



CODING PITFALLS 2018

2017-2018 NAACCR WEBINAR SERIES

Q&A

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



FABULOUS PRIZES



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GUEST SPEAKER

- Denise Harrison, Educator and Trainer

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AGENDA

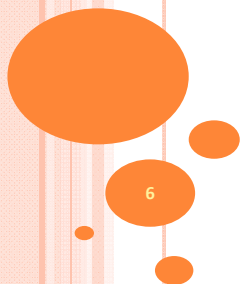
- Introduction
- Review of Breast Scenario
- Questions/Break
- Review of Colon Scenario

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Breast Cancer

Coding Pitfalls 2018



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CASE FOR WORKING THROUGH TOPICS

- 42 y.o. female w/palpable left breast mass, neg axilla
- Imaging:
 - Mammogram Lt breast: 3 cm mass @ 10:00; Ultrasound Lt breast: 2 cm mass @ 10:00; Lt axillary LN 1.1 cm
- Pathology:
 - Biopsy Lt breast @ 10:00 carcinoma NST with tubular carcinoma, NG grade 2, areas of high grade DCIS. Lt AxLN bx; neg.
 - Mastectomy: No residual carcinoma (complete PR), 0/4 SLN, IHC negative

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CASE, CONTINUED.

- Addendum
 - Lt breast @10:00 ER (+) 95%, PR (+) 81-90%, Ki-67 44% (H), Her2N 2+, Her2 Gene status pos, Her2:CEP17 ratio 1.34, average HER2 signals/nucleus 4.75, average CEP17 signals/nucleus 3.55
- Treatment:
 - Neoadjuvant chemo 6 cycles TCHP
 - Surgery: Bil nipple-sparing mastectomy, SLN, tissue expander reconstruction
- Discharge Summary: Patient had a complete pathologic response.

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HOW MANY PRIMARIES?

Imaging:

- Mammogram **Lt breast: 3 cm mass @ 10:00** Ultrasound
Lt breast: 2 cm mass @ 10:00 axillary LN 1.1 cm

Pathology:

- Biopsy **Lt breast @10:00 carcinoma NST with tubular carcinoma**, areas of **high grade DCIS**. Mastectomy: **No residual carcinoma**

Number of primaries: **1**

M rule: **M3**

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RATIONALE FOR # OF PRIMARIES

- The **first** thing we have to do is determine the number of primaries we have. We have a **single** tumor at 10:00 in the left breast. Do NOT count the LN because it would be a regional met (if positive). The MP rules do NOT apply to metastases.
- We use the **Single Tumor** module in the **M** rules. The first rule that applies is **M3**.

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REFERENCE: BREAST RULE M3

- **Rule M3** Abstract a **single** primary when there is a single tumor.
 - Note 1: A single tumor is always a single primary.
 - Note 2: The tumor may overlap onto or extend into adjacent/contiguous site or subsites/quadrants.
 - Note 3: The tumor may have in situ and invasive components.
 - Note 4: The tumor may have two or more histologic components.

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WHAT IS THE TOPOGRAPHY CODE?

Imaging:

- Mammogram **Lt breast: 3 cm mass @ 10:00** Ultrasound **Lt breast: 3 cm mass @ 10:00** axillary LN 1.1 cm

Pathology:

- Biopsy **Lt breast @10:00 carcinoma NST with tubular carcinoma**, areas of **high grade DCIS**. Mastectomy: **No residual carcinoma**

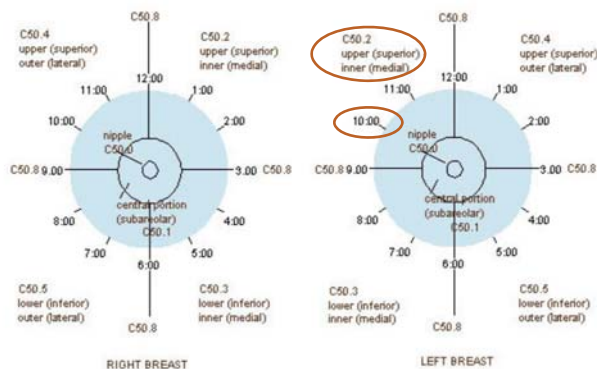
Topography code: **C50.2**

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RATIONALE FOR TOPOGRAPHY

- Mammogram Lt breast @ 10:00 mass 3cm
- Ultrasound 10:00 mass 2cm

C50.2 (10:00 in the left breast is the UIQ)



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WHAT IS THE HISTOLOGY/BEHAVIOR?

- Pathology:
 - Biopsy **Lt breast @10:00 carcinoma NST with tubular carcinoma, NG grade 2**, areas of **high grade DCIS**
 - Mastectomy: **No residual carcinoma**
- Histology/behavior code: **8523/3**

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RATIONALE FOR HISTOLOGY

- We start at the *Single Tumor Invasive and In Situ* module. This rule tells us to **ignore** the **in situ**.
- We move to the *Single Tumor, Invasive* module, and continue reading until we get to Rule **H15**, which is the **FIRST** rule that applies to our case.

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REFERENCE: BREAST RULES H4 AND H15

H4: Code the invasive histology when both invasive and in situ components are present.

Note 1: Ignore the in situ term.

Note 2: This is consistent with the 2007 MPH Rules.

H15: Code a **combination code** when there are two histologies (two components) within a single tumor and the majority histology is unknown/not documented.

- Use **Table 2** for combination codes.
- The tumors are **NOT** a NOS/NST and a single subtype/variant.
- Two subtypes/variants and the pathologist may mention the presence of duct/carcinoma NST. Ignore the NST.

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WHAT ARE THE 3 GRADE FIELDS?

- Pathology:
 - Biopsy **Lt breast @10:00 carcinoma NST with tubular carcinoma, NG grade 2**, areas of **high grade DCIS**
 - Mastectomy: **No residual carcinoma**

Grade Clinical **2**
Grade Pathological **9**
Grade Post-therapy **9**

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REFERENCE - GRADE TABLE 12: BREAST

Code	Grade 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

Note: The Grade Clinical, Grade Pathological, and Grade Post-Therapy tables are identical, EXCEPT the Grade Post Therapy table allows us to use “blank” for grade (when there was no neoadjuvant therapy).

