Coding Guidelines
BLADDER
C670–C679

Primary Site

C670 Trigone of bladder
    Base of bladder
    Floor
    Below interureteric ridge (interureteric crest, or interureteric fold)

C671 Dome of bladder
    Vertex
    Roof
    Vault

C672 Lateral wall of bladder
    Right wall
    Left wall
    Lateral to ureteral orifice
    Sidewall

C673 Anterior wall of bladder

C674 Posterior wall of bladder

C675 Bladder neck
    Vesical neck
    Internal urethral orifice

C676 Ureteric orifice
    Just above ureteric orifice

C677 Urachus
    Mid umbilical ligament

C678 Overlapping lesion of bladder
    Lateral-posterior wall (hyphen)
    Fundus

C679 Bladder, NOS
    Lateral posterior wall (no hyphen)
Bladder Anatomy and ICD-O-3

C67.7 Urachus
C67.1 Dome
C67.4 Posterior wall
C67.2 Lateral wall
C67.3 Anterior wall
C67.6 Ureteral orifice
C67.0 Trigone
C67.5 Bladder neck
C61.9 Prostate

Source: TNM Atlas, 3rd edition, 2nd revision

Priority Order for Coding Subsites

Use the information from reports in the following priority order to code a subsite when the medical record contains conflicting information:

Operative report (TURB)
Pathology report

Multifocal Tumors

Invasive tumor in more than one subsite

Assign site code C679 when the tumor is multifocal (separate tumors in more than one subsite of the bladder).

If the TURB or pathology proves invasive tumor in one subsite and in situ tumor in all other involved subsites, code to the subsite involved with invasive tumor.
Bladder Wall Pathology

The bladder wall is composed of three layers. There may be “sub layers” within the major layer of the bladder.

<table>
<thead>
<tr>
<th>Bladder Layer</th>
<th>Sub layer</th>
<th>Synonyms</th>
<th>Staging</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mucosa</td>
<td></td>
<td>Epithelium, transitional epithelium, urothelium, mucosal surface, transitional mucosa</td>
<td>No blood vessels, in situ/noninvasive</td>
<td>First layer on inside of bladder; Lines bladder, ureters, and urethra</td>
</tr>
<tr>
<td>Basement membrane</td>
<td></td>
<td>No invasion of basement membrane is in situ</td>
<td>Invasion/penetration of basement membrane is invasive</td>
<td>Single layer of cells that lies beneath the mucosal layer separating the epithelial layer from the lamina propria</td>
</tr>
<tr>
<td>Submucosa</td>
<td>Submucous coat, lamina propria, areolar connective tissue</td>
<td>Invasive</td>
<td>Areolar connective tissue interlaced with the muscular coat. Contains blood vessels, nerves, and in some regions, glands</td>
<td></td>
</tr>
<tr>
<td>Lamina propria</td>
<td>Submucosa, Suburothelial connective tissue, subepithelial tissue, stroma, muscularis mucosa, transitional epithelium</td>
<td>Invasive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscle</td>
<td>Bladder wall</td>
<td>Muscularis, muscularis propria, muscularis externa, smooth muscle</td>
<td>Invasive</td>
<td></td>
</tr>
</tbody>
</table>

Tumor extends through the bladder wall (invades regional tissue) when the tumor is stated to involve one of the following areas:

**Serosa (Tunica serosa):** The outermost serous coat is a reflection of the peritoneum that covers the superior surface and the upper parts of the lateral surfaces of the urinary bladder. The serosa is part of visceral peritoneum. The serosa is reflected from these bladder surfaces onto the abdominal and pelvic walls.

**Perivesical fat**

**Adventitia:** Some areas of the bladder do not have a serosa. Where there is no serosa, the connective tissue of surrounding structures merges with the connective tissue of the bladder and is called adventitia.
HISTOLOGY

Most bladder cancers are transitional cell carcinomas. Other types include squamous cell carcinoma and adenocarcinoma.
Adenocarcinomas tend to occur in the urachus or, frequently, the trigone of the bladder.
Other bladder histologic types include sarcoma, lymphoma, and small cell carcinoma.
Rhabdomyosarcoma occurs in children.

