

## TREATMENT INFORMATION

### FIRST COURSE OF TREATMENT

Cancer-directed therapy or definitive treatment is limited to procedures that normally affect, control, change, remove, or destroy cancer tissue of the primary or metastatic site, and administered to the patient before disease progression or recurrence. The **first course** of treatment can be defined as cancer-directed treatment that begins **within four months** of initial diagnosis. This could be over a year for some cancer sites (see examples below). Any and all types of first course treatment administered at the reporting facility or elsewhere must be coded in the appropriate treatment field and documented in the *Treatment Documentation* field. First course ends when the treatment plan is completed, or there is disease progression, recurrence or treatment failure.

#### Examples:

- a. The planned first course treatment for a breast primary could include surgery, chemotherapy, radiation, and hormone therapy.
- b. First course for childhood leukemia typically spans two years from induction, and consolidation, to maintenance.
- c. In the **absence of documentation** of a treatment plan, disease progression or recurrence, or treatment failure in the medical record, first course ends one year after the date of diagnosis. Any treatment given after one year is second course of therapy in the absence of a documented treatment plan.
- d. “Watchful waiting” is a treatment option for patients with slow, indolent diseases such as prostate cancer and chronic lymphocytic leukemia. It is considered first course treatment and the appropriate treatment data fields should be coded to 00, not done. Document “Watchful waiting” in the appropriate treatment text field.
- e. When the patient refuses treatment the appropriate treatment fields should be coded to patient refused. If the patient changes his/her mind and decides to have the prescribed treatment:
  - i. Code and document the treatment as first course of therapy if it has been less than one year since the cancer was diagnosed and there has been no documented disease progression.
  - ii. If time lapsed has been more than a year or there is documented disease progression, all therapy thereafter should be considered second course of therapy.
- f. Code and document all treatment that was started even if it is not completed.

#### Example:

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

- g. If a patient has multiple primaries and the treatment given for one primary also affects/treats the other primary, code the treatment for both primaries.

**Example:**

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

- h. If a patient has multiple primaries and the treatment given affects only one of the primaries, code the treatment(s) only on the site that is affected.

**Example:**

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

- i. If a patient is diagnosed with an unknown primary, code and document the treatment given as first course even if the correct primary is identified later.

**Example:**

A patient is diagnosed with metastatic carcinoma, unknown primary site. After a full course of chemotherapy, the primary site is identified as prostate. Hormonal treatment is started. Code and document the chemotherapy as first course treatment. The hormone therapy is considered second course and not coded.

## ALL MALIGNANCIES EXCEPT LEUKEMIA

The first course of treatment includes all treatment planned and administered by the physician(s) from the initial diagnosis of cancer. Treatment can include multiple methods and may last a year or more. Any treatment delivered after the first course is considered subsequent treatment.

*Note: Should there be a change of therapy due to apparent failure of the originally delivered treatment or because of the progression of the disease, the later therapy is not considered first course.*

**EXCEPTION:** *The first course of treatment for leukemia includes all therapies planned and delivered by the physician(s) during the first diagnosis of leukemia. Record all treatment that is remission-inducing or remission-maintaining. Treatment can include multiple methods and may last a year or more. Treatment administered after relapse of the first remission is not considered first course.*

**Leukemia:**

Leukemia is grouped or typed by how quickly the disease develops and gets worse. Chronic leukemia gets worse slowly. Acute leukemia gets worse quickly. Leukemias are also grouped by the type of white blood cells affected. There are lymphoid and myeloid leukemias.

Treatment for leukemias is divided into three phases:

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

**Definitions:**

**Induction:** Initial intensive course of chemotherapy.

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

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

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

**Coding Guidelines for First Course Therapy for Leukemia and Hematopoietic Diseases:**

1. If a patient has a partial or complete remission during the first course therapy:
  - a. Code and document all therapy that is “remission-inducing” as first course.
  - b. Code and document all therapy that is “consolidation” as first course.
  - c. Code and document all therapy that is “remission-maintaining” as first course.

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

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

**Other Reportable Hematopoietic Diseases:**

1. Record all treatment as described above. The following treatments are coded as “other” in Other Treatment even though they do not “modify, control, or destroy proliferating cancer tissue” for newly reportable hematopoietic diseases only. Follow the guidelines in the *Abstracting and Coding Guide for the Hematopoietic Disease, NIH, NCI, SEER Program* to identify treatments.
  - a. Phlebotomy also may be referred to as blood removal, blood letting or venisection.
  - b. Transfusions may include whole blood, RBC’s, platelets, plateletpheresis, fresh frozen plasma (FFP), plasmapheresis, and cryoprecipitate.
  - c. Aspirin (also known as ASA, acetylsalicylic acid, or by brand name) is used as a treatment for essential thrombocythemia. Aspirin should only be coded if given to thin the blood for symptomatic control of thrombocythemia. Below are guidelines to help make that determination:
    - i. Aspirin treatment for essential thrombocythemia is low dose, approximately 70–100 mg/day.
    - ii. The dosage for pain control is approximately 325–1000 mg every 3–4 hours.
    - iii. Cardiovascular protection starts at about 160 mg/day.

*Note: These would be recorded for the hematopoietic diseases which became reportable in 2001. These are not considered treatment for hematopoietic diseases which have always been reportable.*

**DATE OF INITIAL TREATMENT** (NAACCR ITEM #1260) ( SEER pg. 174)**Definition**

The date the first course of treatment (surgery, radiation, systemic or other) started at any facility.

**Reporting facilities will no longer be responsible for coding this data field.** This data field will be populated by the TCR from the following data fields:

- RX DATE-SURGERY NAACCR Data Item #1200
- RX DATE-RADIATION NAACCR Data Item #1210
- RX DATE-SYSTEMIC NAACCR Data Item #3230
- RX DATE-OTHER NAACCR Data Item #1250

**Explanation**

This field is used to measure the delay between diagnosis and onset of treatment. A secondary use is as a starting point for survival statistics. This date cannot be calculated from the respective first course treatment dates if no treatment was given. Therefore, providing information about these instances is important when a physician decides not to treat a patient or the patient, patient’s family or guardian declines treatment.

**RX. SUMMARY - SCOPE OF REG LN SURGERY** (NAACCR ITEM #1292) (FORDS pg. 138; SEER pg. 178)**Definition**

Indicates the removal, biopsy, or aspiration of **regional** lymph nodes at the time of surgery of the primary site or during a separate surgical procedure.

**Explanation**

This information is used to compare and evaluate the extent of surgical treatment.