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RATIONALE - GRADE CLINICAL

- Must NOT be blank
- **Assign highest from clinical time frame**
- Code 9 when:
 - Grade from primary site not documented
 - Clinical workup not done
 - Grade checked “N/A” on CAP protocol
- Grade required for AJCC stage group
 - Codes A-D = unknown grade

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NG grade 2 per biopsy

RATIONALE - GRADE PATHOLOGICAL

- Must NOT be blank
- If clinical higher than pathological, use clinical
- **Code 9 when:**
 - Grade from primary site not documented
 - No resection primary site
 - **Neoadj tx followed by resection**
 - Clinical case only
 - Grade checked “N/A” on CAP protocol
- Grade required for AJCC stage group
 - Codes A-D = unknown grade

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RATIONALE - GRADE POST THERAPY

- May be blank when:
 - No neoadj tx; clinical or pathological case only
- Code 9 when:
 - Surgical resection done after neoadj tx and grade from primary not documented
 - Grade checked “N/A” on CAP protocol
 - **Surgical resection is done after neoadjuvant therapy and there is no residual cancer (NEW)**
- Grade required for AJCC stage group
 - Codes A-D = unknown grade

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TUMOR SIZE FIELDS

Clinical information: 3 cm on mammogram; 2 cm on ultrasound

○ **Clinical tumor size:** **030**

Pathological information: no residual carcinoma after neoadjuvant chemo; tumor bed measured 1.6 cm

○ **Pathological tumor size:** **000**

○ **Tumor Size Summary** **030**

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TUMOR SIZE CODES AND DESCRIPTIONS

Code	Tumor Size Description
000	No mass/tumor found
001	1 mm or < 1 mm
002 – 988	Exact size in mm (2 mm to 988 mm)
989	≥ 989 mm
990	Microscopic focus or foci only and no size focus given
998	Diffuse breast cancer
999	Unknown; size not stated; not documented in patient record; size tumor cannot be assessed; not applicable

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RATIONALE - CLINICAL TUMOR SIZE

Clinical TS

- Code the **largest size** in the record (based on PE, imaging, or other diagnostic technique)
- When there is a difference in reported TS among imaging, code the largest TS, **unless** the physician specifies the imaging that is most accurate.

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RATIONALE – PATHOLOGICAL TUMOR SIZE

Pathological TS

- The pathological tumor size is recorded from the **surgically resected specimen** when surgery (including after neoadjuvant therapy) is administered as part of the first course of treatment.
- The tumor bed does not represent tumor. It is an area of scarring and fibrosis where the tumor once was.

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RATIONALE – TUMOR SIZE SUMMARY

TS Summary

- The tumor size summary is recorded from the **surgical resection specimen** when surgery is administered as **the first definitive** treatment.
- If neoadjuvant therapy is given, code the largest size **prior to** neoadjuvant therapy.
- If no surgical resection, code largest size **prior to** any treatment.

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cT, pT, AND YPT- BREAST CASE SCENARIO

Clinical information: 3 cm on mammogram; 2 cm on ultrasound

○What is the **clinical T**? cT2

Pathological information: no residual carcinoma; tumor bed measured 1.6 cm

○What is the **pathological T**? Blank

○What is the **post therapy T**? ypT0

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PTNM AND STAGE GROUP - BREAST CASE SCENARIO

We leave **all** of the **pTNM** fields and the **p** stage group field **blank** in the cancer registry abstract.

The STORE manual requires **either** *AJCC TNM Path Stage Group* **OR** *AJCC TNM Post Therapy Stage Group*.

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RATIONALE – CLINICAL AND POST THERAPY T

Clinical T = cT2

- The tumor was 3 cm on mammogram. A tumor > 20 mm but ≤ 50 mm is classified as T2.

Post Therapy T = ypT0

- The patient underwent neoadjuvant tx, and there was no residual tumor. We use **only** information gathered **AFTER** the neoadjuvant therapy.

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CN AND YPN PLUS SUFFIXES - BREAST CASE SCENARIO

Clinical information: axilla negative bilaterally; 1.1 cm Lt ax LN on ultrasound, negative on bx

- What is the **clinical N**? cN0
- What is the **clinical N suffix**? (f)

Post therapy information: Lt SNBx: 0+/4 lymph nodes; IHC studies negative.

- What is the **post therapy N**? ypN0
- What is the **post therapy N suffix**? (sn)

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AJCC “N” SUFFIXES

- cN, pN, ypN
 - **(sn)** sentinel lymph node biopsy
 - If SLN then axillary LND, , do **not** use (sn) for the LND procedure
 - If < 6 LN w/o ALND, keep (sn)
 - **(f)** fine needle or core biopsy
 - If FNA or biopsy, then axillary LND, do **not** use (f) for the LND procedure

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REFERENCE – CLINICAL AND POST THERAPY N

Clinical N – cN0 with *(f)* in suffix field

- AJCC page 16 - Sentinel node (sn) and FNA or core biopsy (f) designators should be used for all cases where a SLN bx or an FNA is performed during the diagnostic workup, regardless of the nodal status (positive or negative)

Post Therapy N – ypN0 with *(sn)* in suffix field

- Sentinel node procedure **w/out** resection of nodal basin

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NEGATIVE LN ARE NOT THE SAME

- Pathological pN0 is better than Clinical cN0
 - pN0 PROVED they are negative
 - pN0 may have lower prognostic stage group because of that proof
- Patients with cT2cN0 have 25% risk of pN1-3

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CM AND YPM- BREAST CASE SCENARIO

Clinical information: palpable left breast mass; axilla negative bilaterally

- What is the **clinical M?** cM0
- What is the **post therapy M?** cM0

cM0 can be taken from PE only, and does not require imaging.

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STAGE GROUPS - BREAST CASE SCENARIO

- What is the **clinical** stage group?
 - **cT2 cN0(f) cM0 G2, Her2+, ER+, PR+**
 - Prognostic Stage Group: **IB**
- What is the **post therapy** stage group?
 - **ypT0 yN0(sn) cM0**
 - Prognostic Stage Group: **88**

*Prognostic Stage groups **cannot** be used for patients treated with neoadjuvant therapy.*

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THREE STAGE GROUP TABLES

- Anatomic Stage Table – **NOT** used in North America
 - Used where biomarker info N/A
 - Used where less money spent on testing, treatment
 - Patients usually dx stage 3 or 4, majority expire of C50
- Clinical Prognostic Stage Table
- Pathological Prognostic Stage Table

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PROGNOSTIC STAGE GROUPS

- Clinical prognostic stage
 - cT, cN, cM + Grade, Her2, ER, PR
 - Genomic profile is **not** used in clinical staging
- Pathological prognostic stage
 - pT, pN, pM + Grade, Her2, ER, PR + Genomic profile (right now, only use Oncotype Dx)
- Post therapy (neoadjuvant) patients
 - ypT, ypN, yM/cM recorded but NO group stage
 - 44,181 patients were studied; findings insufficient to create a post-therapy stage groupings

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PROGNOSTIC FACTOR TIMING

- If biomarkers (Her2, ER, PR) are **not** performed on the biopsy, they can be taken from the surgical resection specimen for use in assigning the clinical prognostic to stage.
- This does **NOT** apply to **grade**! The 3 grade fields **MUST** be taken from the appropriate timing (clinical, pathological, or post therapy).