Behavior Code

Code the behavior as malignant, not in situ, when
• the only surgery performed is a transurethral resection of the bladder (TURB) documenting that depth of invasion cannot be measured because there is no muscle in the specimen
and
• the physician’s TNM designation is not available

Code the behavior as in situ when the TNM designation is Ta for TURB with no muscle in the specimen.

Grade

Note: These guidelines pertain to the data item Grade. Refer to the Collaborative Stage Data Collection Manual for instructions on coding site-specific factors.

Code grade from the original primary. Do not code grade from recurrence.

Non-invasive papillary urothelial (transitional) carcinoma

Code grade 1 (well differentiated) for non-invasive papillary urothelial carcinoma, low grade
Code grade 3 (poorly differentiated) for non-invasive papillary urothelial (transitional) carcinoma, high grade

Urothelial carcinoma in situ

Code grade 9 for urothelial carcinoma in situ

Invasive Tumors
Three-Grade System (Nuclear Grade)

There are several sites for which a three-grade system is used. The patterns of cell growth are measured on a scale of 1, 2, and 3 (also referred to as low, medium, and high grade). This system measures the proportion of cancer cells that are growing and making new cells and how closely they resemble the cells of the host tissue. Thus, it is similar to a four-grade system, but simply divides the spectrum into three rather than four categories (see conversion table below). The expected outcome is more favorable for lower grades.
If a grade is written as 2/3 that means this is a grade 2 of a three-grade system. Do not simply code the numerator. Use the following table to convert the grade to SEER codes.

<table>
<thead>
<tr>
<th>Term</th>
<th>Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3, 1/2</td>
<td>Low grade</td>
<td>2</td>
</tr>
<tr>
<td>2/3</td>
<td>Intermediate grade</td>
<td>3</td>
</tr>
<tr>
<td>3/3, 2/2</td>
<td>High grade</td>
<td>4</td>
</tr>
</tbody>
</table>

FIRST COURSE TREATMENT

TREATMENT MODALITIES (most common treatments)

TURB with fulguration
TURB with fulguration followed by intravesical BCG (bacillus Calmette-Guerin) is usually used for patients with multiple tumors or for high-risk patients.
TURB with fulguration followed by intravesical chemotherapy
Photodynamic therapy (PDT) using laser light and chemotherapy
Segmental cystectomy (rare)
Radical cystectomy in patients with extensive or refractory superficial tumor
Internal irradiation (needles, seeds, wires, or catheters placed into or near the tumor) with or without external-beam irradiation
Chemotherapy
Immunotherapy/biologic therapy
Coding Guidelines

BONES, JOINTS, AND ARTICULAR CARTILAGE C400–C419
PERIPHERAL NERVES AND AUTONOMIC NERVOUS SYSTEM C470–C479
CONNECTIVE, SUBCUTANEOUS, AND OTHER SOFT TISSUES C490–C499
(Except for M9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9992)

Laterality
Laterality is required for sites C400-C403, C413-C414, C471-C472, and C491-C492.

Three-Grade System (Nuclear Grade)

Note: These guidelines pertain to the data item Grade. Refer to the Collaborative Stage Data Collection Manual for instructions on coding site-specific factors.

Soft tissue sarcomas are evaluated using a three-grade system. The patterns of cell growth are measured on a scale of 1, 2, and 3 (also referred to as low, medium, and high grade). This system measures the proportion of cancer cells that are growing and making new cells and how closely they resemble the cells of the host tissue. Thus, it is similar to a four-grade system, but divides the spectrum into three rather than four categories (see comparison table below). The expected outcome is more favorable for lower grades.

If a grade is written as 2/3 that means this is a grade 2 of a three-grade system. Do not simply code the numerator. Use the following table to convert the grade to SEER codes.

<table>
<thead>
<tr>
<th>Term</th>
<th>Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3, 1/2</td>
<td>Low grade</td>
<td>2</td>
</tr>
<tr>
<td>2/3</td>
<td>Intermediate grade</td>
<td>3</td>
</tr>
<tr>
<td>3/3, 2/2</td>
<td>High grade</td>
<td>4</td>
</tr>
</tbody>
</table>

Sarcoma

Sarcomas are graded low, intermediate or high grade by the pathologist. Use the following table to convert these terms to the correct code for the data item Grade.