**Coding Instructions**

1. The scope of regional lymph node surgery is collected for surgical procedure(s) of lymph nodes even if surgery of the primary site is not performed. Codes 0–7 are hierarchical. Code the procedure that is numerically higher.
2. Information to be coded for this data field is **cumulative**. It is appropriate to add the number of all the lymph nodes removed during each surgical procedure performed as part of the first course treatment.
3. Document and code the **SCOPE OF REG LN SURGERY** using the chart on the following page.
4. If the operative report lists a lymph node dissection but no nodes were found by the pathologist, code the **SCOPE OF REG LN SURGERY** to 0 (No lymph nodes removed).
5. If the patient has two primaries with common regional lymph nodes, code and document the removal of regional nodes for both primaries.
6. Code to 9 for:
  - a. Primaries of the meninges, brain, spinal cord, cranial nerves, and other central nervous system (C70.0–C70.9, C71.0–C71.9, C72.0–C72.9).
  - b. Lymphomas (M-9590–9596, 9650–9719, 9727–9729) with a lymph node primary site (C77.0–C77.9).
  - c. Hematopoietic, reticuloendothelial, immunoproliferative, or myeloproliferative disease
    - i. Primary sites: C42.0, C42.1, C42.3, or C42.4 (all histologies)
    - ii. Histologies: 9750, 9760–9764, 9800–9820, 9826, 9831–9920, 9931–9964, 9980–9989 (all sites)
    - iii. Unknown or ill defined sites (C80.9, C76.0–C76.8) (all histologies)
  - d. Pituitary Gland (C75.1), Craniopharyngeal Duct (C75.2), and Pineal Gland (C75.3)
7. Do not code **distant** lymph nodes removed during surgery to the primary site in this field. Record distant lymph node removal in Surgical Procedure Other Site.
8. Refer to the *Collaborative Staging System Manual* or *Appendix A* of the 2008 CRH for site-

specific identification of regional lymph nodes to assist you in coding this field.

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODE	DESCRIPTION	DEFINITION
0	None	No regional lymph node surgery. No lymph nodes found in the pathologic specimen. 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.
2	Sentinel lymph node biopsy (only)	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 lymph 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 lymph 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 sentinel node biopsy.
6	Sentinel lymph node biopsy and code 3, 4, or 5 at same time, or timing not stated	Code 2 was performed in a single surgical procedure with code 3, 4, or 5; or code 2 and 3, 4, or 5 were performed, but timing was not stated in 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.

**Examples:**

- a. Patient has a radical neck dissection and the number of lymph nodes removed is not stated. The appropriate code would be 3.
- b. The patient has modified radical mastectomy with sentinel lymph node biopsy and axillary lymph node dissection. The final diagnosis is infiltrating ductal carcinoma with 2/12 axillary lymph nodes positive. The appropriate code would be 6, sentinel lymph node biopsy and code 3, 4, or 5 at same time, or timing not stated.

- c. Transverse colon: Grade IV adenocarcinoma with extension into subserosa, 3/10 pericolic lymph nodes are positive. The appropriate code would be 5, 4 or more regional lymph nodes removed.

**RX DATE– SURGERY** (NAACCR ITEM #1200) (FORDS pg. 131)

**Description**

The earliest date of the first cancer-directed surgical procedure performed at any facility.

**Explanation**

Documents the date of the first cancer-directed surgical procedure. This date may or may not reflect the date of the most definitive surgical procedure.

**Coding Instructions**

1. Record the month, day, century and year (MMDDCCYY) of the first cancer-directed surgery.
2. Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.
3. If the exact date of cancer-directed surgery is not available, record an approximate date.
4. If two or more cancer-directed surgeries are performed, enter the date for the first cancer-directed surgery.
5. Do not record all 9's in this field. If surgery is rendered as part of first course of treatment but the date of surgery is unknown, record the month and day as unknown and record the year as year of diagnosis. Document in the text field that the surgery date is unknown.
6. Do not code RX Date – Surgery as 99999999 with a valid surgery code.

**Examples:**

- a. A patient was found to have a large polyp during a colonoscopy on January 8, 2008. A polypectomy on that date confirmed adenocarcinoma of the descending colon. On January 23, 2008 the patient underwent a left hemicolectomy. Record date of surgery as 01082008 and use surgery code 40 for the hemicolectomy.
- b. An incisional biopsy is performed on March 3, 2008 followed by a resection on March 17, 2008. Record the date of the resection (03172008) as the date of the first surgical procedure. An incisional biopsy is a diagnostic procedure, not a cancer-directed treatment procedure.
- c. February 1, 2008 a patient had a fine needle aspiration of a right breast mass, consistent with infiltrating ductal carcinoma. On February 15, 2008, the patient underwent a right modified radical mastectomy. The date of surgery would be recorded as 02152008.
- d. Patient had recent lumpectomy as part of first course of treatment for breast cancer, but

the date is unknown. On March 3, 2008 she comes to your facility to begin chemotherapy. Use surgery code 22 for the lumpectomy and code the date of surgery as 99992008.

**SURGICAL PROCEDURE OF PRIMARY SITE** (NAACCR ITEM #1290) (FORDS pg. 135; SEER pgs.176–177)

**Description**

Cancer-directed surgery is an operative procedure that actually removes, excises, or destroys cancer tissue of the primary site. Code the most definitive surgical procedure of the primary site performed at any facility as part of the first course of treatment.

*Note: This field is for surgery of primary site only.*

**Explanation**

Identifies the specific cancer-directed surgery of the primary site.

**Coding Instructions**

1. Code the type of surgery the patient received as part of the **first course of treatment** at any facility.
2. Site-specific surgery codes are in *Appendix A*. Refer to the site-specific schema of the primary site for a complete listing of surgery codes.

CODE	TYPE	DEFINITION
00	None	No surgical procedure of primary site. Diagnosed at autopsy.
10–19	Site-specific codes; tumor destruction	Tumor destruction, no pathologic specimen produced. Refer to <i>Appendix A</i> for correct site-specific procedure code.
20–80*	Site-specific codes; resection	Refer to <i>Appendix A</i> for correct site-specific procedure code.
90	Surgery, NOS	A surgical procedure to the primary site was done, but no information on the type of surgical procedure is provided.
98	Site-specific surgery codes; special	Special codes. Refer to <i>Appendix A</i> for correct site-specific procedure code.
99	Unknown	Medical record does not state whether a surgical procedure of the primary site was performed and no information is available. Death certificate only.

3. Code the most invasive, extensive, or definitive surgery if the patient has multiple surgical procedures of the primary site even if there is no tumor found in the pathologic specimen. Codes 00–80 are listed in **hierarchical but not necessarily numerical order**.

4. When more than one surgical procedure is performed, code the procedure listed furthest down the list within the codes 10–80.

**Example:**

Patient has excisional breast biopsy that is positive for carcinoma. The patient chooses to have a modified radical mastectomy. The pathologic examination of the mastectomy specimen shows no residual tumor. Code the modified radical mastectomy.

