SHRI Video Training Series
2018 dx and forward
Recorded 1/2020

Colon & Rectum SSDI

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Grade

- Clinical
- Pathological
- Post therapy

Grade manual: https://www.naaccr.org/SSDI/Grade-Manual.pdf?v=1544714352

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Grade Clinical

Notes

Note 1: Clinical grade must not be blank.

Note 2: Assign the highest grade from the primary tumor assessed during the clinical time frame.

Note 3: G4 includes anaplastic.

Note 4: Code 9 when

- Grade from primary site is not documented
- Clinical workup is not done (for example, cancer is an incidental finding during surgery for another condition)
- Grade checked "not applicable" on CAP Protocol (if available) and no other grade information is available

Note 5: If there is only one grade available and it cannot be determined if it is clinical or pathological, assume it is a clinical grade and code appropriately per clinical grade categories for that site, and then code unknown (9) for pathological grade, and blank for post therapy grade.

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Grade Pathological

Notes

Note 1: Pathological grade must not be blank.

Note 2: Assign the highest grade from the primary tumor. If the clinical grade is the highest grade identified, use the grade that was identified during the clinical time frame for both the clinical grade and the pathological grade. (This follows the AJCC rule that pathological time frame includes all of the clinical time frame information plus information from the resected specimen.)

- If a resection is done of a primary tumor and there is no grade documented from the surgical resection, use the grade from the clinical workup
- If a resection is done of a primary tumor and there is no residual cancer, use the grade from the clinical workup

Note 3: G4 includes anaplastic.

Note 4: Code 9 when

- Grade from primary site is not documented
- No resection of the primary site
- Neo-adjuvant therapy is followed by a resection (see post therapy grade)
- Clinical case only (see clinical grade)
- There is only one grade available and it cannot be determined if it is clinical, pathological, or after neo-adjuvant therapy
- Grade checked "not applicable" on CAP Protocol (if available) and no other grade information is available

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Grade Post Therapy

Notes

Note 1: Leave post therapy grade blank when

- No neoadjuvant therapy
- Clinical or pathological case only
- There is only one grade available and it cannot be determined if it is clinical, pathological or post therapy

Note 2: Assign the highest grade from the resected primary tumor assessed after the completion of neoadjuvant therapy.

Note 3: G4 includes anaplastic.

Note 4: Code 9 when

- Surgical resection is done after neoadjuvant therapy and grade from primary site is not documented
- Surgical resection is done after neoadjuvant therapy and there is no residual cancer
- Grade checked "not applicable" on CAP Protocol (if available) and no other grade information is available

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Colon: Grade Tables

Code	Description
1	G1: Well Diff
2	G2: Mod Diff
3	G3: Poorly Diff
4	G4: Undiff
9	Grade cannot be assessed (GX); Unknown

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#3820 CEA PreTX Lab Value
#3819 CEA PreTX Interpretation

- Take values from same lab test
- Physician statement can be used when no other info
- Record highest CEA prior to treatment or polypectomy

Example:

- Value: Pretreatment CEA 7 ng/ml. Code as 7.0
- Interpretation: Not documented. Code 9

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#3820 CEA PreTX Lab Value

Code	Description
0.0	0.0 nanograms/milliliter (ng/m) exactly
0.1-9999.9	0.1-9999.9 ng/ml Exact value to nearest tenth in ng/ml
XXXX.1	10,000 ng/ml or greater
XXXX.7	Test ordered, results not in chart
XXXX.8	Not applicable
XXXX.9	Not documented in med rec, not assessed or unknown if assessed

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#3819 CEA PreTX Interpretation

Code	Description
0	CEA neg/normal; within normal limits
1	CEA pos/elevated
2	Borderline
3	Undetermined if pos or neg (normal values not avail AND no MD interpretation
7	Test ordered, results not in chart
8	Not applicable
9	Not documented in med rec, not assessed or unknown

Code 3 when CEA value documented in record, but no statement CEA is pos/neg/elevated/ normal

CEA Text Examples

1. 2-14-19 CEA: 2645 (high)