<table>
<thead>
<tr>
<th>Term</th>
<th>Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well differentiated</td>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>Fairly well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Low grade</td>
<td>I-II</td>
<td>2</td>
</tr>
<tr>
<td>Mid differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Moderately differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Partially differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Partially well differentiated</td>
<td>I-II</td>
<td>2</td>
</tr>
<tr>
<td>Partially well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Relatively or generally well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Medium grade, intermediate grade</td>
<td>II-III</td>
<td>3</td>
</tr>
<tr>
<td>Moderately poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Moderately undifferentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Relatively poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Term</td>
<td>Grade</td>
<td>SEER Code</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>Relatively undifferentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Slightly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>High grade</td>
<td>III-IV</td>
<td>4</td>
</tr>
<tr>
<td>Undifferentiated, anaplastic, not differentiated</td>
<td>IV</td>
<td>4</td>
</tr>
</tbody>
</table>
Coding Guidelines

BRAIN [AND OTHER PARTS OF CENTRAL NERVOUS SYSTEM]
MENINGES C700–C709, BRAIN C710–C719,
SPINAL CORD, CRANIAL NERVES AND
OTHER PARTS OF CENTRAL NERVOUS SYSTEM C720–C729
(Except for M9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9992)

Reportability
Juvenile astrocytoma, listed as 9421/1 in ICD-O-3, is reportable. Record as 9421/3 in the registry.

Grade

Note: These guidelines pertain to the data item Grade. Refer to the Collaborative Stage Data Collection Manual for instructions on coding site-specific factors.

Astrocytoma

Grade astrocytomas (M-9383, 9400, 9401, 9410-9412, 9420, 9421) according to ICD-O-3 rules.

<table>
<thead>
<tr>
<th>Term</th>
<th>Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well differentiated</td>
<td>Grade I</td>
<td>1</td>
</tr>
<tr>
<td>Intermediate differentiation</td>
<td>Grade II</td>
<td>2</td>
</tr>
<tr>
<td>Poorly differentiated</td>
<td>Grade III</td>
<td>3</td>
</tr>
<tr>
<td>Anaplastic</td>
<td>Grade IV</td>
<td>4</td>
</tr>
</tbody>
</table>

Use the Three-Grade conversion table in the Grade, Differentiation, or Cell Indicator section (page 81) of the General Instructions to code low grade, intermediate grade, and high grade.

Do not record the WHO Grade, Anne/Mayo, or Kemohan grades in the grade field
- Record the WHO grade in the appropriate CS data item
- The use of World Health Organization coding of aggressiveness is reserved for assignment of grade for staging.

Do not automatically code glioblastoma multiforme as grade IV
- If no grade is given, code 9 (Cell type not determined, not stated or not applicable)

Always code the Grade, Differentiation field 4 (Grade IV) for anaplastic tumors
- Anaplastic is synonymous with undifferentiated

Code the grade as documented.

Code the Grade, Differentiation field to 9 (Cell type not determined, not stated or not applicable) in the absence of a stated grade on the pathology report.

Laterality

Meningioma
Assign code 4 (Bilateral involvement, lateral origin unknown; stated to be single primary) when
- one meningioma extends to both right and left sides
  and
- it is not possible to determine whether the meningioma originated on the left or the right
Coding Guidelines
Breast
C500 -C509

Primary Site
C500 Nipple (areolar)
  Paget disease without underlying tumor

C501 Central portion of breast (subareolar) area extending 1 cm around areolar complex
  Retroareolar
  Infracoreolar
  Next to areola, NOS
  Behind, beneath, under, underneath, next to, above, cephalad to, or below nipple
  Paget disease with underlying tumor
  Lower central

C502 Upper inner quadrant (UIQ) of breast
  Superior medial
  Upper medial
  Superior inner

C503 Lower inner quadrant (LIQ) of breast
  Inferior medial
  Lower medial
  Inferior inner

C504 Upper outer quadrant (UOQ) of breast
  Superior lateral
  Superior outer
  Upper lateral

C505 Lower outer quadrant (LOQ) of breast
  Inferior lateral
  Inferior outer
  Lower lateral