5. Code 98 takes precedence over code 00 for Hematopoietic, reticuloendothelial, immunoproliferative or myeloproliferative disease and for Unknown or Ill-defined sites unless the
  - a. Primary Sites: C420, C421, C423, or C424 (all histologies)
  - b. Histologies 9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9964, 9980-9989 (all sites)
  - c. Unknown or ill-defined sites: C760-C7668, C809 (all histologies)
6. Excisional biopsies that remove the entire tumor and/or leave only microscopic margins are coded in this field.

**Note:** Code an *excisional biopsy*, even when documented as *incisional*, when:

- a. All disease is removed (margins free) OR
- b. All gross disease is removed and there is only **microscopic residual at the margin**.

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

7. Surgery to remove regional or distant tissue or organs is coded in this field only if the tissue or organs are removed in continuity with the primary site (en bloc), except where noted in *Appendix A*. Specimens from an en bloc resection may be submitted to pathology separately.

**SEER Note:** In continuity with or “en bloc” means that all of the tissues were removed during the same procedure, but not necessarily as a single primary.

**Example:**

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

8. Surgery performed solely for the purpose of establishing a diagnosis/stage (exploratory surgery), the relief of symptoms (bypass surgery), or reconstruction is **not** considered cancer-directed surgery. Brushings, washings, and aspiration of cells are not surgical procedures.
9. 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, code the total or final results.

**Example:**

Patient has a partial mastectomy with positive margins. Two weeks later the patient has a modified radical mastectomy. Code the modified radical mastectomy.

10. For bladder, when only random biopsy procedures are performed, code surgery of primary site field to 00. [None; no surgery of primary site.]
11. For brain tumors, gross total resection should be coded to 20, and not 55. Code 55 would indicate total resection of a lobe of the brain.
12. Code surgery for extra-lymphatic lymphoma using the site-specific surgery coding scheme (not lymph node scheme) for the primary site.

**Reason for No Surgery of Primary Site** (NAACCR ITEM #1340) (FORDS pg. 147)**Description**

Records the reason that no surgery was performed on the primary site. This field applies only to surgery of primary site.

**Explanation**

This data item provides information related to quality of care.

**Coding Instructions**

1. If *surgical procedure of primary site* (NAACCR Item #1290) is coded 00, then record the reason based on documentation in the patient record.
2. Code 1 if the treatment plan offered multiple options and the patient selected treatment that did not include surgery of the primary site, or if the option of “no treatment” was accepted by the patient.
3. Code 1 if *surgical procedure of primary site* (NAACCR Item #1290) is coded 98.
4. Code 7 if the patient refused recommended surgical treatment, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.
5. Code 9 if the treatment plan offered multiple choices, but it is unknown which treatment, if any, was provided.

**Note:** This table is also available in the *Quick Reference, Standard Tables Section*.

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.

CODE	DEFINITION
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's 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:**

- a. A patient with primary tumor of the liver is not recommended for surgery due to advanced cirrhosis. The reason for no primary site surgery is 2, not recommended due to comorbid conditions.
- b. A patient is referred to another facility for recommended surgical resection of a non-small cell lung carcinoma. There is no further information from the facility to which the patient was referred. The reason for no surgery of primary site is 8, recommended but unknown if performed.

**RX SUMM– SURG OTH REG/DIST RX CODE** (NAACCR ITEM #1294) (FORDS pg. 142; SEER pg. 180)

**Description**

Indicates the surgical removal of other regional site(s), distant site(s), or distant lymph node(s) beyond the primary site. Code the surgical procedure of other sites the patient received, at any facility, as part of the first course of treatment.

**Explanation**

Documents the extent of surgical treatment and is useful in evaluating the extent of metastatic disease.

**Coding Instructions**

The codes are **hierarchical**. Record the **highest numbered code** that describes the surgical resection of *distant lymph nodes or regional/distant tissues or organs* the patient received as part of the **first course of treatment** at any facility.

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODE	DESCRIPTION	DEFINITION
0	None	No surgical procedure of non-primary site was performed. Diagnosed at autopsy.
1	Non-primary surgical procedure performed	Non-primary surgical procedure to other site(s), unknown if the site(s) is regional or distant.
2	Non-primary surgical procedure to other regional sites	Resection of regional site that is not included in combination surgery codes of the primary site.
3	Non-primary surgical procedure to distant lymph node(s)	Resection of distant lymph node(s).
4	Non-primary surgical procedure to distant sites	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. Death certificate only.

**Examples:**

- a. The incidental removal of the appendix during a surgical procedure to remove a primary malignancy in the right colon is coded to 0.
- b. Surgical biopsy of metastatic lesion from liver with an unknown primary is coded to 1.
- c. Surgical ablation of solitary liver metastasis with a hepatic flexure primary is coded to 2.
- d. Excision of distant metastatic lymph nodes with a rectosigmoid primary is coded to 3.
- e. Removal of a solitary brain metastasis with a lung primary is coded to 4.
- f. Excision of a solitary liver metastasis and hilar lymph node with a rectosigmoid primary is coded to 5.
- g. For unknown primaries treated with a lymph node dissection, code Surgical Procedure of Other Site to 1 [Non-primary surgical procedure to other site(s) or node(s), NOS; unknown if regional or distant].

**DATE RADIATION STARTED** (NAACCR ITEM #1210) (FORDS pg. 148)

**Description**

The date the radiation therapy began at any facility as part of the first course of treatment.

**Explanation**

Identifies the date radiation therapy was initially started.

**Coding Instructions**

1. Record the month, day, century, and year MMDDCCYY of the first cancer-directed radiation therapy.
2. If the exact date of cancer-directed radiation therapy is not available, record an approximate date. Do not record all 9's in this field if radiation is given as first course of therapy. If the date is unknown record the month and day as unknown and record the year as the year of diagnosis. Document in the text field that the radiation date is unknown.
3. Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.
4. If two or more types of radiation therapy are delivered i.e., beam and isotopes; beam and implants, enter the date for the **first** type of radiation therapy.
5. Record all zeros (00000000) when no radiation therapy is delivered or the cancer was diagnosed at autopsy.
6. Record all nines (99999999) when it is **unknown** whether any radiation therapy was delivered or the case was identified by death certificate only.
7. Record all eights (88888888) if 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.

**RADIATION– REGIONAL TREATMENT MODALITY** (NAACCR ITEM #1570) (FORDS pgs. 155–157)**Description**

Records the dominant modality of radiation therapy used to deliver the most clinically significant dose to the primary volume of interest during first course of treatment.

**Explanation**

Radiation treatment is frequently delivered in two or more phases which can be summarized as “regional” and “boost” treatments. To evaluate patterns of radiation oncology care, it is necessary to know which radiation resources were employed in the delivery of therapy. For outcomes analysis, the modalities used for each of these phases can be very important.

**Coding Instructions**

1. Radiation treatment modality will typically be found in the radiation oncologist's summary letter for the first course of treatment. Segregation of treatment components into regional and boost, and determination of the respective treatment modality may require assistance from the radiation oncologist to ensure consistent coding.