2. 3-17-19 CEA 0.50 (negative)

3. 6-14-19 CEA 54 (<2.5)

4. 7-4-19 CEA 18.35 (<2.5)

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CEA Examples

Text	#3820 Value	#3819 Interpretation
2-14-19 CEA: 2645 (high)	2645.0	1
3-17-19 CEA 0.50 (negative)	0.5	0
6-14-19 CEA 54 (<2.5)	54.0	1
7-4-19 CEA 18.35 (<2.5)	18.4	1

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CEA Example

H&P:

…… "Pre-op CEA elevated"

#3820 (Value): **XXXX.7** (ordered, results not in chart)

#3819 (Interpret): **1** (Note 1: Phys statement can be used when no info available)

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#3934: Tumor Deposits

Note 1: Physician statement of tumor deposits can be used to code this item when no other info available

Note 2: Tumor Deposits = One or more satellite peritumoral nodules in pericolorectal adipose tissue of primary carcinoma w/o histologic evidence of residual LN in nodule.

- Tumor deposits may represent discontinuous spread, venous invasion w/extravascular spread or a totally replaced LN

Note 3: Record # of tumor deposits whether or not there are pos LNs.

Note 4: Record X9 if resection done, path report available and tumor deposits are not mentioned.

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#3934: Tumor Deposits

Code	Description
00	No tumor deposits
01-99	1-99 Tumor deposits (TD) Exact number of TD
X1	100 or more Tumor Deposits
X2	Tumor Deposits identified, number unknown
X8	No applicable
X9	Not documented in record Cannot be determined by pathologist Pathology report does not mention tumor deposits No surgical resection done Tumor Deposits not assessed

#3909 Perineural Invasion

Note 1: Physician statement of microscopically confirmed perineural invasion can be used when no other info available.

Note 2: Code the presence or absence of perineural invasion by primary tumor as documented in path report

Note 3: Info on presence of perineural invasion can be taken from either biopsy or resection. **Absence can only be taken from surgical resection path report.**

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#3909 Perineural Invasion

Code 0: only taken from resection path report

Code	Description
0	Perineural invasion not identified/not present
1	Perineural invasion identified/present {biopsy or resection}
8	Not applicable
9	Not documented in medical record Path report **does not mention** perineural invasion Cannot be determined by pathologist Perineural invasion not assessed or unknown if assessed

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#3823 Circumferential Resection Margin

Note 1: Physician statement can be used

Note 2: strong prognostic factor for local or systemic recurrence and survival after surgery

Note 3: CRM terms: circumferential radial margin, circumferential resection margin, radial margin, soft tissue margin

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#3823 Circumferential Resection Margin

Note 4: CRM = Distance in mm between deepest point of tumor invasion in primary cancer and the margin of resection in the retroperitoneum or mesentery.

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#3823 Circumferential Resection Margin

Note 5: Record in millimeters (mm) to nearest tenth.

Example:

CRM is 2 mm = code 2.0

CRM is 2.78 mm = code 2.8

Note 6: If value in centimeters, multiple by 10 to get value in millimeters.

CRM recorded as 0.2 cm x10 = 2.0 mm.

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#3823 Circumferential Resection Margin

Note 7: If margin is involved (positive), code 0.0. If <1 mm, and no specific measurement, code to 0.0.

Note 8: Code XX.2 (margins not assessed) ONLY when path/CAP checklist states "cannot be assessed or eval."

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#3823 Circumferential Resection Margin

Note 9: Exact measurement takes precedence over code 0.0 and those beginning with XX.