C506 Axillary tail of breast
  Tail of breast, NOS
  Tail of Spence

C508 Overlapping lesion of breast
  Inferior breast, NOS
  Inner breast, NOS
  Lateral breast, NOS
  Lower breast, NOS
  Medial breast, NOS
  Midline breast NOS
  Outer breast NOS
  Superior breast, NOS
  Upper breast, NOS
  3:00, 6:00, 9:00, 12:00 o’clock
C509 Breast, NOS
Entire breast
Multiple tumors in different subsites within breast
Inflammatory without palpable mass
¼ or more of breast involved with tumor
Diffuse (tumor size 998)

Additional Subsite Descriptors
The position of the tumor in the breast may be described as the positions on a clock.

**O’Clock Positions and Codes**

**Quadrants of Breasts**

![Diagram of breast quadrants with O’Clock positions and codes.]

**Coding Subsites**
Use the information from reports in the following priority order to code a subsite when there is conflicting information:

1. Pathology report
2. Operative report
3. Physical examination
4. Mammogram, ultrasound

Code the subsite with the invasive tumor when the pathology report identifies invasive tumor in one subsite and in situ tumor in a different subsite or subsites.

Code the specific quadrant for multifocal tumors all within one quadrant
- Do **not** code C509 (Breast, NOS) in this situation

Code the primary site to C508 when
- there is a single tumor in two or more subsites and the subsite in which the tumor originated is unknown
- there is a single tumor located at the 12, 3, 6, or 9 o’clock position on the breast

Code the primary site to C509 when there are multiple tumors (two or more) in at least two quadrants of the breast

**Grade**

*Note:* These guidelines pertain to the data item Grade. Refer to the [Collaborative Stage Data Collection Manual](#) for instructions on coding site-specific factors for breast cases.

**Invasive Carcinoma**

The pathologist assigns a numeric value to each of three tumor characteristics: tubule formation, nuclear pleomorphism, and mitotic counts. The three values are added together and the result is a score ranging from 3 to 9. Use the table below to convert scores to SEER code.

**Convert Nottingham Histologic Score or BR Grade to SEER Code**

**Grade Conversion Table for Invasive Carcinoma**

<table>
<thead>
<tr>
<th>Nottingham Histologic Scores</th>
<th>BR Grade</th>
<th>Nuclear Grade</th>
<th>Terminology</th>
<th>Histologic Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>Low</td>
<td>1/3; 1/2</td>
<td>Well differentiated</td>
<td>I, I/III, 1/3</td>
<td>1</td>
</tr>
<tr>
<td>6, 7</td>
<td>Intermediate</td>
<td>2/3</td>
<td>Moderately differentiated</td>
<td>II, II/III; 2/3</td>
<td>2</td>
</tr>
<tr>
<td>8, 9</td>
<td>High</td>
<td>2/2; 3/3</td>
<td>Poorly differentiated</td>
<td>III, III/III, 3/3</td>
<td>3</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>4/4</td>
<td>Undifferentiated/anaplastic</td>
<td>IV, IV/IV, 4/4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Priority Rules for Grading Breast Cancer**

Code the tumor grade using the following priority order:

1. Bloom-Richardson (Nottingham) scores 3-9 converted to grade (see conversion table above)
2. Bloom Richardson grade (low, intermediate, high)
3. Nuclear grade only
4. Terminology
5. Differentiation (well differentiated, moderately differentiated, etc)
6. Histologic grade
7. Grade i, grade ii, grade iii, grade iv
8. Bloom-Richardson (BR)

Nottingham combined histologic grade is also known as Elston-Ellis modification of Scarff-Bloom-Richardson grading system. BR may also be called: modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR grading, BR grading, Elston-Ellis modification of Bloom Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus, or Nottingham grade.

BR may be expressed in scores (range 3-9)

The score is based on three morphologic features of “invasive no-special-type” breast cancers (degree of tubule formation/histologic grade, mitotic activity, nuclear pleomorphism of tumor cells)

Use the preceding table to convert the score into SEER code.

---

Appendix C: Coding Guidelines
BR may be expressed as a grade (low, intermediate, high)
BR grade is derived from the BR score
For cases diagnosed 1996 and later, use the preceding table to convert the BR grade into SEER code
(Note that the conversion of low, intermediate, and high is different from the conversion used for all other tumors).