2. In the event multiple radiation therapy modalities were employed in the treatment of the patient, record only the dominant modality (the greatest dose of radiation). It may be necessary to consult with the radiation oncologist to determine the dominant modality.
3. Note that in some circumstances the boost treatment may precede the regional treatment of the patient. Record only the dominant modality.
4. For purposes of this data item, photons and x-rays are equivalent.
5. Radioembolization is defined as embolization combined with injecting small radioactive beads or coils into an organ or tumor. Code as brachytherapy when the tumor embolization is performed using a radioactive agent or radioactive seeds. Use code 50.
6. Tomotherapy is a form of intensity modulated radiation therapy (IMRT). Use code 31.
7. Mammosite radiation therapy is accomplished by the placement of wires with a radioactive bead attached. The Mammosite device is the applicator with a balloon tipped end that is inserted into the surgical cavity which results from the removal of the tumor. Mammosite would be coded as Brachytherapy, intracavitary, as there is no direct insertion into tissue.
8. Record all radiation therapy given as first course of treatment, even if it is palliative.

*Note: This Table is also available in the Quick Reference, Standard Tables Section.*

CODE	TYPE	DEFINITION
00	No radiation treatment	Radiation therapy was not administered to the patient.
20	External beam, NOS	The treatment is known to be external beam, but there is insufficient information to determine the specific modality.
21	Orthovoltage	External beam therapy administered using equipment with a maximum energy of less than one (1) million volts (MV). Orthovoltage energies are typically expressed in units of kilovolts (kV).
22	Cobalt-60, Cesium-137	External beam therapy using a machine containing either a Cobalt-60 or Cesium-137 source. Intracavitary use of these sources is coded to 50 or 51.
23	Photons (2-5 MV)	External beam therapy using a photon-producing machine with beam energy in the range of 2-5 MV.
24	Photons (6-10 MV)	External beam therapy using a photon-producing machine with 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 more than 19 MV.
27	Photons (mixed energies)	External beam therapy using more than one energy over the course of treatment.

CODE	TYPE	DEFINITION
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 medical 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 medical record.
40	Protons	Treatment delivered using proton therapy.
41	Stereotactic radiosurgery, NOS	Treatment delivered using stereotactic radiosurgery, type not specified in medical 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 with a gamma knife machine.
50	Brachytherapy, NOS	Brachytherapy, interstitial implants, molds, seeds, needles, or intracavitary applicators of radioactive materials not otherwise specified.
51	Brachytherapy, intracavitary, low dose rate (LDR)	Intracavitary (no direct insertion into tissues) radioisotope treatment using LDR applicators and isotopes (Cesium-137, Fletcher applicator).
52	Brachytherapy, intracavitary, high dose rate (HDR)	Intracavitary (no direct insertion into tissues) radioisotope treatment using HDR after-loading applicators and isotopes.
53	Brachytherapy, Interstitial, LDR	Interstitial (direct insertion into tissues) radioisotope treatment using LDR sources.
54	Brachytherapy, Interstitial, HDR	Interstitial (direct insertion into tissues) radioisotope treatment using HDR sources.
55	Radium	Infrequently used for 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	Same as above.
80*	Combination modality, specified	Combination of external beam radiation and either radioactive implants or radioisotopes. *Do not use for cases diagnosed on or after January 1, 2003.

CODE	TYPE	DEFINITION
85*	Combination modality, NOS	Combination of radiation treatment modalities not specified in code 80. *Do not use for cases diagnosed on or after January 1, 2003.
98	Other, NOS	Radiation therapy administered, but the treatment modality is not specified or is unknown.
99	Unknown	It is unknown whether radiation therapy was administered.

\*For cases diagnosed prior to January 1, 2003, the codes reported in this data item describe any radiation therapy administered to the patient as part or all of the first course of treatment. Codes 80 and 85 describe specific converted descriptions of radiation therapy coded according to *Vol. II, ROADS* rules and **should not** be used to record regional radiation therapy for cases diagnosed on or later than January 1, 2003.

**RX Summary-Surgery/Radiation Sequence (NAACCR ITEM #1380) (FORDS pgs. 164–165; SEER pg.187)**

**Description**

Records the sequencing of radiation and surgical procedures given as part of the first course of treatment.

**Explanation**

The sequence of radiation and surgical procedures given as part of the first course of treatment cannot always be determined using the date on which each modality was started or performed. This data item can be used to more precisely evaluate the timing of delivery of treatment to the patient.

**Coding Instructions**

1. For the purpose of coding radiation sequence with surgery, “Surgery” is defined as a surgical procedure to the primary site (codes 10–90) or scope of regional lymph node surgery (codes 1–7) or surgical procedure of other site (codes 1–5). If all of these procedures are coded 0, then this item should be coded 0.
2. If a patient received both radiation therapy and any one or a combination of the following surgical procedures: Surgical procedure of primary site, regional lymph node surgery, or surgical procedure/other site, then code this item 2–9 as appropriate.
3. Assign code 0 when
  - a. The patient did not have either surgery or radiation
  - b. The patient had surgery but not radiation
  - c. The patient had radiation but not surgery

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODE	LABEL	DEFINITION
0	No radiation therapy and/or surgical procedures	No radiation therapy given; and/or no surgery; no scope of regional lymph node surgery; no surgery to other regional site(s), distant site(s), or distant lymph node(s); or no reconstructive surgery. Diagnosed at autopsy. Death certificate only. ( <i>Note: This differs from FORDS instruction.</i> )
2	Radiation therapy before surgery	Radiation therapy given before surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s).
3	Radiation therapy after surgery	Radiation therapy given after surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s).
4	Radiation therapy both before and after surgery	Radiation therapy given before and after any surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s) or distant lymph nodes(s).
5	Intraoperative radiation therapy	Intraoperative therapy given during surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s).
6	Intraoperative radiation therapy with other therapy administered before or after surgery	Intraoperative radiation therapy given during surgery to primary site: scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s) with other radiation therapy administered before or after surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s).
9	Sequence unknown, but both surgery and radiation were given	Administration of radiation therapy and surgery to primary site, scope of regional lymph node surgery, surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed and the sequence of the treatment is not stated in the patient record. It is <i>unknown</i> if radiation therapy was administered and/or it is <i>unknown</i> if surgery to primary site; scope of regional lymph node surgery, surgery to other regional site(s), distant site(s) or distant lymph node(s) were performed.

**Examples:**

- a. Due to other medical conditions surgery was not performed. The patient received palliative radiation therapy to alleviate pain. Use code 0.
- b. Patient received radiation therapy prior to resection of a lung lesion. Use code 2.

