###### Purpose

To provide a procedure for the gross examination and dissection of a male cystectomy specimen with an attached prostatectomy.

1. **Principle**

To take histologic sections to demonstrate the pathologic process so that a diagnosis can be made microscopically by a Pathologist. All margins and all lymph nodes should be examined. Any other attached organs should be sampled.

###### Equipment

1. Ruler
2. Forceps
3. Scalpel
4. Scissors
5. Large Knife
6. Pins
7. Styrofoam
8. Whole Mount Macro Cassettes
9. **Safety**
10. **PPE** should be worn.
11. **FORMALIN** is a known carcinogen.
12. **Supplies and Reagents**
13. **10% NEUTRAL BUFFERED FORMALIN** (pH range 6.9 – 7.2)
14. Black Ink
15. Blue Ink
16. Green Ink
17. White Distilled Vinegar
18. **Quality Control**

All remaining tissue should be retained.

1. **Limitations/ Notes**

The following may influence the validity of test results:

1. The specimen should be fixed well in formalin.
2. For optimal results, the bladder should be opened, both ureters should be probed, the specimen should be pinned out on Styrofoam, and fixed overnight in formalin.
3. **Procedure**
4. The specimen will arrive fresh or in formalin and should be triaged as follows:
   1. Probe both ureters.
   2. Ink the prostate as follows: right- black, left- blue, posterior- green.
   3. Ink the anterior bladder and open the bladder/prostate anteriorly with scissors by making a Y-incision from the urethra toward the dome.
   4. Pin out on Styrofoam and fix overnight (minimum of 4-5 hours).
5. Orient the specimen. The peritoneum extends further along the posterior aspect. The attached prostate can be used to help orient the specimen with the seminal vesicles and vas deferens posterior.
6. Identify all components of the specimen that are present (i.e. bladder, ureters, prostate, seminal vesicles, and vas deferens) and measure each (3 dimensions - cm.). For cylindrical structures, use two dimensions (cm.).
7. Shave both vas deferens margins.
8. Probe both ureters in the right and left perivesicular adipose tissue and shave each ureter margin.
9. Ink the outside of the bladder one or two colors (ex: anterior – blue and posterior – black).
10. Use vinegar as a mordant for the ink.
11. Locate the proximal urethra (apex of prostate) and shave the surgical margin (to be submitted as **perpendicular** sections).
12. Describe the specimen using a systematic approach (ex: outside to inside). Carefully, inspect the external surface (attached perivesicular adipose tissue) and the bladder mucosa.
13. Locate and describe the pathologic process (size, shape, color, consistency, and location). Note structures that are involved by the pathologic process.
14. Measure the distance from the pathologic process to the surgical margin of the urethra (cm.) and to each ureteral orifice.
15. Describe the cut surface of the pathologic process and the layers of the bladder wall that are involved. If the pathologic process extends through the bladder wall and into an adjacent organ, describe the relationship.
16. Measure the thickness of the pathologic process (cm.).
17. Measure the uninvolved wall of the specimen (cm.).
18. Describe any other abnormalities that are present.
19. Serially section the prostate transverse to the posterior aspect and describe the cut surfaces.
20. Search all attached adipose tissue for lymph nodes.
21. Serially section the shaved proximal urethra (apex of prostate) and submit as **perpendicular** sections to be embedded on edge.
22. Submit shave sections of both attached ureters (right and left) to be embedded en face.
23. Submit sections of the pathologic process including sections that demonstrate the deepest point of invasion and the adjacent structures.
24. Sample any other grossly identifiable abnormalities.
25. Submit sections of bladder wall at right and left ureteral orifices.
26. Submit full thickness representative sections of the uninvolved walls away from the pathologic process. Sample each bladder wall (anterior, posterior, dome, trigone, right lateral, and left lateral).
27. Submit **perpendicular** sections of the bladder base to the prostate.
28. Submit both vas deferens margins en face and sections of both seminal vesicles at the junction with the prostate.
29. Submit representative alternating sections of the prostate in whole mount (macro) cassettes.
30. Submit all identifiable lymph nodes.
31. Provide a detailed cassette summary.
32. All whole mount (macro) cassettes should be placed in formalin and given to histology for further processing.
33. The regular tissue cassettes should be loaded on the end of day tissue processor.
34. **References**

Hruban RH, Westra, WH, Phelps, PH, & Isacson, C: Surgical Pathology Dissection An Illustrated Guide, New York, NY, Springer-Verlag Inc., 1996.

Lester, SC: Manual of Surgical Pathology, New York, NY, Churchill

Livingstone, 2001.

1. **Authorized Reviewers**
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