DCIS
Ductal carcinoma in situ (DCIS) is not always graded. When DCIS is graded, it is generally divided into three grades: low grade, intermediate grade, and high grade. Use the following table to convert DCIS grade into the SEER code.

DCIS Grade Conversion Table

<table>
<thead>
<tr>
<th>DCIS Grade</th>
<th>Terminology</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade I</td>
<td>Low</td>
<td>1</td>
</tr>
<tr>
<td>Grade II</td>
<td>Intermediate</td>
<td>2</td>
</tr>
<tr>
<td>Grade III</td>
<td>High</td>
<td>3</td>
</tr>
</tbody>
</table>

Laterality
Laterality must be coded for all subsites.

Breast primary with positive nodes and no breast mass found: Code laterality to the side with the positive nodes
The prognosis of patients with colon cancer is related to the degree of penetration of the tumor through the bowel wall, the presence or absence of nodal involvement, and the presence or absence of distant metastases.

**Primary Site**

**Priority Order for Coding Primary Site**

Use the information from reports in the following priority order to code the primary site when there is conflicting information:

Resected cases
- Operative report with surgeon’s description
- Pathology report
- Imaging

Polypectomy or excision without resection
- Endoscopy report
- Pathology report

**Subsites**

Code the subsite with the most tumor when the tumor overlaps two subsites.

Code C188 when both subsites are equally involved.

**Grade**

*Note:* These guidelines pertain to the data item Grade. Refer to the [Collaborative Stage Data Collection Manual](#) for instructions on coding site-specific factors.

Colon cancer is often graded using a two-grade system; Low Grade (2) or High Grade (4). If the grade is listed as 1/2 or as low grade, convert to a grade 2. If the grade is listed as 2/2 or as high grade, convert to a code 4.

Code the highest grade given.

<table>
<thead>
<tr>
<th>Term</th>
<th>Grade</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well differentiated</td>
<td>I</td>
<td>1</td>
</tr>
<tr>
<td>Fairly well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Low grade</td>
<td>I-II</td>
<td>2</td>
</tr>
<tr>
<td>Mid differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Moderately differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Partially differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Partially well differentiated</td>
<td>I-II</td>
<td>2</td>
</tr>
<tr>
<td>Partially well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Relatively or generally well differentiated</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>Term</td>
<td>Grade</td>
<td>SEER Code</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>Medium grade, intermediate grade</td>
<td>II-III</td>
<td>3</td>
</tr>
<tr>
<td>Moderately poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Moderately undifferentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Relatively poorly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Relatively undifferentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>Slightly differentiated</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>High grade</td>
<td>III-IV</td>
<td>4</td>
</tr>
<tr>
<td>Undifferentiated, anaplastic, not differentiated</td>
<td>IV</td>
<td>4</td>
</tr>
</tbody>
</table>
Primary Site

There are two systems that divide the esophagus into three subsites. The first system divides the esophagus into the upper third, middle third, and lower third. The second system describes the subsites as the cervical esophagus, the thoracic esophagus and the abdominal esophagus. The subsites for these two different systems are not identical. Assign the ICD-O-3 topography code that describes the primary site documented in the medical record. See the following image for an illustration of both systems.
Coding Guidelines
KAPOSI SARCOMA OF ALL SITES
(M9140)

Primary Site

Kaposi sarcoma is coded to the site in which it arises. If Kaposi sarcoma arises in skin and another site simultaneously, code to skin (C44_). If no primary site is stated, code to skin (C44_).
Laterality

Laterality is required for C649.

Grade

*Note:* These guidelines pertain to the data item Grade. Refer to the Collaborative Stage Data Collection Manual for instructions on coding site-specific factors.

The preferred grading scheme for renal cell carcinoma was developed by Fuhrman et al. Scoring is based on the worst (highest) grade present in the tumor even if only a minor component.