- c. A patient received excisional biopsy of a right breast mass followed by radiation therapy to breast. Use code 3.
- d. Preoperative radiation therapy was given to a large bulky vulvar lesion, followed by a lymph node dissection. Radiation therapy was then given to treat positive lymph nodes. Use code 4.
- e. A cone biopsy of the cervix was followed by intracavitary implant for IIIB cervical carcinoma. Use code 5.
- f. Stage IV vaginal carcinoma was treated with 5,000 cGy to the pelvis followed by a lymph node dissection and 2,500 cGy of intracavitary brachytherapy. Use code 6.
- g. A primary of the head and neck was treated with surgery and radiation prior to admission, but the sequence is unknown. Use code 9.
- h. Patient has an unknown primary. A radical neck dissection is done followed by radiation therapy. Use code 3.

**DATE SYSTEMIC THERAPY STARTED** (NAACCR ITEM #3230) (FORDS pg. 169)

**Definition**

Identifies the date systemic therapy began at any facility. Systemic therapy includes the following treatment modalities:

- a. Chemotherapy agents
- b. Hormonal agents
- c. Immunotherapy
- d. Bone marrow transplants
- e. Stem cell harvests
- f. Surgical and/or radiation endocrine therapy

**Explanation**

Collecting dates for each treatment modality allows the sequencing of multiple treatments and aids in the evaluation of time intervals from diagnosis to treatment to recurrence.

**Coding Instructions**

1. Record the month, day, century, and year (MMDDCCYY) the **first** systemic therapy was delivered.

**Example:**

Patient has a lumpectomy for breast cancer on February 28, 2008. On April 1, 2008 she undergoes chemotherapy followed by radiation therapy. On September 2, after chemotherapy and radiation therapy are completed, she begins Tamoxifen as part of planned first course of therapy. Record the Date Systemic Therapy Started as 04012008.

2. Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.
3. If the exact date of the first systemic therapy is not available, record an approximate date. Do not record all 9's in this field. If the systemic therapy is given as part of first course of treatment and the date is unknown, record the month and day as unknown and record the year as the year of diagnosis. Document in the text field that the surgery date is unknown.
4. Record all zeros (00000000) when no systemic therapy was delivered or the cancer was diagnosed at autopsy.

**Example:**

The patient had biopsy ONLY, bypass or "watchful waiting."

5. Record all nines (99999999) when it is unknown if any systemic therapy was delivered or the case was identified by death certificate only.
6. Record all eights (88888888) if systemic therapy was planned, but not started or unknown if administered.

**CHEMOTHERAPY** (NAACCR ITEM #1390) (FORDS pg. 171; SEER pg. 188)**Definition**

Chemotherapy is a chemical (or group of chemicals) administered to treat cancer. Chemotherapy consists of a group of anti-cancer drugs that inhibit the reproduction of cancer cells. Chemotherapeutic agents may be administered by intravenous infusion or given orally.

**Explanation**

This data item allows for the evaluation of the administration of chemotherapeutic agents as part of the first course of therapy.

**Coding Instructions**

1. Refer to SEER\*Rx Version 1.2.0, Drug Database located at: [www.seer.cancer.gov/tools/seerrx/](http://www.seer.cancer.gov/tools/seerrx/) for direction on coding systemic therapy appropriately. This website has replaced *Self Instructional Manual for Tumor Registrars (SEER) Book 8 - Antineoplastic Drugs, Third Edition*.
2. Code the type of chemotherapy the patient received as part of the **first course of treatment** at any facility. Chemotherapy may involve the delivery of one or a combination of chemotherapeutic agents.
3. Chemoembolization is a procedure in which the blood supply to the tumor is blocked surgically or mechanically and anticancer drugs are administered directly into the tumor. This permits a higher concentration of drug to be in contact with the tumor for a longer period of time. Code as chemotherapy when the embolizing agent(s) is a chemotherapeutic drug(s). Use *SEER\*Rx Version 1.2.0* 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 in the medical record.
4. Code 00 if the chemotherapy was not delivered and it is known that it is not usually delivered for this type and stage of cancer, or if the physician discussed multiple options including chemotherapy and the patient selected treatment that did not include chemotherapy.
  5. Code to 82, 85, 86, or 87 if it is known that chemotherapy is usually administered for this type and stage of cancer, but it was not delivered.
  6. Code to 87 if the patient refused the recommended chemotherapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.
  7. If the physician changes one of the agents in a combination regimen and the replacement agent is in a different group (chemotherapeutic agents are grouped as alkylating agents, antimetabolites, natural products, or other miscellaneous) than the original agent, the new regimen is the beginning of subsequent treatment and is **not** recorded as first course treatment.

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODE	DEFINITION
00	None; chemotherapy was not part of the first course of therapy.
01	Chemotherapy administered as first course of therapy, but the type and number of agents is not documented in the patient record.
02	Single-agent chemotherapy administered as first course of therapy.
03	Multi-agent chemotherapy was delivered as first course of 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 the patient record.
87	Chemotherapy was not delivered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Chemotherapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a chemotherapeutic agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.

**Examples:**

- a. A patient with primary liver cancer is known to have received chemotherapy. The type(s) of agent(s) delivered is not documented in the medical record. Record **code 01** and document the information in the treatment documentation data field.

- b. A patient with Stage III colon cancer is treated with a combination of fluorouracil and levamisole. Code the fluorouracil as a single agent and the levamisole as an immunotherapeutic agent. Record **code 02** and document the information in the treatment documentation data field.
- c. A patient with early stage breast cancer receives chemotherapy. The medical record indicated a **combination regimen** containing doxorubicin is to be administered. Record **code 03** and document the information in the treatment documentation data field.
- d. Following surgical resection of an ovarian mass the physician recommends chemotherapy. The medical record states chemotherapy was not delivered and the reason is not documented. Record **code 86** and document that the medical record states chemo not delivered but no reason given.
- e. A patient with kidney cancer receives Interleukin. Record **code 02** and document the information in the treatment documentation data field.
- f. Patient has hepatocellular carcinoma. Under x-ray guidance, a small catheter is inserted into an artery in the groin. The catheter's tip is threaded into the artery in the liver that supplies blood flow to the tumor. A chemotherapy agent is injected through the catheter into the tumor and mixed with particles that embolize or block the flow of blood to the diseased tissue. Record code 02 and document that chemoembolization was done.

**HORMONE THERAPY (HORMONE/STEROID THERAPY)** (NAACCR ITEM #1400)  
(FORDS pg. 175–176; SEER pg. 191–192)

**Description**

Hormone therapy is a drug or group of drugs that is delivered to change the hormone balance. Hormone therapy may affect a long-term control of the cancer growth. It is not usually curative.

*Note: Hormone therapy is administered to treat cancer tissue and is considered to achieve its effect through change of the hormone balance. Some cancers, such as prostate or breast, depend upon hormones to develop. When a malignancy arises in these tissues, it is usually hormone-responsive. Other primaries and histologic types may be hormone-responsive, such as melanoma and hypernephroma.*

**Explanation**

This data item allows for the analysis of hormone treatment as part of the first course of therapy.

