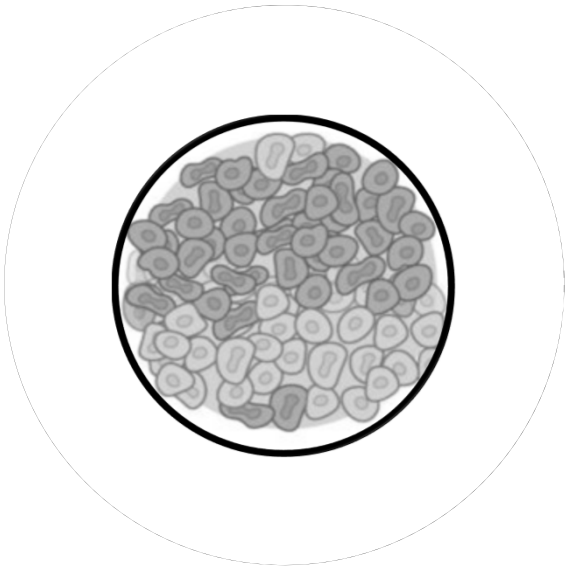


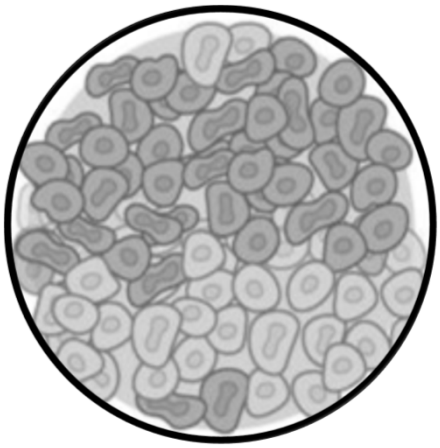
CODING GRADE

NAACCR PRESENTATION

8/26/20

QUESTIONS

- Please submit all questions in the Q&A panel (not the chat panel).
  - We will briefly address questions after each speaker
  - Will have a Q&A session after the presentation
  - Q&A document will be posted with the recording at https://education.naaccr.org/updates-implementation
- CE Survey will be distributed to all attendees after the session.



CODING GRADE

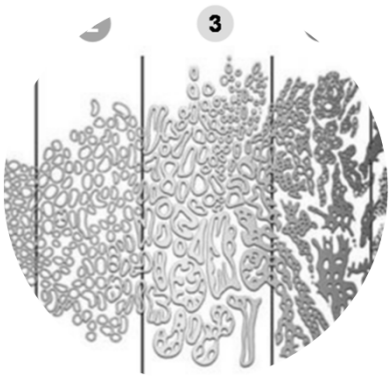
- Developed and presented by the following members of the NAACCR SSDI WG
  - Jennifer Ruhl, Co-Chair
  - Donna Hansen, Member
  - Jim Hofferkamp, NAACCR Support

AGENDA

- Core Concepts
- Changes/updates for 2021
- Review Select site-specific tables & scenarios
- Case Scenarios

GRADE

- In general, the grade information we collect is an assessment of the aggressiveness of the tumor.
- Grade may be used when determining
  - Stage group (certain sites)
  - Treatment
  - Prognosis
  - Survival
- Grade is assessed differently for different site/histologies
  - Colon-nuclear grade
  - Prostate-Gleason grade group
  - Breast-Nottingham/Scarff Bloom Richardson



GRADE DEFINITIONS

- AJCC Chapter specific grading systems incorporated into 2018 Grade
- Site specific grades harmonized with CAP cancer protocol checklists
- Based on site and/or chapter, the generic cancer registry grade categories or another definition of grade may be used
- Historical grade definitions still apply when specific grading systems not applicable for site, or preferred grade not available

TOOLS

- Grade Manual
  - https://apps.naaccr.org/ssdi/list/
- SSDI/Grade webpages
  - https://apps.naaccr.org/ssdi/list/
  - https://staging.seer.cancer.gov/eod_public/list/1.7/
- Software

V1.7 is what we will use until we convert to v21 (next year). We will then start using v2.0

7

GENERAL RULES

8

GENERAL RULES

- Code grade from the primary tumor only
  - Do NOT code grade based on metastatic tumor or recurrence
  - If tumor tissue extends contiguously to adjacent site, and tissue from primary site not available, code the grade from the contiguous site

9

POP QUIZ 1

- Patient had a biopsy of a tumor in the left lung and a biopsy of a mediastinal lymph
  - Lung tumor biopsy:
    - Moderately differentiated squamous cell carcinoma.
  - Mediastinal lymph node:
    - Metastatic poorly differentiated squamous cell carcinoma

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

Grade Data Item	Grade Value
Grade Clinical	2
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

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POP QUIZ 2

- Patient had a biopsy of a mediastinal lymph
  - Mediastinal lymph node:
    - Metastatic poorly differentiated squamous cell carcinoma

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

Grade Data Item	Grade Value
Grade Clinical	9
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

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GENERAL RULES

- If more than one grade available for an individual grade data item (i.e. within the same time frame)
  - Priority goes to the recommended AJCC grade listed in the applicable AJCC chapter (Codes 1-5)
    - If none of the specified grades are from the AJCC grade system, record highest grade per applicable alternate grade categories for that site
    - If no recommended AJCC grade, code highest grade per the applicable grade categories

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
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
E	Stated as "Gleason score 7" with no patterns documented or Any Gleason patterns combination equal to 7 not specified in 2 or 3
9	Grade cannot be assessed; Unknown

GENERAL RULES

- In situ and/or combined in situ/invasive components:
  - If a grade available for tumor with in situ* behavior (/2), code it
    - Do NOT code grade for dysplasia such as high-grade dysplasia.
  - If both in situ and invasive components (/3), code grade for the invasive portion even if its grade is unknown

*Unless otherwise specified assume "in situ" is referring to behavior, not stage.