Priority Rules for Coding Grade of Tumor

1. Fuhrman grade
2. Nuclear grade
3. Terminology (well diff, mod diff)
4. Histologic grade (grade 1, grade 2)

These prioritization rules do **not** apply to Wilms tumor (8960).
Coding Guidelines
LUNG
C340–C349

Primary Site

C340  Main bronchus
       Carina
       Hilum
       Bronchus intermedius

C341  Upper lobe, lung
       Lingula
       Apex
       Pancoast tumor

C342  Middle lobe, lung (Right lung only)

C343  Lower lobe, lung
       Base

C348  Overlapping lesion of lung

C349  Lung, NOS
       Bronchus, NOS

Laterality

Laterality must be coded for all subsites except carina.

Pancoast Tumor

Pancoast tumor is a lung cancer in the upper-most segment of the lung that directly invades the brachial plexus (nerve bundles) of the neck, causing pain. It is by definition malignant. Code the date of diagnosis from the imaging report when a Pancoast tumor is identified on imaging prior to biopsy.
Coding Guidelines
LYMPHOMA
M9590/3-M9738/3

See the *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and the Hematopoietic Database (DB) for more information and coding instructions.

First Course of Therapy
Do not code proton pump inhibitors as treatment. Proton pump inhibitors are used for gastric acid suppression; they treat symptoms, not the lymphoma itself.

Surgery of Primary Site

*Note:* Surgery codes for lymph nodes (C770-C779) are not limited to lymphomas. Use the site-specific coding scheme corresponding to the primary site or histology.

Use of code 25 (Local tumor excision, NOS): Assign code 25 only when one lymph node was identified through clinical evaluations and was removed. If multiple nodes are involved and only one is removed, code as a biopsy; do not code in Surgery of Primary Site.
Grade

*Note:* These guidelines pertain to the data item Grade. Refer to the [Collaborative Stage Data Collection Manual](https://collaborativestagingsystem.org) for instructions on coding site-specific factors for prostate cases.

**Priority Rules for Grading Prostate Cancer**

Code the tumor grade using the following priority order

1. **Gleason score** (Use the table to convert Gleason score to the appropriate code)
2. **Terminology**
   - Differentiation (well differentiated, moderately differentiated, etc)
3. **Histologic grade**
   - Grade i, grade ii, grade iii, grade iv
4. **Nuclear grade only**

**Gleason Pattern**

Prostate cancers are commonly graded using Gleason score or pattern. Gleason grading is based on a 5-component system, based on 5 histologic patterns. The pathologist will evaluate the primary pattern (most predominant) and secondary patterns (second most predominant) for the tumor.

*Example:* A Gleason pattern of 2 + 4 means that the primary pattern is 2 and the secondary pattern is 4.

**Gleason Score**

The primary and secondary patterns are added together to create a score. Primary pattern is doubled when there is no secondary pattern. Tertiary pattern is not used to determine Gleason score.

*Example:* If the patterns are 2 + 4, the score is 6.

If the pathology report contains only one number, and that number is less than or equal to 5, it is a pattern. If the pathology report contains only one number, and that number is greater than 5, it is a score. If the pathology report specifies a specific number out of a total of 10, the first number given is the score.

*Example 1:* The pathology report says “Gleason 3/10”. The Gleason’s score would be 3.

*Example 2:* The pathology report states 7(3 + 4). Gleason score is 7. Primary pattern is 3 and secondary pattern is 4.

If there are two numbers other than 10, assume they refer to two patterns. The first number is the primary pattern and the second is the secondary pattern.

*Example:* If the pathology report says “Gleason 3 + 5,” the Gleason score would be 8.

Use the following table to convert Gleason pattern or score into SEER code.
### Gleason Conversion Table

<table>
<thead>
<tr>
<th>Gleason Score</th>
<th>Gleason Pattern</th>
<th>Histologic Grade</th>
<th>Terminology</th>
<th>SEER Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 3, 4</td>
<td>1, 2</td>
<td>I</td>
<td>Well differentiated</td>
<td>1</td>
</tr>
<tr>
<td>5, 6</td>
<td>3</td>
<td>II</td>
<td>Moderately differentiated</td>
<td>2</td>
</tr>
<tr>
<td>7, 8, 9, 10</td>
<td>4, 5</td>
<td>III</td>
<td>Poorly differentiated</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Code 7 was moved from Moderately differentiated to Poorly differentiated, effective with cases diagnosed on or after 01/01/2003.
Primary Site
A tumor is classified as rectosigmoid when differentiation between rectum and sigmoid is not possible.

