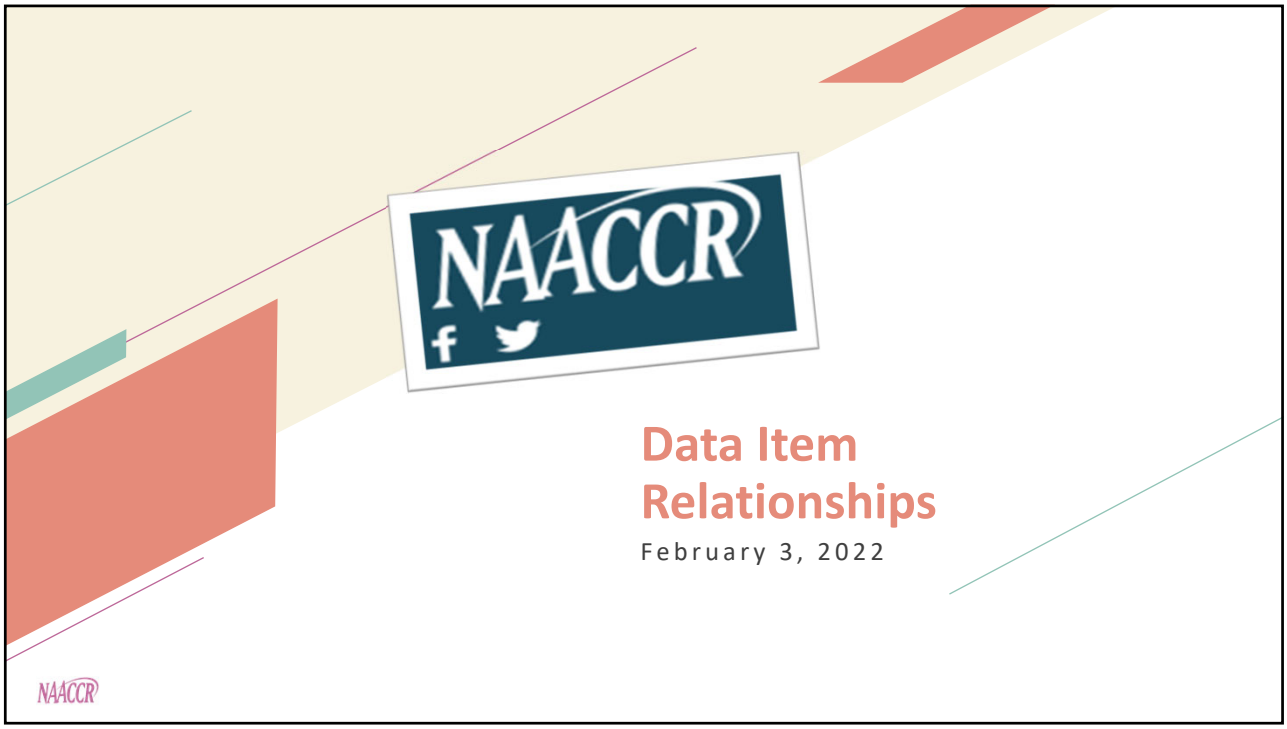

1

Q&A

Please submit all questions concerning the webinar content through the Q&A panel.

If you have participants watching this webinar at your site, please collect their names and emails.

We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.

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Fabulous Prizes

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Guest Presenter

- Jennifer Ruhl, MS, CCS, RHIT, CTR
  - Quality Control Section, SEER
- Recinda Sherman
  - Program Manager Of Data Use And Research

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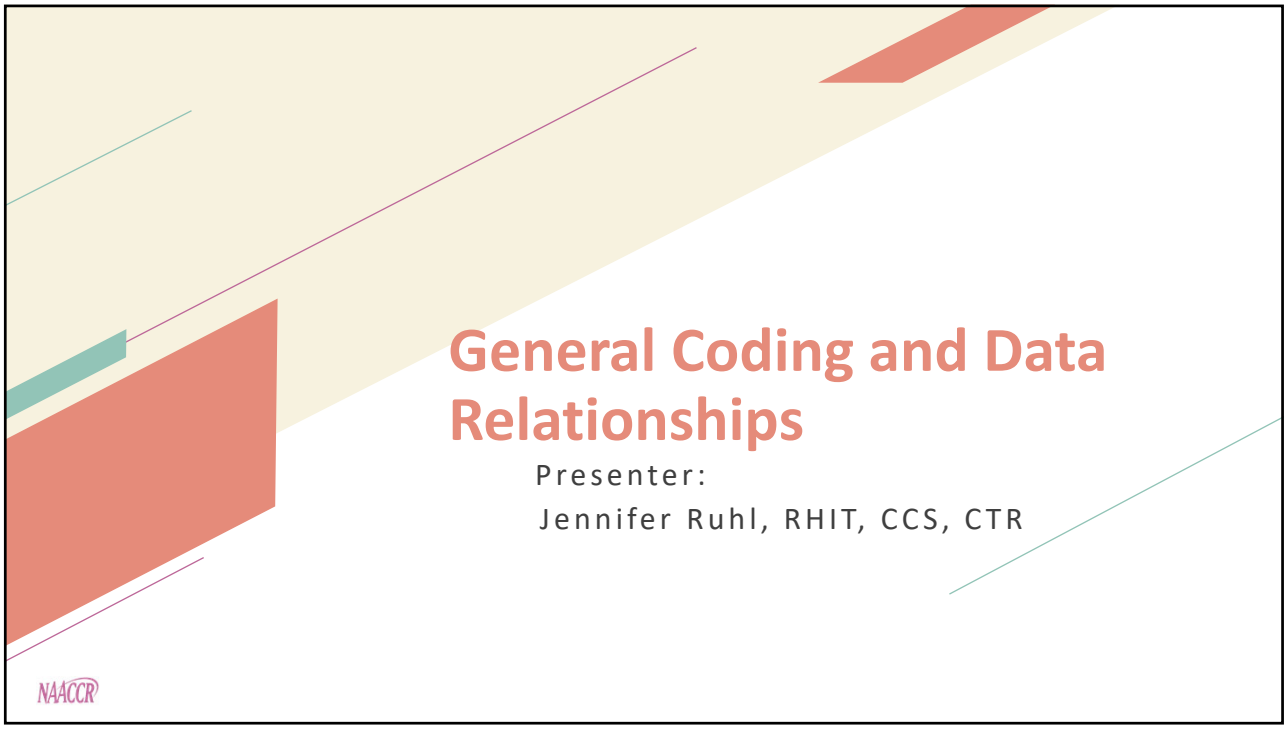