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POP QUIZ 3

- Patient presents for lumpectomy due to mass in her left breast.
  - Pathology shows single tumor with invasive ductal carcinoma and high-grade ductal carcinoma in situ

Grade Data Item	Grade Value
Grade Clinical	9
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

Code	Description
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

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GENERAL RULES

- Systemic treatment and radiation can alter a tumor's grade
  - Grade information obtained prior to neoadjuvant treatment is collected in Grade Clinical and Grade Pathological
  - Grade information obtained after neoadjuvant treatment is collected in Grade Post Therapy Clinical and Grade Post Therapy Pathological
  - Do ***NOT*** mix information obtained *prior* to neoadjuvant treatment with information obtained *after* neoadjuvant treatment!

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POP QUIZ 4

- Patient presents for core biopsy of mass in her left breast
  - Pathology shows single tumor with invasive ductal carcinoma
- Neoadjuvant treatment administered
- Patient returned for mastectomy
  - Pathology shows Nottingham Grade 2 IDC

Grade Data Item	Grade Value
Grade Clinical	9
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	2

Code	Description
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

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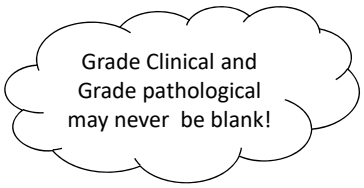
CODE 9 (UNKNOWN) WHEN…



- Grade Clinical **and** Grade Pathological
  - If grade information not documented, assign code 9
- If unknown if clinical or pathological
  - Assign grade value to Grade Clinical
  - Code Grade Pathological 9
- Grade Pathological
  - If patient has treatment prior to resection of primary tumor (neoadjuvant treatment), Grade pathological must be 9

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BLANKS VS 9 (UNKNOWN)

GRADE POST THERAPY CLINICAL (yc)
GRADE POST THERAPY PATHOLOGICAL (yp)

		Grade yc	Grade yp
No neoadjuvant therapy		Blank	Blank
Neoadjuvant therapy			
No bx of primary tumor	No resection of primary tumor	Blank	Blank
Bx of primary tumor, but no grade info	No resection of primary tumor	9	Blank
No bx of primary tumor	Resection of primary tumor, but no grade info	Blank	9
Bx of primary tumor, but no grade info	Resection of primary tumor, but no grade info	9	9

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TIME FRAMES FOR GRADE

Grade Data Items
Grade Clinical
Grade Pathological
Grade Post Therapy Clin (yc)
Grade Post Therapy Path (yp)

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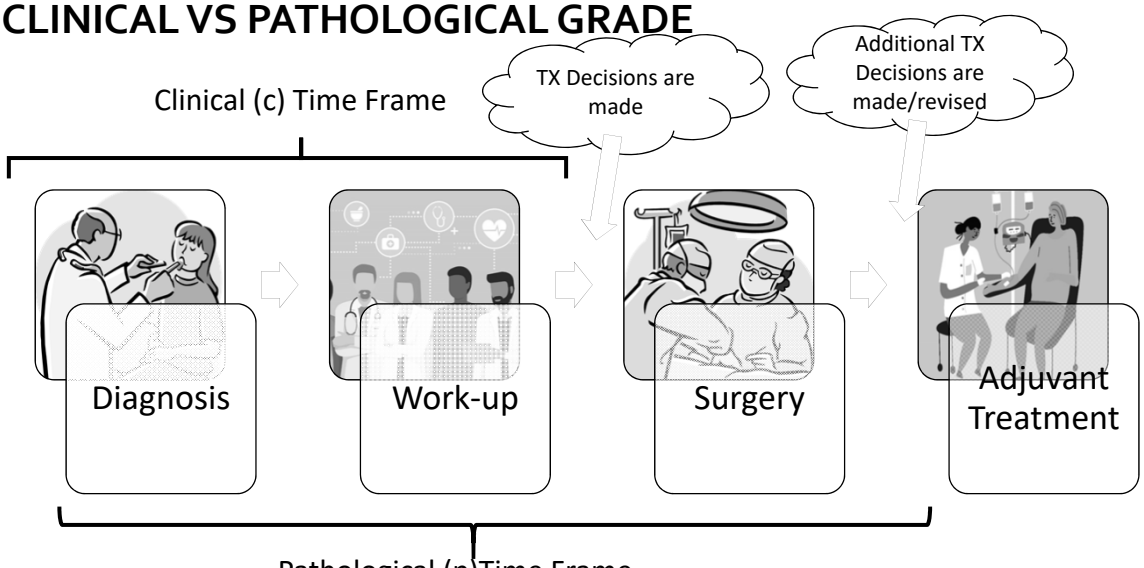
GRADE DATA ITEMS

- Grade Clinical
  - Code the highest known grade during clinical time frame – usually from a biopsy or FNA
    - Exceptions are often documented in the notes for each site.
  - Before any treatment such as surgical resection or neoadjuvant therapy, etc.
- Grade Pathological
  - Code the highest known grade during pathological time frame- usually the highest known grade after the primary tumor has been "resected".
    - Criteria for pathological classification is based on AJCC specifications.
    - For most sites this means the entire tumor has been surgically excised
    - Exceptions are often documented in the notes for each site.

