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Education and Training Series

How to Collect High Quality
Cancer Surveillance Data
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Anatomy of the Prostate
The prostate gland is an accessory gland of the male reproductive system. The main function is to produce fluid for semen, which transports sperm. It is located in front of the rectum and behind the bladder and is about the size of a chestnut.
The prostate includes a base and an apex. The base of the prostate is near the inferior surface of the bladder and is directed upward. A large part of the base is continuous with the bladder wall. The apex is directed downward and is in contact with the urogenital diaphragm (pelvic floor). There are anterior, posterior, and two lateral surfaces.
The prostate is divided into lobes. The anterior lobe is the portion of the gland that lies in front of the urethra. It contains no glandular tissue but is made up completely of fibromuscular tissue. The median or middle lobe is situated between the two ejaculatory ducts and the urethra. The lateral lobes make up the main mass of the prostate. They are divided into a right and left lobe and are separated by the prostatic urethra. The posterior lobe is the medial part of the lateral lobes and can be palpated through the rectum during digital rectal exam (DRE). The prostate is surrounded by the prostatic capsule. Invasion of the capsule changes the stage of disease.
Zones of the Prostate

• Peripheral
• Central
• Transitional

The prostate includes three zones. The peripheral zone is in the outermost part of the prostate, and the lower peripheral zone is fairly close to the rectal wall. The peripheral zone is the most common site for prostatic adenocarcinoma. The central zone is in the center of the prostate and cancer does not originate there often. The transitional zone is above the central zone and is a common site for benign prostatic hypertrophy, a non-malignant condition of the prostate, but cancer may originate there as well but not as often as in the peripheral zone.
ICD-O-3 Histology Coding

Prostate
Caution!!

Pre-2007

Multiple Primary and Histology Rules used in the following slides are based on 2006 rules.
Prostate Histology

- Adenocarcinoma is the most common histology in prostate
- Prostatic intraepithelial neoplasia III (PIN III) is not reportable

Adenocarcinoma is the most common histologic type found in the prostate and is the histology in approximately 95 percent of the cases. Adenocarcinoma may also be described as glandular carcinoma. However, other types of cancer, including small cell, squamous cell, and transitional cell do occur rarely in the prostate. Prostatic intraepithelial neoplasia III (PIN III) is assigned an in situ histology code, but it is not a reportable condition.
Histology Coding Rules: Prostate

• Rules are a hierarchy
• Use rules in priority order with rule 1 having the highest priority
• Use the first rule that applies
• Rules from SEER Program Coding and Staging Manual (PCSM) 2004, pages 86–87

The histology coding rules are a hierarchy. They are listed in priority order and rule 1 has the highest priority. When determining the correct code to record for histology, begin with rule 1 and stop when you get to the first rule that applies. If rule 1 applies, there is no need to go any further. The rules for coding histology are found in the SEER Program Coding and Staging Manual 2004, pages 86–87. As documented in NAACCR Volume II: Data Standards and Data Dictionary, the source of the standards for histology are SEER and the Commission on Cancer (CoC). The SEER rules for histology coding are used because SEER has always worked closely with the ICD-O-3 editors on use of the ICD-O-3 Manual.
Histology Coding
Rules: Prostate

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

*Example:* Left lateral lobe of prostate, duct carcinoma

*Answer:* 8500/3 Duct carcinoma

The first set of rules is for single tumors.

**Rule 1:** Code the histology if only one type is mentioned in the histology report.

**Example:** The patient has a single lesion of the left lateral lobe of the prostate described as duct carcinoma. Code the histology as duct carcinoma, 8500/3.
Histology Coding
Rules: Prostate

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

*Example:* Prostate, left lateral lobe, tubular adenocarcinoma and clear cell adenocarcinoma in situ

- Tubular adenocarcinoma 8211/3
- Clear cell adenocarcinoma in situ 8310/2

**Answer:** 8211/3 Tubular Adenocarcinoma

**Rule 2:** Code the invasive histology when both invasive and in situ tumor are present.

**Example:** The patient has a single lesion of the left lateral lobe of the prostate that contains both invasive tubular adenocarcinoma and clear cell adenocarcinoma in situ. Assign the histology to the invasive portion of the tumor, tubular adenocarcinoma (8211/3).
Histology Coding Rules: Prostate

2. (Continued)

*Exception:* If the histology of the invasive component is an NOS term such as carcinoma, adenocarcinoma, melanoma, or sarcoma, then code the histology using the specific term associated with the in situ component and the invasive behavior.

**Exception to Rule 2:** if the histology of the invasive component is an NOS term such as carcinoma, adenocarcinoma, melanoma, or sarcoma, then code the histology using the specific term associated with the in situ component and the invasive behavior.
Histology Coding
Rules: Prostate

2. (Continued)

Example: Prostatic lesion, clear cell adenocarcinoma in situ and adenocarcinoma

Clear cell adenocarcinoma in situ 8310/2
Adenocarcinoma, NOS 8140/3

Answer: 8310/3 Clear cell adenocarcinoma

Example: The single lesion of the prostate contains clear cell adenocarcinoma in situ, a specific histology with in situ behavior, and adenocarcinoma, a malignant NOS histology. The exception to rule 2 states to code the specific histology, in this case clear cell adenocarcinoma, and to code the malignant behavior from the NOS histology. So, the histology recorded is clear cell adenocarcinoma, 8310/3.
Histology Coding
Rules: Prostate

3. Use a mixed histology code if one exists

*Example:* Lesion of prostatic apex, adenocarcinoma and squamous cell carcinoma

- Adenocarcinoma, NOS 8140/3
- Squamous cell carcinoma 8070/3

*Answer:* 8560/3, Mixed adenocarcinoma and squamous cell carcinoma

The next two rules pertain to mixed and combination codes.