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Overview of Presentation

- What is a “data relationship”
- Examples of data relationships

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Abstracting with blinders on

- Is this how you abstract?
- You put blinders on and focus solely on the data item you are coding
- This type of abstracting can lead to information that doesn't agree and lead to frustration
- So, take off the blinders and look at the patient's whole story and you will find things much easier

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Data Relationships

Sentinel Lymph Nodes Positive
Date of Diagnosis
Reason for no Surgery
Grade Pathological
Type of Reporting Source
Laterality
SSDIs
Primary Site
Scope of Regional Lymph Node Surgery
Vital Status
Grade Clinical
Behavior
County at Dx
Radiation
Scope of Reg LN Surgery
Chemotherapy
Date of Last Contact
Patient Name
Histology

8

First question

- How does the quality of the coded data and associated text impact cancer statistics
- How does text "substantiate" coded data?
  - Text gives a summary of the case
  - Provides information for the central registry, especially during consolidation
  - Code your abstract by the text
    - This will ensure that your text is complete and supports your codes
  - For some states, text is required

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Determining Data Relationships

- Ask yourself:
  - What is the standard work-up for this cancer?
  - What is the standard treatment for this cancer?
  - Does stage affect treatment type?
  - Is there any treatment that is not associated with this cancer?
  - Are SSDIs associated with a particular stage or treatment?

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Data Relationships

- Data items need to tell the same story
  - How you code one data item may affect how another one is coded
    - *Example 1*: Pathology report indicates positive nodes
- Remember: Coding one data item will affect how another one is coded
  - You want to make sure those data items agree with each other

Data Item
Scope of Regional Lymph Node Surgery
Regional Nodes Examined
Regional Nodes Positive
Sentinel LN Examined
Sentinel LN Positive
AJCC Clinical N
AJCC Pathological N
AJCC Stage Group
EOD Lymph Nodes
Summary Stage
SSDIs related to lymph nodes

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Data Relationships

- Patient presented to ER with shortness of breath. Imaging shows multiple lung nodules, extensive lymph node involvement and liver suspected for mets. Physician suspects metastatic lung cancer. Patient sent to hospice, died 3 days later.
- Based on this, you know the following and can code accordingly very quickly:

Data Item	Value
Diagnostic confirmation	7 (imaging only)
Grade Clinical/Pathological	9 (no histologic confirmation)
Staging	Stage 4 (clinical)/Distant mets
Surgery of Primary Site	0 (no surgery
Scope of Regional LN Surgery	0 (Clinical eval of lymph nodes only)
Radiation fields	0 (not done)
Systemic	0 (not done)

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Related Data Items

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Demographics: County/State

- If you have an address with a known city, THEN
  - County cannot be unknown
  - State cannot be unknown
- Example: Brunswick, GA.
  - County: Glynn (127)
  - State: Georgia (033)

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Demographics: Address Components

- Current vs At Diagnosis
- Street, city, state, zip
  - Supplemental, County at DX Reported
  - These derive a number of fields at Central Registry:
    - Geocoded state/county/tract/block group, County Reported, County at DX Analysis
      - Which then derive ABSMs: poverty, urban/rural, and more
  - Derived fields are used to support analysis
    - Ecological and environmental analysis; cancer clusters
    - Health disparities research

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Demographics: Address Components

Street: 840 Manchester Court
City: Claremont State: CA
Zipcode: 99999 County: 037

Street: 840 Manchester Court
City: Claremont State: MA
Zipcode: 02101 County: 037

Street: 840 Manchester Court
City: Claremont State: CA
Zipcode: 91711 County: 071

- No reason for unknown zip
- Some venders historically over-rode state with the state of facility. Impacts data exchange, introduces error.
- It is human nature to code local county code, or more common county codes. Impacts rural counties. Funding!
- Local knowledge is often best and abstractors can also address in real time. **Plus "GIGO"**

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Dates and more dates…

- Date of Diagnosis vs Treatment Dates
  - Quality and standard of care studies
- Date of Death vs all other dates
  - Date of last contact
  - Derived data based on COD, DOD, DOB, Vital Status supports Survival & Prevalence

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Dates and even more dates…

Date of Diagnosis: 12/15/2021
Date of Last Contact: 12/15/2021
Vital Status: 0

Date of Diagnosis: 11/15/2021
Date of Last Contact: 11/15/2021
RX Date Surgery: 12/15/2021
Vital Status: 0

- Likely a DCO. No obvious issue.
- As data is consolidated or external linkages are performed (at Central Registry), these trigger edits. But as we are further from source data, the more likely to lose good data (accurate treatment dates may be modified to pass edits) which impact analysis. **Again "GIGO"**

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NAACCR Sex Edit

Item #	Item Name
220	Sex
240	Date of Birth
2240	Name-First
2078	Over-Ride Name/Sex

- Central Registry Edit
  - Project-based QC not standard edit
  - Sex, Name-First, Date of Birth
  - List of names, marks potentially incorrect sex-specific name combos
    - Based on decade of birth
    - Limited to common names/spelling
  - Registry dependent but 19-45% true misclassification when flagged
    - Impact is site specific—male breast cancer (100% misclass)
  - Can be resource intensive
    - Full review vs targeted site-based review and other tips: JRM 41(3):120-4
- Sex Coding Changes coming HEADS UP ONLY/in progress
  - Non-binary sex, 2 coordinated codes

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Demographics: Sex

Sex = 1
Site = C73.9
Name First = Tommy

Sex = 1
Site = C50.1
Name First = Tommy

Sex = 1
Site = C50.1
Name First = Shandreeka

- Majority of thyroids are female & majority of Tommys are male. Review middle name and/or public records search/DMV/voter records.
- Review! BUT…
- Due to sex-specific proportions, not reviewing Male Breast *overinflates* the number of male breast cancers. Reviewing and correcting *only* the Male Breast cases will *underinflate*
- These reviews can be time consuming, especially retrospectively.
- Edit only works on common, sex-specific names. Only humans can sort out unusual spellings & international names by visual review.

