

## Genitourinary Grossing Guidelines

**Specimen Type:** URETERECTOMY (resection)

**Procedure:**

1. Measure the length and diameter of the ureter and document provided orientation, if provided.
  - a. Include a range in diameter if there is variation.
  - b. Measure the dimension of bladder cuff margin (enlarged distal portion where the ureter inserts into bladder) if present
2. Describe external adventitial surface of ureter.
3. Differentially ink the ureter into proximal, mid, and distal portions, if oriented.
  - a. If un-oriented, differentially ink 2-3 colors.
  - b. Ink bladder cuff margin in red if present
4. If bladder cuff margin is present, amputate the bladder cuff, radially section centering the ureteral orifice, and entirely submitted the bladder cuff margin in 2-3 cassettes. If bladder cuff margin not present and mass is not close to ureteral margin, shave the margin. If mass is close to margin, a perpendicular section should be taken.
5. **For non-neoplastic cases** → keep the ureter intact.  
**For neoplastic cases** → carefully open the ureter longitudinally while trying to avoid cutting through the tumor. Do not touch the mucosa with your fingers, as the mucosa is denuded easily.
6. Examine the mucosal surface for tumors, which are usually papillary.
7. Pin and photograph the specimen. If tumor is friable, fix overnight.
8. Serially cross-section from one end to the opposite end, maintaining orientation.
  - a. Do not make longitudinal sections!
6. Describe and measure lesion (length x width) and depth of invasion and distance to circumferential margin.
7. Document if the mass causes strictures or dilated segments.
8. Describe uninvolved mucosa and ureter wall.
9. If small enough, submit entire specimen sequentially or submit end margins and representative sections of tumor to include greatest depth of invasion.
  - Ureteral end margins should each be in their own cassette

**Gross Template:**

Labeled with the patient's name (\*\*\*), medical record number (\*\*\*), designated "\*\*\*\*", and received [fresh/in formalin] is a segment of ureter with adherent soft tissue measuring \*\*\* cm in length x \*\*\* cm in diameter. [Provide orientation, if provided]. A bladder cuff margin is not *identified/present, measuring \*\*\* cm in diameter and \*\*\* in length.*

The adventitial surface is [*describe abnormalities, defects, lesions*] inked. Sectioning reveals [*describe lesion- size, shape, color, consistency*]. The mass measures \*\*\* cm from the proximal margin and \*\*\* cm from the distal margin. The mass is grossly *non-invasive/invades the muscularis/periureteric fat*, with a \*\*\* cm maximum *depth/thickness* and *extends to \*\*\*cm from the circumferential margin.*

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The uninvolved ureter wall has a \*\*\* cm average thickness. The uninvolved mucosa is [pink-tan, unremarkable]. The lumen ranges from \*\*\* to \*\*\* cm in diameter. \*\*\* lymph nodes are identified ranging from \*\*\* to \*\*\* cm in greatest dimension. Gross photographs are taken.

Representative sections are submitted [*describe cassette submission*].

Ink key:

Blue - proximal third

Black - mid portion

Green - distal third

Red - bladder cuff margin

### Cassette Submission:

- **Incidental removal** – one cassette of representative cross sections
- **Stenotic lesions**
  - o Cross sections of stenotic zone
  - o Cross sections of proximal and distal areas, differentially inked
- **Neoplastic**
  - o Proximal resection margin, en face
  - o Distal resection margin, en face / bladder cuff margin, radially sectioned
  - o One section per 1 cm of tumor, up to 4 cassettes
    - To include greatest depth of invasion into the ureteral wall, periureteric fat, and closest circumferential margin.
  - o One cassette of grossly uninvolved ureter.
  - o Submit all lymph nodes