**Coding Instructions**

1. Code the type of hormone therapy the patient received as part of the **first course of treatment** at any facility. Hormone therapy may involve the delivery of one or a combination of agents.
2. Refer to *SEER\*Rx Version 1.2.0, Drug Database* located at: [www.seer.cancer.gov/tools/seerrx/](http://www.seer.cancer.gov/tools/seerrx/) for direction on coding systemic therapy appropriately. This website has replaced *Self*

*Instructional Manual for Tumor Registrars (SEER) Book 8 - Antineoplastic Drugs, Third Edition.*

3. Code prednisone as hormone therapy when it is administered in a combination chemotherapy regimen, such as MOPP (mechlorethamine, vincristine, procarbazine, prednisone), or COPP (cyclophosphamide, vincristine, procarbazine, prednisone).
4. Some types of cancers are slowed or suppressed by hormones. These cancers are treated by administering hormones and should be coded in this data field.

**Example:**

Endometrial cancer may be treated with progesterone. Even if the progesterone is given for menopausal symptoms, it has an effect on the growth or recurrence of endometrial cancer and should be coded.

5. Code to 00 if hormone therapy was not delivered to the patient and it is known that it is not usually administered for this type and stage of cancer, or if the physician discussed multiple options and the patient selected treatment that did not include hormone therapy.
6. Code to 01 for thyroid replacement therapy, which inhibits the thyroid stimulating hormone (TSH). TSH is a product of the pituitary gland that stimulates tumor growth.
7. Code to 82, 85, 86, or 87 if it is known that hormone therapy is usually delivered for this type and stage of cancer, but it was not delivered.
8. Code to 87 if the patient refused recommended hormone therapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.
9. Do not code as hormone replacement therapy when it is given because it is necessary to maintain normal metabolism and body function.
10. If prednisone or other hormone is delivered for other reasons, **do not** code as hormone therapy.

**Note:** This table is also available in the Quick Reference, Standard Tables Section.

CODE	DEFINITION
00	None; hormone therapy was not part of the planned first course of therapy.
01	Hormone therapy was delivered as first course of 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 treatment. No reason was stated in patient record.

CODE	DEFINITION
87	Hormone therapy was not administered. It was recommended by the patient's physician, but this treatment was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
88	Hormone therapy was recommended, but it is unknown if it was administered.
99	It is unknown whether a hormonal agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.

**Examples:**

- a. A patient diagnosed with metastatic prostate cancer is administered flutamide (an anti-estrogen agent) as part of the first course of therapy. Code to 01 and document the information in the Treatment Documentation data field.
- b. A patient with metastatic prostate cancer declines the administration of Megace (a progestational agent) as part of the first course of therapy and the refusal is documented in the medical record. Code to 87 and document the information in the Treatment Documentation data field.
- c. Patient with endometrial cancer is treated with progesterone. Even if the progesterone is given for menopausal symptoms, it has an effect on the growth or recurrence of endometrial cancer. Code to 01 and document the information in the Treatment Documentation data field.
- d. A patient with follicular or papillary cancers of the thyroid is treated with thyroid hormone to suppress serum thyroid stimulating hormone (TSH). **Code to 01** and document the information in the Treatment Documentation data field.

**Examples:**

- a. A patient is given Prednisone to stimulate the appetite and improve nutritional status. Prednisone is not coded as hormone therapy. Code to 00.
- b. 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 not coded as hormone therapy. Code to 00.

**EXCEPTION:** Decadron is coded as hormonal treatment **only for leukemias, lymphomas, and multiple myelomas**. It is delivered to achieve its effect on cancer tissue through change of the hormone balance.

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

**IMMUNOTHERAPY** (NAACCR ITEM #1410) (FORDS pg. 179; SEER pg. 193–194)**Description**

Immunotherapy consists of biological or chemical agents that alter the immune system or change the host's response to the tumor cells.

**Explanation**

This data item allows for the analysis of the administration of Immunotherapy agents as part of the first course of therapy.

**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 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, ovary, and cervix.

**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 are produced in a laboratory, and are used in a variety of ways in systemic therapy. Some artificial antibodies are injected into the patient to seek out and disrupt cancer cell activities and to enhance the immune response against cancer. For example, trastuzumab (Herceptin) may be used for certain breast cancers. When the monoclonal antibody disrupts tumor growth, it is coded as chemotherapy.

## Coding Instructions

1. Refer to *SEER\*Rx Version 1.2.0, Drug Database* located at: [www.seer.cancer.gov/tools/seerrx/](http://www.seer.cancer.gov/tools/seerrx/) for direction on coding systemic therapy appropriately. This website has replaced *Self Instructional Manual for Tumor Registrars (SEER) Book 8 - Antineoplastic Drugs, Third Edition*.
2. Code the type of Immunotherapy the patient received as part of the **first course of treatment** at any facility.
3. Code to 00 if Immunotherapy was not delivered to the patient and it is known that it is not usually delivered for this type and stage of cancer, or if the treatment plan offered multiple options and the patient selected treatment that did not include immunotherapy.
4. Code to 82, 85, 86, or 87 if it is known that immunotherapy is usually delivered for this type and stage of cancer, but it was not.
5. Code to 87 if the patient refused recommended immunotherapy, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODE	DESCRIPTION
00	None, Immunotherapy was not part of the first course of therapy.
01	Immunotherapy administered as first course of 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 treatment. 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 Immunotherapy agent(s) was recommended or administered because it is not stated in patient record. Death certificate only.

**RX SUMM- TRANSPLANT/ENDOCRINE** (NAACCR ITEM #3250) (FORDS pgs. 182–183; SEER pgs 195–196)

### Description

Systemic therapeutic procedures that include bone marrow transplants, stem cell harvests, surgical and/or radiation endocrine therapy received at any facility as first course of treatment.

**Explanation**

This treatment involves the alteration of the immune system or change the patient's response to tumor cells, but does not involve the delivery of antineoplastic agents.

**Coding Instructions**

1. Code the type of hematologic transplant and/or endocrine procedures the patient received as part of the **first course of treatment** at any facility.

**Definitions:**

**Bone marrow transplant (BMT):** Procedure used to restore stem cells that were destroyed by chemotherapy and/or radiation. Replacing the stem cell 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.

**Conditioning:** High dose of chemotherapy with or without radiation administered prior to transplants such as BMT and stem cell 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.

**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 the bone marrow. These are not recorded as therapeutic agents.

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

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

2. Bone marrow transplants should be coded as either autologous (bone marrow originally taken from the patient) or allogeneic (bone marrow donated by a person other than the patient). For cases in which the bone marrow transplant was syngeneic (bone marrow donated from an identical twin), the item is coded as allogeneic.
3. Stem cell harvests involve the collection of immature blood cells from the patient and the re-introduction of a transfusion of the harvested cells following chemotherapy or radiation therapy.