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Demographics: Race/Ethnicity

Item #	Item Name
90	County at DX Reported
160-164	Race 1 – Race 5
190	Spanish/Hispanic Origin
220	Sex
240	Date of Birth
2230	Name-Last
191	NHIA Derived Hisp Origin
193	Race—NAPIIA(derived API)

- Race 1 – Race 5: Order is important
  - 98, 99 can't occur before more specific race (or 96, 97)
  - 07 priority over all codes
  - 02-32, 96-98 priority over 01
  - Page 66 of SEER Coding manual
- Spanish/Hispanic Origin
- NHIA/NAPIIA Central Registry Algorithms
  - Enhance the specificity of API race and Hispanic Ethnicity
  - Country of Birth, County
- Bridged (single race) vs Non-Bridged (multiple race)
  - Improvement of AIAN codes resulted in highest rates for many cancers (ARN)
- Race changes coming
  - A and PI split for analysis purposes

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Demographics: Race

1. Race 1 = 97
   Race 2 = 25
   Race 3-5 = 88

2. Race 1 = 01
   Race 2 = 07
   Race 3-5 = 88

3. Spanish/Hispanic Origin = 06
   Race 1 = 98
   Race 2 = 03
   Race 3-5 = 88

PQ 1

Do these need review?
A) Yup, but only 1
B) Yup, but only 2
C) Yup, but only 3
D) Yup, all.
E) Nope, they look fine to me.

- Take home: Not all vendors have priority on these data items. Algorithms and post-submission corrections only work if the order/priority of these cases is correct.
- Page 66 SEER Coding Manual

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Date of Diagnosis/Date of last contact

- Check your registry to see how many elderly patients you have
- Example:
  - Patient with date of birth: 4/3/1901
  - Date of diagnosis: 8/6/2007
  - Date of last contact: 3/12/2010
- Correction made:
  - Patient date of birth: 4/3/2001

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Primary Site/Sex

- Some cancers only occur in either male or female
  - Prostate and Testis cancers ALWAYS occur only in males
  - All female genital sites ALWAYS occur only in females
- Exceptions:
  - ~~Hermaphrodite~~ Other (intersex, disorders of sexual development/DSD) (3)
  - Transsexual (4)

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Primary Site/Histology/Age

- Is the cancer you are reporting common for that age?
  - Prostate cancer uncommon in males less than 40 years
  - Wilms tumor common in children
  - Some Brain tumor histologies are common in children, but not adults
  - Certain lymphomas/leukemias common in either children or adults (but not both)

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Primary Site/Laterality

- Is your primary site bilateral?
- Make sure you code laterality correctly
- Example:
  - Prostate: Always code 0 (not a paired site)
  - Lung: Codes 1-9 (paired site)
- Bilateral primary sites can be found in the STORE and SEER manual

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Primary Site/Histology

- Do your primary site and histology make sense?
  - Correct primary site and histology combinations are critical
  - These two data items are the foundation of what we collect
    - Schema
    - Staging (AJCC, Summary Stage)
    - SSDIs
    - Treatment
    - Incidence
    - Survival

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Primary Site/Histology

- Understand that the site of a biopsy does not automatically mean that is the primary site
- Need to understand what primary site/histology combinations are biologically possible
  - This takes time and experience

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Pop Quiz

Data Item	Value
Primary Site	C22.0 Liver
Histology	8140/3 Adenocarcinoma
Summary Stage	1 Localized
Text	
72 yowm W/ H/O colon cancer presents with a new tumor on his liver. Biopsy confirmed malignancy.	

- Does this look correct?
  - Yes. Looks good to me.
  - No. I think this case needs further review.

PQ 2

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Primary Site/Histology

- Example: Bone biopsy, adenocarcinoma
- Bone common place for mets
- Adenocarcinoma does not originate in the bone
- Look for other possible places of involvement
- Common sites
  - Prostate
  - Breast
- If primary site cannot be determined, code to C809
- Do not code C400-C419 (Bone) and 8140 (adenocarcinoma)

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Primary Site/Histology

- Example: Brain biopsy, adenocarcinoma
- Brain common place for mets
- Adenocarcinoma does not originate in the brain
- Look for other possible places of involvement
- Common sites
  - Prostate
  - Breast
  - Lung
- If primary site cannot be determined, code to C809
- Do not code C700-C729 (Brain/CNS) and 8140 (adenocarcinoma)

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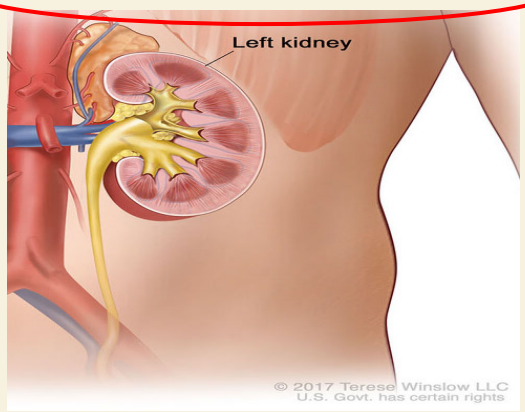
Primary Site/Histology

Data Item	Value
Primary Site	C65.9 Renal Pelvis
Histology	8312/3 Renal Cell Carcinoma
Summary Stage	1 Localized
Text	
64 yowm had a ureteroscopy verified the presence of a solid intraluminal mass (0.6×0.8 cm), spreading into the upper urinary tract in close proximity to the renal pelvis. A ureteroscopic biopsy was performed prior to placing a double-J stent in the right ureter, which was histologically and cytogenetically analyzed to determine a diagnosis of renal cell carcinoma.	

