This flag explains why no appropriate value is in the field, Date of 1st Crs RX. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if Date of First Course Treatment has a full or partial date recorded.
- Assign code 10 when it is unknown whether any treatment was administered.
- Assign code 11 when the initial diagnosis was at autopsy.
- Assign code 12 if the Date of First Course Treatment cannot be determined, and the patient did receive first course treatment.
- Use code 12 if a decision not to treat was made or a decision to use active surveillance was made, but the date when the decision was made is totally unknown.

Code	Definition
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any treatment was given)
11	No proper value is applicable in this context (for example, autopsy only)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, treatment was given but the date is unknown).
(blank)	A valid date value is provided in item Date of First Course of Treatment

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for Date of First Course of Treatment
Blank	Partial date is known (YYYYMM or YYYY) for Date of First Course of Treatment
10	Unknown if any treatment given
11	Diagnosed at autopsy
12	Date is completely unknown for Date of First Course of Treatment

RX SUMM – SURGERY PRIMARY SITE Item Length: 2

Allowable Values: 00, 10-80, 90, 98, 99

NAACCR Item #1290

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Description

Site-specific codes for the type of surgery to the primary site performed as part of the first course of treatment. This includes treatment given at all facilities as part of the first course of treatment.

Coding Instructions

- Site-specific surgery codes for this data item are found in Appendix B of *FORDS* 2016 (https://www.facs.org/~/media/files/quality%20programs/cancer/ncdb/fords%202016.ashx) beginning on page 382 of the pdf.
- Document the most invasive surgical procedure for the primary site.
- For codes 00 through 79, the response positions are hierarchical. Last-listed responses take precedence over responses written above. Code 98 takes precedence over code 00. Use codes 80 and 90 only if more precise information about the surgery is not available.
- Biopsies that remove the entire tumor and/or leave only microscopic margins are to be coded in this item.
- If a needle biopsy is done prior to an excisional biopsy or more extensive surgery, and no tumor remains in the specimen from the excisional biopsy or more extensive surgery, DO NOT consider the needle biopsy as an excisional biopsy.
- Surgery to remove regional tissue or organs is coded in item only if the tissue/organs are removed in continuity with the primary site, except where noted in Appendix B of *FORDS*.
- If a previous surgical procedure to remove a portion of the primary site is followed by surgery to remove the remainder of the primary site, then code the total or final results.

Code	Definition
00	No surgical procedure of primary site. Diagnosed at autopsy.
10-19	Tumor destruction, no pathological specimen produced. Refer to Appendix B of *FORDS* for the correct site-specific code for the procedure.
20-80	Refer to Appendix B of *FORDS* for the correct site specific code for the procedure.
90	A surgical procedure to the primary site was done, but no information on the type of surgical procedure is provided.
98	Special code. Refer to Appendix B of *FORDS* for the correct site-specific code for the procedure.
99	Patient record does not state whether a surgical procedure of the primary site was performed and no information is available. Death certificate only.

RX DATE – SURGERY

Item Length: 8
NAACCR Item #1200
FORDS 2016 pg. 233

Definition
Records the earliest date on which any first course surgical procedure was performed.

Coding Instructions
- Record the date of the first surgical procedure of the types coded as *Surgical Procedure of Primary Site* (NAACCR Item #1290), *Scope of Regional Lymph Node Surgery* (NAACCR Item #1292) or *Surgical Procedure/Other Site* (NAACCR Item #1294) performed at this or any facility.
- The date recorded here may be the same as the date recorded in *Date of Most Definitive Surgical Resection of the Primary Site* if the patient only received one surgical procedure and it was a resection of the primary site.
- If surgery is the first or only treatment administered to the patient, then the date of surgery should be the same as the date entered into the item *Date of First Course of Treatment* (NAACCR Item #1270).

Code	Definition
YYYYMMDD YYYYMM YYYY	The date of first surgical procedure is the year, month and day (YYYYMMDD) of the procedure at this or any facility. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.

Examples:

Code	Definition
20100402	Patient had a lumpectomy done April 2, 2010 followed by a MRM on April 27, 2010.
201105	Patient underwent an excisional biopsy in May 2011 for melanoma followed by a wide excision at your facility June 10, 2011
20100308	Patient had a needle aspiration of metastatic axillary lymph node March 8, 2010 followed by a MRM for breast cancer April 1, 2010.

RX DATE – SURGERY FLAG

Item Length: 2
Allowable Values: 10-12, Blank
NAACCR Item #1201
FORDS 2016 pg. 234

Definition:
This flag explains why no appropriate value is in the field, RX Date-Surgery. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions
- Leave this item blank if RX Date - Surgery has a full or partial date recorded.
- Assign code 10 when it is unknown whether any surgery was performed.
- Assign code 11 if no surgical procedure was performed.
- Assign code 12 if RX Date – Surgery cannot be determined, but it is known that surgery was performed as part of first course of treatment.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any surgery performed)
11	No proper value is applicable in this context (for example, no surgery performed)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, surgery was performed but the date is unknown).
(blank)	A valid date value is provided in item RX Date-Surgery.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Surgery
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Surgery
10	Unknown if any surgery was performed
11	No surgery performed
12	Surgery performed as first course treatment but date is completely unknown.

RX DATE – MOST DEFINITIVE SURGERY Item Length: 8

NAACCR Item #3170

FORDS 2016 pg. 236

Definition

Records the date that the most definitive surgical procedure on the primary site was performed as part of first course treatment.

Coding Instructions

- Record the date that the procedure coded as *Surgical Procedure of Primary Site* (NAACCR Item #1290) was performed at this or any facility.

- The date recorded here may be the same as the date recorded in *RX-Date Surgery* if the patient only received one surgical procedure and it was a resection of the primary site.

Code	Definition
YYYYMMDD YYYYMM YYYY	The date of first surgical procedure is the year, month and day (YYYYMMDD) of the procedure at this or any facility. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.

Examples:

Code	Definition
20100427	Patient had a lumpectomy done April 2, 2010 followed by a MRM on April 27, 2010.
20110610	Patient underwent an excisional biopsy in May 2011 for melanoma followed by a wide excision at your facility June 10, 2011
2010401	Patient had a needle aspiration of metastatic axillary lymph node March 8, 2010 followed by a MRM for breast cancer April 1, 2010.

RX DATE - MOST DEFINITIVE SURGERY FLAG Item Length: 2

Allowable Values: 10-12, Blank
NAACCR Item #3171
FORDS 2016 pg. 237

This flag explains why no appropriate value is in the field, *RX* Date-Most Definitive Surgery. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if RX Date – Most Definitive Surgery has a full or partial date recorded.
- Assign code 10 when it is unknown whether any surgery was performed.
- Assign code 11 if no surgical procedure was performed.
- Assign code 12 if RX Date – Most Definitive Surgery cannot be determined, but it is known that surgery was performed as part of first course of treatment.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any surgery performed)
11	No proper value is applicable in this context (for example, no surgery performed)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, surgery was performed but the date is unknown).
(blank)	A valid date value is provided in item RX Date-Most Definitive Surgery. Case diagnosed prior to January 1, 2003

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Surgery
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Surgery
10	Unknown if any surgery was performed
11	No surgery performed
12	Surgery performed as first course treatment but date is completely unknown.

RX SUMM—SCOPE REG LN SURG Item Length: 1

Allowable Values: 0–7, 9
NAACCR Item #1292
FORDS 2016 pg. 243-246

Definition:
Identifies the removal, biopsy, or aspiration of regional lymph node(s).

Coding Instructions:

- 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.

- Assign Code 0 when regional lymph node removal procedure was not performed or the treatment is listed as watchful waiting.

- Code regional lymph node procedures in this data item. Record distant lymph node removal in Surgical Procedure of Other Site.

- Code the procedure that is numerically higher. Codes 0-7 are hierarchical.

- 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 part of the initial treatment.

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

- 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.
    - Lymph node aspirations
        - 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.

- 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.

- Code the Scope of Regional Lymph Node Surgery to 0 (No lymph nodes removed) when the operative report lists a lymph node dissection, but no nodes were found by the pathologist.

- 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 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

- Assign code 2 when
  - The operative report states that a SLNBx was performed, OR
  - 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.

- 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).
  - 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).

  - Code 4 should be used infrequently. Review the operative report to ensure the procedure was not a SLNBx only.

  - 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.

- Code 6: SLNBx and regional lymph node dissection (code 3, 4, or 5) during the same surgical event, or timing not known
    - 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.

    - If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only.

    - Infrequently, a SLNBx is attempted and the patient fails to map (i.e., no sentinel lymph nodes are identified by the dye and/or radio label injection.) When mapping fails, the surgeon usually performs a more extensive dissection of regional lymph nodes. Code these cases as 6.

- Code 7: SLNBx and regional lymph node dissection (code 3, 4, or 5) in separate surgical events.
    - 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.

    - If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only.

- Assign code 9 for
    - Primary sites
        - Brain (C700-C709) OR
        - Spinal cord (C710-C719) OR
        - Cranial nerves and other parts of the central nervous system (C720-C729, C751-C753) OR
        - Unknown or ill-defined sites (C760-C768, C809) (all histologies)
    - Lymphoma with primary site in lymph nodes (C770-C779) AND
        - 9590-9597 OR
        - 9650-9719 OR
        - 9724-9738
    - Hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease
        - Primary sites: C420, C421, C423 or C424 (all histologies)

- Histologies: 9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9992 (all sites)

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

- 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 an ALND.

- Code 1
    - 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.

- Code 2
    - 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).

    - 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).

- Code 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).

- Code 6

- Generally, SLNBx followed by ALND will yield a minimum of 7-9 nodes. However it is possible for these procedures to harvest fewer (or more) nodes.

- If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx, or whether a SLNBx plus an ALND was performed.

- Code 7
  - Generally, SLNBx followed by ALND will yield a minimum of 7-9 nodes. However, it is possible for these procedures to harvest fewer (or more) nodes.

  - If relatively few nodes are pathologically examined, review the operative report to confirm whether the procedure was limited to a SLNBx only, or whether a SLNBx plus an ALND was performed.

Code	Definition
0	None. No regional lymph node surgery. No lymph nodes found in the pathologic specimen or diagnosed at autopsy.
1	Biopsy or aspiration of regional lymph nodes, NOS. Biopsy or aspiration of regional lymph node(s) regardless of the extent of involvement of disease.
2	Sentinel lymph node biopsy. Biopsy of the first lymph node or nodes that drain a defined area of tissue within the body. Sentinel node(s) are identified by the injection of a dye or radio label at the site of the primary tumor.
3	Number of regional nodes removed unknown or not stated; regional lymph nodes removed, NOS. Sampling or dissection of regional lymph node(s) and the number of nodes removed is unknown or not stated. The procedure is not specified as sentinel node biopsy.
4	1–3 regional lymph nodes removed. Sampling or dissection of regional lymph node(s) with fewer than four lymph nodes found in the specimen. The procedure is not specified as sentinel node biopsy.
5	4 or more regional lymph nodes removed. Sampling or dissection of regional lymph nodes with at least four lymph nodes found in the specimen. The procedure is not specified as a sentinel node biopsy.
6	Sentinel node biopsy and code 3, 4, or 5 at the same time, or timing not stated. Code 2 was performed in a single surgical event with code 3, 4, or 5. Or, code 2 and 3, 4, or 5 were performed, but timing was not stated in the patient record.
7	Sentinel node biopsy and code 3, 4, or 5 at different times. Code 2 was followed in a subsequent surgical event by procedures coded as 3, 4, or 5.
9	Unknown or not applicable. It is unknown whether regional lymph node surgery was performed; death certificate only; for lymphomas with a lymph node primary site; an unknown or ill-defined primary; or for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease.

Coding Examples:

Code	Explanation
0	If an attempt was made to remove regional nodes but no nodes were found in the pathological specimen, code as not done.
1	Aspiration of regional lymph node to confirm histology of widely metastatic disease.
2	There was an attempt at a sentinel lymph node biopsy for a breast cancer, but no nodes were found in the pathological specimen.
3	Pelvic lymph node dissection for prostate cancer
6	Sentinel lymph node biopsy of right axilla, followed by right axillary lymph node dissection during a lumpectomy procedure.
9	If all you know is that the patient had surgery but do not node if lymph nodes were removed.

REGIONAL NODES EXAMINED Item Length: 2

Allowable Values: 00–90, 95, 97-99

NAACCR Item #830

Description

This field records the total number of regional lymph nodes that were removed and examined by the pathologist.

Code	Description
00	No nodes examined
01-89	1 to 89 nodes examined (code the exact number of regional lymph nodes examined.)
90	90 or more nodes examined
95	No regional nodes removed, but aspiration or core biopsy of regional nodes performed.
96	Regional lymph node removal documented as a sampling, and the number of nodes unknown/not stated
97	Regional lymph node removal documented as dissection, and the number of nodes unknown/not stated
98	Regional lymph nodes surgically removed, but number of lymph nodes unknown/not stated and not documented as sampling or dissection; nodes examined, but the number unknown.
99	Unknown whether nodes were examined; not applicable or negative; not documented in patient record

Instructions for Coding

- **Regional lymph nodes only.** Record information about only regional lymph nodes in this field. Distant lymph node information should be coded in the "CS Mets at Dx" field.

- This field is based on pathologic information only. This field is to be recorded regardless of whether the patient received preoperative treatment.

- **Use of code 00.** Code 00 may be used in several situations.
  - When the assessment of lymph nodes is clinical.
  - When no lymph nodes are removed or examined.
  - When a "dissection" of a lymph node drainage area is found to contain no lymph nodes at the time of pathologic examination.
  - If Regional Nodes Examined is coded 00, Regional Nodes Positive is coded as 98.

- **Cumulative nodes removed and examined.** Record the total number of regional lymph nodes removed and examined by the pathologist.
  - The number of regional lymph nodes examined is cumulative from all procedures that removed lymph nodes through the completion of surgeries in

the first course of treatment with the exception of aspiration or core biopsies coded to 95.