4. Endocrine irradiation and/or endocrine surgery are procedures that suppress the naturally occurring hormonal activity of the patient and therefore alter or affect the long-term control of the cancer's growth. These procedures must be **bilateral** to qualify as endocrine surgery or endocrine radiation. If only one gland is intact at the start of treatment, surgery and/or radiation to that remaining gland qualify as endocrine surgery or endocrine radiation.

**Examples:**

- a. Bilateral orchiectomy for prostate cancer.
  - b. Bilateral oophorectomy for breast cancer
  - c. Bilateral adrenalectomy for microadenoma
  - d. Bilateral hypophysectomy for pituitary cancer
  - e. Bilateral radiation to ovaries for breast cancer, or to testicles for prostate cancer
5. Code to 00 if a transplant or endocrine procedure was not administered to the patient, and it is known that these procedures are not usually administered for this type and stage of cancer.
  6. Code 86 if the treatment plan offered multiple options which included a transplant, and the patient selected treatment that did include a transplant procedure.
  7. Code to 82, 85, 86, or 87 if it is known that a transplant or endocrine procedure is usually delivered for this type and stage of cancer, but it was not.
  8. Code to 87 if the patient refused a recommended transplant or endocrine procedure, made a blanket refusal of all recommended treatment, or refused all treatment before any was recommended.

**Note:** This table is also available in the Quick Reference, Standard Tables Section.

CODE	DEFINITION
00	No transplant procedure or endocrine therapy was administered as part of first course of therapy.
10	A bone marrow transplant procedure was administered, but the type was not specified.
11	Bone marrow transplant-autologous.
12	Bone marrow transplant- allogeneic.
20	Stem cell harvest and infusion.
30	Endocrine surgery and/or endocrine radiation therapy.
40	Combination of endocrine surgery and/or radiation with a transplant procedure. Combination of codes 30 and 10, 11, 12, or 20).

CODE	DEFINITION
82	Hematologic transplant and/or endocrine surgery/radiation were not recommended/administered because it was contraindicated due to patient risk factors (i.e., comorbid conditions, advanced age).
85	Hematologic transplant and/or endocrine surgery/radiation were 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 first course therapy. No reason was stated in patient record.
87	Hematologic transplant and/or endocrine surgery/radiation were 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 were recommended, but it is unknown if it was administered.
99	It is unknown whether hematologic transplant and/or endocrine surgery/radiation were recommended or administered because it is not documented in the medical record. Death certificate only.

### **SYSTEMIC /SURGERY SEQUENCE** (NAACCR ITEM #1639) (FORDS pg. 183A)

#### **Definition**

Records the sequencing of systemic therapy and surgical procedures given as part of the first course of treatment.

#### **Explanation**

The sequence of systemic therapy and surgical procedures given as part of the first course of treatment cannot always be determined using the date on which each modality was started or performed. This item can be used to more precisely evaluate the timing of delivery of treatment to the patient.

#### **Coding Instructions**

1. Code the administration of systemic therapy in sequence with the first surgery performed, described in the item *date of first surgical procedure* (NAACCR Item #1200).
2. If none of the following surgical procedures were performed: *Surgical procedure of primary site* (NAACCR Item #1290), *scope of regional lymph node surgery* (NAACCR Item #1292), *surgical procedure/other site* (NAACCR Item #1294), then this item should be coded 0.
3. If the patient received both systemic therapy and any one or a combination of the following surgical procedures: *Surgical procedure of primary site* (NAACCR Item #1290), *scope of regional*

*lymph node surgery* (NAACCR Item #1292), *surgical procedure/other site* (NAACCR Item #1294), then code this item 2–9, as appropriate.

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

<b>CODES</b>	<b>LABEL</b>	<b>DEFINITION</b>
0	No systemic therapy and/or surgical procedures	No systemic therapy was given: and/or no surgical procedure of primary site; no scope of regional lymph node surgery; no surgery to other regional site(s), distant site(s), or distant lymph node(s); or no reconstructive surgery was performed. Diagnosed at autopsy. Death certificate only. ( <i>Note: This differs from FORDS instruction.</i> )
2	Systemic therapy before surgery	Systemic therapy was given before surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) was performed.
3	Systemic therapy after surgery	Systemic therapy was given after surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) was performed.
4	Systemic therapy both before and after surgery	Systemic therapy was given before and after any surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) was performed.
5	Intraoperative systemic therapy	Intraoperative systemic therapy was given during surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s).
6	Intraoperative systemic therapy with other therapy administered before or after surgery	Intraoperative systemic therapy was given during surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) with other systemic therapy administered before or after surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) was performed.
9	Sequence unknown	Administration of systemic therapy and surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed and the sequence of the treatment is not stated in the patient record. It is unknown if systemic therapy was administered and/or it is unknown if surgical procedure of primary site; scope of regional lymph node surgery; surgery to other regional site(s), distant site(s), or distant lymph node(s) were performed.

**Examples:**

- a. Due to other medical conditions surgery was not performed. The patient received palliative radiation therapy to alleviate pain. Record **code 0** and document the information in the treatment documentation data field.
- b. Patient with prostate cancer received hormone therapy prior to a radical prostatectomy. Record **code 2** and document the information in the treatment documentation data field.
- c. Patient underwent a colon resection followed by a 5-FU based chemotherapy regimen. Record **code 3** and document the information in the treatment documentation data field.
- d. Patient with breast cancer receives pre-operative chemotherapy followed by post-operative Tamoxifen. Record **code 4** and document the information in the treatment documentation data field.
- e. Patient with intracranial primary undergoes surgery at which time a glial wafer is implanted into the resected cavity. Record **code 5** and document the information in the treatment documentation data field.
- f. Patient with metastatic colon cancer receives intraoperative chemotherapy to the liver followed by 5FU. Record **code 6** and document the information in the treatment documentation data field.
- g. An unknown primary of the head and neck was treated with surgery and chemotherapy prior to admission, but the sequence is unknown. The patient enters for radiation therapy. Record **code 9** and document the information in the treatment documentation data field.

**DATE OTHER TREATMENT STARTED** (NAACCR ITEM #1250) (FORDS pg. 184)**Definition**

The date other treatment began as first course of therapy.

**Explanation**

Records the date **other** treatment is delivered that is not included in surgery, radiation therapy, and systemic treatment.

**Coding Instructions**

1. Record the month, day, century and year MMDDCCYY the other treatment was delivered.
2. Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.
3. Record all zeros (00000000) when no other treatment was delivered or the cancer was diagnosed at autopsy.
4. Record all nines (99999999) when it is unknown if other treatment was delivered or it is a death

certificate only case.

5. Do not record all 9's in this field if other treatment is coded as given. If month and day are unknown record the year of diagnosis. Document in the text field that the date is unknown.