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EXTENT OF DISEASE AND SUMMARY STAGE

○ Imaging:

- Mammogram Lt breast: 3 cm mass @10:00
Ultrasound Lt breast: 2 cm mass @10:00; left axillary LN 1.1 cm

○ Pathology:

- Biopsy Lt breast @10:00 carcinoma NST with tubular carcinoma, NG grade 2, areas of high grade DCIS
- Biopsy of left axillary LN: Negative for malignancy
- Mastectomy: No residual carcinoma (complete PR), 0/4 SLN, IHC negative

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EXTENT OF DISEASE AND SUMMARY STAGE 2018

- EOD Primary Tumor 100
- EOD Regional Nodes 070
- EOD Mets 00
- Summary Stage 2018 1

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RLNs POSITIVE AND EXAMINED

- BREAST CASE SCENARIO

- How many RLNs were positive/examined?

- Core bx of AxLN during workup plus 4 SLNs at time of surgery

RLNs Positive **00**

RLNs Examined **04**

Do **not** count aspiration or core biopsy of a lymph node in the **same lymph node chain** removed at surgery as an additional node in **Regional Nodes Examined**.

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REGIONAL LN POSITIVE

- Record even if preop tx
- LN w/ITCs are NOT + LN
 - If path states + LN w/o size in LN, assume mets are > 0.2mm
- Record ALL positive LN here
 - Level I-II axillary have separate SSDI

00: All LN examined negative

01-89: 1-89 LN + (code exact number)

90: ≥ 90 + LN

95: Aspiration or core bx LN +

97: LN +, number unk

98: No LN examined

99: Unk if LN +; N/A; not documented in med record

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REGIONAL LN EXAMINED

- Record even if preop tx

00: No LN examined

01-89: 1-89 LN examined (code exact number)

90: ≥ 90 LN examined

95: Aspiration or core bx W/O LN removed

96: LN removal documented as sampling, number unk

97: LN removal documented as dissection, number unk

98: LN surgically removed but number unk, not documented as sampling or dissection

99: Unk if LN examined; N/A; not documented in med record

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SENTINEL LYMPH NODE FIELDS

Core bx of AxLN during workup plus 4 SLNs at time of surgery

SLNs Positive 00

SLNs Examined 04

Date RLN Dissection 00/00/0000

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SENTINEL LYMPH NODES EXAMINED

Code	Label
00	No sentinel nodes were examined
01-90	Sentinel nodes were examined (code the exact number of sentinel lymph nodes examined)
95	No sentinel nodes were removed, but aspiration of sentinel node(s) was performed
98	Sentinel lymph nodes were biopsied, but the number is unknown
99	It is unknown whether sentinel nodes were examined; not applicable or negative; not stated in patient record

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SENTINEL LYMPH NODES POSITIVE

Code	Label
00	All sentinel nodes examined are negative
01-90	Sentinel nodes are positive (code exact number of nodes positive)
95	Positive aspiration of sentinel lymph node(s) was performed
97	Positive sentinel nodes are documented, but the number is unspecified; For breast ONLY: SLN and RLND occurred during the same procedure
98	No sentinel nodes were biopsied
99	It is unknown whether sentinel nodes are positive; not applicable; not stated in patient record

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SSDI LN POSITIVE AXILLARY LEVEL I – II: BREAST CASE SCENARIO

- o Core bx of AxLN during workup plus 4 SLNs at time of surgery

How many positive Ipsilateral Axillary Level I-II LNs were there?

00

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SSDI LN POSITIVE AXILLARY LEVEL I - II

- o Include only Level I & II OR INTRAMammary axillary LN
- o Do NOT count ITC+ LN

Code	Description
00	All ipsi ax LN neg
01 - 99	EXACT number + ax LN
X1	≥ 100 ax LN
X5	+ ax LN, number unk
X6	+ aspiration or needle core bx ax LN
X8	N/A, info not collected
X9	Not documented in med record, unk if ax LN assessed

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SSDI ER FIELDS: BREAST CASE SCENARIO

ER positive (95%)

ER Summary **1 (ER Positive)**

ER % Positive **095 (95% positive)**

ER Allred Score **X9 (Not Documented)**

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SSDI: ESTROGEN RECEPTOR (ER) SUMMARY

- Doctor statement can be used if no other info
 - Result from primary here
 - Result from LN or mets may be used ONLY if no primary results
 - If ER from > 1 specimen, record highest
 - If any sample positive, record that one
 - EXCEPTION: ER positive on in situ specimen but negative on all invasive, code ER as negative
 - If neoadjuvant tx given, record assay from specimens PRE neoadj tx
 - If ER positive, LN negative, multigene test may be performed
 - Do NOT record ER from multigene test
- 0 ER negative
 1 ER positive
 7 Test done, results not in chart
 9 Not documented in med record; ER unknown

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SSDI: ER % POSITIVE

- Code drs statement of ER positive % or range
 - Actual % takes precedence over range

Code	Description
000	ER negative or < 1%
001 – 100	Exact percent/%
XX7	Test done, results not in chart
XX8	N/A Info not collected
XX9	Not documented in med record. % or Range unk

Code	Description
R10	Stated as 1 – 10%
R20	Stated as 11 – 20%
R30	Stated as 21 – 30%
R40	Stated as 31 – 40%
R50	Stated as 41 – 50%
R60	Stated as 51 – 60%
R70	Stated as 61 – 70%
R80	Stated as 71 – 80%
R90	Stated as 81 – 90%
R99	Stated as 91 – 100%

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SSDI: ER ALLRED SCORE

- Use same report as ER Summary
- Allred looks at % cells test positive along with how well receptors show up after staining (“intensity”)

Code	Description
00	Total ER Allred score 0
01	Total ER Allred score 1
02	Total ER Allred score 2
03	Total ER Allred score 3
04	Total ER Allred score 4
05	Total ER Allred score 5
06	Total ER Allred score 6
07	Total ER Allred score 7
08	Total ER Allred score 8
X8	N/A, Info not collected
X9	Not documented in med record. ER Allred not assessed or unk if done

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SSDI PR FIELDS: BREAST CASE SCENARIO

PR positive (81-90%)

PR Summary	<u>1 (PR Positive)</u>
PR % Positive	<u>R90 (81-90% positive)</u>
PR Allred Score	<u>X9 (Not Documented)</u>

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SSDI: PROGESTERONE RECEPTOR (PR) SUMMARY

- Doctor statement can be used if no other info
 - Result from primary here
 - Result from LN or mets may be used ONLY if no primary results
 - If PR from > 1 specimen, record highest
 - If any sample positive, record that one
 - EXCEPTION: PR positive on in situ specimen but negative on all invasive, code PR as negative
 - If neoadjuvant tx given, record assay from specimens PRE neoadj tx
 - If PR positive, LN negative, multigene test may be performed
 - Do NOT record PR from multigene test
- 0 PR negative
1 PR positive
7 Test done, results not in chart
9 Not documented in med record; PR unknown