Example: CRM stated as 0.3 mm in final dx. Synoptic states margin involved by carcinoma. Code 0.3 mm instead of 0.0

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#3823 Circumferential Resection Margin

Note 10: Code XX.9 when

- Tumor is in situ only /2
- Checked 'not applicable' on CAP
- Path report describes only distal or prox margins or 'margins NOS'
- Only specific statements of CRM collected in this data item.
- CRM not mentioned in record

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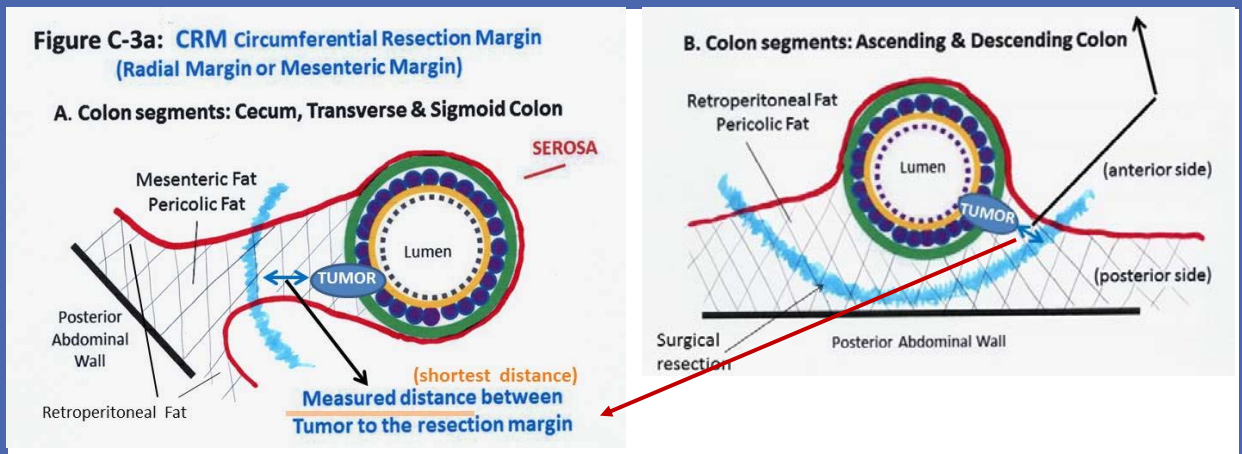

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#3823 Circum Resec Margin

Code	Description
0.0	Circumferential resection margin (CRM) pos. Margin IS involved with tumor. Described as less than 1 mm.
0.1-99.9	Distance of tumor from margin: 0.1-99.9 mm Exact size to nearest tenth of mm
XX.0	100 mm or greater
XX.1	Margins clear, distance from tumor not stated. CRM or radial margin neg, NOS. No residual tumor
XX.2	Margins cannot be assessed

**ONLY when path/CAP states margin cannot be assessed

#3823 Circum Resec Margin

Code	Description
XX.3	Described as 'at least' 1 mm
XX.4	Described as 'at least' 2 mm
XX.5	Described as 'at least' 3 mm
XX.6	Described as 'greater than' 3 mm
XX.7	No resection of primary site
XX.8	Not applicable
XX.9	Not documented in medical record; CRM not assessed. Checked "not applicable" on CAP checklist.

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Question

Neoadjuvant example: Pt had pos colon biopsy. Neoadjuvant therapy followed by resection. Resection CRM was neg after neoadjuvant therapy. Can you use CRM? **Yes. Manual does not state this has to be prior to neoadjuvant therapy. {JRUHL}**

- http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/87099-crm-neoadjuvant-tx

If surgery codes 00-29 (no resection), CRM should be coded to XX.7) No resection of primary site.

If surgery codes 30-80, CRM cannot be coded XX.7.

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SSDI CRM values

	Code	Description
Positive margins	0.0	Circumferential resection margin (CRM) positive Margin IS involved with tumor Described as "less than 0.1 millimeter (mm)"
Coding exact measurements	0.1-99.9	Distance of tumor from margin: 0.1- 99.9 millimeters (mm) (Exact size to nearest tenth of millimeter)
Margins described as greater than ≥100mm	XX.0	100 mm or greater
Margin is stated as clear, but distance is not available	XX.1	Margins clear, distance from tumor not stated Circumferential or radial resection margin negative, NOS No residual tumor identified on specimen
Margins cannot be assessed - ***ONLY*** *select this value if path reports/CAP checklist states that the margin cannot be assessed*	XX.2	Margins cannot be assessed
When pathology uses "at least" categories	XX.3	Described as "at least" 1 mm
	XX.4	Described as "at least" 2 mm
	XX.5	Described as "at least" 3 mm
	XX.6	Described as "greater than" 3 mm