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

**Example:** The patient has a lesion of the prostatic apex described as mixed adenocarcinoma and squamous cell carcinoma. Record the mixed histology code for this condition, 8560/3.
**Histology Coding Rules: Prostate**

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

*Example:* Prostatic duct and cribriform carcinoma
  
  Duct carcinoma 8500/3
  
  Cribriform carcinoma 8201/3

*Answer:* 8523/3 Infiltrating duct and cribriform carcinoma

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

**Example:** The histology of the single lesion of the prostate is described as prostatic duct and cribriform carcinoma. Assign the combination code for infiltrating duct and cribriform carcinoma, 8523/3.
Histology Coding
Rules: Prostate

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

Rule 5: Code the more specific term when one of the terms is NOS and the other is a more specific description of the same histology.
Histology Coding
Rules: Prostate

5. (Continued)

Example: Biopsy from prostate transitional zone, carcinoma and cribriform carcinoma

Carcinoma, NOS 8010/3
Cribriform carcinoma 8201/3

Answer: 8201/3 Cribriform carcinoma

Example: The single lesion of the prostatic transitional zone contains both carcinoma, an NOS histology, and cribriform carcinoma, a more specific carcinoma histology. The code for the more specific histology, cribriform carcinoma (8201/3), should be recorded.
6. Code the **majority** of the tumor

Terms that mean majority of tumor

- Predominantly; with features of; major; type (eff. 1/1/99); with….differentiation (eff. 1/1/99); pattern and architecture (if in CAP protocol; eff. 1/1/2003)

Terms documented in *SEER PCSV 2004*, page 85

**Rule 6:** Code the majority of the tumor. Terms that indicate “majority of tumor” include “predominantly,” “with features of,” “major,” “type” (effective January 1, 1999), “with…differentiation” (effective January 1, 1999), “pattern and architecture” [if in College of American Pathologists (CAP) protocol, effective January 1, 2003].
6. (Continued)

Example: Tumor in base of prostate; adenocarcinoma, microacinar type

Adenocarcinoma, NOS 8140/3
Acinar adenocarcinoma 8550/3

Answer: 8550/3 Acinar adenocarcinoma

Example: The single tumor in the base of the prostate is described as adenocarcinoma, microacinar type. ‘Type’ is terminology that indicates tumor majority, so the microacinar adenocarcinoma should be recorded as the histology. The correct code is 8550/3.
Histology Coding
Rules: Prostate

6. Code the **majority** of the tumor
Terms that DO NOT mean majority of tumor

- With foci of; focus of/focal; areas of;
- elements of; component (eff. 1/1/99)

Terms documented in SEER PCSM 2004, page 85

Terms that do not mean majority of tumor are “with foci of,” “focus of/focal,” “areas of,” “elements of,” and “component” (effective January 1, 1999). They are also found on page 85 of the SEER Program Coding and Staging Manual 2004. If these terms are used, the histology does not represent the majority of the tumor and should **not** be recorded as the histology.
Histology Coding
Rules: Prostate

6. (Continued)

*Example:* Prostatic neoplasm, squamous cell carcinoma with elements of spindle cell carcinoma

- Squamous cell carcinoma 8070/3
- Spindle cell carcinoma 8032/3

*Answer:* 8070/3 Squamous cell carcinoma

*Example:* The prostatic neoplasm is described as squamous cell carcinoma with elements of spindle cell carcinoma. ‘Elements’ is not a term that describes tumor majority. Therefore, the majority of the tumor is squamous cell carcinoma and its histology code, 8070/3, is recorded.
Histology Coding
Rules: Prostate

7. Code the **numerically higher** ICD-O-3 code

*Example:* Biopsy of prostate, clear cell carcinoma and acinar carcinoma

- Clear cell carcinoma 8310/3
- Acinar carcinoma 8550/3

*Answer:* 8550/3 Acinar carcinoma

**Rule 7:** Code the numerically higher ICD-O-3 code. This is the last rule for single tumors, and this rule should be used infrequently.

**Example:** The single lesion of the prostate contains clear cell carcinoma and acinar carcinoma. None of the previous rules applies, so the histology recorded is that with the higher ICD-O-3 code. The histology code recorded is 8550/3, acinar carcinoma, because it is the higher code.
Histology Coding Rules: Prostate

Multiple Tumors with Different Behaviors in Same Organ Reported as Single Primary

Code the histology of the invasive tumor when one lesion is in situ and the other is invasive.

When there are multiple tumors in the same organ and they have been determined to be a single primary, code the histology of the invasive tumor when one tumor is invasive and the other is in situ.
Histology Coding
Rules: Prostate

Multiple Tumor with Different Behaviors
(continued)

Example: 2 prostate lesions
1) Left lateral lobe of prostate, adenocarcinoma 8140/3
2) Right lateral lobe of prostate, adenocarcinoma in situ 8140/2

Answer: 8140/3 Adenocarcinoma, NOS

Example: The patient has a lesion of the left lateral lobe of the prostate with adenocarcinoma and a lesion of the right lateral lobe of the prostate with adenocarcinoma in situ. This is one primary because the lesions are in the same site and have the same histology, and the invasive histology, adenocarcinoma (8140/3) is recorded.
Histology Coding Rules: Prostate

Multiple Tumors in the Same Organ Reported as a Single Primary

1. Code the histology when multiple tumors have the same histology

  Example: 2 prostatic lesions
  1) Anterior lobe, duct carcinoma
  2) Posterior lobe, duct carcinoma

  Answer: 8500/3, Duct carcinoma

The rules for multiple tumors in the same organ reported as a single primary follow.