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SSDI: PR % POSITIVE

- Code drs statement of PR positive % or range
 - Actual % takes precedence over range

Code	Description
000	PR negative or < 1%
001 – 100	Exact percent/%
XX7	Test done, results not in chart
XX8	N/A Info not collected
XX9	Not documented in med record. % or Range unk

Code	Description
R10	Stated as 1 – 10%
R20	Stated as 11 – 20%
R30	Stated as 21 – 30%
R40	Stated as 31 – 40%
R50	Stated as 41 – 50%
R60	Stated as 51 – 60%
R70	Stated as 61 – 70%
R80	Stated as 71 – 80%
R90	Stated as 81 – 90%
R99	Stated as 91 – 100%

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SSDI: PR ALLRED SCORE

- Use same report as PR Summary
- Allred looks at % cells test positive along with how well receptors show up after staining (“intensity”)

Code	Description
00	Total PR Allred score 0
01	Total PR Allred score 1
02	Total PR Allred score 2
03	Total PR Allred score 3
04	Total PR Allred score 4
05	Total PR Allred score 5
06	Total PR Allred score 6
07	Total PR Allred score 7
08	Total PR Allred score 8
X8	N/A, Info not collected
X9	Not documented in med record. PR Allred not assessed or unk if done

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SSDI HER2 SUMMARY AND HER2 IHC FIELDS

Her2N 2+, Her2 Gene status pos, Her2:CEP17 ratio 1.34, average HER2 signals/nucleus 4.75, average CEP17 signals/nucleus 3.55

HER2 Overall Summary	<u>1 (Positive)</u>
HER2 IHC Summary	<u>2 (Score of 2+)</u>
HER2 ISH Summary	<u>3 (Positive [amplified])</u>

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SSDI: HER2 OVERALL SUMMARY

- Doctor statement can be used if no other info
 - Result from primary here
 - Result from LN or mets may be used ONLY if no primary results
 - If HER2 from > 1 specimen, record highest
 - If any sample positive, record that one
 - EXCEPTION: HER2 positive on in situ specimen but negative on all invasive, code HER2 as negative
 - If neoadjuvant tx given, record assay from specimens PRE neoadj tx
 - If HER2 positive, LN negative, multigene test may be performed
 - Do NOT record HER2 from multigene test
- 0 HER2 negative
 1 HER2 positive
 7 Test done, results not in chart
 9 Not documented in med record; HER2 unknown

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SSDI: HER2 IHC SUMMARY

- | | |
|---|---|
| 0 Negative (Score 0) | 8 N/A, info not collected |
| 1 Negative (Score 1+) | 9 Not documented in med record, HER2 IHC unknown |
| 2 Equivocal (Score 2+) or stated as equivocal | <ul style="list-style-type: none"> • Same notes as ER, PR, etc. • Note 7: A 2+ (equivocal) should result in additional testing by ISH |
| 3 Positive (Score 3+) or stated as positive | |
| 4 Stated as negative, but score not negative | |
| 7 Test done, results not in chart | |

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SSDI: HER2 ISH SUMMARY

- | | |
|--|---|
| 0 Negative (not amplified) | <ul style="list-style-type: none"> • Same notes as ER, PR, etc. • Note 4: Any type ISH test can be used |
| 2 Equivocal | |
| 3 Positive (amplified) | |
| 7 Test done, results not in chart | |
| 8 N/A, info not collected | |
| 9 Not documented in med record, HER2 ISH unknown | |

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SSDI HER2 ISH FIELDS

Her2N 2+, Her2 Gene status positive, Her2:CEP17 ratio 1.34, average HER2 signals/nucleus 4.75, average CEP17 signals/nucleus 3.55

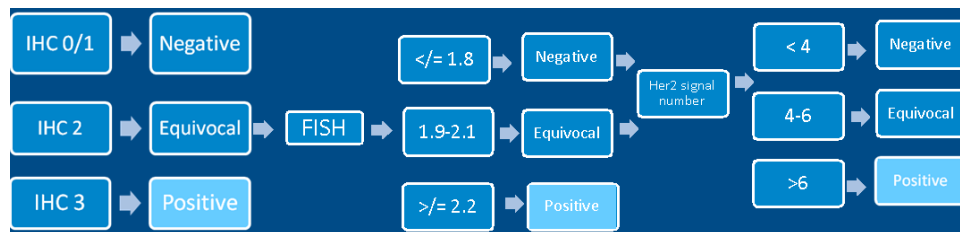
HER2 ISH Dual Probe Ratio **1.3**

HER2 ISH Dual Probe Copy # **4.7**

HER2 ISH Single Probe Copy # **XX.9**

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HER2 TEST SEQUENCE



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SSDI: HER2 ISH DUAL PROBE RATIO

- A dual probe test will report results for both HER2 and CEP17 (used for control)
- Any type of ISH test can be used
- ISH may be called ERBB2
- Code to nearest tenth decimal
 - Do NOT round

Code	Description
0.0 – 99.9	Ratio of 0.0 to 99.9
XX.2	Less than 2.0
XX.3	Greater than or equal 2.0
XX.7	Test ordered, results not in chart
XX.8	N/A, Info not collected
XX.9	Not documented in med record. Results can't be determined. HER2 ISH dual probe ratio not assessed or unk if

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SSDI: HER2 ISH DUAL PROBE COPY

- A dual probe test will report average number or mean signals per cell for both HER2 and CEP17 (control)
- Registrars do NOT calculate
- Any type of ISH test can be used
- Code to nearest tenth decimal
 - Do NOT round

Code	Description
0.0 – 99.9	Reported HER2 copy number of 0.0 – 99.9
XX.1	Reported HER2 copy number 100 or greater
XX.7	Test ordered, results not in chart
XX.8	N/A, Info not collected
XX.9	Not documented in med record. Results can't be determined. HER2 ISH dual probe copy number not assessed or unk if

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SSDI: HER2 ISH SINGLE PROBE COPY

- A single probe test will report average number or mean signals per cell for HER2
- Any type of ISH test can be used
- ISH may be called ERBB2
- Registrars do NOT calculate
- Code to nearest tenth decimal
 - Do NOT round

Code	Description
0.0 – 99.9	Reported HER2 copy number of 0.0 – 99.9
XX.1	Reported HER2 copy number 100 or greater
XX.7	Test ordered, results not in chart
XX.8	N/A, Info not collected
XX.9	Not documented in med record. Results can't be determined. HER2 ISH single probe copy number not assessed or unk if

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SSDI: Ki-67 (MIB-1) - BREAST CASE SCENARIO

Ki-67 high (44%)

How would we code Ki-67 (MIB-1)? **44.0**

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SSDI: Ki-67 (MIB-1)

- Ki-67 marker of cell proliferation
- Reported as % cell nuclei that stain positive

Code	Description
0.0 – 100.0	0.0 to 100.0 percent positive; enter % positive
XX.7	Test ordered, results not in chart
XX.8	N/A, Info not collected
XX.9	Not documented in med record. Ki-67 (MIB-1) not assessed or unk if

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SSDI: ONCOTYPE DX RECURRENCE SCORE AND RISK LEVEL - INVASIVE

- In our breast case scenario, we did not have an Oncotype Dx (invasive) documented.