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SSDI CRM values, continued

	Code	Description
When there is no surgical resection of the primary site. *(Colorectal surgery codes <30)*	XX.7	No resection of primary site Surgical procedure did not remove enough tissue to measure the circumferential or radial resection margin (Examples include: ***polypectomy only, endoscopic mucosal resection (EMR), excisional biopsy only, transanal disk excision)
	XX.8	Not applicable: Information not collected for this case (If this information is required by your standard setter, use of code XX.8 may result in an edit error.)
• Not documented in medical record • CRM is not evaluated/assessed • CAP checklist checked "Not applicable: Radial or Mesenteric Margin" • Unknown if CRM was evaluated/assessed • Tumor is in situ only (/2)	XX.9	Not documented in medical record Circumferential or radial resection margin not assessed or unknown if assessed

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Note 3: Only specific statements about CRM are collected in this data item

Code if you find these terms:

- Circumferential radial margin
- Circumferential resection margin
- Mesenteric (mesocolon) margin
- Radial margin
- Soft tissue margin

Do *NOT* code if these are the only terms found:

- Distal margin
- Proximal margin
- Margins, NOS
- All margins negative
- Resection margins

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Note 5-6: CRM SSDI is recorded in millimeters

- Record in millimeters (mm) to the nearest tenth
  - If CRM = 2mm then
    - SSDI code = 2.0
  - If CRM = 2.78mm then
    - SSDI code = 2.8

If given in centimeters (cm)

- Multiply by 10 or move your decimal right one
- If CRM = 0.2 cm then

$$0.2\ cm \times 10 = 2.0\ mm$$

0.2 cm	0.2.	2.0 mm

*You can also google "cm to mm" and google will provide you with a conversion calculator

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Note 9:
If you have an exact measurement, code it

- An exact measurement takes precedence over codes 0.0 (CRM positive) or those beginning with XX._
  - *Even if pathologist states margin is positive*

Example:

CRM is stated as 0.3mm in Final Diagnosis

Synoptic states: CRM interpreted as involved by invasive carcinoma (tumor <1mm from margin)

Code SSDI as: 0.3mm instead of 0.0 (margin involved with tumor)

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If CRM is given as a range

If you have a range, you code 0.1 above the lowest number in the range stated

Example

Distance of invasive carcinoma from closest margin: 3-4 mm

Specified margin: Radial

Code SSDI as: 3.1 mm

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/96150-ssdi-colon-and-rectum-circumferential-resection-margin-size

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If CRM is given as "greater than"

If you have a "greater than" statement, you code 0.1 above the number provided

***If number is "greater than 3mm" use code XX.6*

Example

Margins Examined: Proximal, Distal, Radial or Mesenteric

Distance of Tumor from Radial Margin: >1 cm from resection margin

Code SSDI as: 10.1 mm

SSDI manual pg. 21

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/94152-crm-1mm-from-serosal-surface-1cm-from-resection-margin

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If CRM is given as "less than"

If you have a "less than" statement, you code 0.1 below the number provided

Example

Margins Examined: Proximal, Distal, Radial or Mesenteric

Distance of Tumor from Radial Margin: <3 mm from resection margin

Code SSDI as: 2.9 mm

SSDI manual pg. 21

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#3866 KRAS

Note 1: Physician statement of KRAS can be used to code this item when no other info avail
Note 2: KRAS = oncogene that mutates and causes normal cells to become cancerous, often present in colon cancer
Note 3: KRAS commonly done in metastatic setting
Note 4: Results from nodal or met tissue may be used for KRAS
Note 5: Record result from initial workup
Note 6: If KRAS pos, no mention of mutated codon, or not specific, code 4.