Note 5:
For bladder, a TURB does not qualify for surgical resection.
A cystectomy, or partial cystectomy, must be performed

CLINICAL VS PATHOLOGICAL GRADE



POP QUIZ 5

- Patient presents with a lump in her left breast.
  - A core biopsy of the breast was positive for ductal carcinoma Nottingham grade 2
  - Patient returns for mastectomy. Pathology shows a 2cm ductal carcinoma Nottingham grade 3.

Grade Data Item	Grade Value
Grade Clinical	2
Grade Pathological	3
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

Code	Description
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

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POP QUIZ 6

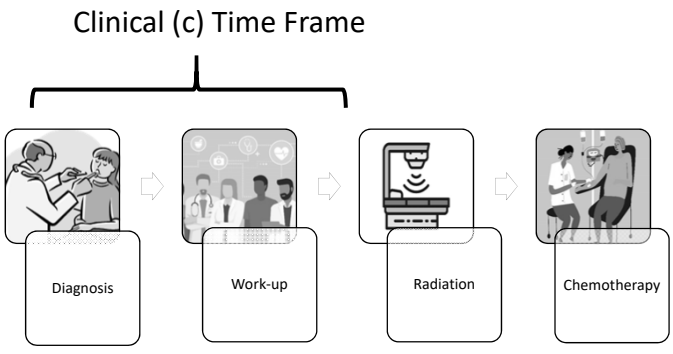
- Patient presents with a lump in her left breast.
  - A core biopsy of the breast was positive for ductal carcinoma Nottingham grade 3
  - Patient returns for mastectomy. Pathology shows a 2cm ductal carcinoma. Nottingham grade 2

Grade Data Item	Grade Value
Grade Clinical	3
Grade Pathological	3
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

Code	Description
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

23

WHAT IF NO RESECTION OF PRIMARY TUMOR?



- Assign clinical grade based on histological information from the primary tumor collected before any treatment.
- If the patient does not have a definitive surgery, then the Pathological Grade is probably going to be 9-unknown

POP QUIZ 7

- Patient presents with persistent cough. A CT showed a mass in the upper lobe left lung.
  - A biopsy of the tumor in the left lung was positive for poorly differentiated adenocarcinoma.
  - The patient went on to have radiation and chemotherapy. Patient was not a surgical candidate.

Grade Data Item	Grade Value
Grade Clinical	3
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

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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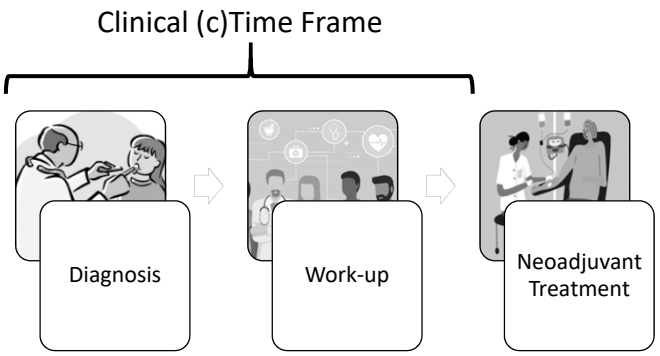
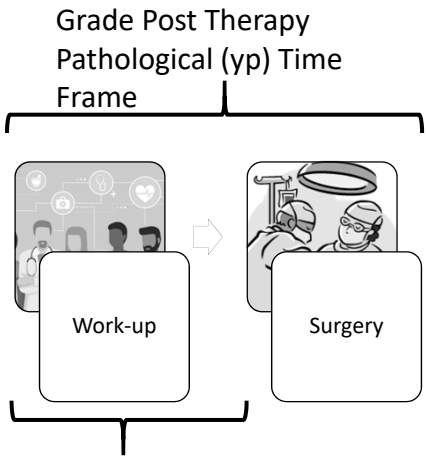
GRADE POST THERAPY

- Grade Post Therapy Clin (yc)*
  - Highest known grade after neoadjuvant treatment, but before surgery of the primary tumor.
- Grade Post Therapy Path (yp)**
  - Highest known grade after neoadjuvant treatment and surgery to the primary tumor-usually resection or attempted resection of the primary tumor.

*New data item for 2021. May not be required by all standard setters
**New name. Previously *Grade Post Therapy*

POST THERAPY CLINICAL (yc) VS PATHOLOGICAL GRADE (yp)





POP QUIZ 8

- Patient presents with a lump in her left breast.
  - A core biopsy of the breast was positive for ductal carcinoma Nottingham grade 2
  - The patient received neoadjuvant chemotherapy.
  - Patient returns for mastectomy. Pathology shows a 2cm ductal carcinoma Nottingham grade 3.

Grade Data Item	Grade Value
Grade Clinical	2
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yc)	3

Code	Description
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

POP QUIZ 9

- Patient presents with primary rectal tumor.
  - A core biopsy rectum was positive poorly differentiated adenocarcinoma
  - The patient received neoadjuvant chemoradiation.
  - Patient is found to have residual tumor that is biopsied. Pathology shows moderately differentiated adenocarcinoma.
  - A low anterior resection is performed and the tumor is found to be positive for well differentiated adenocarcinoma.

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

Grade Data Item	Grade Value
Grade Clinical	3
Grade Pathological	9
Grade Post Therapy Clin (yc)	2
Grade Post Therapy Path (yc)	2

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POP QUIZ 10

- Patient presents with primary rectal tumor.
  - A core biopsy rectum was positive poorly differentiated adenocarcinoma
  - The patient received neoadjuvant chemoradiation.
  - A low anterior resection. No residual tumor is identified.