- Does this look correct?
  - Yes. Looks good to me.
  - No. I think this case needs further review.



PQ3

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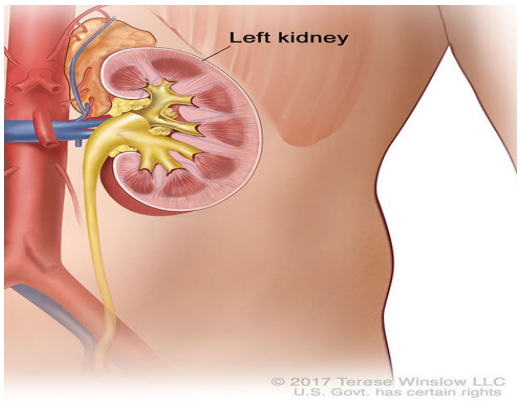
If we change the primary site or histology, what else will change?

- Schema ID will change
  - Grade
  - SSDIs
  - Summary Stage
  - EOD
- AJCC ID
  - AJCC TNM Stage
- Surgery Code



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Laterality and Staging

- Review AJCC, EOD, Summary Stage to see how the contralateral (opposite) side is coded
  - Most are coded in Mets; however, there are some where it is coded in the Primary Tumor
- *Example*: Breast
  - Apply MPH rules first
  - If determined to be one primary, involvement of contralateral breast is coded
    - AJCC: M1
    - EOD: EOD Mets Code 70
    - Summary Stage: Code 7

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Diagnostic Confirmation

- Codes 5-8: Not microscopically confirmed
  - Many of the SSDIs are based on histological examination
    - Note: New Table in SSDI manual shows which SSDIs are based on histological examination
  - If diagnostic confirmation is 5-8, then these SSDIs would be coded as unknown
- Rationale: Codes 5-8 have no examined tissue and therefore no confirmation of histological type

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Diagnostic Confirmation

- Patient presents with bloating and symptoms of obstruction
- CT scan shows colon mass consistent with colon cancer
- Patient 85 years old, no other workup done
- Palliative treatment only

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Diagnostic Confirmation

- Does this look correct?
  - Yes. Looks good to me
  - No. I think this case needs further review.

Should not have /2 behavior with diagnostic confirmation of 7…needs further investigation!

Data Item	Default Value
Primary Site	C18.9
Histology	8000
Behavior	2
Diagnostic confirmation	7
CEA Pre Tx Lab Value	XXXX.9
CEA Pre Tx Interpretation	9
Tumor Deposits	X9
Perineural Invasion	9
Circumferential Resection Margin	XX.7
KRAS	9
Microsatellite Instability	9
BRAF Mutational Analysis	9
NRAS Mutational Analysis	9

PQ 4

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Behavior

- Benign (0 or 1)
  - Only reportable for the following sites: C70._ - C72._, C75.1, C75.2, C75.3
- In-Situ (2)
  - Entire neoplasm is in situ, no evidence of any invasive component
  - Applicable for most sites
    - Not all primary sites can have in situ lesions
- Malignant (3)
  - Applicable for all sites
- Codes 6 and 9:
  - Not used in the United States

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Neoplasm is defined as In-situ (behavior /2)

- Lymph vascular invasion (LVI) = 0
  - In situ cases biologically have no access to lymphatic or vascular channels below the basement membrane
- Per STORE/SEER Manual:
  - Use code 0 when the pathology report indicates that there is no lymphovascular invasion. This includes cases of purely in situ carcinoma, which biologically have no access to lymphatic or vascular channels below the basement membrane.
  - Note: Same instruction in SEER manual

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Neoplasm is defined as In-situ (behavior /2)

- Breast: Grade
- For 2018+, there are specific codes for in situ and Grade
  - L: Nuclear Grade I (Low) (in situ only)
  - M: Nuclear Grade II (InterMediate) (in situ only)
  - H: Nuclear Grade III (High) (in situ only)
  - 9: Grade cannot be assessed (GX) Unknown
- Reminder: Grades 1, 2, 3, A, B, C, D are for invasive cancers only
- Specific grade codes for in situ tumors are only in Breast

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Neoplasm is defined as In-situ (behavior /2)

Data Item	Default Value for Behavior /2
EOD Primary Tumor	000 (some schemas have multiple Tis codes)
EOD Lymph Nodes	000 (some schemas have multiple N0 codes)
EOD Mets	00
Mets at Dx-Bone	0
Mets at Dx-Brain	0
Mets at Dx-Liver	0
Mets at Dx-Lung	0
Mets at Dx-Distant Lymph Nodes	0
Mets at Dx-Other	0

Data Item	Default Value for Behavior /2
Regional nodes Positive	00
Summary Stage	0
AJCC T	*Tis (some chapters have multiple Tis codes. Must meet criteria for assigning T value).*
AJCC N	*N0*
AJCC M	*M0*
AJCC Stage Group	*0 (Some sites may have other additional stage group for in situ/non-invasive)*
Note: Not all schemas will have In situ cases eligible for AJCC staging, so T, N, M data items may be 88 and Stage Group	

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Behavior example

- Scenario:
  - 5 cm breast mass seen on mammography
  - Lumpectomy, extensive DCIS, no invasive component
  - Sentinel node biopsy: 2/3 lymph nodes positive for micrometasis
  - Poll question: Which value is not correct?