- Do not count a positive aspiration or core biopsy of a lymph node in the same lymph node chain removed at surgery as an additional node in Regional Nodes Examined.
  Example: Lung cancer patient has a mediastinoscopy and positive core biopsy of a hilar lymph node. Patient then undergoes right upper lobectomy that yields 3 hilar and 2 mediastinal nodes positive out of 11 nodes dissected. Code Regional Nodes Positive as 05 and Regional Nodes Examined as 11 because the core biopsy was of a lymph node in the same chain as the nodes dissected.

- If the positive aspiration or core biopsy is from a node in a different node region, include the node in the count of Regional Nodes Examined.
  Example: Breast cancer patient has a positive core biopsy of a supraclavicular node and an axillary dissection showing 3 of 8 nodes positive. Code Regional Nodes Positive as 04 and Regional Nodes Examined as 09 because the supraclavicular lymph node is in a different, but still regional, lymph node chain.

- If the location of the lymph node that is aspirated or core-biopsied is not known, assume it is part of the lymph node chain surgically removed, and do not include it in the count of Regional Nodes Examined.
  Example: Patient record states that core biopsy was performed at another facility and 7/14 regional lymph nodes were positive at the time of resection. Code Regional Nodes Positive as 07 and Regional Nodes Examined as 14.

- When neither the type of lymph node removal procedure nor the number of lymph nodes examined is known, use code 98.

- **Priority of lymph node counts.** If there is a discrepancy regarding the number of lymph nodes examined, use information in the following priority order: final diagnosis, synoptic report (also known as CAP protocol or pathology report checklist), microscopic, gross.

- **Use of code 95.** Use code 95 when the only procedure for regional lymph nodes is a needle aspiration (cytology) or core biopsy (tissue).
  Example: Patient with esophageal cancer. Enlarged mid-esophageal node found on CT scan, which is aspirated and found to be positive. Patient undergoes radiation therapy and no surgery. Code Regional Nodes Positive as 95 and Regional Nodes Examined as 95.

- **Lymph node biopsy.** If a lymph node biopsy was performed, code the number of nodes removed, if known. If the number of nodes removed by biopsy is not known, use code 96.

- **Definition of "sampling" (code 96).** A lymph node "sampling" is removal of a limited number of lymph nodes. Other terms for removal of a limited number of nodes include lymph node biopsy, berry picking, sentinel lymph node procedure, sentinel node biopsy, selective dissection. Use code 96 when a limited number of nodes are removed but the number is unknown,

- **Definition of "dissection" (code 97).** A lymph node "dissection" is removal of most or all of the nodes in the lymph node chain(s) that drain the area around the primary tumor. Other terms include lymphadenectomy, radical node dissection, lymph node stripping. Use code 97 when more than a limited number of lymph nodes are removed and the number is unknown.

- **Multiple lymph node procedures**. If both a lymph node sampling and a lymph node dissection are performed and the total number of lymph nodes examined is unknown, use code 97.

- **Use of code 99.** If it is unknown whether nodes were removed or examined, code as 99.

- **Primary sites always coded 99**. For the following schemas, the Regional Nodes Examined field is always coded as 99.
  Placenta
  Brain and Cerebral Meninges
  Other Parts of Central Nervous System
  Intracranial Gland
  Hematopoietic, Reticuloendothelial, Immunoproliferative and Myeloproliferative Neoplasms
  Hodgkin and non-Hodgkin Lymphoma
  Myeloma and Plasma Cell Disorders
  Other and Ill-Defined Primary Sites
  Unknown Primary Site

REGIONAL NODES POSITIVE Item Length: 2

Allowable Values: 00–90, 95, 97-99

NAACCR Item #830

Description

This field records the exact number of regional lymph nodes examined by the pathologist and found to contain metastases.

Code	Description
00	All nodes examined negative
01-89	1 to 89 nodes positive (code the exact number of nodes positive)
90	90 or more nodes positive
95	Positive aspiration or core biopsy of lymph node(s).
97	Positive nodes-number unspecified
98	No nodes examined
99	Unknown whether nodes are positive; not applicable; not documented in patient record

Instructions for Coding

- **Regional lymph nodes only.** Record information about only regional lymph nodes in this field. Distant lymph node information should be coded in the "CS Mets at Dx" field.

- This field is based on pathologic information only. This field is to be recorded regardless of whether the patient received preoperative treatment.

- True in situ cases cannot have positive lymph nodes, so the only allowable codes are 00 (negative) or 98 (not examined). Codes 01-97 and 99 are not allowed.

- **Cumulative nodes positive.** Record the total number of regional lymph nodes removed and found to be positive by pathologic examination.
    - The number of regional lymph nodes positive is cumulative from all procedures that remove lymph nodes through the completion of surgeries in the first course of treatment.
    - Do not count a positive aspiration or core biopsy of a lymph node in the same lymph node chain removed at surgery as an additional node in Regional Nodes Positive when there are positive nodes in the resection. In other words, if there are positive regional lymph nodes in a lymph node dissection, do not count the core needle biopsy or the fine needle aspiration if it is in the same chain.

      Example: Lung cancer patient has a mediastinoscopy and positive core biopsy of a hilar lymph node. Patient then undergoes right upper lobectomy that yields 3 hilar and 2 mediastinal nodes positive out of 11 nodes dissected. Code Regional Nodes Positive as 05 and Regional Nodes Examined as 11

because the core biopsy was of a lymph node in the same chain as the nodes dissected.
Example: Positive right cervical lymph node aspiration followed by right cervical lymph node dissection showing 1 of 6 nodes positive. Code Regional Nodes Positive as 01 and Regional Nodes Examined as 06.

- If the positive aspiration or core biopsy is from a node in a different node region, include the node in the count of Regional Nodes Positive.
  Example: Breast cancer patient has a positive core biopsy of a supraclavicular node and an axillary dissection showing 3 of 8 nodes positive. Code Regional Nodes Positive as 04 and Regional Nodes Examined as 09 because the supraclavicular lymph node is in a different, but still regional, lymph node chain.

- If the location of the lymph node that is aspirated or core-biopsied is not known, assume it is part of the lymph node chain surgically removed, and do not include it in the count of Regional Nodes Positive.
  Example: Patient record states that core biopsy was performed at another facility and 7/14 regional lymph nodes were positive at the time of resection. Code Regional Nodes Positive as 07 and Regional Nodes Examined as 14.

- **Priority of lymph node counts.** If there is a discrepancy regarding the number of positive lymph nodes, use information in the following priority: final diagnosis, synoptic report (also known as CAP protocol or pathology report checklist), microscopic, gross.

- **Use of code 95.** Use code 95 when the only procedure for regional lymph nodes is a needle aspiration (cytology) or core biopsy (tissue).
  - Use code 95 when a positive lymph node is aspirated and there are no surgically resected lymph nodes.
    Example: Patient with esophageal cancer. Enlarged mid-esophageal node found on CT scan, which is aspirated and found to be positive. Patient undergoes radiation therapy and no surgery. Code Regional Nodes Positive as 95 and Regional Nodes Examined as 95.
  - Use code 95 when a positive lymph node is aspirated and surgically resected lymph nodes are negative.
    Example: Lung cancer patient has aspiration of suspicious hilar mass, which shows metastatic squamous carcinoma in lymph node tissue. Patient undergoes preoperative radiation therapy followed by lobectomy showing 6 negative hilar lymph nodes. Code Regional Nodes Positive as 95 and Regional Nodes Examined as the 06 nodes surgically resected.

- **Definition of code 97.** Use code 97 for any combination of positive aspirated, biopsied, sampled or dissected lymph nodes if the number of involved nodes cannot

be determined on the basis of cytology or histology. Code 97 includes positive lymph nodes diagnosed by either cytology or histology.
Example: Patient with carcinoma of the pyriform sinus has a mass in the mid neck. Fine needle aspiration (FNA) of one node is positive. The patient has neoadjuvant chemotherapy, then resection of the primary tumor and a radical neck dissection. In the radical neck dissection "several" of 10 nodes are positive; the remainder of the nodes show chemotherapy effect. Code Regional Nodes Positive as 97 because the total number of positive nodes biopsied and removed is unknown, and code Regional Nodes Examined as 10.
Note: For primary sites where the number of involved nodes must be known in order to map to N1, N2, etc., code 97 maps to N1 and therefore should be avoided.
Note: If the aspirated node is the only one that is microscopically positive, use code 95.
Note: Avoid using Regional Nodes Positive code 97 if possible, even if this means slightly undercounting the number of nodes positive.

- **Use of code 98.** Code 98 may be used in several situations.
    - When the assessment of lymph nodes is clinical only.
    - When no lymph nodes are removed and examined.
    - When a "dissection" of a lymph node drainage area is found to contain no lymph nodes at the time of pathologic examination.
    - If Regional Nodes Positive is coded as 98, Regional Nodes Examined is usually coded 00.

- **Isolated tumor cells (ITCs) in lymph nodes.** For all primary sites except cutaneous melanoma and Merkel cell carcinoma of skin, count only lymph nodes that contain micrometastases or larger (metastases greater than 0.2 millimeters in size). Do not include in the count of lymph nodes positive any nodes that are identified as containing isolated tumor cells (ITCs). If the path report indicates that nodes are positive but the size of metastasis is not stated, assume the metastases are larger than 0.2 mm and count the lymph node(s) as positive.
    - **For cutaneous melanoma and Merkel cell carcinoma**, count nodes with ITCs as positive lymph nodes.

- **Use of code 99**. Use code 99 if it is unknown whether regional lymph nodes are positive.

- **Primary sites always coded 99**. For the following schemas, the Regional Nodes Positive field is always coded as 99.
  Placenta
  Brain and Cerebral Meninges
  Other Parts of Central Nervous System
  Intracranial Gland
  Hematopoietic, Reticuloendothelial, Immunoproliferative and Myeloproliferative Neoplasms

Hodgkin and non-Hodgkin Lymphoma
Myeloma and Plasma Cell Disorders
Other and Ill-Defined Primary Sites
Unknown Primary Site

RX SUMM—SURG OTH REG/DIS

Item Length: 1
Allowable Values: 0–5, 9
NAACCR Item #1294
FORDS 2016 pg. 251-252

Definition:
Records the surgical removal of distant lymph nodes or other tissue(s)/organ(s) beyond the primary site.

Coding Instructions:

- Assign the highest numbered code that describes the surgical resection of distant lymph node(s) and/or regional/distant tissue or organs.

- If other tissues or organs are removed with the primary site and are not defined in the code for *Surgical Procedure of Primary Site* in Appendix B, code the highest code that describes the surgical resection of those other tissues or organs.

- Incidental removal of tissue or organs is not coded in Surgical Procedure/Other Site.

- Code 1 if any surgery is performed to treat tumors of unknown or ill-defined primary sites (C76.0–76.8, C80.9) or for hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease (C42.0, C42.1, C42.3, C42.4 or M-9750, 9760–9764, 9800–9820, 9826, 9831–9920, 9931–9964, 9980–9989).

Code	Definition
0	None. No surgical procedure of non-primary site was performed or diagnosed at autopsy.
1	Non-primary surgical procedure performed. Non-primary surgical resection to other site(s), unknown if whether the site(s) is regional or distant.
2	Non-primary surgical procedure to other regional sites. Resection of regional site.
3	Non-primary surgical procedure to distant lymph node(s). Resection of distant lymph node(s).
4	Non-primary surgical procedure to distant site. Resection of distant site.
5	Combination of codes. Any combination of surgical procedures 2, 3, or 4.
9	Unknown. It is unknown whether any surgical procedure of a non-primary site was performed or death certificate only.

Examples:

Code	Explanation
0	Removal of a small portion of the duodenum during a right hemicolectomy.
1	Surgical excision of a metastatic abdominal mass; unknown primary.
2	Surgical ablation of solitary liver metastasis, hepatic flexure primary.
4	Removal of liver mets for a lung cancer.
5	Excision of brain mets and an axillary lymph node for a lung primary.

REASON FOR NO SURGERY Item Length: 1

Allowable Values: 0-2, 5-9
NAACCR Item #1340
FORDS 2016 pg. 258

Definition:
Records the reason that no surgery was performed on the primary site.

Coding Instructions:

- Assign code 0 when Surgery of Primary Site is coded in the range of 10-90 (surgery of the primary site was performed)

- Code 1 if Surgical Procedure of Primary Site is coded 98.

- If Surgical Procedure of Primary Site is coded 00, then assign a code in the range of 1-8.
    - Referral to a surgeon is equivalent to a recommendation for surgery.
    - Assign code 1 when
        - There is no information in the patient's medical record about surgery AND
            - 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.
        - The treatment plan offered multiple options and the patient selected treatment that did not include surgery of the primary site
        - The patient elected to pursue no treatment following the discussion of surgery. Discussion does not equal a recommendation.
        - Watchful waiting/active surveillance (prostate)
    - Assign code 6 when
        - It is known that surgery was recommended AND
        - It is known that surgery was not performed AND
        - There is no documentation explaining why surgery was not done.
    - Assign code 7 when the patient
        - Refuses recommended surgery OR
        - 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
    - Assign code 8 when surgery is recommended, but it is unknown if the patient actually had the surgery.
    - Assign code 9
        - When there is no documentation that surgery was recommended or performed
        - Autopsy only

Code	Definition
0	Surgery of the primary site was performed.
1	Surgery of the primary site was not performed because it was not part of the planned first course treatment.
2	Surgery of the primary site was not recommended/performed because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc).
5	Surgery of the primary site was not performed because the patient died prior to planned or recommended surgery.
6	Surgery of the primary site was not performed; it was recommended by the patient's physician, but was not performed as part of the first course of therapy. No reason was noted in the patient record.
7	Surgery of the primary site was not performed; it was recommended by the patient's physician, but this treatment was refused by the patient, the patient's family member, or the patient's guardian. The refusal was noted in 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 whether surgery of the primary site was recommended or performed. Diagnosed at autopsy or death certificate only.