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

Grade Data Item	Grade Value
Grade Clinical	3
Grade Pathological	9
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yc)	9

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QUESTIONS?

31

2021 UPDATES

Updates based on questions received in CAnswer Forum and consultation from AJCC physicians and the CAP Cancer Committee

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ALL GRADE DATA ITEMS

- Due to addition of new notes, note numbers have changed
  - Note number changes were not always documented in change log, so pay attention to the note numbers
- Registrars not required to update grade information on cases already completed
  - These updates can be applied to cases diagnosed 2018+

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NEW GRADE DATA ITEM

- Grade Post Therapy Clin (yc)
  - Applicable for cases diagnosed 1/1/2021 and forward
  - Follows same guidelines as other AJCC 'yc' data items
  - If no neoadjuvant therapy done, leave blank
- Note: Current "Grade Post Therapy" now called:
  - Grade Post Therapy Path (yp)

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GRADE DATA ITEMS

For all Grade data items, New Note

- If there are multiple tumors with different grades abstracted as one primary, code the highest grade

- This has been confirmed with the CAP Cancer Committee

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GRADE PATHOLOGICAL (NEW NOTE 2)

- **BREAST (Schema with A-D codes)**
- **Note 2:** There is a preferred grading system for this schema. If the clinical grade given uses the preferred grading system and the pathological grade does not use the preferred grading system, do not record the Grade Clinical in the Grade Pathological field. Assign Grade Pathological using the applicable generic grade codes (A-D).
- *Example*: Breast biopsy, invasive ductal carcinoma, Nottingham grade 2. Lumpectomy, invasive ductal carcinoma, nuclear grade 3
  - Code Grade Clinical 2 (G2) since Nottingham is the preferred grading system
  - Code Grade Pathological as C (nuclear Grade 2), per the Coding Guidelines for Generic Grade Categories

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GRADE PATHOLOGICAL (NEW NOTE 2)

- **PROSTATE (A-D codes available)**
- **Note 2:** There is a preferred grading system for this schema. If the clinical grade given uses the preferred grading system and the pathological grade does not use the preferred grading system, do not record the Grade Clinical in the Grade Pathological field. Assign Grade Pathological using the applicable generic grade codes (A-D).
- *Example:* Biopsy of prostate, adenocarcinoma, Gleason Patterns 2+3, Score =5. The surgical resection states a moderately differentiated adenocarcinoma
  - Code Grade Clinical as 1 since Gleason Score Clinical is less than 6 and this is the preferred grading system
  - Code Grade Pathological as B (moderately differentiated), per the Coding Guidelines for Generic Grade Categories

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GRADE PATHOLOGICAL (NEW NOTE 2)

- **GRADE TABLE 2: Multiple schemas (Schemas without A-D codes)**
- **Note 2:** There is a preferred grading system for this schema. If the clinical grade given uses the preferred grading system and the pathological grade does not use the preferred grading system, do not record the Grade Clinical in the Grade Pathological field. Assign Grade Pathological 9.
- *Example:* Biopsy of primary site shows a moderately differentiated adenocarcinoma. The surgical resection states a high-grade adenocarcinoma.
  - Code Grade Clinical as 2 since Moderately differentiated (G2) is the preferred grading system
  - Code Grade Pathological as 9 since the preferred grading system was not used and the Generic Grade Categories do not apply to this grade table

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GRADE PATH (UPDATED NOTE: # VARIES BY SCHEMA)

- **Note 7:** Use the grade from the **clinical work up** from the primary tumor in different scenarios based on behavior or surgical resection
- **Behavior**
  - Tumor behavior for the clinical and the pathological diagnoses are the same AND the clinical grade is the highest grade
    - Both in situ OR both invasive
  - Tumor behavior for clinical diagnosis is invasive, and the tumor behavior for the pathological diagnosis is in situ

- *As a reminder: If the clinical diagnosis is in situ and the pathological diagnosis is invasive, you cannot use the grade clinical in the grade pathological*

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GRADE PATH (UPDATED NOTE: # VARIES BY SCHEMA)

- **Note 7:** Use the grade from the **clinical work up** from the primary
- **Surgical Resection**
  - Surgical resection is done of the primary tumor and there is no grade documented from the surgical resection
  - Surgical resection is done of the primary tumor and there is no residual cancer
  - Surgical resection of the primary tumor has not been done, but there is positive microscopic confirmation of distant metastases during the clinical time frame

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WHAT IF PATHOLOGICALLY CONFIRMED DISTANT METS?

Clinical Grade

- Pathologically confirmed distant mets does not change clinical grade.
  - Grade must come from primary tumor.
  - Grade must be based on information available before any treatment.

Pathological Grade

- If patient does not have resection of the primary tumor
  and
- If patient has grade information from biopsy of primary tumor (less than full resection)
  and
- If patient has pathologic confirmation of distant mets
  then
- Information from the biopsy of the primary tumor may be used to code the pathological grade data item

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SITE-SPECIFIC GRADE – COLON & RECTUM

Path proven Distant mets- No Surg to Primary site

POP QUIZ # 11

- ER admit rectal bleeding; colonoscopy finds obstructing mass ascending colon; bx reveals PD Adenoca. Imaging reveals ascending colon mass & multiple liver lesions.
- Surgery: Exp lap: Unresectable colon cancer ascending colon; palliative diverting colostomy performed. Bx of suspicious liver lesion positive for metastatic Adenoca from GI primary.