A tumor is classified as rectal if
- lower margin lies less than 16 cm from the anal verge or
- any part of the tumor is located at least partly within the supply of the superior rectal artery

Anatomic Transition from Sigmoid to Rectum
In the sigmoid colon, approximately 12 to 15 cm from the dentate line, the tenia coli fuse to form the circumferential longitudinal muscle of the rectal wall.

The rectum is defined clinically as the distal large intestine commencing opposite the sacral promontory and ending at the anorectal ring, which corresponds to the proximal border of the puborectalis muscle palpable on digital rectal examination. It extends 16 cm from the anal verge.¹

Glossary
Anal verge: The lower (distal) end of the anal canal, junction between the skin of the anal canal and the perianal skin.

Anorectal ring: Top (proximal end) of the anal canal

Dentate line: An anatomic landmark located between the anal verge and the anorectal ring indicating where the rectum changes to the anal canal. Also called the pectinate line.

Tenia coli: (Plural: teniae coli). Any one of three longitudinal bands of smooth muscle in the colon. They extend from the cecum to the sigmoid colon. Each band is approximately 8 mm wide throughout most of the colon. The widths of the teniae increase in the sigmoid colon and eventually fuse into a covering of longitudinal muscle in the rectum.

Coding Guidelines

RENAL PELVIS AND URETER
Renal Pelvis C659, Ureter C669

Laterality

Laterality is required for sites C65.9 and C66.9.

**Grade**

*Note:* These guidelines pertain to the data item Grade. Refer to the *Collaborative Stage Data Collection Manual* for instructions on coding site-specific factors.

Urothelial carcinomas are graded as either low grade or high grade according to the WHO/ISUP grading system. The WHO/ISUP grade is captured as a Site Specific Factor in the *Collaborative Stage Data Collection System*. Do **not** convert WHO/ISUP grade to the SEER code for grade.

Urothelial Carcinoma
- Low grade
- High grade

Adenocarcinoma and Squamous Cell Carcinoma
- Grade 1  Well differentiated
- Grade 2  Moderately differentiated
- Grade 3  Poorly differentiated
Coding Guidelines
THYROID GLAND
C739

Coding Hormone Therapy

Code Hormone Therapy as 01 for follicular and/or papillary thyroid cancer when thyroid hormone therapy is given.

Do not code replacement therapy as treatment unless the tumor is papillary and/or follicular. The thyroid gland produces hormones that influence essentially every organ, tissue and cell in the body. When the thyroid is partially or totally removed, it is no longer able to secrete these essential hormones and the patient is placed on hormone replacement therapy.

The growth of follicular cell cancer depends on thyroid stimulating hormone. Suppression of these hormones is thought to deprive the cells of a growth-promoting influence. Patients with follicular cell-derived cancers have been treated with supraphysiologic doses of thyroid hormone to suppress serum thyroid-stimulating hormones. This treatment has been an industry standard for more than forty years.

Generic Thyroid Drug Names

Levothyroxine /L-thyroxine
Liothyronine
Liotrix
Methimazole
Natural Thyroid
Propylthiouracil / PTU
Thyrotropin alfa

Thyroid Drugs Brand Names

Armour Thyroid
Cytomel
Levothroid
Levoxyl
Naturethroid
Synthroid
Tapazole
Thyrogen
Thyrolar
Unithroid
Westhroid
Grading

Note: These guidelines pertain to the data item Grade. Refer to the Collaborative Stage Data Collection Manual for instructions on coding site-specific factors.

Adenocarcinoma and Squamous Cell Carcinoma
Assign the grade code for adenocarcinoma and squamous cell carcinoma.
- Grade 1 Well differentiated
- Grade 2 Moderately differentiated
- Grade 3 Poorly differentiated

WHO/ISUP Grade
Do not convert WHO/ISUP grade to the SEER code for grade.
Urothelial carcinomas are graded as either low grade or high grade according to the WHO/ISUP grading system. The WHO/ISUP grade is captured as a Site Specific Factor in the Collaborative Stage Data Collection System.

First Course of Therapy

Do not code Lupron as treatment for a primary in the prostatic urethra.