Oncotype Dx Recurrence Score Invasive XX9

Oncotype Dx Risk Level Invasive 9

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SSDI: ONCOTYPE DX RECURRENCE SCORE - INVASIVE

- Doctor statement can be used if no other info
- Oncotype Dx recurrence score reported as whole number 0 – 100. Actual score takes precedence over XX4 and XX5
- Record only results from Oncotype DX; if some other test done, code XX9
- Score < 11 used in AJCC staging
- If only info is Oncotype Dx-Invasive Risk Level, assign XX7

Code	Description
000 - 100	Record actual recurrence score
XX4	Stated as < 11
XX5	Stated as ≥ 11
XX6	N/A, in situ case
XX7	Test ordered, results not in chart
XX9	Not documented in med record, score unknown

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ONCOTYPE < 11 IS



- Multi-Gene Panel < 11 = Prognostic Stage IA
 - IF T1-T2, N0, M0, any grade, Her2 neg
 - ER+, PR any

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GENOMIC PROFILE IMPACT ON STAGE FOR ER POSITIVE, HER2 NEGATIVE



Stage IB



Stage IIA



Stage IIB



Stage IIIB

(Group stage under pictures comes from the **original 8th** ed. printing.)

- T1 G1 PR -
- T1 G3 PR-
- T2 G2 PR-
- T2 G3 PR-
- T1 G3 PR+
- T2 G1 PR-
- T2 G1 PR+
- T2 G3 PR+
- T2 G2 PR+

When RS <11, all these patients are classified as Stage 1A

71

SSDI: ONCOTYPE DX RISK LEVEL - INVASIVE

- Doctor statement can be used if no other info
- Oncotype Dx risk stratifies score into low, intermediate, high risk of recurrence

Code	Description
0	Low risk (recurrence score 0 – 17)
1	Intermediate risk (recur score 18 – 30)
2	High risk (recur score ≥ 31)
6	N/A, DCIS case
7	Test ordered, results not in chart
8	N/A, info not collected
9	Not documented in med record, risk level unknown

72

SSDI: ONCOTYPE DX RECURRENCE SCORE**- IN SITU**

- o In our breast case scenario, had invasive cancer.

Oncotype Dx Recurrence Score In situ **XX6**

Oncotype Dx Risk Level In situ **6**

73

SSDI: ONCOTYPE DX RECURRENCE SCORE - DCIS

- o Doctor statement can be used if no other info
- o Oncotype Dx recurrence score reported as whole number 0 – 100.
- o Record only results from Oncotype DX - DCIS; if some other test done, code XX9
- o Score < 11 used in AJCC staging
- o If only info is Oncotype Dx- Invasive Risk Level, assign XX7

Code	Description
000 - 100	Record actual recurrence score
XX6	N/A, invasive case
XX7	Test ordered, results not in chart
XX8	N/A, info not collected
XX9	Not documented in med record, Oncotype DX recurrence score DCIS unknown

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SSDI: ONCOTYPE DX RISK LEVEL - DCIS

- Doctor statement can be used if no other info
- Oncotype Dx risk stratifies score into low, intermediate, high risk of recurrence

Code	Description
0	Low risk (recurrence score < 39)
1	Intermediate risk (recur score 39 - 54)
2	High risk (recur score > 54)
6	N/A, invasive case
7	Test ordered, results not in chart
8	N/A, info not collected
9	Not documented in med record, risk level unknown

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SSDI: MULTIGENE SIGNATURE AND METHOD

- In our breast case scenario, we had no multigene signature method documented.

Multigene Signature Method 9

Multigene Signature Result X9

76

SSDI: MULTIGENE SIGNATURE METHOD

- Doctor statement can be used if no other info
- Multigene signatures or classifiers are assays of a panel of genes from tumor
- Do not code Oncotype here

Code	Description
1	Mammaprint
2	PAM50 (Prosigna)
3	Breast Cancer Index
4	EndoPredict
5	Test performed, unk type
6	Multiple tests, any codes 1-4
7	Test ordered, results not in chart
8	N/A, info not collected
9	Not documented in med record, multigene test unknown

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SSDI: MULTIGENE SIGNATURE RESULT

- Doctor statement can be used if no other info
- Multigene signatures or classifiers are assays of a panel of genes from tumor
- Do not code Oncotype here
- PAM50 is a single number score 1-100; if score available, record that; else record risk
- Mammaprint, EndoPredict, and Breast CA Index, record risk level

Code	Description
00 – 99	Actual recurrence score
X1	Score 100
X2	Low risk
X3	Moderate (intermediate) risk
X4	High risk
X7	Test ordered, results not in chart
X8	N/A, info not collected
X9	Not documented in med record, multigene test results unknown

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SSDI: RESPONSE TO NEOADJUVANT THERAPY

- o Mastectomy: No residual carcinoma (complete PR)
- o Discharge summary: complete pathologic response

Response to Neoadjuvant Therapy 1

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SSDI: RESPONSE TO NEOADJUVANT THERAPY

- o Doctor statement MUST be used
- o Response will be documented by physician based on path report, imaging, and clinical findings.

Code	Description
0	Neoadjuvant therapy not given
1	Stated as complete response (CR)
2	Stated as partial response (PR)
3	Stated as response to treatment, but not noted if complete or partial
4	Stated as no response
8	N/A, info not collected
9	Not documented in med record, response to neoadjuvant therapy unknown

80

WHAT FURTHER TREATMENT WOULD YOU EXPECT?

- Chemotherapy? **No**
- Immunotherapy? **No**
- Hormone therapy? **Yes**

81

ANY QUESTIONS???

82

Colorectal Cancer

Coding Pitfalls 2018

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Colorectal Case Scenario

- **History:** 4/25/16 transverse colectomy for adenocarcinoma of the trans-colon; Here for follow up BE and colonoscopy.
- **Labs:** 7/25/18 CEA 17 ng/ml (normal < 3 ng/ml)
- **Imaging:** 7/25/18 BE: 2.5 cm polypoid lesion at the anastomotic site shows the typical features of colonic CA; CT chest/abd/pel: no evidence of mets
- **Scopes** 7/25/18 Colonoscopy: submucosal tumor located at suture line; bxs taken
- **Treatment** 8/24/18 Right hemicolectomy

84

Colorectal Case Scenario

- **Pathology** 7/25/18 Bx at anastomosis: MD adenoca. 8/24/18 Right colon with anastomosis: 2.9 cm WD adenoca w/ mucinous differentiation at anastomotic site; invades muscularis propria; no LVI or PNI; proximal, distal, and radial margins free; 0+/16 LNs; one peritumoral deposit; MSI low; KRAS mutated
- **Discharge summary:** Clinicopathological examination showed the lesion was a recurrence of the previous trans-colon cancer, because it was located exactly on the anastomosis and it first showed a feature of submucosal tumor. Plan: FOLFOX

85

How many primaries?