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	3
Grade Pathological	3
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Code 3; PD Adenoca on bx of primary tumor
- **Pathological Grade**: Code 3; No Surg to Prim site yet we do have path proven distant mets.
  - May use grade info from biopsy of primary tumor to code pathological grade data item.

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SPECIFIC GRADE TABLE CLARIFICATIONS

BRAIN, CNS OTHER

- For Benign tumors ONLY (/0)
  - Code 1 (edits have been written to enforce this)
  - Applies to ALL histologies in the Brain/CNS Other with a /0
  - Confirmed by CAP Cancer Committee
- For Borderline tumors (/1)
  - Can be either a 1 or 2, no default for these tumors
  - If histology and behavior are not listed for a specific grade and no grade is available, code to 9
  - Confirmed by CAP Cancer Committee

BRAIN, CNS OTHER

- Code the WHO grading system for selected tumors of the CNS as noted in the AJCC 8th edition Table 72.2 where WHO grade is not documented in the record
  - A list of the histologies that have a default grade can also be found in the *Brain/Spinal Cord* CAP Protocol in Table 1: *WHO Grading System for Some of the More Common Tumors of the CNS*. Table 2: *WHO Grading System for Diffuse Infiltrating Astrocytomas and Table* 3: *WHO Grading Meningiomas* https://www.cap.org/protocols-and-guidelines/cancer-reporting-tools/cancer-protocol-templates
- For those who don't have AJCC manual, can also use the CAP protocol, which can be downloaded and saved on your computer or printed
- List of histologies and grade also available in the Solid Tumor Rules

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BREAST

- **Note 8:** Grade from nodal tissue may be used ONLY when there was **never any evidence of primary tumor (T0).** Grade would be coded using G1, G2, or G3, even if the grading is not strictly Nottingham, which is difficult to perform in nodal tissue. Some of the terminology may include differentiation terms without some of the morphologic features used in Nottingham (e.g., well differentiated (G1), moderately differentiated (G2), or poorly/undifferentiated (G3)).

- *Note:* This does **not** apply to a tumor when there is evidence clinically and found to have no residual tumor on surgical resection

NAACCR

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POP QUIZ 12

- A left axillary mass was excised and found to be regional node metastasis from breast primary.
  - The mass was a metastatic lymph node from a breast primary.
  - Pathology showed metastatic poorly differentiated ductal carcinoma.
- Imaging failed to show a primary breast tumor.
- Patient had a simple mastectomy that was negative for malignancy.

Code 3 based on the poorly differentiated (which is a high grade) although the terminology used is for nuclear grading

Data Item	Code
Grade Clinical	3
Grade Pathological	3
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	

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CORPUS CARCINOMA

- Confirmation received confirmation from CAP Cancer Committee that the following are ALWAYS G3:
  - Serous, clear cell, undifferentiated/de-differentiated carcinomas, carcinosarcomas, and mixed mesodermal tumors (Mullerian)/MMMT are *high risk (high grade)*
  - At this time, a list of specific histology codes has not been developed
  - Added to the notes for the Corpus Carcinoma grade table

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/101914-coding-pathologic-grade-for-dedifferentiated-endometrioid-adenocarcinoma

48

OVARY, FALLOPIAN TUBE, PRIMARY PERITONEAL CARCINOMA

- Note 4, first bullet:
- Immature teratomas and serous carcinomas: Use codes L, H, or 9. This include the following ICD-O-3 codes: 8441/2, 8441/3, 8460/3, 8461/3, 8474/3

- Confirmed by the CAP Cancer Committee

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GENERIC GRADE CATEGORY TABLE

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GENERIC GRADE TABLE - WHEN CAN YOU USE IT?

- Grade for case described using generic description or term only (usually a nuclear grade)
  - Use of Preferred grade system for site was NOT documented
- Site-Specific Grade table for your case *includes* grade codes **A, B, C, D**.
- Grade description/terms used is listed in Generic Grade category table
- **Must meet ALL of the above.**

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GENERIC GRADE TABLE

- If description at right used, code applicable A-D code.

Caution:

- Use only if a generic grade description or term is the ONLY grade documented

Description	Grade	Assigned Grade Code
Differentiated,NOS	I	A
Well differentiated	I	A
Only stated as 'Grade I'	I	A
Fairly well differentiated	II	B
Intermediate differentiation	II	B
Low grade	I-II	B
Mid differentiated	II	B
Moderately differentiated	II	B
Moderately well differentiated	II	B
Partially differentiated	II	B
Partially well differentiated	I-II	B
Relatively or generally well differentiated	II	B
Only stated as 'Grade II'	II	B
Medium grade, intermediate grade	II-III	C
Moderately poorly undifferentiated	III	C
Moderately undifferentiated	III	C
Poorly differentiated	III	C
Relatively poorly differentiated	III	C
Relatively undifferentiated	III	C
Slightly differentiated	III	C
Dedifferentiated	III	C
Only stated as 'Grade III'	III	C
High grade	III-IV	D
Undifferentiated, anaplastic, not differentiated	IV	D
Only stated as 'Grade IV'	IV	D
Non-high grade		9

- Do NOT use this table to code any priority AJCC preferred grade system terms.
- Do NOT use if site-specific grade table uses codes 1,2,3,4 for nuclear grade/generic terms.

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GENERIC GRADE TABLE - WHEN CAN YOU USE IT?

Grade described as "Low grade" – Can we code this for any sites below?