Data Item	Value
Histology	8500
Behavior	2
Summary Stage	3 (Regional to Lymph Nodes)

Cannot have behavior of /2 if there is metastasis

PQ 5

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Behavior example

- True in-situ cases cannot have positive lymph node mets
- Invasive component not found in lumpectomy specimen
- Invasive component found in lymph nodes though

- This is not a Neoplasm defined as in situ
- This is a /3 neoplasm based on the positive lymph nodes
  - Reminder: Most cases the behavior is based on the primary tumor; however, there are situations where behavior is determined by lymph nodes or mets

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Behavior Example

- EOD
  - EOD Extension: 000
  - EOD Lymph nodes: Appropriate code that indicates N involvement (positive)
  - EOD Mets: Appropriate code that indicate mets involvement (none or present)
- AJCC
  - T: Tis
  - N: Appropriate code that indicates N involvement (positive)
  - M: Appropriate code that indicate mets involvement (none or present)
- Summary Stage
  - At minimum, a code 3 (7 if there are mets)

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Behavior Example

- Some SSDIs have defaults based on Behavior
- Brain Schema
  - There are default codes for Benign/Borderline tumors for all SSDIs
- Breast Schema
  - Two Oncotype SSDIs are for invasive only (in situ cases have a default code)
  - Two Oncotype SSDIs are for in situ only (invasive cases have a default code)

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Grade and Data Relationships

- Clinical Grade: Based on grade obtained during the clinical time frame and prior to any treatment
  - Grade must come from the primary tumor
- Pathological Grade: Based on grade obtained during the pathological time frame, which includes information from the clinical time frame
- Qualifications for Pathological Grade
  - Patient has surgery that meets the criteria for pathological classification
  - Patient has histological confirmation of mets during the clinical work up
    - Note: This does not include mets based on imaging

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Grade and Data Relationships

- Determining if pathological classification is met
  - Is Surgery done?
  - Does the surgical code meet the qualifications for a surgical resection?
    - Not all codes in the Surgery of Primary Site qualify for pathological classification
- Examples we are seeing
  - Surgery of Primary site is coded to 00 (no surgery done) or 99 (unknown)
  - There is no evidence of mets
  - Pathological grade is coded
    - This is incorrect. This case has not met the qualifications for pathological classification

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Grade and Data Relationships

- For primary site/histology combinations that have a default grade (i.e. small cell carcinoma of any site)
  - Still must have a grade from the primary site
    - Cannot use grade information from lymph nodes or mets
  - Still must meet the definitions for clinical and pathological classification
  - If no surgery is done, Pathological Grade would be 9 (provided there are no mets)
- Reminder: For those doing AJCC, this will also affect assignment of Pathological T, N, M, Stage Group
  - You want to make sure that AJCC Pathological TNM and Pathological Grade agree

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Grade and Data Relationships

- Imaging shows a lung mass.
- Biopsy of lung tumor: small cell carcinoma.
- No surgical resection. No evidence of metastatic disease.

What is Grade Clinical?	4
What is Grade Pathological?	9

- Lymph Node biopsy: small cell carcinoma.
- Imaging shows a lung mass, which is not biopsied. No surgical resection. No evidence of metastatic disease.
- Physician suspects small cell carcinoma of the lung

What is Grade Clinical?	9
What is Grade Pathological?	9

PQ 6

Code	Description
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated
4	G4: Undifferentiated
9	Grade cannot be assessed (GX); Unknown

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Rational for PQ 6 Questions 1 and 2

1. Preferred Grade Clinical is 4. Pathological grade is 9.
   - We have tissue from the primary tumor and we have met classification rules for clinical grade so we can assign a clinical grade.
   - The SSDI WG has confirmed with the College of American Pathologist and AJCC that small cell carcinoma is, by definition, anaplastic and should be assigned a grade 4 for lung primaries. This information has been presented in responses to CAnswer forum questions and during NAACCR trainings but has not yet been added to the Grade Manual. The recommendation will be added in the next update.
   - A grade of 9 for this scenario would not be incorrect at this time, but grade 4 is preferred.
   - This recommendation applies to all cases diagnosed 2018 forward. However, registrars are not being asked to make changes to previously abstracted cases.
   - Since the primary tumor was not excised and we don't have histologic confirmation of distant mets, Grade Pathological must be 9.
2. Grade Clinical and Grade Pathological are both 9 since we do not have tissue from the primary tumor.

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Grade and Data Relationships

- Biopsy of lung tumor: poorly differentiated adenocarcinoma
- Biopsy of liver tumor: metastatic adenocarcinoma
- Physician refers to metastatic lung cancer

What is Grade Clinical?	3
What is Grade Pathological?	3

Code	Description
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated
4	G4: Undifferentiated
9	Grade cannot be assessed (GX); Unknown

Rationale:
- Grade Clinical is based on biopsy of primary tumor.
- Grade Pathologic
  - The primary tumor was not removed, but we do have histologic confirmation of distant mets.
  - Histologic confirmation of distant mets meets the criteria to assign a value in Grade Pathologic.
  - The value we assign must be based on tissue from the primary tumor.
  - We use the grade from the biopsy of the primary tumor to assign Grade Pathological.

PQ 6

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Grade and Data Relationships

- Cystoscopy and bx, high grade urothelial carcinoma
- Bladder, TURB, low grade urothelial carcinoma. No further surgical treatment. No evidence of mets

What is Grade Clinical?	H
What is Grade Pathological?	9

- Bladder, TURB, low grade urothelial carcinoma.
- Returns for total cystectomy. Pathology shows residual high grade urothelial carcinoma in situ.

What is Grade Clinical?	3
What is Grade Pathological?	3

Code	Description
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated
L	LG: Low-grade
H	HG: High-grade
9	Grade cannot be assessed (GX); Unknown

Rationale
1. TURB does not qualify for Grade Pathological. Both procedures are in clinical time frame. Grade from bx is higher than TURB.
2. Grade from an invasive tumor always takes precedence over grade from non-invasive tumor. Grade information from the clinical time frame may be used to assign Grade Pathological.