**Rule 1:** Code the histology when multiple tumors have the same histology.

**Example:** The patient has two lesions of the prostate, one of the anterior lobe and one of the posterior lobe. Because the lesions are in the same site and have the same histology, this is a single primary and duct carcinoma is recorded as the histology. Histology coding rules 2, 3, and 4 for multiple tumors in the same organ reported as a single primary are not applicable to prostate and will not be reviewed at this time.
Histology Coding
Rules: Prostate

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

Rule 5: Code the more specific term when one of the terms is NOS and the other is a more specific description of the same histology.
Histology Coding
Rules: Prostate

5. (Continued)

*Example:* 2 lesions of the prostate
1) Adenocarcinoma, peripheral zone
   8140/3

2) Papillary adenocarcinoma, transitional zone
   8260/3

*Answer:* Papillary adenocarcinoma
   8260/3

*Example:* The patient has two lesions of the prostate. The tumor in the peripheral zone is adenocarcinoma, an NOS histology, and the tumor in the transitional zone is papillary adenocarcinoma, a more specific description of the same histology. Because the two lesions are in the same site and one is an NOS histology and the other is a more specific description of the same histology, this is counted as one primary and the more specific histology, papillary adenocarcinoma (8260/3) is recorded.
Histology Coding
Rules: Prostate

6. Code all other multiple tumors with different histologies as multiple primaries

*Example:* Prostate, 2 lesions

1) Squamous cell carcinoma of apex
   8070/3

2) Duct carcinoma of base
   8500/3

*Answer:* 2 primary sites; complete abstract for each one

**Rule 6:** Code all other multiple tumors with different histologies as multiple primaries. If there are multiple tumors of the prostate with different histologies and they don’t meet the circumstances described in the previous rules, consider the tumors separate primaries and complete multiple abstracts.

**Example:** There are two lesions of the prostate. The lesion of the apex is squamous cell carcinoma, and the lesion of the base is duct carcinoma. The histologies are different and none of the rules for multiple tumors determined to be a single primary apply. The lesions are separate primaries and two abstracts should be completed.
Coding Grade for Prostate

- Histologic grade, differentiation, codes
  1 = well differentiated
  2 = moderately differentiated
  3 = poorly differentiated
  4 = undifferentiated

Grade is the measurement of how closely cancer cells resemble the cells of the organ in which the cancer originated. Code 1 indicates that the cancer cells closely resemble those of the organ of origin. As the grade number increases, the resemblance of cancer cells to those of the organ of origin decreases. Grade 4 cancers have little or no resemblance to the cells of the organ of origin. The general code definitions for grade are shown on this slide; 1 is well differentiated, 2 is moderately differentiated, 3 is poorly differentiated, and 4 is undifferentiated.
Prostate cancers are often graded with the Gleason’s score or pattern. Gleason’s system is based on histologic patterns. There are 5 components to each pattern. 1 is small uniform glands; 2 is more stroma between the glands; 3 is distinctly infiltrative margins; 4 is irregular masses of neoplastic glands; and 5 is only occasional gland formation. The pathologist assigns a value based on the components just described to both primary and secondary patterns. The primary pattern is the predominant pattern and appears first, and the secondary pattern is the last number and the lesser pattern. The sum of the primary and secondary patterns is the Gleason’s score. Tumors with a higher Gleason’s score are correlated with an increased likelihood of metastasis and mortality according to the American Cancer Society’s Clinical Oncology (2001).
Coding Grade for Prostate

- Code grade in priority order
  1. Gleason’s score
  2. Terminology
  3. Histologic grade
  4. Nuclear grade

Some pathology reports include multiple grading systems for the same prostate cancer. If different grading systems are used to describe the same cancer, code grade in the following priority order: 1) Gleason’s score, 2) terminology, 3) histologic grade, and 4) nuclear grade (obsolete). This is documented in FORDS, page 13, and in SEER Program Coding and Staging Manual 2004, page 95.
Use the table shown on this slide to convert a value to a grade code for prostate. As stated on the previous slide, order of conversion is Gleason’s, terminology, and histologic grade. So, if the Gleason score is documented as 4, but the tumor is described as moderately differentiated, the Gleason Score takes precedence and the grade code would be recorded as 1. The conversion table is found on page 14 of FORDS and page 96 of the SEER Program Coding and Staging Manual 2004.