Code	Grade Description / Table 99 AJCC ID XX / Multiple Sites
A	Well Differentiated
B	Moderately Differentiated
C	Poorly Differentiated
D	Undifferentiated, Anaplastic
9	Grade cannot be assessed

- **YES**, table uses A-D only
- Generic table says to code "Low grade" to B

Code	Grade Description / Table 18 Kidney Parenchyma
1	G1: Nucleoli absent or inconspicuous ,etc.
2	G2: Nuclec c,
3	G3: Nuclec c
4	G4: Marked nuclear pleomorphism and/or
A	Well Differentiated
B	Moderately Differentiated
C	Poorly Differentiated
D	Undifferentiated, Anaplastic
9	Grade cannot be assessed

See actual table for complete descriptions G1-G4

- **YES**, A-D codes included w/preferred
- Since preferred grade not used, Code "Low grade" to B

Code	Grade Description / Table 01 Multiple Sites
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated
9	Grade cannot be assessed

- **NO**
- No A-D option in table (codes 1-4 not equivalent to A-D)
- Code grade to 9

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QUESTIONS?

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REVIEW SELECT SITE-SPECIFIC TABLES & SCENARIOS

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SITE-SPECIFIC GRADE - OVARY, FT, PRIMARY PERITONEUM

Code	Grade Description / Grade Table 15 / AJCC ID 55
1	G1: Well Differentiated
2	G2: Moderately Differentiated
3	G3: Poorly differentiated, undifferentiated
B	GB: Borderline Tumor
L	Low Grade
H	High Grade
9	Unknown: can't assess

If Nuclear grade is documented

- Note 5: G3 includes anaplastic

If cases reportable by agreement

Immature teratomas & serous carcinoma use L & H

- ***Includes ICD-O-3 8441/2, 8441/3, 8460/3, 8461/3, 8474/3, 9080/3***

CAP clarification: Clear cell carcinomas, borderline epithelial neoplasms, carcinosarcomas, all other malignant sex-cord stromal and germ cell tumors are *not graded* – [Code to 9]

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SITE-SPECIFIC GRADE – OVARY, FT, PRIMARY PERITONEUM

POP QUIZ # 13

Patient presents with abdominal and left pelvic pain. US reveals left adnexal mass c/w ovarian malignancy. TAH/BSO performed revealing **high grade serous carcinoma** (8461/3).

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	9
Grade Pathological	H
Grade PostTherapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/104191-high-grade-serous-carcinoma-of-ovary

What if histology was Clear cell carcinoma *(8310/3)*

Data Item	Code
Grade Clinical	9
Grade Pathological	9
Grade Post Therapy (yc)	blank
Grade Post Therapy Path (yp)	blank

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SITE-SPECIFIC GRADE - CORPUS UTERI

Code	Grade Description / Table 13 / AJCC ID 53/54.1
1	G1 FIGO Grade 1 G1: Well differentiated
2	G2 FIGO G2 G2: Moderately differentiated
3	G3 FIGO G3 G3: Poorly differentiated or undifferentiated (Note 4: G3 includes anaplastic)
9	Grade cannot be assessed (GX); Unknown

Updated Note 2:

Per CAP, the following histologies must be assigned G3 (Code 3):

- *Serous carcinoma*
- *Clear Cell carcinoma*
- *Undifferentiated/de-differentiated carcinomas*
- *Carcinosarcomas*
- *Mixed mesodermal tumors (Mullerian/MMMT)*
- *[all] Are high risk (high grade)*

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SITE-SPECIFIC GRADE – CORPUS UTERI

POP QUIZ # 14

- Pt with vaginal bleeding; Endometrial bx: Clear cell carcinoma
- TAH/BSO: Clear cell carcinoma invading more than half of myometrium

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	3
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	

- **Clinical Grade**: Per Update/Note 2, Clear Cell Ca is coded to G3, since it is considered high grade.
- **Pathological Grade**: Clear Cell Ca, G3

NOTE:

- Primary Site matters - Clear Cell Ca is coded to 9 for Ovary, FT, PP.
- **Different site, different rules**

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SITE-SPECIFIC GRADE - BREAST

Code	Grade Definition / Table 12
1	G1: Low combined histologic grade (favorable), SBR score of 3-5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6-7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8-9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II intermediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated
9	Grade cannot be assessed (GX); Unknown

Codes 1-3 priority when documented

In situ only

Breast Grade is Behavior dependent

- If behavior /3 must be G1-G3 or A-D, 9
- If behavior /2 must be L, M, H or 9

- IF preferred grade not used, and generic/nuclear grade provided use codes A-D.
- CAN use Generic Grade category table if needed

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SITE-SPECIFIC GRADE – BREAST

POP QUIZ # 15

- Breast biopsy: Invasive Ductal Ca, SBR G2-G3
- Surgical resection: Invasive Ductal Ca, G2

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	

Clinical Grade: Code 3 (G3); SBR score was G2-G3;
- General rule - code the higher grade of G3

Pathological Grade: Code 3; Clinical grade (G3) is higher than grade from surgical resection (G2).
- Use the higher clinical grade of G3 to code pathological grade.
- Preferred system used for both

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/106651-breast-grade

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SITE-SPECIFIC GRADE - BREAST

POP QUIZ # 16

- Breast biopsy: Invasive Ductal Ca SBR G2
- Surgical resection: invasive Ductal Ca "low grade"

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	

- **Clinical Grade**: Code 2 based on SBR G2
- **Pathological Grade**: Code B based on "low grade"; Breast table includes A-D code options; can use Generic Grade table; "low grade" maps to code B
- **See Note 2: Cannot use Clinical grade for Pathological grade since *different* grading systems were used**