PQ 7

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Grade and Data Relationships

- Patient presents with headaches.
- MRI of Brain. Mass found in the frontal lobe.
- Diagnosed with glioblastoma multiforme *(by definition WHO Grade IV)*
- Patient opted for hospice.

What is Grade Clinical? 4
What is Grade Pathological? 9

Rationale: Some histologies have a default grade. For primaries of the CNS, tissue is not required for a histology with a default grade. This only applies to CNS primaries. Resction of the primary tumor is required for Grade Pathologic.

Code	Description
1	WHO Grade I : Circumscribed tumors of low proliferative potential associated with the possibility of cure following resection
2	WHO Grade II: Infiltrative tumors with low proliferative potential with increased risk of recurrence
3	WHO Grade III: Tumors with histologic evidence of malignancy, including nuclear atypia and mitotic activity, associated with an aggressive clinical course
4	WHO Grade IV: Tumors that are cytologically malignant, mitotically active, and associated with rapid clinical progression and potential for dissemination
L	Stated as "low grade" NOS
H	Stated as "high grade" NOS
9	Grade cannot be assessed (GX); Unknown

PQ 8

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Grade and Data Relationships

- Prostate biopsy, Gleason Score 4+4 = 8. Bone scan showed suspicious lesions. Bone biopsy done, positive for metastatic prostatic adenocarcinoma. No surgical resection done.

Code	Description
1	Grade Group 1: Gleason score less than or equal to 6
2	Grade Group 2: Gleason score 7 Gleason pattern 3+4
3	Grade Group 3: Gleason score 7 Gleason pattern 4+3
4	Grade Group 4: Gleason score 8
5	Grade Group 5: Gleason score 9 or 10

What is Grade Clinical? 4
What is Grade Pathological? 4

Rationale: Bx of prostate used to assign Grade Clinical.

Bx of the metastatic bone lesion meets the rules for classification for Grade Pathological. We can use the prostate bx to assign Grade Clinical.

PQ 8

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Treatment, Primary Site & Stage

- Ask yourself: Is surgery, chemo or radiation common for this primary site or stage?
  - If not, go ahead and code "none" unless there is documentation that it was given
- *Example*: Colon, resection, T2N0M0 tumor *(tumor confined to the muscularis)*
  - Surgical resection is usually the only treatment for this stage
  - Chemotherapy can be assumed to be none
  - Radiation/Hormone not standard treatment for Colon primaries (code to none)
- Note: If there were positive nodes, then Chemotherapy would probably be done

https://www.nccn.org/guidelines/category_1

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Surgery Codes

- If surgery performed, tissue usually available
  - Surgical exploration may be done, but no tissue examined
    - This is rare
  - Diagnostic confirmation would be 1 most of the time

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Surgery Codes

- Some primary site/histologies have defaults (see STORE and SEER manuals)
  - Surgery of primary site 98 is the default for the following primary sites:
    - C420, C421, C423, C424, C760-C768, or C809

Data Item	Value
Surgery Primary Site	98
Surgical Margins	9
Reason No Surgery	1

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Surgery Codes

- Does a Simple Prostatectomy qualify for pathologic staging?
  - Yes
  - No

Pathologic stage and Grade Pathologic require a radical prostatectomy (removal of the entire prostate) to meet the rules for classification. A simple prostatectomy removes the tissue within the prostate but leaves the prostatic capsule intact.

PQ 9

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Prostate: Surgery and Other Data Items

- *Example*: Elevated PSA, DRE normal, needle core biopsy, prostate adenocarcinoma, 3+3=6. Simple prostatectomy, adenocarcinoma, no evidence lymph nodes, mets

Data Item	Value
Surgery Primary Site	30
Gleason Patterns Clinical	33
Gleason Score Clinical	06
Gleason Patterns Pathological	X7
Gleason Score Pathological	X7
Gleason Tertiary Pattern	X7
Clinical Grade	1
Pathological Grade	9

Data Item	Value
Clinical T	cT1c
Clinical N	cN0
Clinical M	cM0
EOD Primary Tumor	120
EOD Prostate Path	900
EOD Lymph Nodes	000
EOD Mets	00

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Colon: Surgery and Other Data Items

- *Example*: Colon biopsy and polypectomy, no other treatment. CEA done post polypectomy, 3.2

Data Item	Value
Surgery Primary Site	27
CEA Pre TX Lab Value	XXXX.9
CEA Pre TX Interpretation	9
Tumor Deposits	X9
Perineural Invasion	9
Circumferential Resection Margin	XX.7
Microsatellite Instability	9
BRAF	9
NRAS Mutational Analysis	9

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Leukemia: Surgery and Other Data Items

- Leukemia

Data Item	Value
Primary Site	C42.1
AJCC T, N, M	88
AJCC Stage Group	99
EOD Extension	700
EOD Lymph Nodes	888
EOD Mets	88
Summary Stage	7

Data Item	Value
Surgery of Primary Site	98
Surgical Margins	9
Surgical Procedure of Other Site	9
Reason for No Surgery	1
Scope of Regional Lymph Node Surgery	9
Regional Nodes Examined	99
Regional Nodes Positive	99

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Lymph Node Assessment

- Related Data Items
  - Scope of Regional Lymph Node Surgery
  - Regional Nodes Examined
  - Regional Nodes Positive
  - Sentinel Lymph Nodes Examined (Breast and Melanoma Skin only, 2018+)
  - Sentinel Lymph Nodes Positive (Breast and Melanoma Skin only, 2018+)
  - AJCC Clinical and Pathological N
  - EOD Lymph Nodes
  - SSDIs related to Lymph Nodes
  - Summary Stage

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Lymph Node Assessment

- Regional Nodes Examined MUST be => than Regional Nodes Positive
- Sentinel LN Examined MUST be => than Sentinel LN Positive
- Regional Nodes Examined MUST be => than Sentinel LN Examined
- Regional Nodes Positive MUST be => than Sentinel LN Positive