<table>
<thead>
<tr>
<th>Code</th>
<th>Gleason Score</th>
<th>Gleason Pattern</th>
<th>Terminology</th>
<th>Hist Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2, 3, 4</td>
<td>1, 2</td>
<td>Well differentiated</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>5, 6</td>
<td>3</td>
<td>Moderately differentiated</td>
<td>II</td>
</tr>
<tr>
<td>3</td>
<td>7, 8, 9, 10</td>
<td>4, 5</td>
<td>Poorly differentiated</td>
<td>III</td>
</tr>
</tbody>
</table>
Abstracting Prostate Cases
Review the patient’s health record carefully to identify the date of first cancer diagnosis. Documentation may be found in the physical exam, imaging reports, pathology reports, physicians’ and nurses’ notes, and consultation reports. If a patient is receiving treatment at your facility and was diagnosed elsewhere, the date of diagnosis may be found in copies of reports forwarded from the diagnosing facility or in consultation reports. When determining diagnosis date, remember the ambiguous terms that constitute a cancer diagnosis and the terms that do not.
## Ambiguous Diagnostic Terms That Constitute Cancer Diagnosis

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

The terms shown on this slide are ambiguous terms that constitute a cancer diagnosis. If the diagnosis includes ambiguous terms listed on this slide and is the first diagnosis of prostate cancer documented, then the date it was made is the date of diagnosis. The list of terms is documented in *FORDS*, page 3, and *SEER Program Coding and Staging Manual 2004*, page 3.
Ambiguous Diagnostic Terms That Do Not Constitute Cancer Diagnosis

- Cannot be ruled out
- Equivocal
- Possible
- Potentially malignant
- Questionable
- Rule out
- Suggests
- Worrisome

If the terms on this slide are included in a diagnosis, they do not constitute a diagnosis of cancer. The date the information was discovered would not be the date of diagnosis.
Prostate Cancer
Work-up

• PSA screening
  – Not diagnostic without other work-up
• History and physical examination
  – Digital rectal exam (DRE)
    • Clinically apparent: palpable mass or nodule

The use of prostatic specific antigen (PSA) for screening for prostate cancer has increased the number of newly diagnosed prostate cancer cases. Prior to routine PSA screening, prostate cancer was most commonly not diagnosed until the presentation of symptoms such as urinary obstruction or bony pain. By that time, the disease may have been in the later stages. Elevated PSA itself is not diagnostic of prostate cancer, but indicates that further work-up should be done. The date of an elevated PSA should not be used as date of diagnosis unless there was other confirmation of prostate cancer on the same day. Documentation of digital rectal exam (DRE) should be found in the history and physical report. DRE is performed to determine if there is a palpable nodule or mass in the prostate that may contain cancer. When the exam documents that there is a palpable mass or nodule, it is considered clinically apparent. Terminology used in the DRE includes induration, nodularity, enlargement, firmness, lesion, neoplasm, and fixation of seminal vesicles. These words do not necessarily mean clinical involvement but do warrant further investigation.
Prostate Cancer
Work-up

• Imaging studies
  – Transrectal ultrasound (TRUS)
  – CT scans
    • Abdomen/pelvis
    • Bone
    • Liver/spleen
    • Brain
  – Chest X-ray

Imaging studies may document tumor size, location, and presence of metastasis. Transrectal ultrasound (TRUS) is used to identify the location in the prostate of a lesion and to determine if the tumor has invaded the prostatic capsule. Identification of a mass or nodule by TRUS indicates that the tumor is clinically apparent. Terms used to describe a possible cancer include density, mass effect, area of increased attenuation, abnormal density, and abnormal echo. TRUS may be used when a biopsy of the prostate is performed to identify the area to biopsy. Computerized tomography (CT) scans of the abdomen/pelvis may identify the location of the tumor and possible metastatic disease. Metastatic disease is also assessed by CT scans of bone, liver/spleen, brain, and chest X-ray.
**Prostate Cancer Work-up**

- **Endoscopy**
  - Cystoscopy, proctosigmoidoscopy, laparoscopy
- **Transrectal needle biopsy**
- **Transperineal needle biopsy**
- **Sextant biopsy**

Endoscopic examinations used to identify a prostatic lesion include cystoscopy (examination of the bladder), proctosigmoidoscopy (examination of the sigmoid colon and rectum), and/or laparoscopy (examination of the inside of the abdomen). A transrectal biopsy is a biopsy of the prostate through the rectal wall. Transperineal biopsy is through the perineum. A sextant biopsy includes six biopsies directed to different areas of the prostate. Biopsy may identify the histology, behavior, and grade of the prostate tumor.
The Anatomy of Collaborative Staging: Prostate

Presentation developed by Collaborative Staging Steering Committee
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This is a sagittal view of the prostate. It is located beneath the bladder. The prostate is separated from the rectum and the bladder by Denonvillier’s fascia, a membranous band of fibrous tissue. Perineal muscle is located directly underneath the prostate. The urethra travels from the bladder through the prostate into the penis.
The collaborative staging data items discussed in this presentation are those data items required to be submitted by the central registry to NPCR. They include CS extension (clinical extension for prostate), CS lymph nodes, CS mets at dx, and CS site-specific factor 3 (pathologic extension for prostate). The complete CS data set is required to be collected by Commission on Cancer approved cancer programs.
Prostate: General Notes

- Transitional cell carcinoma of prostatic urethra is not included in schema
  - Code with urethra schema

Transitional cell carcinoma of the prostatic urethra is not included in the CS prostate schema. The primary site should be assigned to urethra, and the CS schema for urethra should be used when assigning data item codes.
There are several notes that precede the codes for CS extension for prostate.