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#3866 KRAS

0	Normal (wild type); neg for mutations
1	Abn (mutated) in codon(s) 12, 13, and/or 61
2	Abn (mutated) in codon 146 only
3	Abn (mutated) but not in codon(s) 12, 13, 61, 146
4	Abn (mutated), NOS, codon(s) not specified
7	Test ordered, not in chart
8	Not applicable
9	Not documented in med rec; KRAS not assessed or unknown if assessed

Per Forum

EXAMPLE: RESULTS: Pathogenic alteration is DETECTED in the KRAS gene.
Gene:KRAS
Exons Tested: ALL
Genomic Alteration(s): c.35G>T: p.G12V
Mutation Effect: MISSENSE
Allela Frequency :35%
Pathogenic: YES
NGS Interpretation A genomic alteration in the KRAS gene is detected (C.35G>T; p.G12V). This missense alteration has been previously reported (http://grch37-cancer.sanger.ac.uk/co...verview?id=520), and is expected to be pathogenic.

- Answer: This looks like a G12v, which is a Codon 12. Code 1.

http://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/98522-creative-documentation-of-kras

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The following will be added to the 2021 update of the SSDI manual

Note 3: There are 4 KRAS codons that are commonly mutated in colorectal cancers. This SSDI does not record the actual mutation, but instead records the codon or codon group that contains the mutation. If a specific KRAS mutation is reported, its codon may be identified from the following list of common KRAS mutations grouped by codon.

- Codon 12
  - Gly12Asp (GGT>GAT)
  - Gly12Val (GGT>GTT)
  - Gly12Cys (GGT>TGT)
  - Gly12Ser (GGT>AGT)
  - Gly12Ala (GGT>GCT)
  - Gly12 Arg (GGT>CGT)
  - Codon 12 mutation, not otherwise specified
- Codon 13
  - Gly13Asp (GGC>GAC)
  - Gly13Arg (GGC>CGC)
  - Gly13Cys (GGC>TGC)
  - Gly13Ala (GGC>GCC)
  - Gly13Val (GGC>GTC)
  - Codon 13 mutation, not otherwise specified
- Codon 61
  - Gln61Leu (CAA>CTA)
  - Gln61His (CAA>CAC)
  - Codon 61 mutation, not otherwise specified
- Codon 146
  - Ala146Thr (G436A) (GCA>ACA)
  - Codon 146 mutation, not otherwise specified

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#3890 Microsatellite Instability MSI

Note 1: Physician statement can be used to code this item
Note 2: Genetic test, useful prognostic marker for response to surgery and survival
Note 3: MSI usually done by immunology or genetic testing
See details of notes
Note 4: Testing for MMR usually done by IHC
See details of notes
Note 5: If both tests are done and one or both pos; code 2
Note 6: If all tests done are neg, code 0.

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#3890 MSI

0	Microsatellite instability (MSI) stable; microsatellite stable (MSS; neg, NOS; AND/OR Mismatch repair (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 expression of one or more MMR proteins
8	Not applicable
9	Not documented in record; MSI indeterminate; MSI not assessed or unknown if assessed.

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Examples

- MMR by IHC
  - 0 = MMR intact
  - 2 = MMR-D (loss of expression) (deficient)
  - 9 = not used when MMR studies done
- Mismatch repair protein markers MLH1, MSH2, MSH6, PMS2

Path report 2/14/2019: INTACT MISMATCH REPAIR PROTEINS: MLH-1: Positive staining representing intact mismatch repair proteins. PMS-2: Positive staining representing intact mismatch repair proteins. MSH-2: Positive staining representing intact mismatch repair proteins. MSH-6: Positive staining representing intact mismatch repair proteins. BRAFV600 E: Negative

MSI: 0

2/14/2019 MMR intact.

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Homework

SSDI and Grade cases on SEER*Edu

- https://educate.fredhutch.org/LandingPage.aspx
- Training Menu|Practical application section
  - Select 2018 SSDI
    - Colon and rectum 01-05
    - Colon and rectum 06-10
  - Select 2018 Grade
    - Colon and Rectum 01-05

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Questions

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