GASTROINTESTINAL PATHOLOGY GROSSING GUIDELINES

Specimen Type: COLON RESECTION (for TUMOR)

Procedure:

1. Measure length and range of diameter or circumference.
2. Describe external surface, noting color, granularity, adhesions, fistula, discontinuous tumor deposits, areas of retraction/puckering, induration, stricture, or perforation.
3. Measure the width of attached mesentery if present. Note any enlarged lymph nodes and thrombosed vessels or other vascular abnormalities.
4. Open the bowel longitudinally along the antimesenteric border, or opposite the tumor if tumor is located on the antimesenteric border, *i.e*. try to avoid cutting through the tumor.
5. Measure any areas of luminal narrowing or dilation (location, length, diameter or circumference, wall thickness), noting relation to tumor.
6. Describe tumor, noting size, shape, color, consistency, appearance of cut surface, % of circumference of the bowel wall involved by the tumor, depth of invasion through bowel wall, and distance from margins of resection (radial/circumferential margin, mesenteric margin, closest proximal or distal margin).
    a. If resection includes mesorectum, gross evaluation of the intactness of mesorectum must be included. For rectum, the location of the tumor must also be oriented: anterior, posterior, right lateral, left lateral.
    b. If a rectal tumor is close to distal margin, the distance of tumor to the distal margin should be measured when specimen is stretched. This is usually done during intraoperative gross consultation when specimen is fresh.
    c. If the tumor is in a retroperitoneal portion of the bowel (e.g. rectum), radial/retroperitoneal margin must be inked and one or more sections must be obtained (a shave margin, if tumor is far from the radial margin; and perpendicular sections showing the relationship of the tumor to the inked radial margin, if tumor is close to the radial margin).
    d. If the tumor is in a peritonealized portion of the bowel (e.g. ascending colon), then the serosal surface over the tumor needs to be inked. If tumor grossly puckers the serosa, one or more perpendicular sections must be taken to show the relationship of the tumor to the inked serosal surface).
    e. Mesentric margin is evaluated grossly for tumor involvement for segments with mesentery (transverse and sigmoid colon). The distance of tumor to the mesenteric margin should be described. For other portions of colon (cecum, ascending, descending, and rectum), there is no mesenteric margin. Only radial margin is present, which needs to be examined as described above.
7. Describe the appearance of uninvolved mucosa.
8. Describe the size, appearance and location of any additional lesions such as polyps.
9. After submitting all sections that are needed to demonstrate the relationship of the tumor (or tumor bed) to the pericolic fat and serosa, **dissect the remaining pericolic and mesenteric adipose tissue off of the colonic segment**, slice it at 2-3 mm intervals, and thoroughly palpate the tissues to identify all lymph nodes and possible lymph nodes. Note range of size and appearance of cut surface of lymph nodes.

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Gross Template:

MMODAL COMMAND: INSERT COLON CANCER

It consists of a [*transverse colon, left colon*, *sigmoid colon, descending colon, total colon, rectosigmoid, other(specify)****]. [*Indicate orientation if provided/or unoriented****] The colon measures [***] cm in length and ranges from [*smallest to largest****] cm in open circumference. The wall thickness averages [***] cm. The [*Mesenteric/pericolic/perirectal fat****] extends up to [***] cm from the bowel wall. [The attached omentum measures *** x ***x *** cm***] *[Describe other attached structures****]

The serosal surface is [*pink-tan and unremarkable/ remarkable for describe, if applicable****]. The mucosa is remarkable for a [*describe lesion: size in three dimensions, shape (e.g. polypoid, ulcerated, fungating), color, consistency (e.g. soft, firm, friable)****]. The lesion involves [***]% of the circumference of the bowel [*describe obstruction or strictures caused by lesion****]. Sectioning reveals the lesion to have a [*describe color, consistency, white-tan and firm****] cut surface. The lesion [*is grossly superficial, extends into the bowel wall, extends through the bowel wall into the fibroadipose tissue (for GISTs or serosa-based lesions indicate layers of bowel wall involved and any associated mucosal ulceration)****] The lesion measures [***] cm from the proximal margin, [***] cm from the distal margin, [***] cm from the [*radial/mesenteric****] margin [*please ask for margin determination if needed****]*, and [***] cm from the serosal surface[*of the bowel wall or of the mesenteric/pericolic/perirectal fat*].

The remainder of the serosa is [*tan, smooth, glistening, and unremarkable* or *describe any additional lesions****]. The remainder of the mucosa is [*tan, glistening, folded, and unremarkable* or *describe any additional lesions****]. After removing the pericolic adipose tissue, it is thoroughly examined for lymph nodes. [*State number****] lymph nodes and possible lymph nodes are identified, ranging from [*smallest to largest****] cm in greatest dimension.

All identified lymph nodes are entirely submitted. [*The lesion/mass is entirely submitted (if applicable, otherwise skip to next sentence)****] Gross photographs are taken. Representative sections of the remaining specimen are submitted.

INK KEY:
Black [*Mesenteric OR radial margin overlying lesion****]
Blue Serosa overlying lesion

[*insert cassette summary****]

Cassette Submission: 15-20 cassettes

- Proximal resection margin, shave
  - Perpendicular if close to tumor
- Distal resection margin, shave
  - Perpendicular if close to tumor
- Mesenteric resection margin (**transverse and sigmoid colon**)
  - A representative shave section
  - Or a perpendicular section with nearest approach to tumor
- Radial/circumferential margin (**for segments without mesentery: cecum, ascending colon, descending colon, rectum**)
  - A representative shave section
  - OR a perpendicular section with nearest approach to tumor
- One cassette per 1 cm of tumor (OR at least 5 sections of tumor OR if small enough, entirely submit)

  - Show maximum depth of invasion
  - Show nearest approach to serosal surface
  - Show relationship to unremarkable mucosa
  - Show relationship to any contiguous or adherent organs
- If the resection is for a large adenomatous polyp **with no gross invasion** - entirely submit
- Sampling of any additional pathology in the gross description (ulcers, polyps, tattoo ink, etc.)
- Representative sections of unremarkable colon in one cassette
- Dissect remaining pericolic and mesenteric adipose tissue and thoroughly dissect fat to look for all possible lymph nodes. Submit all lymph nodes identified (at least 12 lymph nodes are suggested for colorectal carcinoma)
- Note: If no tumor is grossly identified and instead an area of ulceration or scar is present (which is often the case for rectal carcinomas status post neoadjuvant therapy), then the entire ulcer or scar area needs to be submitted.