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Lymph Node Assessment

- If Regional Nodes positive = 01-90, 95, 97
  - Indicates Positive Nodes
  - AJCC N (either Clinical or Pathological) must NOT be N0
    - AJCC pN can still be NX (or blank) if N is based on the number of nodes positive, and the number of positive nodes is not known (RNP's Code 97)
  - EOD Lymph Nodes must NOT be 000, 030, 050, 070, 999
  - Summary Stage must NOT be 0, 1, 2, 9

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Lymph Node Assessment

- Many schemas have SSDIs related to lymph nodes
- If you are assigning AJCC/EOD, determine the appropriate N category and then assign the SSDIs based on that assignment
- AJCC Pathological N is normally going to have nodes assessed histologically
  - Remember to code the following accordingly:
    - Scope of Regional Lymph Node Surgery
    - Regional Nodes Positive
    - Regional Nodes Examined

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Lymph Node Assessment

- *Example*: Head and Neck Schemas
  - N is based on several different factors
    - Lymph node size (SSDI 3883: Lymph Node Size)
    - Number of nodes positive (clinically or pathologically)
      - If pathologically confirmed, make sure RNP's positive is coded appropriately)
    - Presence/absence of ENE
      - 3831: Extranodal H&N Clin
      - 3832: Extranodal H&N Path
        - If no pathological assessment, code X.9

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Lymph Node Assessment

- Review of SEER data shows that registrars are not coding consistently Scope of Regional Lymph Nodes and Regional Nodes Examined

Regional Nodes Examined	Scope of Regional Lymph Node Surgery
00: No nodes examined	0: No nodes examined
95: Aspiration, core biopsy	1: Biopsy/aspiration of lymph node
Cannot be 00, 95, 96, 97, 98	2: Sentinel Lymph Node biopsy only
96, 97, 98: Nodes removed, unknown #	3: Number nodes examined unk
01-03	4: 1-3 regional nodes examined
04-90	5: 4 or more regional nodes examined
Cannot be 00, 95, 96, 97, 98	6: SLN bx and 3, 4, 5 (same time)
Cannot be 00, 95, 96, 97, 98	7: SLN bx and 3, 4, 5 (different times)
99	9: Unknown/not applicable

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Lymph Node Assessment

- Breast biopsy, ductal adenocarcinoma
- Physical exam: no palpable nodes.
- Lumpectomy with SLN dissection done: Ductal adenocarcinoma, 0/3 lns

Data Item	Default Value
Scope of Regional Lymph Node Surgery	2
Regional Nodes Examined	03
Regional Nodes Positive	00
Sentinel LN Examined	03
Sentinel LN Positive	00
AJCC Clinical N	N0
AJCC Pathological N	N0 (sn)
EOD Lymph Nodes	070
Summary Stage	(not 3 or 4)
Lymph Nodes Positive Axillary Level I-II	00

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Lymph Node Assessment

- Breast biopsy, ductal adenocarcinoma,
- Physical exam: no palpable nodes.
- Lumpectomy with SLN dissection done: Ductal adenocarcinoma, 2/3 lns;
- 3 days later, axillary dissection: 2/15; LNs greater than 2 mm

Data Item	Default Value
Scope of Regional Lymph Node Surgery	7
Regional Nodes Examined	18
Regional Nodes Positive	04
Sentinel LN Examined	03
Sentinel LN Positive	02
AJCC Clinical N	N0
AJCC Pathological N	N1c
EOD Lymph Nodes	200
Summary Stage	3, 4, or 7
Lymph Nodes Positive Axillary Level I-II	04

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Lymph Node Assessment

- Head and Neck Melanoma, Level II nodes involved clinically
- Lymph node dissection 12/25 LNS
  - Level II and III nodes involved

Data Item	Default Value
Scope of Regional Lymph Node Surgery	5
Regional Nodes Examined	25
Regional Nodes Positive	12
AJCC Clinical N	N1
AJCC Pathological N	N1
EOD Lymph Nodes	300
Summary Stage	3, 4, or7
LN H&N Level I-III	6
LN H&N Level IV-V	0
LN H&N Level VI-VII	0
LN H&N Other	0

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Lymph Node Assessment

- Oropharynx (p16-) primary, Involved nodes clinically
- Lymph node dissection 8/13 LNS
  - Largest lymph node 4.5 cm
  - Presence of ENE not stated

Data Item	Default Value
Scope of Regional Lymph Node Surgery	5
Regional Nodes Examined	13
Regional Nodes Positive	8
AJCC Clinical N	NX
AJCC Pathological N	N2b
EOD Lymph Nodes	250
Summary Stage	3, 4, or7
ENE Clin	0
ENE Path	0.0
LN Size	45.0

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Metastatic disease

- If you have determined there is no metastatic disease

Data Item	Default Value
Mets at Dx-Bone	0
Mets at Dx-Brain	0
Mets at Dx-Liver	0
Mets at Dx-Distant Lymph Nodes	0
Mets at Dx-Other	0
AJCC M	cM0
EOD Mets	00
Summary Stage	0, 1, 2, 3, 4 On rare occasions 7

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Metastatic disease

- If you have a lymphoma arising in the lymph nodes (C77.X) and there is no metastatic disease…

Data Item	Default Value
Mets at Dx-Bone	0
Mets at Dx-Brain	0
Mets at Dx-Liver	0
Mets at Dx-Distant Lymph Nodes	8
Mets at Dx-Other	0
AJCC Stage	(not stage 4)
EOD Mets	88
Summary Stage	1 or 2

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Summary Stage and code 7: EOD PT

500	At least three pelvic segments involved, NOS	L
550	Code 500 WITH extraosseous extension •Beyond periosteum to surrounding tissues, including adjacent skeletal muscle(s)	RE
600	Confined to pelvis, NOS (number of segments involved not known) Localized, NOS	L
650	Sacroiliac joint Sacral neuroforamen	D
700	Encasement of external iliac vessels	D
750	Gross tumor thrombus in major pelvic vessels Further contiguous extension	D