History: 4/25/16 trans-colectomy for adenoca of trans-colon; Here for follow up BE & colonoscopy.

Imaging: 7/25/18 BE: 2.5 cm polypoid lesion @ anastomotic site

Scopes 7/25/18 Colonoscopy: submucosal tumor located @ suture line; bxs taken

Treatment 8/24/18 Rt hemicolectomy

Pathology 7/25/18 Bx @ anastomosis: MD adenoca. 8/24/18 Rt colon w/ anastomosis: 2.9 cm WD adenoca w/ mucinous diff @ anastomotic site; invades muscularis propria

Discharge summary: recurrence of previous trans-colon cancer; it was located exactly on the anastomosis & it first showed a feature of submucosal tumor. Plan: FOLFOX

Number of primaries: 2 : **M rule:** M7

Rationale for # of Primaries

- We have a history of adenoca of the transverse colon; therefore we go straight to the Multiple Tumors module; Let's look at the rules
- **M3:** FAP/>100 polyps (S) **No**
- **M4:** Different at 2nd CXxx or 3rd CxXx character (M) – **No**
- **M5:** Separate tumors ≥ 2 different subtypes or variants in Column 3, Table 1 (M) – **No**
- **M6:** Separate tumors different rows Table 1 (M) – **No**

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Rationale for # of Primaries

- **M7 Subsequent tumor arises at anastomotic site**
AND
One tumor NOS, other subtype of NOS (M) **OR**
Subsequent tumor occurs > 24 months after original surgery
(M) OR
Subsequent tumor arises in mucosa (not GIST) (M)
- **M8 Subsequent tumor arises at anastomotic site AND**
Subsequent tumor ≤ 24 months after resection (S) **OR**
Tumor arises in colon wall w/o involvement mucosa (S) **OR**
Doctor states an anastomotic recurrence (S)

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Primary Site

History: 4/25/16 transverse colectomy for adenocarcinoma of the trans-colon

Imaging: 7/25/18 BE: 2.5 cm polypoid lesion **at the anastomotic site**

Scopes 7/25/18 Colonoscopy: submucosal tumor located at **suture line**

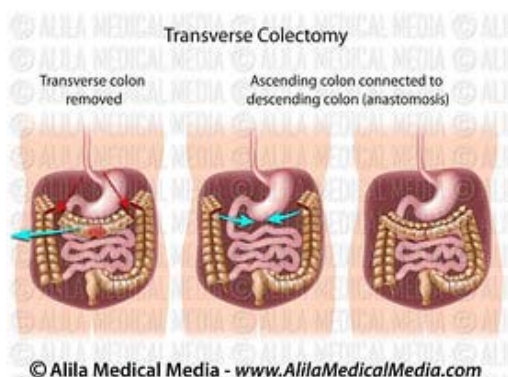
Pathology 8/24/18 ...at the anastomotic site

Discharge summary: ... it was located exactly on the anastomosis

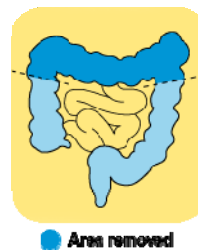
Primary Site: **C18.9**

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Transverse Colectomy



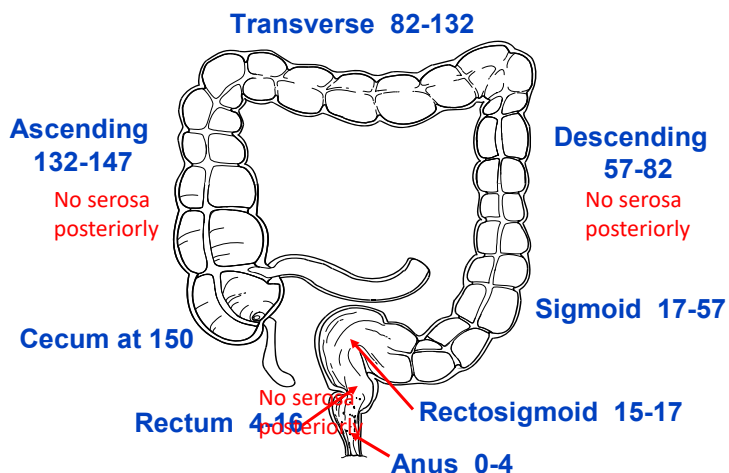
<http://slideplayer.com/4503207/14/images/15/Transverse+Colectomy.jpg>



<https://www.cancerouncil.com.au/wp-content/uploads/2015/06/Transverse-colectomy.png>

90

Colonoscopy Measurements*



Priority for Site Coding

1. Surgeon
2. Radiology
3. Scope
4. Pathology

* from anal verge Approximations only.
Source: AJCC Cancer Staging Manual, fifth edition, page 85, 1997.

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Histology

Pathology 7/25/18 Bx @ anastomosis: MD **adenoca**. 8/24/18 Rt colon w/ anastomosis: 2.9 cm WD **adenoca w/ mucinous diff**

Histology: 8140/3

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Rationale for Histology

- Code the **most specific histology** from either **biopsy** or **resection**
- Do **not** code histology when described using a modifier or ambiguous term

Histology: 8140/3

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Reference for Histology

Do **not** code histology when described using any of the following **modifiers** or **ambiguous terms**.

Modifiers	Ambiguous Terms	
Architecture	Apparently	Most likely
Differentiation	Appears	Presumed
Features (of)	Comparable with	Probable
Foci, focus, focal	Compatible with	Suspect(ed)
Major, majority of	Consistent with	Suspicious (for)
Pattern(s)	Favor(s)	Typical (of)
Predominantly	Malignant appearing	

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What are the 3 Grade Fields?