### **OTHER TREATMENT** (NAACCR ITEM #1420) (FORDS pg. 186; SEER pg. 199–200)

#### **Definition**

“Other treatment” is designed to modify or control the cancer cells, but is not defined as surgery, radiation, or systemic therapy fields.

#### **Explanation**

Used to evaluate treatment practices and for special studies.

#### **Coding Instructions**

1. Code the type of “other treatment” the patient received as part of the **first course of treatment** at any facility.
2. This data field is used to record other treatment (transfusions, phlebotomy, and supportive care) for **Hematopoietic diseases that became reportable in 2001**. For additional direction on other treatment for these diseases refer to *Clarifications for Abstracting and Coding Hematopoietic Diseases* (May 22, 2001), available from [www.seer.cancer.gov/](http://www.seer.cancer.gov/)
3. **Do not** code ancillary drugs in this field. There is no coding scheme for ancillary drugs.
4. Tumor embolization is the intentional blockage of an artery or vein to stop the flow of blood through the desired vessel. Code as Other Therapy when tumor embolization is performed using alcohol as the embolizing agent. Use code 01.

*Note: 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.*

*Note: “Other treatment” for Newly Reportable Hematopoietic Diseases (NRHD) can be supportive care, observation, or any treatment that does **not** meet the usual definition in which treatment “modifies, controls, removes, or destroys proliferating cancer tissue.” Such treatments should be coded to 1 (see examples below). This information is **not** considered cancer directed therapy for diseases which have always been reportable (such as leukemias and lymphomas) and should not be coded.*

*Note: This table is also available in the Quick Reference, Standard Tables Section.*

CODES	TYPE	DEFINITION
0	None	All cancer treatment was coded in other treatment fields (surgery, radiation, systemic therapy). Patient received no cancer treatment.
1	Other	Cancer treatment that cannot be appropriately assigned to specific treatment data items (surgery, radiation, systemic). Use this code for treatment unique to hematopoietic diseases. *see <b>Examples</b>
2	Other-Experimental	This code is not defined. It may be used to record participation in facility-based clinical trials.
3	Other-Double Blind	A patient is involved in a double-blind clinical trial. Code the treatment actually administered when the double-blind trial code is broken.
6	Other-Unproven	Cancer treatments administered by non-medical personnel.
7	Refusal	Other treatment was not administered. It was recommended by the patient's physician, but this treatment (which would have been coded 1, 2, or 3) was refused by the patient, a patient's family member, or the patient's guardian. The refusal was noted in patient record.
8	Recommended; unknown if administered	Other treatment was recommended, but 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.

**Examples:**

- a. A patient with polycythemia vera is treated with phlebotomies. Use code 1. Phlebotomy may be called blood removal, blood letting, or venisection.
- b. A patient with pancreatic cancer is enrolled in a double-blind clinical trial. The treatment agents are unknown. Use code 3.

*Note: Transfusions may include whole blood, RBCs, platelets, plateletpheresis, fresh frozen plasma (FFP), plasmapheresis, and cryoprecipitate.*

*Note: Aspirin (also known as ASA, acetylsalicylic acid, or by a brand name) is used as a treatment for essential thrombocythemia. Record aspirin therapy ONLY to thin the blood for symptomatic control of thrombocythemia. To determine whether aspirin is administered for pain, cardiovascular protections, or thinning of platelets in the blood, use the following general guideline:*

- a. Pain control is approximately 325–1000 mg every 3–4 hours.
- b. Cardiovascular protection starts at about 160 mg/day.

- c. *Aspirin treatment for essential thrombocythemia is low dose, approximately 70–100 mg/day.*

**TREATMENT DOCUMENTATION** (NAACCR ITEMS #2610, #2620, #2630, #2640, #2650, #2660, #2670)

**Description**

Text field used for documenting tumor-specific treatment information.

**Explanation**

Text documentation is an essential component of a complete abstract and used extensively for quality assurance, consolidation of information from multiple sources, and special studies.

**Coding Instructions**

1. Text information to support cancer diagnosis, stage, and treatment codes **MUST BE PROVIDED BY ALL FACILITIES**. Document any and all types of **first course** definitive treatment administered, regardless of where the treatment was received, in date order in this data field.
2. Document if the medical record indicates no treatment was given (0's entered for Type of Treatment) or if there is no information in the medical record that definitive treatment was given (9's entered for Type of Treatment).
3. If it cannot be determined whether an intended therapy was actually performed, record that it was recommended but it is not known if the procedure was administered. For example, "radiation, recommended; unknown if given." (99 entered for type of treatment)
4. See more specific examples of required supporting documentation on page 139.

**DATE OF LAST CONTACT OR DEATH** (NAACCR ITEM #1750) (FORDS pg. 199; SEER pg. 203)

**Definition**

The date of last contact with the patient or the date the patient expired.

**Explanation**

This information is used for follow-up and patient outcome studies.

**Coding Instructions**

1. Record the month, day, century and year (MMDDCCYY) the patient was last seen at your facility, date of last contact, or date of death.
2. Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.

- If patient is known to be deceased, but date of death is not available, date of last contact should be recorded in this field. In the **TEXT REMARKS-OTHER PERTINENT INFORMATION** text area, document that the patient is deceased and the date of death is not available.

**VITAL STATUS** (NAACCR ITEM #1760) (FORDS pg. 200; SEER pg. 205)

**Definition**

Records the vital status of the patient as of the *date of last contact or death* known to the reporting facility through all available resources. If the patient has multiple tumors, vital status should be the same for all tumors.

**Explanation**

This information is used for outcome studies.

**Coding Instructions**

- Code the patient's vital status as of the date recorded in the *date of last contact or death* field. Use the most current and accurate information available.
- If a patient has multiple primaries **simultaneously**, all records should have the same vital status.

CODE	LABEL
0	Dead
1	Alive

**DATE ABSTRACTED** (NAACCR ITEM #2090)

**Definition:**

Record the date the registrar determined the tumor report was complete (all first course therapy administered or treatment plan coded and documented) and the case has passed edits.

**Explanation**

This field is used for TCR data quality and timeliness evaluation.

**Coding Instructions**

- Punctuation marks (slashes, dashes, etc.) are not allowed in any date field.
- Record the day, month, century and year (MMDDCCYY) the form was completed.

**ABTRACTOR INITIALS** (NAACCR ITEM #570) (FORDS pg. 207)**Description**

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

**Explanation**

This data item is used for providing feedback for quality control.

**Coding Instruction**

1. Record the initials of the person abstracting the case.

**NAACCR RECORD VERSION** (NAACCR ITEM #50)**Description**

Records the NAACCR record version used to create the case. This data field is normally populated by the software being used to report cancer cases from your facility (SCL, cancer registry software).

**Explanation**

Used to indicate record version and record layout/format.

*All 2008 submissions must be submitted in NAACCR Version 11.2 regardless of diagnosis date.*