Examples:

Code	Explanation
1	Prostate cancer patient is offered a choice of prostatectomy or radiation and chooses radiation.
8	A patient was referred to another facility for a Whipple. No information is available for whether or not the surgery took place.

RAD--REGIONAL RX MODALITY Item Length: 2

Allowable Values: 00, 20–32, 40–43, 50–55, 60–62, 98, 99

NAACCR Item #1570

FORDS 2016 pg. 267-269

Definition:

Records the dominant modality of radiation therapy used to deliver the most clinically significant regional dose to the primary volume of interest during the first course of treatment.

Coding Instructions:

- Information for coding can usually be found in the radiation oncologist's summary letter of first course of treatment.
- In the event multiple radiation therapy modalities were employed in the treatment of the patient, record only the dominant modality.
- In some circumstances the boost treatment may precede the regional treatment.
- For purposes of this data item, photons and x-rays are equivalent.
- Code IMRT or conformal 3D whenever either is explicitly mentioned.
- Code radioembolization as brachytherapy.
- A radioiodine scan is not treatment and should not be coded in this data item.
- Codes 80 and 85 should not be used to code cases diagnosed on or after January 1, 2003.

Code	Definition
00	No radiation treatment. Radiation therapy was not administered to the patient or diagnosed at autopsy.
20	External beam, NOS. The treatment is known to be by external beam, but there is insufficient information to determine the specific modality.
21	Orthovoltage. External beam therapy administered using equipment with a maximum energy of less than one (1) million volts (MV). Orthovoltage energies are typically expressed in units of kilovolts (kV).
22	Cobalt-60, Cesium137. External beam therapy using a machine containing either a Cobalt- 60 or Cesium-137 source. Intracavitary use of these sources is coded either 50 or 51.
23	Photons (2–5 MV) External beam therapy using a photon producing machine with a beam energy in the range of 2–5 MV.
24	Photons (6–10 MV). External beam therapy using a photon producing machine with a beam energy in the range of 6–10 MV.
25	Photons (11–19 MV). External beam therapy using a photon producing machine with a beam energy in the range of 11–19 MV.
26	Photons (>19 MV) External beam therapy using a photon producing machine with a beam energy of more than 19 MV.
27	Photons (mixed energies). External beam therapy using more than one energy over the course of treatment.
28	Electrons. Treatment delivered by electron beam.
29	Photons and electrons mixed. Treatment delivered using a combination of photon and electron beams.
30	Neutrons, with or without photons/electrons. Treatment delivered using neutron beam.
31	IMRT. Intensity modulated radiation therapy, an external beam technique that should be clearly stated in patient record.
32	Conformal or 3-D therapy. An external beam technique using multiple, fixed portals shaped to conform to a defined target volume. Should be clearly described as conformal or 3-D therapy in patient record.
40	Protons Treatment delivered using proton therapy.
41	Stereotactic radiosurgery, NOS. Treatment delivered using stereotactic radiosurgery, type not specified in patient record.
42	Linac radiosurgery. Treatment categorized as using stereotactic technique delivered with a linear accelerator.
43	Gamma Knife treatment categorized as using stereotactic technique delivered using a Gamma Knife machine.
50	Brachytherapy, NOS. Brachytherapy, interstitial implants, molds, seeds, needles, or intracavitary applicators of radioactive materials not otherwise specified.

Code	Definition
51	Brachytherapy, Intracavitary, LDR. Intracavitary (no direct insertion into tissues) radio-isotope treatment using low dose rate applicators and isotopes (Cesium-137, Fletcher applicator).
52	Brachytherapy, Intracavitary, HDR Intracavitary (no direct insertion into tissues) radioisotope treatment using high dose rate after-loading applicators and isotopes.
53	Brachytherapy, Interstitial, LDR Interstitial (direct insertion into tissues) radioisotope treatment using low dose rate sources.
54	Brachytherapy, Interstitial, HDR Interstitial (direct insertion into tissues) radioisotope treatment using high dose rate sources.
55	Radium. Infrequently used for low dose rate (LDR) interstitial and intracavitary therapy.
60	Radioisotopes, NOS Iodine-131, Phosphorus-32, etc.
61	Strontium-89. Treatment primarily by intravenous routes for bone metastases.
62	Strontium-90.
80*	Combination modality, specified*. Combination of external beam radiation and either radioactive implants or radioisotopes*
85*	Combination modality, NOS* .Combination of radiation treatment modalities not specified in code 80.*
98	Other, NOS. Radiation therapy administered, but the treatment modality is not specified or is unknown.
99	Unknown. Radiation therapy administered, treatment volume unknown or not stated in the patient record; it is unknown whether radiation therapy was administered or death certificate only.

Coding Examples:

Code	Explanation
00	PUVA (psoralen and long-wave ultraviolet radiation) was used to treat a patient with melanoma. PUVA is coded as Other Treatment
20	A patient with prostate carcinoma receives pelvic irradiation at the reporting facility and then goes to another facility for a proton therapy boost.
24	A patient has an interstitial boost during an excisional biopsy using Ir-192 which is left in place for three days. Then she has 6 MV photon treatment to the entire breast. Code the 6 MV photon even though the boost came first.
25	Patient receives 15 MV external pelvic treatment for cervical carcinoma followed by two Fletcher intracavitary implants.
53	A prostate cancer patient receives I-125 seeds. This is low dose brachytherapy.

RX DATE – RADIATION

Item Length: 8
NAACCR Item #1210
FORDS 2016 pg. 259

Description
Records the date on which radiation therapy began at any facility that is part of the first course of treatment.

Coding Instructions

- If radiation therapy is the first or only treatment administered to the patient, then the date radiation started should be the same as the date entered into the item *Date of First Course of Treatment* (NAACCR Item #1270).

- The date when treatment started will typically be found in the radiation oncologist's summary letter for the first course of treatment.

Code	Description
YYYMMDD YYYYMM YYYY	The year, month and day (YYYYMMDD) that the first course of radiation therapy began at any facility. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.

Coding Examples:

Code	Reason
20100412	A patient has external beam radiation on April 12, 2010
201009	If the exact date of the beginning of treatment is not available, then record an approximate date. For example, September 2010.

RX DATE – RADIATION FLAG Item Length: 2

Allowable Values: 10-12, 15, Blank

NAACCR Item #1211

FORDS 2016 pg. 260

Definition:

This flag explains why no appropriate value is in the field, RX Date-Radiation. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if RX Date - Radiation has a full or partial date recorded.
- Assign code 10 when it is unknown whether any radiation was given.
- Assign code 11 if no radiation is planned or given.
- Assign code 12 if RX Date – Radiation cannot be determined, but it is known that radiation was given as part of first course of treatment.
- Assign code 15 if radiation is planned, but has not yet started and the start date is not yet available.

Code	Definition
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any radiation was given)
11	No proper value is applicable in this context (for example, no radiation was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, radiation was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, radiation therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up).
(blank)	A valid date value is provided in item RX Date-Radiation.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Radiation
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Radiation
10	Unknown if any radiation given
11	No radiation given
12	Radiation given as first course treatment but date is completely unknown.
15	Radiation not yet started but planned

REASON FOR NO RADIATION Item Length: 1

Allowable Values: 0-2, 5-9
NAACCR Item #1430
FORDS 2016 pg. 281

Definition:
Records the reason the patient did not receive radiation treatment as part of first course of therapy.

Coding Instructions

- Assign code 0 when Regional Treatment Modality is coded in the range of 20-98 (radiation was given)

- If Regional Treatment Modality is coded 00, then assign a code in the range of 1-8.
    - Referral to a radiation oncologist is equivalent to a recommendation for radiation.
    - Assign code 1 when
        - There is no information in the patient's medical record about radiation AND
            - It is known that radiation is not usually given for this type and/or stage of cancer OR
            - There is no reason to suspect that the patient would have had radiation.
        - The treatment plan offered multiple options and the patient selected treatment that did not include radiation
        - The patient elected to pursue no treatment following the discussion of radiation. Discussion does not equal a recommendation.
        - Watchful waiting/active surveillance (prostate)
    - Assign code 6 when
        - It is known that radiation was recommended AND
        - It is known that radiation was not given AND
        - There is no documentation explaining why radiation was not given.
    - Assign code 7 when the patient
        - Refuses recommended radiation OR
        - Makes a blanket statement that he/she refused all treatment when radiation is a customary option for the primary site/histology.
            - Assign code 1 when radiation is not normally performed for the site/histology
    - Assign code 8 when radiation is recommended, but it is unknown if the patient actually was given the radiation.
    - Assign code 9
        - When there is no documentation that radiation was recommended or given
        - Autopsy only
        -

Code	Explanation
0	Radiation therapy was administered
1	Radiation therapy was not administered because it was not part of the planned first-course treatment.
2	Radiation therapy was not administered because it was contraindicated due to patient risk factors (comorbid conditions, advanced age, etc.)
5	Radiation therapy was not administered because the patient died prior to planned or recommended treatment.
6	Radiation therapy was not administered; it was recommended by the patient's physician, but was not administered as part of the first-course therapy. No reason was noted in the patient's record.
7	Radiation therapy was not administered; it was recommended by the patient's physician, but this treatment was refused by the patient, the patient's family member, or the patient's guardian. The refusal was noted in the patient record.
8	Radiation therapy was recommended, but it is unknown if it was administered.
9	It is unknown if radiation therapy was recommended or administered. Death-certificate-only and autopsy-only cases.

Coding Examples:

Code	Explanation
2	A pt has a new primary breast cancer 4/2010 in the same breast where three years earlier she had a lumpectomy and radiation for breast cancer. The patient has another lumpectomy for her 4/2010 breast cancer but cannot receive the recommended radiation because she has already had radiation to that breast.

RX SUMM—SURG/RAD SEQ Item Length: 1

Allowable Values: 0, 2–7, 9
NAACCR Item #1380
FORDS 2016 pg. 276-277

Definition:
This field records the order in which surgery and radiation therapies were administered for those patients who had both surgery and radiation.

Coding Instructions:
For the purpose of coding this data item, '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)

- Assign code 0 when
  - The patient did not have either surgery or radiation
  - The patient had surgery but not radiation
  - The patient had radiation but not surgery
  - It is unknown whether or not the patient had surgery and/or radiation

- Assign codes 2-9 when first course of therapy consists of both cancer-directed surgery and radiation therapy.
- Codes 4 and 7 are used when multiple first course treatment episodes were given. Use the code that defines the first sequence that applies.

Code	Definition
0	No radiation and/or surgery as defined above; Unknown if surgery and/or radiation given; Diagnosed at autopsy
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
9	Sequence unknown, but both surgery and radiation were given

Coding Examples:

Code	Explanation
3	Sentinel lymph node biopsy, followed by radiation therapy, which was then followed by surgery of primary site. Code Radiation Sequence with Surgery as 3 (Radiation after surgery.)
3	Lymph node aspiration, followed by radiation, which was then followed by surgery of primary site. Code Radiation Sequence with Surgery as 3 (Radiation after surgery) BECAUSE lymph node aspiration is coded in Scope of Regional Lymph Node Surgery.
4	Preoperative radiation therapy to primary site, followed by lymph node dissection, which was then followed by radiation therapy to area of positive nodes. Assign code 4 (Radiation both before and after surgery)

RX DATE--SYSTEMIC Item Length: 8

NAACCR Item #3230

FORDS 2016 pg. 282

Description

Records the date of initiation for systemic therapy that is part of the first course of treatment. Systemic therapy includes the administration of chemotherapy agents, hormonal agents, biological response modifiers, bone marrow transplants, stem cell harvests, and surgical and/or radiation endocrine therapy.

Coding Instructions

- Record the first or earliest date on which systemic therapy was administered. Systemic therapy includes *Chemotherapy* (NAACCR Item #1390), *Hormone Therapy* (NAACCR Item #1400), *Immunotherapy* (NAACCR Item #1410), *Hematologic Transplant and Endocrine Procedures* (NAACCR Item #3250).

Code	Definition
YYYYMMDD **YYYYMM** **YYYY**	The date systemic therapy started is the year, month, and day that systemic therapy was administered at this or any facility. The first four digits are the year, the next two the month and the last two digits the day.

Examples:

Code	Explanation
20110112	A patient with breast cancer begins her regimen of chemotherapy on January 12, 2011, and is subsequently given tamoxifen on February 20, 2011.
201006	A patient with prostate cancer had an orchiectomy in June 2010 and was started on a regimen of hormonal agents on July 20, 2010

RX DATE – SYSTEMIC FLAG

Item Length: 2
NAACCR Item #3231
Valid Codes: 10-12, 15, Blank
FORDS 2016 pg. 283-284

Definition:
This flag explains why no appropriate value is in the field, RX Date-Systemic. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions
- Leave this item blank if RX Date - Systemic has a full or partial date recorded.
- Assign code 10 when it is unknown whether any systemic therapy was given.
- Assign code 11 if no systemic therapy is planned or given.
- Assign code 12 if RX Date – Systemic cannot be determined, but it is known that systemic therapy was given as part of first course of treatment.
- Assign code 15 if systemic therapy is planned, but has not yet started and the start date is not yet available.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any systemic therapy was given)
11	No proper value is applicable in this context (for example, no systemic therapy was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, systemic therapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, systemic therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up).
(blank)	A valid date value is provided in item RX Date-Systemic.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Systemic
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Systemic
10	Unknown if any systemic therapy given
11	No systemic therapy given
12	Systemic therapy given as first course treatment but date is completely unknown.
15	Systemic therapy not yet started but planned

RX SUMM--CHEMO Item Length: 2

Allowable Values: 00–03, 82, 85–88, 99

NAACCR Item #1390

FORDS 2016 pg. 288-289

Definition:

Records the type of chemotherapy administered as first course treatment at this and all other facilities. If chemotherapy was not administered, then this item records the reason it was not administered to the patient.

