

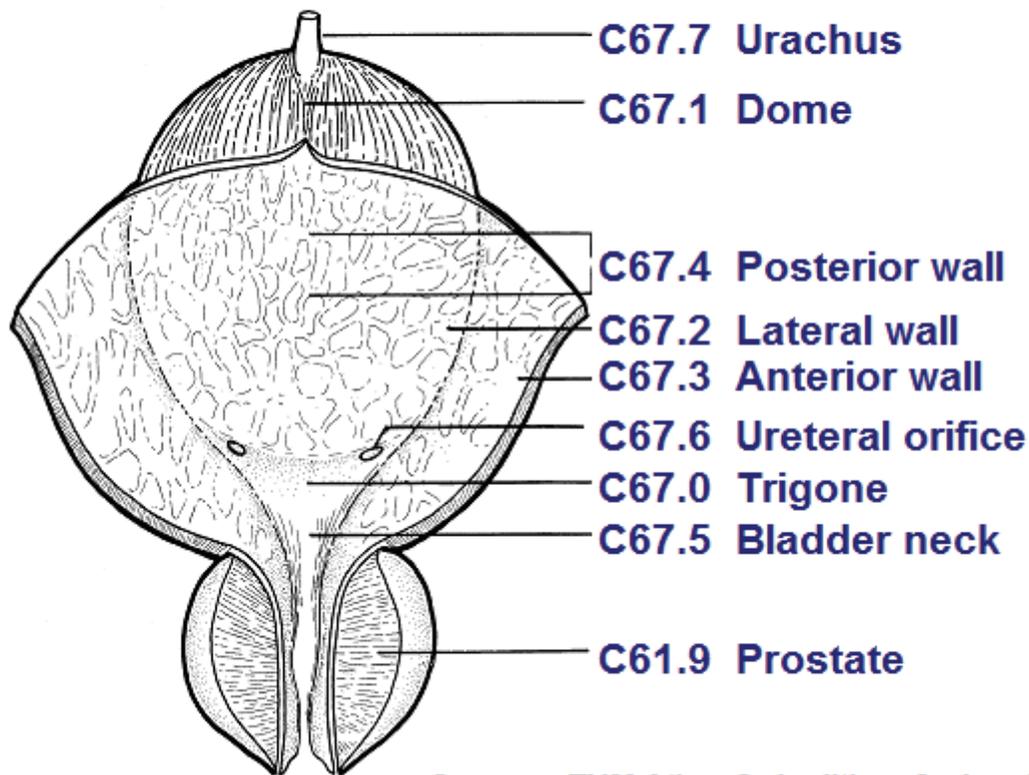
Source: Adamo MB, Johnson CH, Ruhl JL, Dickie, LA, (eds.). *2012 SEER Program Coding and Staging Manual*. National Cancer Institute, NIH Publication number 12-5581, Bethesda, MD

**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



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.

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

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.

HISTOLOGY¹

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 bladder²

Other bladder histologic types include sarcoma, lymphoma, and small cell carcinoma.

Rhabdomyosarcoma occurs in children.

Behavior Code

Code the behavior as malignant /3, **not** in situ /2, 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 /2 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)

Bladder - The ACR uses the SEER manual as a guide to code tumor grade. Some of the information from the following table may have been used by the ACR. However, the table was not fully documented in the ACR manual, therefore this table is effective for cases diagnosed beginning 1/1/2009.

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.

¹ PDQ

²Clinical Oncology, 8th edition

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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.

Term	Grade	SEER Code
1/3, 1/2	Low grade	2
2/3	Intermediate grade	3
3/3, 2/2	High grade	4

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.

Term	Grade	SEER Code
1/3, 1/2	Low grade	2
2/3	Intermediate grade	3
3/3, 2/2	High grade	4

← Some of this information was provided in previous FORDS. This table is consistent with previous tables provided.

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.

Sarcomas-The ACR uses the SEER manual as a guide to code tumor grade. Some of the information from the following table may have been used by the ACR. However, the table was not fully documented in the ACR manual, therefore this table is effective for cases diagnosed beginning 1/1/2009.

Term	Grade	SEER Code
Well differentiated	I	1
Fairly well differentiated	II	2
Low grade	I-II	2
Mid differentiated	II	2
Moderately differentiated	II	2
Partially differentiated	II	2
Partially well differentiated	I-II	2
Partially well differentiated	II	2
Relatively or generally well differentiated	II	2
Medium grade, intermediate grade	II-III	3
Moderately poorly differentiated	III	3
Moderately undifferentiated	III	3
Poorly differentiated	III	3
Relatively poorly differentiated	III	3

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Term	Grade	SEER Code
Relatively undifferentiated	III	3
Slightly differentiated	III	3
High grade	III-IV	4
Undifferentiated, anaplastic, not differentiated	IV	4

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.