**Note 1:** Code information for clinical extension only in CS extension. Do not include the prostatectomy information. Per the August 2004 revision to CS, pathologic extension information is now coded in site-specific factor 3 (SSF3). However, SSF3 must be coded whether prostatectomy was done or not.
CS Extension Prostate: Notes

2. Code groups
   10–15 Clinically inapparent
   20–24 Clinically/radiographically apparent
   30 Localized, NOS, unknown if apparent
   31–34 OBSOLETE (moved to SSF 4)
   41–49 Extension beyond prostate

Note 2 refers to code groups for CS extension of prostate. Codes 10 through 15 are used only for clinically inapparent tumor, that is a tumor not palpable or visible by imaging or incidentally found microscopic carcinoma in one or both lobes of the prostate. Incidental cancer includes those tumors described as occult or latent. Code 10 is less specific so priority is given to codes 13 through 15. If a tumor that is not palpable or visible by imaging is identified by needle biopsy, assign code 15. If the tumor was clinically apparent, palpable, or visualized on imaging, codes 20 through 24 are used. Codes 21 and 22 have precedence over code 20 because it is less specific, and code 20 has precedence over code 24 because it is less specific. If the best known information is that the tumor is localized and it is unknown if it is clinically or radiographically apparent, assign code 30. Code 30 is most often used when a patient was diagnosed elsewhere and receives treatment at a facility and it is known that the tumor is localized, but no more specific information is available. Codes 31, 33, and 34 were made obsolete in the March 2005 version of the CS Manual. Information describing involvement of the apex of the prostate is now recorded in site-specific factor 4. That data item is not submitted to NPCR. Any clinical extension beyond the prostate is described in codes 41 through 49.
CS Extension Prostate: Notes

3. Prostate apex involvement
4. Codes 13–14 are for TURP only; 15 is for needle biopsy
5. Disregard prostatic urethra involvement
6. Assign code 60 for ‘frozen pelvis’

**Note 3:** The CS extension data item and site-specific factor 4, prostate apex involvement, must both be coded regardless if a prostatectomy was done or note. However, site-specific factor 4 is not submitted to NPCR.

**Note 4:** If a TURP was performed for a clinically inapparent tumor, use codes 13 or 14. If a biopsy was performed for a clinically inapparent tumor, use code 15.

**Note 5:** Disregard involvement of the prostatic urethra when determining the CS extension code because it is not considered involvement outside of the organ of origin since the urethra passes through the prostate.

**Note 6:** ‘Frozen pelvis’ is assigned code 60 unless there is more detailed information on tumor involvement. ‘Frozen pelvis’ is a clinical term indicating that the tumor extends to the pelvic sidewall.
CS Extension Prostate: Notes

7. Use AUA stage if no more specific information is available
8. Includes evaluation of other pathologic tissue
9. Derived TNM values, SS77, and SS2000 are based on CS Extension and Site-Specific Factor 3 values

Note 7: Information from the American Urological Association (AUA) stages A–D may be used when assigning CS extension when more specific information is absent. Code physician-assigned AUA stage D1–D2 that was based on involvement of lymph nodes only in the CS lymph nodes or CS mets at dx data items, not in CS extension.

Note 8: The evaluation of other pathologic tissue, including tissue from a biopsy of the rectum for a patient with prostate cancer, is coded in CS extension for prostate.

Note 9: The mapping values for TNM, SS77, and SS2000 are based on the data items CS extension (clinical extension) and site-specific factor 3 (pathologic extension). If the value of site-specific factor 3 is greater than 000 and less than 095 (i.e., prostatectomy was done, extension information is available for staging, and invasive tumor was present in the prostatectomy specimen), the mapping values are taken from site-specific factor 3. If site-specific factor 3 code is 095 or greater (meaning that prostatectomy was not performed, or it was performed but the information is not usable for staging), the mapping values are taken from the CS extension data item. If the site-specific factor 3 code is 000 (in situ), and if the CS extension code is greater than 00 and less than 95 (not in situ), the mapping values are taken from the CS Extension data item. If site-specific factor 3 code is 000 (in situ) and CS extension code is 00 (in situ) or greater than 95, the mapping values are taken from the site-specific factor 3 mapping.
Shown on this slide are the CS extension codes for in situ and clinically inapparent tumor. Code 00 is assigned when the tumor is in situ. Code 10 is assigned for clinically inapparent tumors when the percent of involved tissue is not specified. Drawing A demonstrates code 13, clinically inapparent tumor identified in 5% or less of the tissue that was resected. Drawing B demonstrates code 14, clinically inapparent tumor identified in more than 5% of the resected tissue. Code 15 is used when a clinically inapparent tumor, including latent and occult tumors, is identified by needle biopsy. The needle biopsy is usually performed because of elevated PSA.
Codes 20–24 are assigned for clinically apparent tumors. Code 20 is used when one lobe of the prostate is involved but how much of the lobe is involved is unknown. The portion of the drawing labeled A represents a code 21 tumor; half of one lobe or less is involved. Drawing B shows code 22; more than half of one lobe is involved. Drawing C shows code 23, involvement in both prostatic lobes. Code 24 represents a clinically apparent tumor that is confined to the prostate and no other information is available. When a tumor is assigned code 30, it is unknown if the tumor was clinically apparent or clinically inapparent. However, it is localized and confined to the prostate without invasion of the capsule.
Codes 41–49 indicate that the tumor has extended beyond the prostatic capsule. Code 41 indicates capsular extension not otherwise specified. Code 42, shown in drawing A, has extended through the capsule on one side. Code 43, drawing B, has extended through the capsule on two sides. Code 45, drawing C, extends to the seminal vesicles. Code 49 is used when periprostatic tissues not otherwise specified are involved but it is unknown if the seminal vesicles are involved.
Codes 50–70 indicate further direct extension beyond the prostate. Code 50 is extension or fixation to adjacent structures including the bladder neck, bladder NOS, Denonvillier’s fascia, and rectum. Code 52 is extension to the skeletal and levator muscles and to the ureter. Code 60 is extension to the pubic (pelvic) bone or pelvic wall as well as ‘frozen pelvis’. Code 70 is other contiguous extension including the penis, Cowper’s gland, sigmoid colon, and soft tissue other than periprostatic tissue.
Involvement of regional lymph nodes is coded in the data item, CS lymph nodes. Lymph nodes assigned code 10 in CS lymph nodes for prostate include external and internal iliac, hypogastric, obturator, pelvic NOS, periprostatic, sacral NOS including lateral, laterosacral, middle, promontory, Gerota's, presacral, and regional lymph nodes NOS. Assign code 80 for lymph nodes NOS.
CS mets at dx describes metastasis from the prostate primary. Code 11 is used when the common iliac lymph nodes are involved by tumor. Code 12 is used when distant lymph nodes including aortic, cervical, inguinal, retroperitoneal, scalene, and supraclavicular lymph nodes as well as distant nodes, NOS, are involved. Code 30 indicates metastasis to bone. Code 35 is used when distant metastasis are found in distant lymph nodes (11 or 12) and bone (30). Code 40 is used for metastasis to sites other than bone or distant lymph nodes. Shown on the slide assigned code 40 are metastasis to lung, liver, and adrenal. Code 45 is used when the only documentation of distant metastasis is AUA stage D2. Use code 50 when metastasis have spread to distant lymph nodes (11 or 12) and other distant sites (40). Use code 55 when metastasis are present in other distant sites (40) and bone (30 or 35).
SSF3: Prostate Pathologic Extension