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." Types 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

1. 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

Miscellaneous

Miscellaneous Antineoplastics that are unique

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

Coding Instructions:
See SEER*Rx (http://www.seer.cancer.gov/tools/seerrx/index.html) for chemotherapy drug codes and for information on the drug's function.

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 treatments in additional 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.

- Code the chemotherapeutic agents whose actions are chemotherapeutic only; do not code the method of administration

- 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 National Cancer Institute's Physician Data Query (PDQ), Health Professional Version http://www.cancer.gov/cancertopics/pdq

  And/or
    - The National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology
      http://www.nccn.org/professionals/physician_gls/f_guidelines.asp

- If it is known that chemotherapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

- The physician may change a drug during the first course of therapy because the patient cannot tolerate the original agent.
    - 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)

- 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.

- Code 87 if the patient refused recommended chemotherapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.

- Code as treatment for both primaries when the patient receives chemotherapy. Chemotherapy would likely affect both primaries.

- Assign code 00 when
  - 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
    - There is no reason to suspect that the patient would have had chemotherapy.
  - If the treatment plan offered multiple treatment options and the patient selected treatment that did not include chemotherapy.
  - Patient elects to pursue no treatment following discussion of chemotherapy. Discussion does not equal a recommendation
  - Watchful waiting/active surveillance (CLL)
  - Patient diagnosed at autopsy.

- 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).

- 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:
  - Advanced age
  - Comorbid condition(s) (heart disease, kidney failure, other cancer, etc.)

- Assign code 88 when the only information available is
  - The patient was referred to an oncologist
  - Insertion of port-a-cath

- Assign code 99 when there is no documentation that chemotherapy was recommended or administered.

- **Coding for Tumor Embolization**. Chemoembolization is a procedure in which the blood supply to the tumor is blocked surgically or mechanically and anticancer drugs

are administered directly to the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time.

Radioembolization is aa tumor embolization combined with the injection of small radioactive beads or coils into an organ or tumor.

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

- Code as Chemotherapy when the embolizing agent(s) is a chemotherapeutic drug(s). Use SEER*Rx 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.
- Do not code pre-surgical embolization of hypervascular tumors with particles, coils or alcohol. These pre-surgical embolizations are typically performed to make the resection of the primary tumor easier. Examples where pre-surgical embolization is used include meningiomas, hemangioblastomas, paragangliomas, and renal cell metastases in the brain.

- **Important information that affects the classification of some systemic therapies.** There are six drugs in the table below that were classified as chemotherapy and will be classified as BRM/Immunotherapy beginning with cases diagnosed **January 1, 2013 and later**. Code these as chemotherapy for cases diagnosed prior to January 1, 2013. Notes about this change have been added to SEER*RX.

Drug Name(s)	Category Prior to 2013	Category 2013+
Alemtuzumab/Campath	Chemotherapy	BRM/Immunotherapy
Bevacizumab/Avastin	Chemotherapy	BRM/Immunotherapy
Rituximab	Chemotherapy	BRM/Immunotherapy
Trastuzumab/Herceptin	Chemotherapy	BRM/Immunotherapy
Pertuzumab/Perjeta	Chemotherapy	BRM/Immunotherapy
Cetuxumab/Erbitux	Chemotherapy	BRM/Immunotherapy

Code	Definition
00	None, chemotherapy was not part of the planned first course of therapy or diagnosed at autopsy.
01	Chemotherapy administered as first course therapy, but the type and number of agents is not documented in patient record.
02	Single-agent chemotherapy administered as first course therapy.
03	Multiagent chemotherapy administered as first course therapy.
82	Chemotherapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Chemotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Chemotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Chemotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in 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 patient record or death certificate only.

Coding Examples:

Code	Explanation
01	A patient with primary lung cancer is known to have received chemotherapy; however, the name(s) of agent(s) administered is not stated in patient record.
00	Patient is diagnosed with multiple myeloma. There is no mention of treatment or treatment plans in the medical record. The patient died three months after diagnosis. There is no additional pertinent information available. Assign code 00 since there is no reason to suspect that the patient had been treated.
02	A patient with stage III colon cancer is treated with surgery and adjuvant therapy of 5-FU and leucovorin. Code the 5-FU as a single drug, chemotherapy and record the leucovorin only in the text as this is an ancillary drug.
03	A patient with breast cancer patient receives CMF, (Cyclophosphamide, Adriamycin, 5-FU) chemotherapy regimen.
86	Following surgical resection of a right colon cancer with positive nodes the physician recommends chemotherapy. The patient record states that chemotherapy was not subsequently administered to the patient, but the reason why chemotherapy was not administered is not given.

RX DATE – CHEMO

Item Length: 8
NAACCR Item #1220
FORDS 2016, pg. 285

Description
Date of initiation of chemotherapy that is part of the first course of treatment. The dates on which different treatment modalities were started are used to evaluate whether the treatments were part of first-course therapy and to reconstruct the sequence of first-course treatment modes.

Coding Instructions

- Record the earliest date on which chemotherapy was administered at any facility.

Code	Definition
YYYYMMDD YYYYMM YYYY	The date of initiation of chemotherapy is the year, month, and day that the patient received the first treatment with chemotherapy. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.
blank	No chemotherapy administered; autopsy-only case; Chemotherapy administered, date unknown; Unknown if chemotherapy administered.

RX DATE – CHEMO FLAG

Item Length: 2
NAACCR Item #1221
Valid Codes: 10-12, 15, Blank
FORDS 2016 pg. 286-287

Definition:
This flag explains why no appropriate value is in the field, RX Date-Chemo. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions
- Leave this item blank if RX Date - Chemo has a full or partial date recorded.
- Assign code 10 when it is unknown whether any chemotherapy was given.
- Assign code 11 if no chemotherapy is planned or given.
- Assign code 12 if RX Date – Chemo cannot be determined, but it is known that chemotherapy was given as part of first course of treatment.
- Assign code 15 if chemotherapy is planned, but has not yet started and the start date is not yet available.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any chemotherapy was given)
11	No proper value is applicable in this context (for example, no chemotherapy was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, chemotherapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, chemotherapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up).
(blank)	A valid date value is provided in item RX Date-Chemo.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Chemo
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Chemo
10	Unknown if any chemotherapy given
11	No chemotherapy given
12	Chemotherapy given as first course treatment but date is completely unknown.
15	Chemotherapy not yet started but planned

RX SUMM--HORMONE

Item Length: 2
Allowable Values: 00, 01, 82, 85–88, 99
NAACCR Item #1400
FORDS 2016 pg. 295-296

Definition:
Records the type of hormone therapy administered as first course treatment at this and all other facilities. If hormone therapy was not administered, then this item records the reason it was not administered to the patient.

Hormone Categories

Hormones may be divided into several categories

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

Coding Instructions:
See SEER*Rx (http://www.seer.cancer.gov/tools/seerrx/index.html) 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.

- Record prednisone as hormonal therapy when administered in combination with chemotherapy, such as MOPP (mechlorethamine, vincristine, procarbazine, prednisone) or COPP (cyclophosphamide, vincristine, procarbazine, prednisone).

- Do not code prednisone as hormone therapy when it is administered for reasons other than chemotherapeutic treatment.

- Assign code 00 when

    - There is no information on the patient's medical record about hormone therapy AND
        - It is known that hormone therapy 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 hormone therapy.

- If the treatment plan offered multiple treatment options and the patient selected treatment that did not include hormone therapy.
- Patient elected to pursue no treatment following the discussion of hormone therapy treatment. Discussion does not equal a recommendation.
- Watchful waiting/active surveillance (prostate)
- Patient diagnosed at autopsy
- Hormone treatment was given for a non-reportable condition or as a chemoprevention prior to diagnosis of a reportable condition.
- Tumor involvement or treatment may destroy hormone-producing tissue. Hormone replacement therapy will be given if the hormone is necessary to maintain normal metabolism and body function. Do not code hormone replacement therapy as part of first course therapy.

- Code 01 for thyroid replacement therapy which inhibits TSH (thyroid-stimulating hormone). TSH is a product of the pituitary gland that can stimulate tumor growth.

- 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 form menopausal symptoms, it has an effect on the growth or recurrence of endometrial cancer.

- If it is known that hormone therapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

- Assign code 87 if the patient refused recommended hormone therapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.

- Assign code 88 when the only information available is that the patient was referred to an oncologist.

- Assign code 99 if it is not known whether hormone therapy is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered.

Code	Definition
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 or diagnosed at autopsy.
01	Hormone therapy administered as first course therapy.
82	Hormone therapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Hormone therapy was not administered because the patient died prior to planned or recommended therapy.
86	Hormone therapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Hormone therapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, 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 because it is not stated in patient record or death certificate only.

Coding Examples:

Code	Explanation
00	A patient has advanced lung cancer with multiple metastases to the brain. The physician orders Decadron to reduce the edema in the brain and relieve the neurological symptoms. Decadron is an ancillary agent which should not be coded.
00	A breast cancer patient is treated with aminoglutethimide (Cytadren, Elipten), which suppresses the production of glucocorticoids and mineralcorticoids. This patient is given hydrocortisone (glucocorticoid) and Florinef (mineralcorticoid) for replacement therapy.
01	A patient with prostate cancer in given Lupron injections.
87	A patient with hormone positive breast cancer refuses Tamoxifen which is noted in her record.

RX DATE – HORMONE

Item Length: 8
NAACCR Item #1230
FORDS 2016, pg. 292

Description
Date of initiation of hormone that is part of the first course of treatment. The dates on which different treatment modalities were started are used to evaluate whether the treatments were part of first-course therapy and to reconstruct the sequence of first-course treatment modes.

Coding Instructions

Code	Definition
YYYYMMDD YYYYMM YYYY	The date of initiation of hormone therapy is the year, month and day that the patient received the first treatment with hormones. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.
blank	No hormone therapy administered; hormone therapy administered but date completely unknown; unknown if any hormone therapy administered; autopsy-only case

RX DATE – HORMONE FLAG Item Length: 2

NAACCR Item #1231

Valid Codes: 10-12, 15, Blank

FORDS 2016 pg. 293-294

Definition:

This flag explains why no appropriate value is in the field, RX Date-Hormone. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if RX Date - Hormone has a full or partial date recorded.
- Assign code 10 when it is unknown whether any hormone therapy was given.
- Assign code 11 if no hormone therapy is planned or given.
- Assign code 12 if RX Date – Hormone cannot be determined, but it is known that hormone therapy was given as part of first course of treatment.
- Assign code 15 if hormone therapy is planned, but has not yet started and the start date is not yet available.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any hormone therapy was given)
11	No proper value is applicable in this context (for example, no hormone therapy was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, hormone therapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, hormone therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up).
(blank)	A valid date value is provided in item RX Date-Hormone.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Hormone
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Hormone
10	Unknown if any hormone therapy given
11	No hormone therapy given
12	Hormone therapy given as first course treatment but date is completely unknown.
15	Hormone therapy not yet started but planned

RX SUMM—BRM Item Length: 2

Allowable Values: 00, 01, 82, 85–88, 99

NAACCR Item #1410

FORDS 2016 pg. 302-303

Definition:

Records the type of immunotherapy administered as first course treatment at this and all other facilities. If immunotherapy was not administered, then this item records the reason it was not administered to the patient.

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

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.

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 SEER*Rx for the treatment category in which each monoclonal antibody should be coded.

Coding Instructions:
See SEER*Rx **(**http://www.seer.cancer.gov/tools/seerrx/index.html) for immunotherapy drug codes.

- Assign code 00
    - When there is no information in the patient's medical record about immunotherapy AND
        - It is known that immunotherapy 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 immunotherapy.
    - If the treatment plan offered multiple treatment options and the patient selected treatment that did not include immunotherapy.
    - Patient elects to pursue no treatment following the discussion of immunotherapy. Discussion does not equal a recommendation.
    - Watchful waiting, active surveillance (prostate)
    - Patient diagnosed at autopsy
    - For anti-thymocyte globulin treatment. Anti-thymocyte globulin is used to treat transplant rejection. Do not code as immunotherapy.

- If it is known that immunotherapy is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

- Assign code 87 when
    - The patient refused recommended immunotherapy
    - The patient mad a blanket refusal of all recommended treatment and immunotherapy is a customary option for the primary site/histology

- The patient refused all treatment before any was recommended.

- Assign code 88 when the only information available is that the patient was referred to an oncologist.

- Code 99 if it is not known whether immunotherapy is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered.

- **Important information that affects the classification of some systemic therapies.** There are six drugs in the table below that were classified as chemotherapy and will be classified as BRM/Immunotherapy beginning with cases diagnosed **January 1, 2013 and later**. Code these as chemotherapy for cases diagnosed prior to January 1, 2013. Notes about this change have been added to SEER*RX.

Drug Name(s)	Category Prior to 2013	Category 2013+
Alemtuzumab/Campath	Chemotherapy	BRM/Immunotherapy
Bevacizumab/Avastin	Chemotherapy	BRM/Immunotherapy
Rituximab	Chemotherapy	BRM/Immunotherapy
Trastuzumab/Herceptin	Chemotherapy	BRM/Immunotherapy
Pertuzumab/Perjeta	Chemotherapy	BRM/Immunotherapy
Cetuxumab/Erbitux	Chemotherapy	BRM/Immunotherapy

Code	Definition
00	None, immunotherapy was not part of the planned first course of therapy, is not customary therapy for this cancer or diagnosed at autopsy.
01	Immunotherapy administered as first course therapy.
82	Immunotherapy was not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Immunotherapy was not administered because the patient died prior to planned or recommended therapy.
86	Immunotherapy was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Immunotherapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Immunotherapy was recommended, but it is unknown if it was administered.
99	It is unknown whether an immunotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.