Term	Grade	SEER Code
Well differentiated	Grade I	1
Intermediate differentiation	Grade II	2
Poorly differentiated	Grade III	3
Anaplastic	Grade IV	4

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

<p>Coding Guidelines Breast C500 -C509</p>

Primary Site

- C500 Nipple (areolar)
Paget disease without underlying tumor

- C501 Central portion of breast (subareolar) area extending 1 cm around areolar complex
Retroareolar
Infraareolar
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

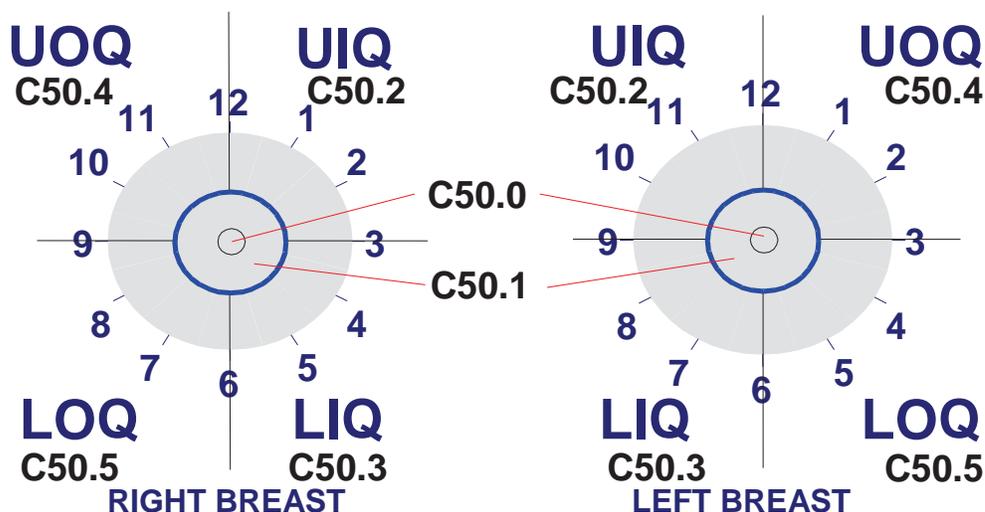
- C508 Overlapping lesion of breast
Inferior breast, NOS
Inner breast, NOS
Lateral breast, NOS
Lower breast, NOS
Medial breast, NOS
Midline breast NOS
Outer breast NOS
Superior breast, NOS
Upper breast, NOS
3:00, 6:00, 9:00, 12:00 o'clock

C509 Breast, NOS
 Entire breast
 Multiple tumors in different subsites within breast
 Inflammatory without palpable mass
 ¾ 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



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

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- 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

This table and the priority rules for coding grade is consistent with previous tables and information provided in *FORDS/ACR Supplement*.

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

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.

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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

DCIS Grade	Terminology	SEER Code
Grade I	Low	1
Grade II	Intermediate	2
Grade III	High	3

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

Coding Guidelines COLON C180–C189
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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.

Term	Grade	SEER Code
Well differentiated	I	1
Fairly well differentiated	II	2
Low grade	I-II	2
Mid differentiated	II	2
Moderately differentiated	II	2
Partially differentiated	II	2
Partially well differentiated	I-II	2
Partially well differentiated	II	2
Relatively or generally well differentiated	II	2

This table is consistent with previous information provided in *FORDS/ACR Supplement*.

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Term	Grade	SEER Code
Medium grade, intermediate grade	II-III	3
Moderately poorly differentiated	III	3
Moderately undifferentiated	III	3
Poorly differentiated	III	3
Relatively poorly differentiated	III	3
Relatively undifferentiated	III	3
Slightly differentiated	III	3
High grade	III-IV	4
Undifferentiated, anaplastic, not differentiated	IV	4

Coding Guidelines
KIDNEY
Kidney C649

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)

← This information is consistent with previous information provided in *FORDS/ACR Supplement*.

These prioritization rules do **not** apply to Wilms tumor (8960).

Coding Guidelines PROSTATE GLAND C619
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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 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

← This information and the table below is consistent with previous information in the *FORDS/ACR Supplement*.

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.

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Gleason Conversion Table

Gleason Score	Gleason Pattern	Histologic Grade	Terminology	SEER Code
2, 3, 4	1, 2	I	Well differentiated	1
5, 6	3	II	Moderately differentiated	2
7, 8, 9, 10	4, 5	III	Poorly differentiated	3

Note: Code 7 was moved from Moderately differentiated to Poorly differentiated, effective with cases diagnosed on or after 01/01/2003.

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
URETHRA
C680

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.

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.