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Summary Stage and code 7: EOD LN

500	Infraclavicular lymph node(s) (subclavicular) (level III axillary node(s)) (apical), ipsilateral WITH or WITHOUT axillary (level I and II) nodes(s) WITHOUT internal mammary node	RN
600	Internal mammary node(s), ipsilateral, clinically apparent (On imaging or clinical exam) WITH axillary (level I, II, or III) lymph node(s), ipsilateral including infraclavicular	RN
700	Supraclavicular node(s), ipsilateral	D
800	Regional lymph node(s), NOS Lymph node(s), NOS	RN

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AJCC Stage and SSDIs

- Some SSDIs are stage related
- Colon and Rectum Schema
  - KRAS, NRAS, BRAF are usually done on Stage 4 colon cancers
  - If you have a Stage 0-2
    - Unless you have documentation for these tests readily available, assume they were not done and code unknown
      - In other words, don't spend time looking for this information
  - If you have a Stage 3
    - Do a cursory look to see if it was done (although probably not)
  - If you have a Stage 4
    - Spend a little more time searching for these tests if patient has treatment
      - Note: This for Stage IV cancers at initial diagnosis

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Stage (AJCC, EOD, SS) and SSDIs: Kidney

- 3864: Invasion beyond capsule
  - Codes 1-5: At least T3a
    - EOD Extension: At least 200
    - Summary Stage: At least 2
- 3886: Major vein involvement
  - Codes 1, 4: At least T3a
    - EOD Extension: At least 200
    - Summary Stage: At least 2
  - Codes 2, 3: At least T3b
    - EOD Extension: At least 300
    - Summary Stage: At least 2
- 3861: Ipsilateral gland involvement
  - Codes 1, 4: T4
    - EOD Extension: At least 600
    - Summary Stage: 2
  - Code 2: M1
    - EOD Mets: 70
    - Summary Stage: 7
  - Code 3: T4, M1
    - EOD Extension: At least 600
    - EOD Mets: 70
    - Summary Stage: 7

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SSDIs with SSDIs

- Some SSDIs are also related. How you code one impacts another one
- When abstracting cases with multiple SSDIs, take a minute to see if those SSDIs are related

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SSDIs with SSDIs: Corpus Schemas

- Number of Examined Pelvic Nodes needs to be => Number of Positive Pelvic Nodes
- Number of Examined Para-aortic Nodes needs to be => Number of Positive Para-aortic Nodes

- In addition
  - Number of Regional Nodes Examined needs to be => Number of Examined Pelvic Nodes AND Number of Examined Para-aortic Nodes
  - Number of Regional Nodes Positive need to be => Number of Positive Pelvic N
  - odes AND Number of Positive Para-aortic Nodes

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SSDIs with SSDIs: Breast

- SSDI Reviewing results from 2018 and finding some inconsistencies
  - ER/PR Summary NEGATIVE
    - Percent Positive and/or Allred Score indicating POSITIVE
  - ER/PR Summary POSITIVE
    - Percent Positive and/or Allred Score indicating NEGATIVE
  - ER/PR Percent Positive and or Allred Score indicating positive, yet ER/PR Summary coded as
    - Test done, results not in chart or Unknown

- These data items need to agree with one another

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General Guidelines for ER/PR Data Items

ER/PR Summary	Percent Positive	Proportion Score	Intensity Score	Allred Score
Negative	000 (0%)	0	0	0
Negative	000 (less than 1%)	1	0, 1, Unk	1-2, 9
Positive	001-010, R10	2	1, 2, 3, Unk	3-5, 9
Positive	011-033, R20, R30	3	1, 2, 3, Unk	4-6, 9
Positive	034-066, R50, R60	4	1, 2, 3, Unk	5-7, 9
Positive	067-100, R70, R80, R90, R99	5	1, 2, 3, Unk	6-8, 9
Positive	R40	3 or 4	1, 2, 3, Unk	4-7, 9
Positive	R70	4 or 5	1, 2, 3, Unk	5-8, 9

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Uses of Cancer Registry Data

- How does the data that cancer registrars collect impact cancer statistics and cancer research in the U.S.
  - Track incidence of cancer
  - Track stage of cancer
    - Influenced by screening
    - Influenced by treatment
    - Influenced by intervention
  - Survival analysis
  - Apply for funds to support cancer research

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Conclusion

- Think about what you are coding
  - Are there relationships that you need to consider
- Many codes can be ruled out once you determine the relationships
- When you get edits, don't just try to find a code that works, but try and determine where the problem is
- Don't depend on edits!

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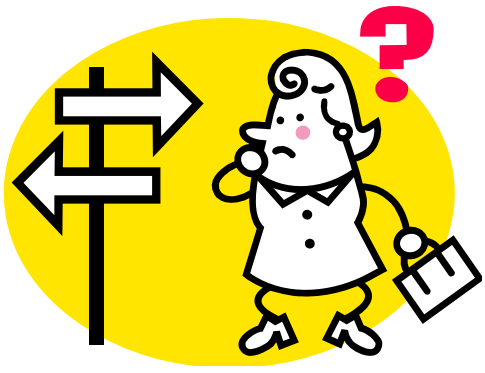
Questions



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Fabulous Prizes



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Coming UP…

- Abstracting and Coding Boot Camp 2022
  - Guest Host: Nancy Etzold, CTR
  - 3/03/2022
- Hematopoietic and Lymphocytic Neoplasms 2022
  - Guest Host: Denise Harrison, CTR; Louanne Currence, RHIT, CTR
  - 4/14/2022

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CE Certificate Quiz/Survey

CE Phrase

Link

https://survey.alchemer.com/s3/6563867/Data-Item-Relationships

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Thank you!

- jhofferkamp@naaccr.org
- amartin@naaccr.org

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