Examples:

Code	Explanation
01	A patient is treated with a TURBT followed by BCG for bladder cancer.
85	Immunotherapy is planned but patient died before receiving it.

RX DATE – BRM

Item Length: 8
NAACCR Item #1240
FORDS 2016, pg. 299

Description
Date of initiation of immunotherapy that is part of the first course of treatment. The dates on which different treatment modalities were started are used to evaluate whether the treatments were part of first-course therapy and to reconstruct the sequence of first-course treatment modes.

Coding Instructions
- Record the first date on which immunotherapy (BRM) was administered by any facility.

Code	Definition
YYYYMMDD YYYYMM YYYY	The date of initiation of immunotherapy is the year, month, and day that the patient received the first treatment with immunotherapy. The first four digits are the year, the fifth and sixth digits are the month, and the last two digits are the day.
blank	No immunotherapy administered; immunotherapy administered but date completely unknown; unknown if immunotherapy administered; autopsy-only case

RX DATE – BRM FLAG

Item Length: 2
NAACCR Item #1241
Valid Codes: 10-12, 15, Blank
FORDS 2016 pg. 300-301

Definition:
This flag explains why no appropriate value is in the field, RX Date-BRM. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions
- Leave this item blank if RX Date - BRM has a full or partial date recorded.
- Assign code 10 when it is unknown whether any immunotherapy was given.
- Assign code 11 if no immunotherapy is planned or given.
- Assign code 12 if RX Date – BRM cannot be determined, but it is known that immunotherapy was given as part of first course of treatment.
- Assign code 15 if immunotherapy is planned, but has not yet started and the start date is not yet available.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any immunotherapy was given)
11	No proper value is applicable in this context (for example, no immunotherapy was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, immunotherapy was given but the date is unknown).
15	Information is not available at this time, but it is expected that it will be available later (for example, immunotherapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up).
(blank)	A valid date value is provided in item RX Date-BRM.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-BRM
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-BRM
10	Unknown if any immunotherapy given
11	No immunotherapy given
12	Immunotherapy given as first course treatment but date is completely unknown.
15	Immunotherapy not yet started but planned

RX SUMM—TRANSPLT/ENDOCR Item Length: 2

Allowable Values: 00, 10–12, 20, 30, 40, 82, 85–88, 99

NAACCR Item #3250

FORDS 2016 pg. 306-307

Definition:
Identifies systemic therapeutic procedures administered as part of the first course of treatment at this and all other facilities. If none of these procedures were administered, then this item records the reason they were not performed. These include bone marrow transplants, stem cell harvests, surgical and/or radiation endocrine therapy.

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 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:

- Assign code 00
  - When there is no information in the patient's medical record about transplant procedure or endocrine therapy AND
    - It is known that transplant procedure or endocrine therapy 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 transplant procedure or endocrine therapy.
  - If the treatment plan offered multiple treatment options and the patient selected treatment that did not include transplant procedure or endocrine therapy.
  - Patient elects to pursue no treatment following the discussion of transplant procedure or endocrine therapy. Discussion does not equal a recommendation.
  - Watchful waiting/active surveillance (CLL)
  - Patient diagnosed at autopsy.

- 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.

- Codes 11 and 12 have priority over code 10 (BMT, NOS).

- 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.

- Assign code 20 when the patient has a stem cell harvest followed by a rescue or reinfusion (stem cell transplant, including allogeneic 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).

- 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.

- If it is known that a transplant or endocrine procedure is usually administered for this type and stage of cancer, but was not administered to the patient, use code 82, 85, 86, or 87 to record the reason why it was not administered.

- Assign code 87
    - If the patient refused recommended transplant or endocrine procedure.
    - 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.
    - If patient refused all treatment before any was recommended.

- Assign code 88 when the only information available is that the patient was referred to a specialist for hematologic transplant or endocrine procedure.

- Code 99 if it is not known whether a transplant or endocrine procedure is usually administered for this type and stage of cancer, and there is no mention in the patient record whether it was recommended or administered.

Code	Definition
00	No transplant procedure or endocrine therapy was administered as part of first course therapy; not customary therapy for this cancer; diagnosed at autopsy.
10	A bone marrow transplant procedure was administered, but the type was not specified.
11	Bone marrow transplant, autologous.
12	Bone marrow transplant, allogeneic.
20	Stem cell harvest (stem cell transplant) and infusion.
30	Endocrine surgery and/or endocrine radiation therapy as first course therapy.
40	Combination of endocrine surgery and/or radiation with a transplant procedure. (Combination of codes 30 and 10, 11, 12, or 20) as first course therapy.
82	Hematologic transplant and/or endocrine surgery/radiation was not recommended and/or administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Hematologic transplant and/or endocrine surgery/radiation was not administered because the patient died prior to planned or recommended therapy.
86	Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but was not administered as part of the first course of therapy. No reason was stated in patient record.
87	Hematologic transplant and/or endocrine surgery/radiation was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Hematologic transplant and/or endocrine surgery/radiation was recommended, but it is unknown if it was administered.
99	It is unknown whether hematologic transplant and/or endocrine surgery/radiation was recommended or administered because it is not stated in patient record

RX SUMM—SYSTEMIC/SURGERY SEQUENCE Item Length: 1

Allowable Values: 0, 2-7, 9
NAACCR Item #1639
FORDS 2016 pg. 308-309

Description
Records the sequencing of systemic therapy (chemotherapy, hormone, BRM, and transplant/endocrine) and surgical procedures given as part of the first course of treatment.

Coding Instructions
- *Systemic/Surgery Sequence* is to be used for patients diagnosed on or after January 1, 2006.

- Code the administration of systemic therapy in sequence with the first surgery performed.

- If none of the following surgical procedures were performed: *Surgical Procedure of Primary Site, Scope of Regional Lymph Node Surgery, Surgical Procedure/Other Site*, then code this item 0.

- If the patient received both systemic therapy and any one of the following surgical procedures: *Surgical Procedure of Primary Site, Scope of Regional Lymph Node Surgery, Surgical Procedure/Other Site*, then code this item 2-9, as appropriate.

- Codes 4 and 7 are used for multiple episodes of therapy in first course treatment. Use the code that defines the first sequence that applies.

Code	Label	Definition
0	No systemic therapy and/or surgical procedures; 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
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.
5	Intraoperative systemic therapy	The patient had intraoperative systemic therapy.
6	Intraoperative systemic therapy with other therapy administered before or after surgery	The patient had intraoperative systemic therapy and also had systemic therapy before and/or after surgery.
7	Surgery both before and after systemic therapy	Systemic therapy was administered between two separate surgical procedures to the primary site; regional lymph nodes; surgery to other regional site(s), distant site(s), or distant lymph node(s).
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

Coding Examples:

Code	Reason
0	Patient receives chemo and radiation only for a lung cancer.
2	Patient with inflammatory breast cancer receives chemo prior to an MRM.
3	Patient has LN dissection, followed by chemo, followed by primary site surgery.
4	Patient with breast cancer receives pre-operative chemotherapy followed by post-operative Tamoxifen
9	A patient comes to your facility after having chemo and surgery for cancer. However, you do not know the sequence of the treatment modalities.

RX SUMM--OTHER Item Length: 1

Allowable Values: 0-3, 6-9
NAACCR Item #1420
FORDS 2016 pg. 313

Definition:
Identifies other treatment that cannot be defined as surgery, radiation, or systemic therapy according to the defined data items in the *FORDS* manual.

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 http://www.cancer.gov/cam/ . For additional information on cancer and other diseases, please visit http://nccam.nih.gov/health/whatiscam/.

Coding Instructions:

- Assign code 0 when
  - There is no information in the patient's medical record about other therapy.

  AND
  - There is no reason to suspect that the patient would have had other therapy.
  - If the treatment plan offered multiple treatment options and the patient selected treatment that did not include other therapy.
  - Patient elects to pursue no treatment following the discussion of other therapy. Discussion does not equal a recommendation.
  - Patient diagnosed at autopsy.

- Assign code 1 for
  - Hematopoietic treatments such as: phlebotomy, transfusions, or aspirin; Treatment for reportable hematopoietic diseases can be supportive care, observation, or any treatment that does not meet the usual definition in which

treatment modifies, controls, removes, or destroys proliferating cancer tissue. Consult the **Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual** (http://seer.cancer.gov/tools/heme/) for instruction on coding care in this data item for specific conditions.

- 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)
- Cancer treatment that could not be assigned to the previous treatment fields (surgery, radiation, chemotherapy, immunotherapy, or systemic therapy)

Note: Do not code blood transfusions as treatment. 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.

- 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.

- 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.

- Assign code 6 for
  - Unconventional methods whether they are the only therapy or are given in combination with conventional therapy.
  - Alternative therapy ONLY if the patient receives no other type of treatment.

- Assign code 8 when other therapy was recommended by the physician but there is no information that the treatment was given.

- Assign code 9 when there is no documentation that other therapy was recommended or performed.

- **Coding Tumor Embolization:** Tumor embolization is the intentional blockage of an artery or vein to stop the flow of blood through the desired vessel.
  - Use code 1 when tumor embolization is performed using alcohol as the embolizing agent.
  - Use code 1 for embolization to a site other than the liver where the embolizing agent is unknown.
  - Do not code pre-surgical embolization of hypervascular tumors with particles, coils or alcohol. These pre-surgical embolizations are typically performed to make the resection of the primary tumor easier. Examples

where pre-surgical embolization is used include meningiomas, hemangioblastomas, paragangliomas, and renal cell metastases in the brain.

- A complete description of the treatment plan should be recorded in the text field for Other Treatment in the abstract.

Code	Definition
0	None. All cancer treatment was coded in other treatment fields (surgery, radiation, systemic therapy). Patient received no cancer treatment or diagnosed at autopsy.
1	Other cancer treatment that cannot be appropriately assigned to specified treatment data items (surgery, radiation, systemic). Use this code for treatment unique to hematopoietic diseases.
2	Experimental. This code is not defined. It may be used to record participation in institution based clinical trials.
3	Double-blind clinical trial. A patient is involved in a double-blind clinical trial. Code the treatment actually administered when the double-blind trial code is broken.
6	Unproven Cancer treatments administered by non-medical personnel.
7	Refused. Other treatment was not administered. It was recommended by the patient's physician, but this treatment (which would have been coded 1, 2, or 3) was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in the patient record.
8	Recommended; unknown if administered. Other treatment was recommended, but it is unknown whether it was administered.
9	Unknown. It is unknown whether other treatment was recommended or administered, and there is no information in the medical record to confirm the recommendation or administration of other treatment or death certificate only.

RX DATE—OTHER

Item Length: 8
NAACCR Item #1250
FORDS 2016 pg. 310

Definition:
Records the date on which other treatment began at any facility.

Coding Instructions:
- Other treatment is that which cannot be defined as surgery, radiation, or systemic therapy according to the defined data items in this manual.

- If other treatment is the first or only treatment administered to the patient, then the date other treatment started should be the same as the Date of First Course of Treatment.

Code	Definition
YYYYMMDD **YYYYMM** **YYYY**	The month, day, and year other treatment began at any facility. The first two digits are the month, the third and fourth digits are the day, and the last four digits are the year.
blank	When no other treatment was administered; other treatment was administered but the date is completely unknown; unknown whether other treatment administered; diagnosed at autopsy.

Coding Examples:

Code	Explanation
20110404	A patient with metastatic disease was started on an experimental therapy on April 4, 2011.
201006	In June 2010, a patient started treatment which cannot be defined as surgery, radiation, or systemic therapy according to the defined data items in this manual.

RX DATE – OTHER FLAG

Item Length: 2
NAACCR Item #1251
Valid Codes: 10-12, 15, Blank
FORDS 2016 pg. 311-312

Definition:

This flag explains why no appropriate value is in the field, RX Date-Other. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if RX Date - Other has a full or partial date recorded.
- Assign code 10 when it is unknown whether any other treatment was given.
- Assign code 11 if no other treatment is planned or given.
- Assign code 12 if RX Date – Other cannot be determined, but it is known that other treatment was given as part of first course of treatment.
- Assign code 15 if other treatment is planned, but has not yet started and the start date is not yet available.

Code	Explanation
10	No information whatsoever can be inferred from this exceptional value (that is, unknown if any other treatment was given)
11	No proper value is applicable in this context (for example, no other treatment was given)
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, other therapy was given but the date is unknown).
15	Other therapy is planned as part of the first course of treatment, but had not been started at the time of the most recent follow-up.
(blank)	A valid date value is provided in item RX Date-Other.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for RX Date-Other
Blank	Partial date is known (YYYYMM or YYYY) for RX Date-Other
10	Unknown if any other treatment given
11	No other treatment given
12	Other therapy given as first course treatment but date is completely unknown.

RX SUMM—RX STATUS

Item Length: 1
Allowable Values: 0-2, 9
NAACCR Item #1285
FORDS 2016 pg. 232

Description

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.

Coding Instructions

- This item may be left blank for cases diagnosed prior to 2010.
- Treatment administered after a period of active surveillance is considered subsequent treatment and is not coded in this item.
- Use code 0 when treatment is refused or the physician decides not to treat for any reason.

Code	Explanation
0	No treatment given
1	Treatment given
2	Active surveillance (watchful waiting)
9	Unknown if treatment was given

Coding Examples:

Code	Explanation
0	Patient with metastatic lung cancer requested to be placed on Hospice.
9	Patient was diagnosed at your facility and no treatment is planned. No information is available on whether or not the patient went on to have treatment.
2	Treatment plan for a prostate cancer patient is active surveillance.

OVER-RIDES/CONVERSION SYSTEM ADMIN

EDITS AND OVER-RIDES:

Text must be included to justify overrides that have been set. Some of the edits identify rare, but possible, code combinations. For these edits, an override flag can be set if, upon review, the unusual combination is verified as being correct. Once set, the error message will not be repeated on subsequent EDITS passes.