1. Use all histologic information INCLUDING prostatectomy
2. Use only first course of treatment information
3. Disregard prostatic urethra involvement
4. Code 040 includes involved margin(s) without extracapsular extension
5. Codes 031, 033, and 034 are obsolete

The pathologic extension of the prostate tumor is coded in site-specific factor 3 (SSF3). These are the notes that precede the extension codes for SSF3, pathologic extension.

**Note 1:** When coding pathologic extension use all histologic information including the prostatectomy if it was done as part of first course treatment. If no prostatectomy was performed as part of first course treatment, assign code 097 for SSF3.

**Note 2:** Use only first course treatment information, not information from disease progression, when assigning the code for SSF3.

**Note 3:** Involvement of the prostatic urethra does not change the extension code because prostatic urethral involvement is not considered extension outside the organ of origin.

**Note 4:** When apical, distal urethral, bladder base, or bladder neck margin is involved and there is no extracapsular extension, assign code 40.

**Note 5:** Codes 031, 033, and 034 were made obsolete with the March 2005 version of the *CS Manual.* The information is now recorded in SSF4, prostate apex involvement.
SSF3: Prostate Pathologic Extension

6. Code the identified extent of disease when prostate cancer was an incidental finding of prostatectomy
7. Assign code 60 for ‘frozen pelvis’
8. Use AUA stage if no more specific information is available
9. Derived TNM values, SS77, and SS2000 are based on CS Extension and Site-Specific Factor 3 values

Note 6: If prostate cancer is found incidentally during a prostatectomy performed for another reason such as a cystoprostatectomy for bladder cancer, use the appropriate code for the extent of disease identified and record it in SSF3.

Note 7: As described in note 6 for CS extension, assign code 60 for ‘frozen pelvis’.

Note 8: As described in note 7 for CS extension, use the AUA stage to code pathologic extension if no more specific information is available.

Note 9: As described in note 9 for CS extension, the derived TNM values, SS77 and SS2000 are based on the data items CS extension and site-specific factor 3.
SSF3: Prostate Pathologic Extension

- Special Codes
  032 Capsule involved (into but not through)
  040 Margins involved
  048 Extracapsular extension and margins involved
  096 Unknown if prostatectomy done
  097 No prostatectomy in first course
  098 Prostatectomy performed but not first course because of disease progression
  099 Prostatectomy done, extension unknown; not assessed, not documented

The codes shown on this slide are not included in CS extension, clinical extension, or have different definitions in pathologic extension than in clinical extension. 032 is assigned when there is invasion into the prostatic capsule but not through it; 040 is assigned when there is no extracapsular extension but margins as described in note 4 are involved; 048 is assigned when there is both extracapsular extension and involvement of margins excluding margins of the seminal vesicles; 096 is used when it is unknown if prostatectomy was performed; 097 is used when prostatectomy was not performed as part of first course treatment; 098 is used when prostatectomy was performed but it was not part of first course treatment; 099 indicates that a prostatectomy was done but the extension is unknown.
Prostate Cancer
Case Study 1: Clinically apparent tumor

- Small nodule felt on DRE in upper posterior lobe. PSA normal (4.5 ng). Needle bx shows Gleason 3+4 adenocarcinoma in one lobe. Patient opts for radiation.
  - CS Extension: 21 < half lobe
  - CS Lymph nodes: 00 Inaccessible sites rule
  - Mets at Dx: 00 Inaccessible sites rule
  - SSF3: 097 No prostatectomy