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SITE-SPECIFIC GRADE - BREAST

POP QUIZ # 17

- Breast Bx: High grade DCIS
- Lumpectomy: Invasive Ductal Ca, G2

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Bx High grade DCIS (all that was known at that time) Code "H"/high grade
- **Pathological Grade**: Invasive component found at surgery G2/Code 2.
  - Cannot use Clinical grade "H" from in situ – different grading system

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SITE-SPECIFIC GRADE - BREAST

POP QUIZ # 18

- Breast bx: High grade DCIS
- Lumpectomy: **Microinvasive** Ductal Ca

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Code "H"/high grade; Bx in situ only (all that was known in clinical timeframe)
- **Pathological Grade**: Code 9; Grade not stated.
  - Rarely is grade able to be determined when microinvasion identified secondary to insufficient tissue to assess grade.

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SITE-SPECIFIC GRADE - BREAST

POP QUIZ # 19

- Breast bx: Invasive Ductal ca G2
- Lumpectomy: Low grade DCIS

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Code 2; Invasive ductal ca G2
- **Pathological Grade**: Code 2 (G2)
  - Only in situ component found at surgery-No remaining invasive tumor.
  - Use Clinical grade G2/Code 2 (from invasive tumor component) to code pathological grade.

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SITE-SPECIFIC GRADE - PROSTATE

Code	Grade Description / Table 17
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
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
E	Stated as “Gleason score 7” with no patterns documented, or Any Gleason patterns combination equal to 7 not specified in 2 or 3
9	Grade cannot be assessed; Unknown

AJCC Preferred Grade always priority

A-D codes included

CAN use Generic grade table if preferred grade not used

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SITE-SPECIFIC GRADE - PROSTATE

POP QUIZ # 20

- Pt presents to your facility for FCOT Radiation therapy for newly diagnosed Prostate Adenoca, Gleason score 7. No further information.

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	
Grade Pathological	
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Gleason score of 7, no pattern information available; code E
- **Pathological Grade**: No surgery, treatment choice is radiation therapy. Code 9

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SITE-SPECIFIC GRADE - PROSTATE

Grade from Consultation differs from original grade

- **Results from Consultation take priority**
- NOTE: Must be from same timeframe
  - Clinical
  - Pathological
- http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/102656-consult-slides-show-lower-grade
- RULE APPLIES TO ANY SITE

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ORIGINAL GRADE VS CONSULTATION GRADE

Prostate BX cores as follows:

- 1 core - Gleason 4+4=8 (score 8/Group 4)
- 3 cores - Gleason 4+3=7
- 4 cores - Gleason 3+4=7
- 1 core - too small to grade

Clinical Grade: Grade Group 4 (Gleason score 8)

Elsewhere Prostatectomy (Gleason 3+4=7/Grade 2) and their **consultation** review of **original BX cores** revealed:

- 2 cores – Gleason 4+3=7 (Score 3/Group 3)
- 7 cores – Gleason 3+4=7

Clinical Grade: Grade Group 3 (Gleason Score 7)

PQ #21

What do you assign for Grade Clinical, Pathological, and Grade Post? Therapy?

Data Item	Code
Grade Clinical	3
Grade Pathological	3
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Grade Group 3/Code 3 - Consultation results takes priority
- **Pathological Grade**: Clinical grade of 3 is higher than prostatectomy grade of 2.
  - Code the higher Clinical grade of 3

SITE-SPECIFIC GRADE - PROSTATE

POP QUIZ # 22

- Prostate transrectal biopsy: Poorly Differentiated Neuroendocrine Ca. Outside slide consultation read as High Grade Neuroendocrine Ca. Treatment plan is chemotherapy.

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	D
Grade Pathological	9
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

Clinical Grade: Code D

- Codes 1-5 can't be used –Preferred Gleason Grade was not used
- Table does include A-D codes. Can use Generic table.
  - PD is coded a "C".
  - HOWEVER, "High grade" on consultation is coded "D".
- Per rules code highest grade per applicable timeframe – Code D

Pathological Grade: Code 9

- No surgery to primary site; treatment was chemotherapy

SITE-SPECIFIC GRADE - COLON & RECTUM

Code	Grade Description / Table 02
1	G1: Well Differentiated
2	G2: Moderately Differentiated
3	G3: Poorly Differentiated
4	G4: Undifferentiated (Note 4: G4 includes anaplastic)
9	Cannot be assessed; Unknown

- Colon has a preferred 4-grade system
- A-D options *not* included – cannot use Generic Grade Category Table
- Updated Note 2: Cannot record Clinical grade in Pathological grade if preferred system not used for *both*.
  - If different system used for each, cannot apply general rule to code higher clinical grade for pathological grade.
  - Pathological grade would be 9

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SITE-SPECIFIC GRADE – COLON & RECTUM

POP QUIZ # 23

- Colon bx of mass noted on colonoscopy: Adenocarcinoma Mod-Diff
- Hemicolectomy: High grade Adenocarcinoma

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	2
Grade Pathological	9
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

- **Clinical Grade**: Code 2 - Mod-Diff (preferred grade system used)
- **Pathological Grade**: Code 9 - different grade system used, non-preferred. Cannot use Clinical grade to code Pathological grade field

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SITE-SPECIFIC GRADE – COLON & RECTUM

POP QUIZ # 24

- Rectal Bx: Poorly diff Adenoca. Tx Plan: Neoadjuvant chemo/radiation followed by surgery.
- Surg-LAR: Minute focus Adenoca ca, Well-diff, 0/27 LNs positive.