- When no error message is generated by an edit that uses an override item, no action by the registrar is needed.

- If an error message is generated, the problem can often be resolved by checking the accuracy of the entry for each item that contributes to the edit and correcting any problems identified. If correction of data entry errors resolves the problem, no override entry is needed. If the codes reflect the information in the patient record, check for physician notes indicating the unusual combination of circumstances (for example, a colon adenocarcinoma in a child) has been confirmed.

- Enter the override code according to the instructions for the data item. If no comment regarding the unusual circumstances can be found in the record, it may be necessary to check with the managing physician or pathologist to determine whether it is appropriate to override the edit.

OVERRIDE AGE/SITE/MORPH

Item Length: 1
Allowable Values: 1, 2, 3
NAACCR Item #1990
FORDS 2016 pg. 346

Definition

This override is used with the following edits:

Age, Primary Site, Morphology ICD02 (SEER IF15)
Age, Primary Site, Morphology ICD03 (SEER IF15)
Age, Primary Site, Morph ICD03 – Adult (SEER)
Age, Primary Site, Morph ICD03 – Pediatric (NPCR)

Edits of the type, *Age, Primary Site, Morphology* differ in using ICD-O-2 or ICD-O-3 morphologies, and require review if a site-morphology combination occurs in an age group for which it is extremely rare:

If the edit generates an error or warning message, check that the primary site and histologic type are coded correctly and that the age, date of birth, and date of diagnosis are correct.

Coding Instructions

1. Leave blank if the program does not generate an error message for one of the edits listed above.
2. Leave blank and correct any errors for the case if an item is discovered to be incorrect.
3. Code 1 as indicated if review of items in the error or warning message confirms that all are correct.
4. Use code 2 if the case was diagnosed in utero.
5. If both codes 1 and 2 would apply, use code 3.

Codes

Code	Definition
1	Reviewed: An unusual occurrence of a particular age/site/histology combination for a given age group has been reviewed.
2	Reviewed; diagnosis in utero.
3	Reviewed; both conditions apply.
Blank	Not reviewed or reviewed and corrected.

OVERRIDE HISTOLOGY

Item Length: 1
Allowable Values: 1, 2, 3
NAACCR Item #2040
FORDS 2016 pg. 349-350

Definition

This override is used with the following edits:

Diagnostic Confirmation, Behavior ICDO2 (SEER IF31)
Diagnostic Confirmation, Behavior ICDO3 (SEER IF31)
Morphology -- Type/Behavior ICDO2 (SEER MORPH)
Morphology – Type/Behavior ICDO3 (SEER MORPH)

Edits of the type *Diagnostic Confirmation, Behavior Code* differ in the use of ICD-O-2 or ICD-O-3 and check that, for *in situ* cases (Behavior = 2), Diagnostic Confirmation specifies microscopic confirmation (1, 2, or 4). The distinction between *in situ* and invasive is very important to a registry, since prognosis is so different. Since the determination that a neoplasm has not invaded surrounding tissues, i.e., *in situ*, is made microscopically, cases coded *in situ* in behavior should have a microscopic confirmation code. However, very rarely, a physician will designate a case noninvasive or *in situ* without microscopic evidence.

1. If an edit of type, *Diagnostic Confirmation, Behavior Code*, gives an error message or warning, check that *Behavior* and *Diagnostic Confirmation* have been coded correctly. Check carefully for any cytologic or histologic evidence that may have been missed in coding.
2. The following histologies are generally not accepted as *in situ*: ICD-O-3 histologies 8000-8005, 8020, 8021, 8331, 8332, 8800-9055, 9062, 9082, 9083, 9110-9493, 9501-9989.

Edits of the type, Morphology – Type/Behavior, perform the following check:

1. Codes listed in ICD-O-2 or ICD-O-3 with behavior codes of only 0 or 1 are considered valid, since the behavior matrix of ICD-O-2 and ICD-O-3 allows for the elevation of the behavior of such histologies when the tumor is *in situ* or malignant. This edit forces review of these rare cases to verify that they are indeed *in situ* or malignant.
2. If a *Morphology – Type/Behavior* edit produces an error or warning message and the case is one in which the 4-digit morphology code is one that appears in ICD-O-2 or ICD-O-3 only with behavior codes of 0 or 1, verify the coding of morphology and that the behavior should be coded malignant or *in situ*. The registrar may need to consult a pathologist or medical advisor in problem cases.

Exceptions:
If year of *Date of Diagnosis* > 2000, then a behavior code of 1 is valid for the following ICD-O-2 histologies and no override flag is needed: 8931, 9393, 9538, 9950, 9960-9962, 9980-9984, and 9989. Similarly, the following ICD-O-3 histologies are valid with a behavior code of 1: 8442, 8451, 8462, 8472, and 8473.

If year of *Date of Diagnosis > 2003*, the following ICD-O-3 benign histologies will pass without review: 8146, 8271, 8861, 8897, 9121, 9122, 9131, 9161, 9350, 9351, 9352, 9360, 9361, 9383, 9384, 9394, 9412, 9413, 9444, 9492, 9493, 9506, 9531, 9532, 9533, 9534, 9537, 9541, 9550, 9562, and 9570.

Coding Instructions

- Leave blank if no edit is generated of either type.
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- Code 1, 2, or 3 as indicated if review of all items in the error or warning message confirms that all are correct.

Codes	Explanation
1	Reviewed: The behavior code of the histology is designated as "benign" or "uncertain" in ICD-O-2 or ICD-O-3, and the pathologist states the primary to be "*in situ*" or "malignant" (flag for a "Morphology Type & Behavior" edit)
2	Reviewed: The behavior code is "*in situ*," but the case is not microscopically confirmed (flag for a "Diagnostic Confirmation, Behavior Code")
3	Reviewed: Conditions 1 and 2 above both apply
Blank	Not reviewed or reviewed and corrected

OVERRIDE LEUK, LYMPHOMA

Item Length: 1
Allowable Values: 1
NAACCR Item #2070
FORDS 2016 pg. 351

Definition

This override is used with the following edits:

Diagnostic Confirmation, Histology ICDO2 (SEER IF48)
Diagnostic Confirmation, Histol Typ ICDO3 (SEER IF48)

Edits of the type Diagnostic Confirmation, Histology differ in use of ICD-O-2 or ICD-O-3 and check the following:

1. Since lymphoma and leukemia are almost exclusively microscopic diagnoses, this edit forces review of any cases of lymphoma that have diagnostic confirmation of direct visualization or clinical, and any leukemia with a diagnostic confirmation of direct visualization.
2. If histology = 9590-9717 for ICD-O-2 or 9590-9729 for ICD-O-3 (lymphoma) then Diagnostic Confirmation cannot be 6 (direct visualization) or 8 (clinical).
3. If histology=9720-9941 for ICD-O-2 or 9731-9948 for ICD-O-3 (leukemia and other) then Diagnostic Confirmation cannot be 6 (direct visualization).

Coding Instructions

- Leave blank if no edit is generated.
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- If the edit produces an error or warning message, verify that the Histologic Type and Diagnostic Confirmation are correctly coded. Remember that positive hematologic findings and bone marrow specimens are included as histologic confirmation (code 1 in Diagnostic Confirmation) for leukemia. Code 1 for the override indicates that a review has taken place and histologic type and diagnostic confirmation are correctly coded.

Code	Explanation
1	Reviewed
Blank	Not reviewed or reviewed and corrected.

OVERRIDE SITE/BEHAVIOR

Item Length: 1
Allowable Values: 1
NAACCR Item #2071
FORDS 2016 pg. 352

Definition
This override is used with the following edits:

Primary Site, Behavior Code ICDO2 (SEER IF39)
Primary Site, Behavior Code ICDO3 (SEER IF39)

Edits of the type, Primary Site, Behavior Code, require review of the following primary sites with a behavior of *in situ* (ICD-O-2 or ICD-O-3 behavior = 2):

C269	Gastrointestinal Tract, NOS
C399	Ill-defined sites with respiratory system
C559	Uterus, NOS
C579	Female genital tract, NOS
C639	Male genital organs, NOS
C689	Urinary system, NOS
C729	Nervous system, NOS
C759	Endocrine gland, NOS
C760-C768	Ill-defined sites
C809	Unknown primary site

Since the designation of *in situ* diagnosis is stated, try to obtain a more specific primary site. A primary site within an organ system can sometimes be identified based on the diagnostic procedure or treatment given or on the histologic type. If no more specific site can be determined, it is usually preferable to code a behavior code of 3. In the exceedingly rare situation in which it is certain that the behavior is *in situ* and no more specific site code is applicable, set Over-rice Site/Behavior to 1.

Coding Instructions

- Leave blank if no edit is generated
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- Code 1 if review of site and behavior verifies that the patient has an *in situ* cancer of a nonspecific site and no further information about the primary site is available.

Code	Explanation
1	Reviewed
Blank	Not reviewed or reviewed and corrected.

OVERRIDE SITE/TYPE

Item Length: 1
Allowable Values: 1
NAACCR Item #2030
FORDS 2016 pg. 348

Definition

This override is used with the following edits:

Primary Site, Morphology-Type ICDO2 (SEER IF25)
Primary Site, Morphology-Type ICDO3 (SEER IF25)
Primary Site, Morphology-Type, Behavior ICDO3 (SEER IF25)

There are multiple versions of edits of the type, *Primary Site, Morphology-Type*, which check for "usual" combinations of site and ICD-O-2 or ICD-O-3 histology. The SEER version of the edit is more restrictive that the CoC edit, and thus uses a different override flag. The CoC version of the edit will accept Override CoC-Site/Type or Override Site/Type as equivalent.

- The Site/Histology Validation List (available on the SEER website) contains those histologies commonly found in the specified primary site. Histologies that occur only rarely or never are not included. These edits require review of combinations **not** listed.

Review of these cases requires investigating whether the combination is biologically implausible or there are cancer registry coding conventions that would dictate different codes for the diagnosis. Review of these rare combinations often results in changes to the primary site and/or morphology, rather than a decision that the combination is correct.

Coding Instructions

1. Leave blank if the program does not generate an error message for the edits of the type Primary Site, Morphology-Type.
2. Leave blank and correct any errors for the case if an item is discovered to be incorrect.
3. Code 1 if the case has been reviewed and both the site and histology are correct.

Codes

Code	Definition
1	Reviewed: An unusual occurrence of a particular age/site/histology combination for a given age group has been reviewed.
Blank	Not reviewed or reviewed and corrected.

OVERRIDE SURG/DXCONF

Item Length: 1
Allowable Values: 1
NAACCR Item #2020
FORDS 2016 pg. 347

Definition

This override is used with the following edits:

RX Summ – Surg Prim Site, Diag Conf (SEER IF76)

This edit checks that cases with a primary site surgical procedure coded 20-90 are histologically confirmed.

If the patient had a surgical procedure, most likely there was a microscopic examination of the cancer.

Coding Instructions

- Verify the surgery and diagnostic confirmation codes, and correct any errors.
- Sometimes there are valid reasons why no microscopic confirmation is achieved with the surgery, for example, the tissue removed may be inadequate for evaluation.
- Leave blank if the program does not generate an error message for the edit *RX Summ - Surg Prim Site, Diag Conf*.
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- Code 1 if review of all items in the error or warning message confirms that all are correct.

Code	Definition
1	Reviewed
Blank	Not reviewed or reviewed and corrected

OVERRIDE HOSPSEQ/DXCONF

Item Length: 1
Allowable Values: 1
NAACCR Item #1986
FORDS 2016 pg. 342

Definition

This override is used with the following edits:

Diagnostic Confirm, Seq Num – Hosp (CoC)

The edit, Diagnostic Confirm, Seq Num – Hosp (CoC), does the following:

1. If any case is one of multiple primaries and is not microscopically confirmed or lacks a positive lab test/marker study, i.e., Diagnostic Confirmation > 5 and Sequence Number – Hospital > 00 (more than one primary), review is required.
2. If Primary Site specifies an ill-defined or unknown primary (C760-C768, C809), no further checking is done.
3. If Sequence Number – Hospital is in the range of 60-88, this edit is skipped.

It is important to verify that the non-microscopically confirmed case is indeed a separate primary from any others that may have been reported. This edit forces review of multiple primary cancers when one of the primaries is coded to a site other than ill-defined or unknown and is not microscopically confirmed or confirmed by a positive lab test/marker study.

1. If the suspect cases are confirmed accurate as coded and if the number of primaries is correct, set the Over-ride HospSeq/DxConf to 1. Do not set the over-ride flag on the patient's other primary cancers.
2. If it turns out that the non-microscopically confirmed cancer is considered a manifestation of one of the patient's other cancers, delete the non-microscopically confirmed case. Check the sequence numbers of remaining cases, correcting them if necessary. Also check for other data items on the remaining cases that may need to be changed as a result of the corrections, such as stage and treatment.

Coding Instructions

- Leave blank if the program does not generate an error message for the edit Diagnostic Confirm, Seq Num – Hosp (CoC).
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- Code 1 if review of all items in the error or warning message confirms that all are correct.

Code	Explanation
1	Reviewed
Blank	Not reviewed or reviewed and corrected.

OVERRIDE HOSPSEQ/SITE

Item Length: 1
Allowable Values: 1
NAACCR Item #1988
FORDS 2016 pg. 344

Definition

This override is used with the following edits:

Seq Num – Hosp, Primary Site, Morph ICDO2 (CoC)
Seq Num – Hosp, Primary Site, Morph ICDO3 (CoC)

Edits of this type review of multiple primary cancers when one of the primaries is coded to a site/morphology combination that could indicate a metastatic site rather than a primary site.