Pathology 7/25/18 Bx @ anastomosis: MD adenoca.
 8/24/18 Rt colon w/ anastomosis: 2.9 cm WD
 adenoca w/ mucinous diff

Grade Clinical 2

Grade Pathological 2

Grade Post-Therapy Blank

95

Reference: Grade Table 2

Code	Description
1	G1: well differentiated
2	G2: moderately differentiated
3	G3: poorly differentiated
4	G4: undifferentiated, anaplastic
9	Grade cannot be assessed (GX), unk

96

Rationale - Grade Clinical

- Must NOT be blank
- **Assign highest from clinical time frame**
- Code 9 when:
 - Grade from primary site not documented
 - Clinical workup not done
 - Grade checked “N/A” on CAP protocol

Moderately differentiated per biopsy

97

Rationale - Grade Pathological

- Must NOT be blank
- **If clinical higher than pathological, use clinical grade**
- Code 9 when:
 - Grade from primary site not documented
 - No resection primary site
 - Neoadj tx followed by resection
 - Clinical case only
 - Grade checked “N/A” on CAP protocol

Mod diff on biopsy; well diff on resection

98

Rationale - Grade Post Therapy

- May be **blank** when:
 - **No neoadj tx**; clinical or pathological case only
- Code 9 when:
 - Surgical resection done after neoadj tx and grade from primary not documented
 - Grade checked "N/A" on CAP protocol
 - Surgical resection is done after neoadjuvant therapy and there is no residual cancer (**NEW**)

No neoadjuvant therapy given

99

Tumor Size

Imaging: 7/25/18 BE: **2.5 cm** polypoid lesion at the anastomotic site

Pathology 8/24/18 Rt colon w/ anastomosis: **2.9 cm** WD adenoca w/ mucinous diff

Tumor Size Clinical **025**

Tumor Size Pathological **029**

Tumor Size Summary **029**

100

Recording Tumor Size Clinical or Pathological

Code	Tumor Size Description
000	No mass/tumor found
001	1 mm or < 1 mm
002 – 988	Exact size in mm (2 mm to 988 mm)
989	≥ 989 mm
990	Microscopic focus or foci only and no size focus given
998	Familial/multiple polyposis
999	Unknown; size not stated; not documented in patient record; size tumor cannot be assessed; not applicable

101

Rationale – Clinical Tumor Size

Clinical TS

- Code the **largest size** in the record (based on PE, imaging, or other diagnostic technique)
- When there is a difference in reported TS among imaging, code the largest TS, **unless** the physician specifies the imaging that is most accurate.

102

Rationale – Pathological Tumor Size

Pathological TS

- The pathologic tumor size is recorded from the **surgical resection specimen** when surgery (including after neoadjuvant therapy) is administered as part of the first course of treatment.

103

Rationale – Tumor Size Summary

TS Summary

- The tumor size summary is recorded from the **surgical resection specimen** when surgery is administered as **the first definitive** treatment.
- If neoadjuvant therapy is given, code the largest size **prior to** neoadjuvant therapy.
- If no surgical resection, code largest size **prior to** any treatment.

104

cT and pT

Clinical Information

7/25/18 **BE** : 2.5 cm polypoid lesion

7/25/18 **Colonoscopy**: submucosal tumor located at suture line;
bxs taken

Pathological Information

8/24/18 Rt hemicolectomy: invades muscularis propria

Clinical T: cTX

Pathological T: pT2

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Rationale – cT and pT

Clinical T

The tumor was noted to be submucosal;
however, we have no information about
the depth of invasion; therefore, **cTX**.

Pathological T

The tumor invades muscularis propria,
which is **pT2**.

106

cN and pN

Clinical Information

7/25/18 CT Chest/abd/pel: No evidence of mets

Pathological Information

8/24/18 Rt hemicolectomy: 0+/16 LNs; one peritumoral deposit

Clinical N: cN0

Pathological N: pN1c

107

Rationale – cN and pN

Clinical N

The patient had a CT which was negative; **cN0**.

Pathological N

None of the lymph nodes were positive; however, there was one peritumoral deposit which is **pN1c**.

108

cM and pM

Clinical Information

7/25/18 CT Chest/abd/pel: No evidence of mets

Pathological Information

8/24/18 Rt hemicolectomy: no examination of metastatic tissue was performed.

Clinical M: cM0

Pathological M: cM0

109

c and p Prognostic Stage Groups

What is the **clinical** stage group?

- **cTX cN0 cM0**
 - Prognostic Stage Group **99**

What is the **pathological** stage group?

- **pT2 pN1c cM0**
 - Prognostic Stage Group **IIIA**

110

Extent of Disease and Summary Stage 2018

- EOD Primary Tumor **200**
 - Muscularis propria invaded
- EOD Regional Nodes **200**
 - Tumor deposits
- EOD Mets **00**
 - No evidence of mets
- Summary Stage **3**
 - Tumor deposits

111

RLNs Positive and Examined

Pathological information

0+/16 LNs; one peritumoral deposit

RLNs Positive **00**

RLNs Examined **16**

112

Reference – RLNs Examined

Record the number of RLNs that were removed and examined by the pathologist.

00	All nodes examined are negative
01-89	1-89 nodes are positive (code exact number of nodes positive)
90	90 or more nodes are positive
95	Positive aspiration of lymph node(s) was performed
97	Positive nodes are documented, but the number is unspecified
98	No nodes were examined
99	It is unknown whether nodes are positive; not applicable; not stated in patient record

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Reference – RLNs Positive

Record the number of RLNs that were examined by the pathologist and found to be positive.

00	All nodes examined are negative
01-89	1-89 nodes are positive (code exact number of nodes positive)
90	90 or more nodes are positive
95	Positive aspiration of lymph node(s) was performed
97	Positive nodes are documented, but the number is unspecified
98	No nodes were examined
99	It is unknown whether nodes are positive; not applicable; not stated in patient record

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CEA PreTX Lab Value and Interpretation

7/25/18 CEA 17 ng/ml (normal < 3 ng/ml)

CEA PreTX Lab Value **17.0**

CEA PreTX Interpretation **1 (Elevated)**

115

SSDI: CEA Pretreatment Lab Value

- Dr statement can be used if no other info
- Record value of highest CEA test prior to tx or polypectomy
- Record to nearest tenth
- Same test should be used for value and interpretation

0.0 0.0 ng/ml exactly

0.1 – 9999.9 code exact value to nearest tenth

XXXX.1 ≥ 10,000

XXXX.7 Test ordered, results not in chart

XXXX.8 N/A, Info not collected

XXXX.9 Not documented in med record; CEA not assessed or unknown

116

SSDI: CEA Pretreatment Interpretation

- Dr statement can be used if no other info
 - Record interp of highest CEA test prior to tx or polypectomy
 - Code "9" if no statement CEA +/-elev or -/normal AND normal range N/A
- 0 CEA neg/normal, WNL
 - 1 CEA +/-elevated**
 - 2 Borderline
 - 3 Unk if + or neg (normal values N/A) AND no Dr interp
 - 7 Test ordered, results not in chart
 - 8 N/A, info not collected
 - 9 Not in med record, CEA not assessed or unk

117

CEA

- CEA levels can be measured in blood, plasma, or serum
- Recommendations for CEA measurement
 - Pre-op before potentially curative resection (Stage I-III), then every 3-6 months for 2 years, then annually until 5 yrs after first tx
 - Monthly as a response marker for tx of Stage IV dz.

