Genitourinary Grossing Guidelines

**Specimen Type:** NEPHROURETERECTOMY

**Procedure:**
1. Review radiology and prior path reports for tumor location.
2. Weigh and measure overall specimen in 3D.
3. Measure the length and diameter of the attached ureter and/or bladder cuff.
4. Shave the hilar vascular margins.
5. Ink external surface of peri-renal fat black (be careful not to extend ink into the hilar fat).
6. Differentially ink the ureter into proximal, mid, and distal portions.
7. If mass is not close to ureteral margin, shave the ureteral margin. If mass is close, a perpendicular section should be taken.
8. Carefully open along the ureter (with scissors) towards the renal pelvis. The tumor may be soft and friable, so you need to handle with care.
   - NOTE: ureter wall with possible or grossly obvious invasion will be key sections to take.
9. Bisect the kidney through the renal pelvis.
10. Measure the kidney (without added fat) in 3D.
11. Take photographs of the fresh specimen and fix overnight.
12. Section kidney from superior to inferior pole and check for lesions in renal pelvis, sinus fat, major and minor calyces, UPJ, and perinephric fat.
14. Section the perinephric fat for lymph nodes.

**Gross Template:**
Labeled with the patient’s name (**), medical record number (**), designated “***”, and received [fresh/in formalin] is a [right,left] ***g, *** x *** x *** cm total nephrectomy. The kidney alone measures *** x *** x *** cm. The ureter measures *** cm in length x *** cm in diameter. The renal artery measures *** cm in length x *** cm in diameter. The renal vein measures *** cm in length x *** cm in diameter. [Describe adrenal gland if present- weigh and measure].

Sectioning reveals a [describe mass-size, focality, color, consistency, circumscription, encapsulation, necrosis, hemorrhage] located in the [proximal, mid, distal portion of the ureter]. The mass extends [into the perinephric fat, to Gerota’s fascia, into the pelvicalyceal system, into the renal artery and/or vein, adrenal gland, is confined to the ureter with no gross extension into renal parenchyma, other]. The mass measures *** cm from the ureteral margin.

The uninvolved ureter is [unremarkable, or describe areas of dilation/stenosis if not already addressed.] The renal parenchyma is [grossly uninvolved, unremarkable, or additional pathology]. The corticomedullary junction is [distinct/ poorly defined]. The pelvicalyceal system [is/ is not] dilated. Calculi [are/ are not] present [describe obstruction and dilation of calyces if present]. The mucosa of the collecting system is [smooth, roughened, granular, thickened, other.] The vessels are remarkable for [plaque, thrombus, other, unremarkable].
No additional lesions or masses are identified. [Describe if frozen sections taken]. Representative sections are submitted [describe cassette summary]. Gross photographs are taken.

Ink key:
Blue- proximal third
Black- mid portion
Green- distal third

**Cassette Submission**: 8-10 cassettes
- Ureteral margin, shave
  - Perpendicular section to ureteral margin if tumor is close enough
- One cassette of remaining hilar margins
- One cassette to include greatest depth of invasion into ureteral wall
- One cassette of additional pathology (dilated or strictured areas)
- Three cassettes of unremarkable ureteral wall
  - if ureter is differentially inked, you may put sections from proximal, mid, and distal uninvolved ureter in one cassette
- One cassette of remaining hilar margins
- Representative sections of tumor with renal sinus/kidney/perinephric fat/closest soft tissue margin
- One cassette of non-neoplastic renal parenchyma (at least 2 cm away from tumor)
- One cassette of adrenal gland (if present)
- Submit all hilar lymph nodes (if present)