1. If Sequence Number – Hospital indicates the person has had more than one primary, then any case with one of the following site/histology combinations requires review:
    - C760-C768 (ill-defined sites) or C809 (unknown primary) and IDC-O-2 or ICD-O-3 histology <9590. Look for evidence that the unknown or ill-defined primary is a secondary site from one of the patient's other cancers. For example, a clinical discharge diagnosis of "abdominal carcinomatosis" may be attributable to the patient's primary ovarian cystadenocarcinoma already in the registry, and should not be entered as a second primary.
    - C770-C779 (lymph nodes) and ICD-O-2 histology not in the range 9590-9717 or ICD-O-3 histology not in the range 9590-9729; or C420-C424 and ICD-O-2 histology not in the range 9590-9941 or ICD-O-3 not in the range 9590-9989. That combination is most likely a metastatic lesion. Check whether the lesion could be a manifestation of one of the patient's other cancers.
    - Any site and ICD-O-2 histology in the range 9720-9723, 9740-9741, or ICD-O-3 histology in the range 9740-9758. Verify that these diagnoses are coded correctly and are indeed separate primaries from the others.
2. If it turns out that the suspect tumor is a manifestation of one of the patient's other cancers, delete the metastatic or secondary case, re-sequence remaining cases, and correct the coding on the original case as necessary.

Coding Instructions

- Leave blank if the program does not generate an error message for an edit of the type Seq Num – Hosp, Primary Site, Morph.
- Leave blank and correct any errors for the case if an item is discovered to be incorrect.
- Code 1 if review of all items in the error or warning message confirms that hospital sequence number and site are both correct.

Code	Explanation
1	Reviewed
Blank	Not reviewed or reviewed and corrected.

FOLLOW-UP/RECURRENCE/DEATH

DATE OF LAST CONTACT

Item Length: 8
NAACCR #1750
FORDS 2016 pg. 327

Definition:
Records the date of last contact with the patient or the date of death.

Coding Instructions:
- Record the last date on which the patient was known to be alive or the date of death.
- If a patient has multiple primaries, all records should have the same date of last contact.

Code	Definition
YYYYMMDD **YYYYMM** **YYYY**	The date of last contact is the year, month and day that last contact was made. The first four digits are the year, the fifth and sixth digits are the day, and the last two digits are the year.

Examples:

Code	Explanation
20040630	The patient's date of death was June 30, 2004.
2004	The medical record contains only the year of death (2003). Check the social security death index on line and correct the date if the patient expired.
20050114	A patient returns his follow-up inquiry with no date information, the Envelope is postmarked January 14, 2005.

DATE OF LAST CONTACT FLAG

Item Length: 2
NAACCR Item #1751
Valid Codes: 12, Blank
FORDS 2016 pg. 328

Definition:

This flag explains why no appropriate value is in the field, Date of Last Contact. Before Version 12 (through 2009 diagnosis), date fields included codes that provided information other than dates. As part of an initiative to standardize date fields, new fields were introduced to accommodate non-date information that had previously been transmitted in date fields.

Coding Instructions

- Leave this item blank if Date of Last Contact has a full or partial date recorded.
- Assign code 12 if Date of Last Contact cannot be determined.

Code	Explanation
12	A proper value is applicable but not known. This event occurred, but the date is unknown (for example, the date of last contact is unknown).
(blank)	A valid date value is provided in item Date of Last Contact.

Coding Examples:

Code	Explanation
Blank	Full date is known (YYYYMMDD) for Date of Last Contact
Blank	Partial date is known (YYYYMM or YYYY) for Date of Last Contact
12	Date of Last Contact is completely unknown.

VITAL STATUS

Item Length: 1
Allowable Values: 0, 1
NAACCR Item #1760
FORDS 2016 pg. 329

Definition:
Records the vital status of the patient as of the date entered in Date of Last Contact or Death.

Coding Instructions:
- This item is collected during the follow-up process with Date of Last Contact or Death.

- If a patient has multiple primaries, all records should have the same vital status.

Code	Definition
0	Dead
1	Alive

Coding Examples:

Code	Explanation
0	Death clearance information obtained from the CCR confirms the death of the patient within the past year.
1	In response to a follow-up letter to a patient's following physician, it is learned the patient is alive.

CAUSE OF DEATH Item Length: 4
NAACCR Item #1910

Description
Official cause of death as coded from the death certificate in valid ICD-7, ICD-8, ICD-9, and ICD-10 codes.

Coding Instructions
Beginning with 1999, Mississippi Death Certificates are coded using ICD-10 codes. Cause of death should be coded in ICD-10. If the ICD-10 cause of death is not known, please code cause of death as 7777.

Special codes in addition to ICD-7, ICD-8, ICD-9, and ICD-10

Code	Definition
0000	Patient alive at last contact
7777	State death certificate not available
7797	State death certificate available but underlying cause of death is not coded.

PLACE OF DEATH STATE Item Length: 2
NAACCR Item #1942

Description
USPS abbreviation for state, commonwealth, U.S. possession in which the patient died and the death certificate is filed. CanadaPost abbreviations for the Canadian provinces can also be recorded if the patient died in Canada. If the patient has multiple primaries, this data item should be coded the same for each primary.

Coding Instructions
This data item is left blank if the patient is still alive. Otherwise, use the most specific code from the table below.

Code	Definition	Code	Definition
AL	Alabama	MI	Michigan
AK	Alaska	MN	Minnesota
AZ	Arizona	MS	Mississippi
AR	Arkansas	MO	Missouri
CA	California	MT	Montana
CO	Colorado	NE	Nebraska
CT	Connecticut	NV	Nevada
DE	Delaware	NH	New Hampshire
DC	District of Columbia	NJ	New Jersey
FL	Florida	NM	New Mexico
GA	Georgia	NY	New York
HI	Hawaii	NC	North Carolina
ID	Idaho	ND	North Dakota
IL	Illinois	OH	Ohio
IN	Indiana	OK	Oklahoma
IA	Iowa	OR	Oregon
KS	Kansas	PA	Pennsylvania
KY	Kentucky	RI	Rhode Island
LA	Louisiana	SC	South Carolina
ME	Maine	SD	South Dakota
MD	Maryland	TN	Tennessee
MA	Massachusetts	TX	Texas

Code	Definition	Code	Definition
UT	Utah	ZZ	U.S., NOS; Canada, NOS; Country Unknown
VT	Vermont	AB	Alberta
VA	Virginia	BC	British Columbia
WA	Washington	MB	Manitoba
WV	West Virginia	NB	New Brunswick
WI	Wisconsin	NL	Newfoundland and Labrador
WY	Wyoming	NS	Nova Scotia
AS	American Samoa	NT	Northwest Territories
GU	Guam	NU	Nunavut
MP	Northern Mariana Islands	ON	Ontario
PW	Palau	PE	Prince Edward Island
PR	Puerto Rico	QC	Quebec
UM	U.S. Outlying Islands	SK	Saskatchewan
VI	Virgin Islands of the United States	US	Resident of United States, NOS
FM	Federated States of Micronesia	AA	APO/FPO for Armed Services America
MH	Marshall Islands	AE	APO/FPO for Armed Services Europe
TT	Trust Territories	AP	APO/FPO for Armed Services Pacific
XX	Country Known, Not U.S., Not Canada		
YT	Yukon Territories		
YY	Country Unknown, Not U.S., Not Canada		

PLACE OF DEATH COUNTRY Item Length: 3
NAACCR Item #1944

Description
Records the country in which the patient died and where the death certificate is filed.

Coding Instructions
Leave blank if the patient is alive. Otherwise, use the most specific code from the table below.

Code	Definition	Code	Definition
ABW	Aruba	BGD	Bangladesh
AFG	Afghanistan	BGR	Bulgaria
AGO	Angola	BHR	Bahrain
AIA	Anguilla	BHS	Bahamas
ALA	Aland Islands	BIH	Bosnia and Herzogovina
ALB	Albania	BLM	St. Barthelemy
AND	Andorra	BLR	Belarus
ARE	United Arab Emirates	BLZ	Belize
ARG	Argentina	BMU	Bermuda
ARM	Armenia	BOL	Bolivia
ASM	American Samoa	BRA	Brazil
ATA	Antarctica	BRB	Barbados
ATF	French Southern Territories	BRN	Brunei
ATG	Antigua and Barbuda	BTN	Bhutan
AUS	Australia	BVT	Bouvet Island
AUT	Austria	BWA	Botswana
AZE	Azerbaijan	CAF	Central African Republic
BDI	Burundi	CAN	Canada
BEL	Belgium	CHE	Switzerland
BEN	Benin	CHL	Chile
BES	Bonaire, Saint Eustatius and Saba	CHN	China
BFA	Burkina Faso	CIV	Cote d'Ivoire

Code	Definition	Code	Definition
CMR	Cameroon	FSM	Micronesia
COD	Congo, Democratic Republic of	GAB	Gabon
COG	Congo	GBR	United Kingdom
COK	Cook Islands	GEO	Georgia
COL	Columbia	GGY	Guernsey
COM	Comoros	GHA	Ghana
CPV	Cape Verde	GIB	Gibralter
CRI	Costa Rica	GIN	Guinea
CSK	Czechoslovakia	GLP	Guadelupe
CUB	Cuba	GMB	Gambia
CUW	Curacao	GNB	Guinea Bissau
CXR	Christmas Island	GNQ	Equatorial Guinea
CYM	Cayman Islands	GRC	Greece
CYP	Cyprus	GRD	Grenada
CZE	Czech Republic	GRL	Greenland
DEU	Germany	GTM	Guatemala
DJI	Djibouti	GUF	French Guiana
DMA	Dominica	GUM	Guam
DNK	Denmark	GUY	Guyana
DOM	Dominican Republic	HKG	Hong Kong
DZA	Algeria	HMD	Heard Island & McDonalds Islands
ECU	Ecuador	HND	Honduras
EGY	Egypt	HRV	Croatia
ENG	England	HTI	Haiti
ERI	Eritrea	HUN	Hungary
ESH	Western Sahara	IDN	Indonesia (Dutch East Indies)
ESP	Spain	IMN	Isle of Man
EST	Estonia	IND	India
ETH	Ethiopia	IOT	British Indian Ocean Territory
FIN	Finland	IRL	Ireland
FJI	Fiji	IRN	Iran
FLK	Falkland Islands	IRQ	Iraq
FRA	France	ISL	Iceland
FRO	Faroe Islands	ISR	Israel

Code	Definition	Code	Definition
ITA	Italy	MKD	Macedonia
JAM	Jamaica	MLI	Mali
JEY	Jersey	MLT	Malta
JOR	Jordan	MMR	Myanmar
JPN	Japan	MNE	Montenegro
KAZ	Kazakhstan	MNG	Mongolia
KEN	Kenya	MNP	Northern Mariana Islands
KGZ	Kyrgyzstan	MOZ	Mozambique
KHM	Cambodia	MRT	Mauritania
KIR	Kiribati	MSR	Montserrat
KNA	St. Kitts and Nevis	MTQ	Martinique
KOR	Korea, NOS	MUS	Mauritius
KOR	South Korea	MWI	Malawi
KWT	Kuwait	MYS	Malaysia
LAO	Laos	MYT	Mayotte
LBN	Lebanon	NAM	Namibia
LBR	Liberia	NCL	New Caledonia
LBY	Libya	NER	Niger
LCA	St. Lucia	NFK	Norfolk Island
LIE	Liechtenstein	NGA	Nigeria
LKA	Sri Lanka	NIC	Nicaragua
LSO	Lesotho	NIR	Northern Ireland (Ulster)
LTU	Lithuania	NIU	Niue
LUX	Luxembourg	NLD	Netherlands
LVA	Latvia	NOR	Norway
MAC	Macao	NPL	Nepal
MAF	Saint Martin (French part)	NRU	Nauru
MAR	Morocco	NZL	New Zealand
MCO	Monaco	OMN	Oman
MDA	Moldova	PAK	Pakistan
MDG	Madagascar	PAN	Panama
MDV	Maldives	PCN	Pitcairn Islands
MEX	Mexico	PER	Peru
MHL	Marshall Islands	PHL	Philippines

Code	Definition	Code	Definition
PLW	Palau(Trust Territory of Pacific Islands)	SVN	Slovenia
PNG	Papua New Guinea	SWE	Sweden
POL	Poland	SWZ	Swaziland
PRI	Puerto Rico	SXM	Sint-Maarten
PRK	North Korea	SYC	Seychelles
PRT	Portugal	SYR	Syria
PRY	Paraguay	TCA	Turks and Caicos
PSE	Palestine Territory, Occupied	TCD	Chad
PYF	French Polynesia	TGO	Togo
QAT	Qatar	THA	Thailand
REU	Réunion	TJK	Tajikistan
ROU	Romania	TKL	Tokelau Islands (New Zealand)
RUS	Russia	TKM	Turkmenistan
RWA	Rwanda	TLS	Timor-Leste
SAU	Saudi Arabia	TON	Tonga
SCT	Scotland	TTO	Trinidad and Tobago
SDN	Sudan	TUN	Tunisia
SEN	Senegal	TUR	Turkey
SGP	Singapore	TUV	Tuvalu
SGS	S Georgia & S Sandwich Islands	TWN	Taiwan
SHN	St Helena	TZA	Tanzania
SJM	Svalbard & Jan Mayen	UGA	Uganda
SLB	Solomon Islands	UKR	Ukraine
SLE	Sierra Leon	UMI	U.S. Minor Outlying Islands
SLV	El Salvador	URY	Uruguay
SMR	San Marino	USA	United States
SOM	Somalia	UZB	Uzbekistan
SPM	St Pierre and Miquelon	VAT	Vatican City
SRB	Serbia	VCT	St. Vincent & the Grenadines
SSD	South Sudan	VEN	Venezuela
STP	Sao Tome & Principe	VGB	British Virgin Islands
SUR	Suriname	VIR	U.S. Virgin Islands
SVK	Slovakia	VNM	Vietnam

Code	Definition	Code	Definition
VUT	Vanuatu		
WLF	Wallis and Fotuna		
WLS	Wales		
WSM	Samoa		
YEM	Yemen		
YUG	Yugoslavia		
ZAF	Republic of South Africa		
ZMB	Zambia		
ZWE	Zimbabwe		
ZZA	Asia, NOS		
ZZC	Central America, NOS		
ZZE	Europe, NOS		
ZZF	Africa, NOS		
ZZN	North America, NOS		
ZZP	Pacific, NOS		
ZZS	South America, NOS		
ZZU	Unknown		
ZZX	Non-US/Canada, NOS		

ICD REVISION NUMBER

Item Length: 1
Allowable Values: 0, 1, 7, 8, 9
NAACCR Item #1920

Description
Indicator for the coding scheme used to code the cause of death.