CS extension: 21; clinically apparent tumor (small nodule) in half lobe or less
CS lymph nodes: 00; none because of inaccessible sites rule.
Mets at dx: 00; none because of inaccessible sites rule.
SSF3: 097; no prostatectomy
Prostate Cancer
Case Study 2: Positive lymph node(s)

- Routine PE; PSA 11.5. Palpable mass on left side of prostate. Sextant biopsy shows Gleason 4+2 adenocarcinoma in left lobe extending to apex. Pt has laparoscopic LN biopsy; one pelvic node positive. Prostatectomy canceled.
  - CS Extension 24 Clinically apparent, confined to prostate
  - CS Lymph nodes 10 Pelvic node positive
  - CS Mets at Dx 00 Stated as “routine PE”
  - SSF3 097 No prostatectomy

CS extension: 24; clinically apparent (palpable mass) confined to prostate
CS lymph nodes: 10; pelvic node positive
CS mets at dx: 00; none, routine PE
SSF3: 097; no prostatectomy
Prostate Cancer
Case Study 3: Extensive primary tumor

- Rectal pain. DRE shows hard fixed mass around prostate. PSA 37. Needle biopsy of rectal mucosa positive for Gleason 6 adenoca. Pt started on radiation to shrink tumor.
  - CS Extension 50 Fixation, NOS; pos. rectal biopsy
  - CS Lymph nodes 99 Lymph node status unknown
  - CS Mets at Dx 99 Mets status unknown
  - SSF3 097 No prostatectomy

CS extension: 50; fixation (fixed mass) NOS; positive rectal biopsy
CS lymph nodes: 99; unknown; inaccessible sites rule does not apply because extension is advanced
CS mets at dx: 99; unknown; inaccessible sites rule does not apply because extension is advanced
SSF3: 097; no prostatectomy
First Course Treatment

Prostate
First course treatment is defined in FORDS 2004, page 28, as “all methods of treatment recorded in the treatment plan and administered to the patient before disease progression or recurrence.” The intent of treatment is to modify, control, remove, or destroy the tumor. Curative treatment as well as treatment given to control symptoms, alleviate pain, or make the patient more comfortable may also be first course treatment. We will discuss the first course treatment data items the central registry is required to submit to NPCR. Hospital cancer programs approved by the Commission on Cancer (CoC) are required to collect other first course treatment data items as well.
Surgical Procedure of Primary Site: Prostate

- Use site-specific codes for prostate
- Do not code orchiectomy in this data item
- Code “watchful waiting” as 00, no treatment, or 0, none

Record procedures performed to destroy, remove, or excise the primary prostate tumor in the data item, surgical procedure of primary site. The codes for surgical procedure of primary site are site-specific, and the prostate codes are found in **FORDS**, page 277. Orchiectomy, excision of the testes, is not coded as surgical procedure of primary site for prostate. The information is coded in the data item, hematologic transplant and endocrine procedures. Watchful waiting is defined as treatment for prostate cancer. If first course treatment is watchful waiting, code treatment data items as 0, none, or 00, no treatment.
Surgical Procedure of Primary Site: Prostate

- Codes 10–17: Local tumor destruction without pathology specimen
  - 10 Local tumor destruction, NOS
  - 14 Cryoprostatectomy
  - 15 Laser ablation
  - 16 Hyperthermia
  - 17 Other method of local tumor destruction

Use codes 10–17 when the procedure provides local tumor destruction but there is no pathology specimen. This includes 10, local tumor destruction, NOS; 14 cryoprostatectomy, freezing the prostate tissue to destroy the tumor; 15 laser ablation, destruction of the tumor by an intensely powerful beam of light, including NIAGRA photovaporization; 16 hyperthermia, destroying the tumor with heat; and 17, other methods of local tumor destruction, including high intensity focused ultrasound.
Surgical Procedure of Primary Site: Prostate

- Codes 20–26: Local tumor destruction with pathology specimen
  - 21 TURP, NOS
  - 22 TURP – cancer is incidental finding during surgery for benign disease
  - 23 TURP – patient has suspected/known cancer