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	3
Grade Pathological	9
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	1

Clinical Grade - Code 3, Poorly diff on Bx

Pathological Grade - Code 9, Pathological grade n/a - Pt had Neoadjuvant treatment

Post-Therapy Grade - Code 1, Well diff on surgical resection AFTER Neoadjuvant treatment

- Can never use Clinical info in Post-therapy (yc or yp) Grade

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SITE-SPECIFIC GRADE - BLADDER

Code	Grade Description / Table 19 / Bladder, Renal Pelvis, Urethra, Urethra-Prostatic
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated (Note 5: includes anaplastic & undifferentiated)
L	LG: Low-grade
H	HG: High-grade
9	Grade cannot be assessed (GX); unknown

Grade is Histology specific

- Priority order
  - Urothelial cancers use code L, H and 9
    - If only stated as G1-G3, code to 9
  - Adenocarcinomas and Squamous Cell Ca use code 1-3, 9
    - If only stated as L or H, code 9
- No A-D option (cannot use Generic table)

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SITE-SPECIFIC GRADE – BLADDER

POP QUIZ # 25

- TURBT: High grade invasive papillary urothelial ca
- Treated with Neoadjuvant therapy followed by surgery
- Cystectomy: Residual high grade focal urothelial carcinoma in situ; No residual invasive disease.

What is the clinical, pathological and post therapy grade?

Data Item	Code
Grade Clinical	H
Grade Pathological	9
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	H

Clinical: Code H – High grade invasive urothelial ca
Pathological : Code 9 /Not applicable – Had Neoadjuvant Tx
Post-Therapy (yp): Code H – residual High grade in situ urothelial ca on resection AFTER Neoadjuvant Tx.

- Clinical grade *never* used in Post-therapy grade field.
- Post-Therapy grade based solely on post-therapy surgical pathology

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SITE-SPECIFIC GRADE - BRAIN, CNS OTHER, INTRACRANIAL GLAND

Code	Description / Table 24 / AJCC ID 72
1	WHO Grade I:
2	WHO Grade II:
3	WHO Grade III:
4	WHO Grade IV:
L	Stated as "low grade" NOS
H	Stated as "high grade" NOS
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed; Unknown

See actual table for full code descriptions WHO Grades 1-IV

- Codes 1-4 priority over A-D, L and H
- Benign brain tumors (behavior 0) may automatically be assigned a Grade 1
- Borderline brain tumors (behavior 1) can be either Grade 1 or Grade 2 depending on histology
- A-D Nuclear grades
  - Can use Generic Grade Category table if ONLY nuclear grade documented

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SITE-SPECIFIC GRADE - BRAIN, CNS OTHER, INTRACRANIAL GLAND

- Code WHO grade documented in the medical record
- If grade not documented review WHO grading systems table(s)
- Determine if histology has a default WHO grade:
    - AJCC 8th Edition, Chapter 72, Table 72.2
    - CAP Protocol Nervous System (pages 23-24)
        - Table 1: WHO grading system for common tumors of the CNS
        - Table 2: WHO grades for Diffuse Infiltrating Astrocytomas
        - Table 3: WHO grading of Meningiomas
    - Solid Tumor Rules
- NOTE: Both AJCC and CAP lists are accurate - but not identical
    - If histology & default grade found on one of the lists – code accordingly

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SITE-SPECIFIC GRADE - BRAIN, CNS OTHER, INTRACRANIAL GLAND

POP QUIZ # 26

Brain MRI: 12 mm mass c/w benign meningioma. Treatment: Active Surveillance

What is the clinical, pathological and post-therapy grade?

Data Item	Code
Grade Clinical	1
Grade Pathological	9
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

Clinical Grade: Code 1 - benign CNS tumors (/0) may automatically be assigned a Grade 1- *including imaging only cases.*
Pathological Grade: Code 9 – No surgical resection

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/105220-cns-grade

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SITE-SPECIFIC GRADE - BRAIN, CNS OTHER, INTRACRANIAL GLAND

POP QUIZ # 27

- MRI Brain: 5.1 cm cystic/solid mass left frontal lobe mass centered in corpus collosum.
- Lt frontal craniotomy/excision of brain tumor. Pathology: Anaplastic oligodendroglioma, WHO grade III.

What is the clinical, pathological and post-therapy grade?

Data Item	Code
Grade Clinical	9
Grade Pathological	3
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

Clinical Grade: Code 9; insufficient info to code grade

Pathological Grade: Code 3; WHO grade III per pathology

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SITE-SPECIFIC GRADE - BRAIN, CNS OTHER, INTRACRANIAL GLAND

POP QUIZ # 28

- Brain Bx: 4th ventricle tumor – Subependymoma WHO grade 1
- Near total resection Brain tumor, 4th ventricle: mixed subependymoma (WHO grade 1)/Ependymoma (WHO grade II)

What is the clinical, pathological and post-therapy grade?

Data Item	Code
Grade Clinical	1
Grade Pathological	2
Grade Post Therapy Clin (yc)	blank
Grade Post Therapy Path (yp)	blank

Clinical Grade: Code 1; WHO Grade I on bx.

Pathological Grade: Code 2; WHO Grade 2 – The Ependymoma (Grade 2) takes priority over the mixed subependymoma (Grade 1)

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/99876-ependymoma-grade

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QUESTIONS?

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CE QUIZ/SURVEY

- CE Phrase
  - Differentiation

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THANK YOU!!!

A recording of this session will be posted to
https://education.naaccr.org/updates-implementation