NOTE: If the patient is deceased, please use code 1 (ICD-10). See note under "Cause of Death" regarding the use of ICD-9 for cause of death.

Coding Instructions

Code	Definition
0	Patient alive at last follow-up
1	ICD-10
7	ICD-7
8	ICDA-8
9	ICD-9

AUTOPSY

Item Length: 1
Allowable Values: 0-2, 9
NAACCR Item #1930

Description
Code indicating whether or not an autopsy was performed.

Coding Instructions:

Code	Description
0	Not applicable; patient alive
1	Autopsy performed
2	No autopsy performed
9	Patient expired, unknown if autopsy performed

DC STATE FILE NUMBER Item Length: 6
NAACCR Item #2380

Description
Death certificate number as assigned by the vital statistics office in the place recorded in *Place of Death* (NAACCR Item #1940)

TEXT--DIAGNOSIS

TEXT--DX PROC – PE Item Length: 1000
NAACCR Item #2520

Description:
Information relating to the diagnosis of this cancer discovered during physical examination at the time of admission, or documented in the admitting note or History and Physical. Also review consultative reports.

Suggestions for text:
History that relates to this cancer diagnosis
Age, sex, race/ethnicity
Date of physical exam in physician's office
Family History, Alcohol History, Tobacco History
Personal cancer history with dates.
Tumor location
Tumor Size
Palpable lymph nodes
Histology (if diagnosis prior to this admission)
Record positive and negative clinical findings. Record positive results first,
Impression (when stated and pertains to cancer diagnosis)
Treatment plan

Examples:
Elderly black female
- 95 YO BF

Multiple primaries
- 01 prostate 1993, 02 melanoma 2000, this is 3rd primary

Admitting/H & P
- Md noted suspicious lesion, L leg. No lymphadenopathy or skin ulceration, Bx in MD office pos for melanoma

- History of Rt breast cancer 1985, NED

- Large prostate nodule in Rt lobe felt during rectal exam at Dr Record's office.

TEXT--DX PROC - X-RAY/SCAN Item Length: 1000
NAACCR Item #2530

Description
Record x-rays or scans that were performed.

Suggestions for Text
Date(s) of x-ray/scans
Type(s) of x-rays/scans
Location of tumor
Primary Site
Histology (if given)
Size of tumor
Lymph nodes
Metastatic disease
Record both positive and negative findings. Record positive results first.

Examples:
- 3/6/2004: Chest Xray, large mass, LUL
  3/8/2004: lung CT, highly suspicious large mass LUL, extension to mediastinum
  3/10/2004: Bone Scan-Neg

TEXT--DX PROC – SCOPES Item Length: 1000
NAACCR Item #2540

Description
Record endoscopic examinations that were performed.

Suggestions for text
Date(s) of endoscopic exam(s)
Primary Site
Histology (if given)
Tumor location
Tumor size
Lymph nodes
Record site and type of endoscopic biopsy
Record positive and negative clinical findings. Record positive first.

Examples:
- 6/1/2004: colonoscopy, obstructing lesion of sigmoid, pos. bx,

TEXT--DX PROC – LAB TESTS Item Length: 1000
NAACCR Item #2550

Description
A record of the positive and negative laboratory tests that related to this cancer diagnosis.

Suggestions for text
Type of lab test/tissue specimen(s)
Record both positive and negative findings. Record positive results first.
Date(s) of laboratory test(s)
Information can include tumor markers, serum and urine electrophoresis, special studies, etc.
Tumor markers included, but are not limited to:

- Breast Cancer: Estrogen Receptor Assay (ERA), Progesterone Receptor Assay (PRA), Her2/neu (Record both the type(s) of tests, result(s) and interpretation)
- Prostate Cancer – Prostate Specific Antigen (PSA)

Example:

- 6/1/2004: PSA- 1000
- 6/1/2011: ER 85% positive, PR 5% positive, HER2/neu FISH 11.85 positive

TEXT--DX PROC—OP Item Length: 1000
NAACCR Item #2560

Description
Dates and descriptions of biopsies and all other surgical procedures from which staging information was derived
Location of tumor
Number of lymph nodes removed
Size of tumor removed
Documentation of residual tumor
Evidence of invasion of surrounding areas
Both positive and negative findings during operation of tissues observed but not removed
Reason primary site surgery could not be completed.

Examples
- 5/13/07 Colonoscopy found tumor of the Ascending colon followed by a R/hemicolectomy in which the tumor appeared to be confined to the colon and was located in the ascending colon. 14 right colic nodes were removed. All other organs and structures appeared normal.

TEXT--DX PROC—PATH Item Length: 1000
NAACCR Item #2570

Description
If the pathology report is a slide review or a second opinion from an outside source, such as AFIP, record any additional comments from the pathologist, including differential diagnoses and final ruling.

Suggestions for Text
Date(s) of procedure(s)
Anatomic source of specimen
Type of tissue specimen(s)
Tumor type and grade (include all modifying adjectives, i.e., predominantly, with features of, with foci of, elements of, etc.)
Gross tumor size
Extent of tumor spread
Involvement of resection margins
Number of lymph nodes involved and examined
Record both positive and negative findings. Record positive test results first.
Note if pathology report is a slide review or a second opinion from an outside source, i.e., AFIP, Mayo, etc.
Record any additional comments from the pathologist, including differential diagnoses considered and any ruled out or favored
Presence of lymph-vascular invasion

Examples:
- 5/13/07 Colonoscopy: tumor of ascending colon; positive for adenoca; grade 2
  5/13/07: R/Hemicolectomy adenoca of cecum, 1.3 cm w/invasion into the submucosa; Margins clear; 0/5 LNS.

TEXT--PRIMARY SITE TITLE Item Length: 1000
NAACCR Item #2580

Description
Describe the location of the tumor with laterality, if applicable. If the tumor extends into multiple organs record the organ from which the tumor originated.

Suggestions for Text

State the specific location of the primary site, including subsite
Include available information on tumor laterality

Example:
- R UOQ Breast;
- LLL lung

TEXT—HISTOLOGY TITLE Item Length: 100
NAACCR Item #2590

Description
Record the histology with behavior and grade.

Suggestions for Text
Information on histologic type and behavior
Information on differentiation from scoring systems such as Gleason's score, Bloom-Richardson Grade, etc.

Example:
- Poorly differentiated Adenocarcinoma

TEXT—STAGING Item Length: 1000
NAACCR Item #2600

Description
Information used to establish the codes for Tumor Size Summary, TNM Staging and Summary stage, as well as, any site specific factors. Additionally, the TNM stage or summary stage should be recorded here.

Suggestions for Text
Date(s) of procedure(s), including clinical procedures that provided information for assigning stage
Organs involved by direct extension
Size of tumor
Status of margins
Number and sites of positive lymph nodes
Site of distant metastasis
Physician's comments

Example:
- Clinically 3.5 cm on imaging; Pathologically 3 cm tumor confined to the breast, negative margins; no nodal involvement clinically or pathologically; no distant mets per physical exam; Clinical: cT2cN0cM0 Stage Group IIA assigned by the managing physician; Pathologic: pT2pN0cM0 Stage group IIA assigned by the surgeon; Tumor Size Summary: 3 cm; Summary Stage: Local

TEXT—REMARKS Item Length: 1000
NAACCR Item #2680

Description
Additional text not able to fit in the above text fields

Suggestions for Text
Smoking history
Family and personal history of cancer
Comorbidities
Information on sequence number if a person was diagnosed with another primary(s) prior to the one being reported. Include type of cancer and date.
Place of birth
Justification of over-ride flags
Information clarifying anything unusual such as a reason for reporting a case seemingly not reportable for that facility or reason for coding numerous fields as "unknown."

Examples
- Pt. seen by family phys. On 4/20/05 concerning lump found by self- examination.

TEXT--PLACE OF DIAGNOSIS Item Length: 50
NAACCR Item #2690

Description
Record where the patient was diagnosed

Suggestions for Text
The complete name of the hospital or the physician office where diagnosis occurred. The initials of a hospital are not adequate.
For out-of-state residents and facilities, include the city and the state where the medical facility is located.

Example:
- Big Time hospital, 2/1/2004
- Dr. Bill Records office 3/1/2004

TEXT--TREATMENT

RX TEXT—SURGERY Item Length: 1000
NAACCR Item #2610

Description:
The surgical procedure(s) performed as part of first course of treatment.

Suggestions for Text
Date of each procedure
Type(s) of surgical procedure(s), including excisional biopsies and surgery to other and distant sites.
Lymph nodes removed (Both name of nodes and number of nodes)
Regional tissues removed
Metastatic sites
Facility where each procedure was performed
Record positive and negative findings. Record positive findings first.
Other treatment information, e.g., planned procedure aborted; unknown if surgery performed
If surgery not performed, then provide reason (i.e., not planned, patient/family refused, patient elected treatment that did not include surgery, comorbid conditions)

Examples:
- 4/2/05: MRM (8 axillary nodes removed, 3 internal mammary nodes removed)
- 5/1/05: TAH, BSO, pelvic lymphadenectomy (6 pelvic nodes removed)

RX TEXT – RADIATION (BEAM) Item Length: 1000
NAACCR Item #2620

Description
Record regional radiation administered as first course of treatment.

When applicable this should include the site treated and if the radiation is pre, post or intraoperative.

Suggestions for Text
Date radiation treatment began
Where treatment was given, e.g., at this facility, at another facility
Type(s) of beam radiation, e.g., Orthovoltage, Cobalt 60, MV X-rays, Electrons, Mixed modalities
Other treatment information, e.g., patient discontinued after 5 treatments; unknown if radiation given; patient referred to radiation oncologist (provide name)
If radiation recommended but not given, record the reason radiation was not given.

Examples:
- 2/1/05 - 3/1/05; beam rad to prostate, 4500 cGy, 1500 boost
- 2/15/05: pt refused rad implants
- 6//1/05 – 7/1/05: pre op rad, 5000 cGy to large L parotid tumor

RX TEXT – RADIATION OTHER Item Length: 1000
NAACCR Item #2630

Description
Documents information regarding treatment of the tumor being reported with radiation other than beam radiation. This includes brachytherapy and systemic radiation therapy.

Suggestions for Text
Date radiation treatment began
Where treatment was given, e.g., at this facility, at another facility
Type(s) of nonbeam radiation, e.g., High Dose rate brachytherapy, seed plant, Radioisotopes (I-131)
Other treatment information, e.g., unknown if radiation was given

Examples

2/1/2007 Interstitial boost to breast using Ir-192
3/5/2006 Patient receives 2 Fletcher intracavitary implants for cervical cancer

RX TEXT—CHEMO Item Length: 1000
NAACCR Item #2640

Description
Chemotherapeutic agents administered to the patient as first course of treatment.

Using standard abbreviations will save time and keying errors.

Ancillary drugs are not coded, but should be included in the text field.

Suggestions for Text Date chemotherapy began
Where treatment was given, e.g., at this facility, at another facility
Type of chemotherapy, e.g., name of agent(s) or protocol
Other treatment information, e.g., treatment cycle incomplete, unknown if chemotherapy was given, patient referred to oncologist, patient/family refused chemotherapy, chemo therapy recommended but not administered (give reason why).

Examples
- 12/12/04: CAF
- 2/1/05: 5FU & Leucovorin
- 2/11/05: palliative 5FU
- 3/12/05: Epogen (ancillary drugs are not coded but recorded in the text)

RX TEXT-HORMONE Item Length: 1000
NAACCR Item #2650

Description
Include information on hormone therapy including Hematologic Transplant and Endocrine Procedures.

This text field is still named Hormone.

Hormone therapy (systemic) administered to the patient as first course of treatment.

When Prednisone is given with chemotherapeutic agents, the Prednisone is coded to hormone.

Suggestions for Text
Date treatment was started
Where treatment was given, e.g., at this facility, at another facility
Type of hormone or antihormone, e.g., Tamoxifen
Type of endocrine surgery or radiation, e.g., orchiectomy
Other treatment information, e.g., treatment cycle incomplete; unknown if hormones were given

Examples:
- 12/12/04: Lupron Dr Record's office
- 2/19/04: Pt refused hormone rx
- 6/1/05: CHOPP

Transplant/Endocrine Procedure
- 4/1/04: Bilateral orchiectomy

RX TEXT—BRM Item Length: 1000
NAACCR Item #2660

Description
Immunotherapy (systemic) administered to the patient as first course of treatment.

Suggestions for Text
Date treatment was started
Where treatment was given, e.g., at this facility, at another facility
Type of BRM agent, e.g., Interferon, BCG
Other treatment information, e.g., treatment cycle incomplete; unknown if BRM was given

Examples:

- 5/1/04: Interferon at Main St hosp WV

RX TEXT—OTHER Item Length: 1000
NAACCR Item #2670

Description
Other therapy includes treatment of reportable hematopoietic diseases and treatment that does not meet the usual definitions of modifies, controls, removes, or destroys cancer tissue.

Other therapy is not coded as systemic therapy.

Suggestions for Text
Date treatment was started
Where treatment was given, e.g., at this facility, at another facility
Type of other treatment, e.g., blinded clinical trial, hyperthermia
Other treatment information, e.g., treatment cycle incomplete; unknown if other treatment was given

Examples:
- Pt refused chemo, started acupuncture on 3/1/04