Codes 20–26 are assigned when the procedure performed was local tumor destruction and there was a pathologic specimen. Transurethral resection of the prostate (TURP) is coded in the data item, surgical procedure of primary site. Assign code 21 for TURP, NOS; code 22 for TURP with cancer as an incidental finding when surgery was performed for benign disease such as benign prostatic hypertrophy (BPH); code 23 for TURP when cancer was suspected or known. TURP may be part of treatment for early to later stage prostate cancer. Codes 24–26 are assigned when any of the procedures coded in 20–23 are performed in combination with cryosurgery, laser, or hyperthermia and there is a pathologic specimen.
Assign code 30 when treatment is a subtotal, segmental, or simple prostatectomy. In this procedure, all or part of the prostate is removed, but all or part of the capsule remains intact. This procedure may be used when the prostate is too large to perform TURP. It is most often used to treat BPH, but may be used to treat prostate cancer, or may identify cancer when the surgery is performed for benign disease. Enucleation of the prostate is assigned code 30. Assign code 50 when radical prostatectomy is performed. Radical prostatectomy includes removal of the entire prostate and prostatic capsule as well as removal of the ejaculatory ducts and seminal vesicles. A narrow cuff of bladder neck may also be excised. When the ejaculatory ducts, seminal vesicles, and bladder neck are removed as part of the radical prostatectomy, they are coded in surgery of primary site not in the data item, surgical procedure/other site. Assign code 70 when a prostatectomy is performed in continuity with any other organs. Examples of this include cystoprostatectomy, removal of the bladder and prostate; radical cystectomy, removal of the bladder, prostate, seminal vesicles, and bilateral pelvic lymph nodes; and pelvic exenteration, excision en masse of the prostate and other pelvic organs.
Pelvic lymph node dissection or pelvic lymphadenectomy performed as part of first course treatment for prostate cancer is coded in the data item, scope of regional lymph node surgery. If a patient had a radical cystectomy or cystoprostatectomy, review pathology and operative reports carefully to determine if pelvic lymph nodes were resected in continuity with the prostate. If they were, code the resection in scope of regional lymph node surgery.
<table>
<thead>
<tr>
<th>Code</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>Biopsy or aspiration of regional LNs, NOS</td>
</tr>
<tr>
<td>2</td>
<td>Sentinel LN biopsy</td>
</tr>
<tr>
<td>3</td>
<td>Number of regional LNs removed unknown</td>
</tr>
<tr>
<td>4</td>
<td>1-3 regional LNs removed</td>
</tr>
<tr>
<td>5</td>
<td>4 or more regional LNs removed</td>
</tr>
<tr>
<td>6</td>
<td>Sentinel biopsy and code 3, 4, or 5 at same time or timing not stated</td>
</tr>
<tr>
<td>7</td>
<td>Sentinel biopsy and code 3, 4, or 5 at different times</td>
</tr>
<tr>
<td>9</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Shown on this slide are the codes for scope of regional lymph node surgery. The same code set is used for all sites. If a patient with prostate cancer had a radical prostatectomy with dissection of two obturator nodes, code 4 would be assigned for scope of regional lymph node surgery.
The removal of distant lymph nodes or other tissues that are not part of the primary site is recorded in the data item, surgical procedure/other site. An example of a procedure coded in this data item for prostate is biopsy of a cervical lymph node. If organs or tissues are removed in continuity with excision of the prostate, they are not coded in this data item. For example, the removal of seminal vesicles and bladder cuff in continuity with the prostate is a radical prostatectomy and is coded in surgical procedure of primary site. Another example would be removal of the bladder and prostate as part of cystoprostatectomy. The procedure would be coded in surgical procedure of primary site, code 70.
### Surgical Procedure/Other Site Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>Nonprimary surgical procedure performed</td>
</tr>
<tr>
<td>2</td>
<td>Nonprimary surgical procedure to other regional sites</td>
</tr>
<tr>
<td>3</td>
<td>Nonprimary surgical procedure to distant lymph nodes</td>
</tr>
<tr>
<td>4</td>
<td>Nonprimary surgical procedure to distant site</td>
</tr>
<tr>
<td>5</td>
<td>Combination of codes</td>
</tr>
<tr>
<td>9</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

The codes for surgical procedure/other site are shown on this slide. The same codes are used for all sites. The resection of a cervical lymph node for a patient with prostate cancer is assigned code 3, nonprimary surgical procedure to distant lymph nodes.
Regional Treatment Modality: Prostate

- Radiation therapy may be first course treatment for prostate cancer
  - Code 20: External beam, NOS
  - Code 50: Brachytherapy, NOS
  - Code 53: Brachytherapy, interstitial, LDR
  - Code 54: Brachytherapy, interstitial, HDR

- Do not code radiation to breasts to avoid enlargement as treatment

The data item, regional treatment modality, records the modality used to deliver radiation therapy. Radiation therapy may be first course treatment for localized prostate cancer. Assign code 20 if the treatment modality was external beam radiation. The prostate tumor and surrounding tissues are irradiated. Another form of radiation therapy for localized prostate cancer is interstitial brachytherapy. Radioactive seeds or implants are inserted directly into the prostate. Code 53 is assigned when the interstitial brachytherapy uses low dose rate applicators, and code 54 is assigned when the interstitial brachytherapy uses high dose rate applicators. If it is unknown if the applicators are high dose or low dose, assign code 50, brachytherapy, NOS. If the patient receives radiation to the breasts to avoid enlargement caused by hormone therapy, do not code as treatment.
Hormone Therapy: Prostate

• Estrogens
  – Anisene, rianil

• Anti-androgens
  – Flutamide, lupron, zoladex

• Progestins
  – Amadinone, clogestone

Hormone therapy includes drugs that change the patient’s hormone balance and affect the long-term growth of the cancer. It may be part of first course treatment for prostate cancer, but review the health record carefully because it is also often given as subsequent treatment after failure of first course therapy or after disease progression. Hormone therapy for prostate cancer includes estrogens such as anisene and rianil; anti-androgens such as flutamide, lupron, and zoladex; and progestins, such as amadinone and clogestone. If you are not sure if a drug given for prostate cancer is hormone therapy, use the SEER*Rx database. Enter the name of the drug and the database will list the category of the drug. The SEER*Rx database can be downloaded from the SEER Web site, http://seer.cancer.gov.
Endocrine Procedures: Prostate

- **Orchiectomy**
  - Removal of testes to suppress testosterone production effecting tumor growth
  - Removal must be bilateral

Orchiectomy is the removal of the testes. It is performed as treatment for prostate cancer to suppress testosterone production effecting tumor growth. It must be bilateral to be coded as treatment unless the patient only has one testis. The information is coded in the data item, hematologic transplant and endocrine procedures. Again, be sure that the orchiectomy is part of first course treatment.