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CEA and Ability to Cause Treatment Resistance

- CEA can promote metastasis in human xenograft models through
 - Increased cell adhesion
 - Induction of cytokines that promote cancer cell survival
 - Inhibition of inflammatory responses
 - Inhibition of programmed cell death (apoptosis)

Colorectal Cancer

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SSDI: Tumor Deposits

Pathology 8/24/18 0+/16 LNs; one peritumoral deposit

Tumor deposits **01**

Colorectal Cancer

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SSDI: Tumor Deposits

- Doctors statement can be used 00 No TD
- TD may represent discontinuous spread, venous invasion w/o extravascular spread, or totally replaced LN
 - 01 – 99 Code exact number TD
 - X1 ≥ 100 TD
 - X2 TD identified, ? #
 - X8 N/A, info not collected
 - X9 Not documented in med record; can't be determined by path; path report doesn't mention; no surgical resection; TD unk
- Code even if + LN

121

SSDI: Perineural Invasion (PI)

Pathology 8/24/18 no LVI or PNI

Perineural Invasion (PI) **0**

122

SSDI: Perineural Invasion (PI)

- Doctors statement can be used
 - Documented in PATH report
- 0 PI not identified/not present**
- 1 PI identified/present
- 8 N/A, info not collected
- 9 Not documented in med record; path does not mention PI; can't be determined by path; PI unknown

123

Circumferential Resection Margin – CRC Case Scenario

Pathological information: 8/24/18 Proximal, distal, and radial margins free

Circumferential Resection Margin **XX.1**

124

SSDI: Circumferential Resection Margin (CRM)

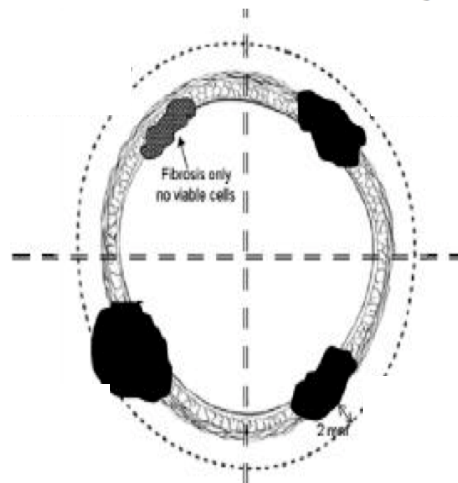
- Dr statement CRM can be used if no other info
 - CRM aka as circumferential radial margin or mesenteric margin
 - CRM = distance mm between deepest point invasion in primary and margin of resection in mesenteric or retroperitoneum
 - Record in mm to nearest tenth
 - Margin + = 0.0. If < 1.0mm, code 0.0
 - If documented in cm, multiply by 10
 - Use XX.9 if path only has distal and proximal margins
- 0.0 Positive CRM, margin involved, < 1.0mm
 0.1 – 99.9 Exact distance
 XX.0 ≥ 100 mm
- XX.1 Margin clear, distance not stated; CRM negative; No residual tumor on specimen**
- XX.2 Margins can't be assessed
 XX.3 Described "at least" 1 mm
 XX.4 Described "at least" 2 mm
 XX.5 Described "at least" 3 mm
 XX.6 Described as "greater than" 3 mm
 XX.7 No resection primary site
 XX.8 N/A; not collected for this case
 XX.9 Not documented in med record, unknown

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SSDI: Circumferential Resection Margin

- Width of surgical margin at deepest part of tumor in area without serosa (CRM does NOT apply to the anatomic serosa of the colon or rectum that is peritonealized.)
- Distance in mm between leading edge of tumor and margin of resection
- Produced by resection of pericolic or perirectal fibroadipose tissue, or pelvic structures
- NOT the same as proximal and distal margins

Figure I-2-4. Circumferential Resection Margin.



SSDI: KRAS

Pathological information: 8/24/18 KRAS mutated

KRAS **4**

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SSDI: KRAS

- Doctors statement can be used
 - KRAS = oncogene
- | |
|--|
| <ul style="list-style-type: none"> 0 Normal (wild type); negative 1 Abnormal in codon(s) 12, 13, and/or 61 2 Abnormal in codon 146 only 3 Abnormal but not codon 12, 13, 61, or 146 4 Abnormal, codon not specified 7 Test ordered, results not in chart 8 N/A, info not collected 9 Not documented in med record; KRAS unknown |
|--|

128

SSDI: Microsatellite Instability

Pathological information: 8/24/18 MSI low

MSI **1**

129

SSDI: Microsatellite Instability (MSI)

- Dr statement can be used if no other info
- Testing MSI can be by immunology or genetic test. If by immuno, code 9
- Canada terms: MMR (mismatch repair) normal (code 0), MMR abnormal (code 2)
- If both tests are done, and one or both are +, code 2
- If all tests done are negative, code 0
- 0 MSI stable, MSS, Negative, NOS AND/OR mismatch report (MMR) intact, no loss of nuclear expression of MMR proteins
- 1 MSI unstable low (MSI-L)**
- 2 MSI unstable high (MSI-H) AND/OR MMR-D (loss of MMR proteins)
- 8 N/A, not collected
- 9 Not documented in med record; MSI indeterminate; MSI unk

130

SSDI: Microsatellite Instability (MSI)

- Changes occur in short, repeated sequences of DNA (microsatellites) in which the # of repeats is different than the # of repeats in normal DNA
- Usually results from a defect in the mismatch repair gene (MMR)
- High levels of MSI-H occur in ~15% of all CRC & are associated with Rt sided colon carcinomas, frequently with PD & mucinous histology, but good prognosis
- MSI-H predicts poor response to 5FU (negated by addition of oxaliplatin in the FOLFOX regimens)

Colorectal Cancer

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Recommendations for MSI Testing

- NCCN and the Spanish Society of Pathology recommend testing for MSI in patients < 70 y.o., particularly those w/ high grade Rt-sided colon carcinoma, mucinous histology, or Crohn's disease-like peritumoral lymphoid follicles
- EGAPP recommends MSI or IHC testing for all newly diagnosed patients with CRC, w/ follow-up genetic testing as warranted

Colorectal Cancer

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Any Questions???

FABULOUS PRIZES WINNERS



COMING UP...THE NEW SEASON BEGINS!

- Collecting Cancer Data: Lung
 - 10/04/2018
- Collecting Cancer Data: Pharynx
 - 11/01/2018
- Collecting Cancer Data: Breast
 - 12/6/18

Guest speaker is Wilson Apollo

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CE CERTIFICATE QUIZ/SURVEY

- Phrase

- Link

<https://www.surveygizmo.com/s3/4550951/Coding-Pitfalls-2018>

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