###### Purpose

To provide a procedure for the gross examination of a radical or simple/suprapubic prostatectomy specimen.

1. **Principle**

To submit the entire prostate gland proper, including all margins for a radical prostatectomy specimen for malignancy or representative sections for a simple/suprapubic prostatectomy specimen so that a diagnosis can be made microscopically by a Pathologist.

###### Equipment

1. Ruler
2. Forceps
3. Scalpel
4. Large Knife
5. Macro Cassettes
6. **Safety**
7. **PPE** should be worn.
8. **FORMALIN** is a known carcinogen.
9. **Supplies and Reagents**
10. **10% NEUTRAL BUFFERED FORMALIN** (pH range 6.9 – 7.2)
11. Black Ink
12. Blue Ink
13. Green Ink
14. Yellow Ink
15. White Distilled Vinegar
16. **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. **Procedure – Radical Prostatectomy for Cancer**
3. The specimen will arrive fresh or in formalin.
4. Transfer the specimen to formalin and fix overnight or multiple hours.
5. After fixation, orient the specimen using the attached vas deferens, seminal vesicles and the proximal and distal urethral openings.
6. Weigh (g) and measure (cm) the prostate from apex to base, from lateral to lateral, and from anterior to posterior. Note: the weight should be taken after removal of any attached vas deferens and seminal vesicles.
7. Measure any attached vas deferens in two dimensions (cm) and seminal vesicles in three dimensions (cm).
8. Mention if the prostatic capsule is intact.
9. Ink the entire prostate as follows: right side- black, left side- blue, and posterior wall- green. Extend the black ink onto the right vas deferens and seminal vesicles and the blue ink onto the left vas deferens and seminal vesiscles.
10. Use vinegar as a mordant for the ink.
11. Shave both the apex (distal urethra) and the bladder base (proximal urethra). Further serially section each shaved piece for perpendicular margins.
12. Ink the shaved site of the apex and bladder base yellow (not true margin).
13. Serially section the prostate gland transverse to the posterior aspect from apex to base at no larger than 3-4 mm intervals.
14. Examine the cut surfaces for a discrete mass or lesion. If a mass or lesion is identified, measure the mass, describe the shape, color, consistency, and location of the mass, and give the distance from the mass to the closest margin.
15. If the mass is diffusely present throughout the gland, a measurement will not be possible.
16. Describe the remaining cut surfaces of the gland including the periurethral zone.
17. Describe the cut surfaces of the vas deferens and seminal vesicles.
18. Submit the serially sectioned apex on edge in regular-sized tissue cassettes.
19. Submit the serially sectioned bladder base in regular-sized tissue cassettes.
20. Submit the entire prostate gland proper in whole mount (macro) cassettes from the apex to the bladder base. If the gland is large, each slice may need to be divided in half and submitted in two macro cassettes.
21. Submit a section of each vas deferen margin and a section at the base of the vas deferens and seminal vesicles in regular-sized cassettes.
22. All regular-sized tissue cassettes should be processed at the end of the day.
23. All whole mount (macro) cassettes should be placed in formalin in a white bucket and placed on the counter in the embedding room until further processing by histology.
24. Retain any remaining tissue in 10% formalin for storage purposes.
25. **Procedure – Simple/Suprapubic Prostatectomy for BPH**
26. The specimen may be received in multiple fragments or one whole specimen.
27. Weigh (g) and measure (cm) the specimen as a whole or aggregate.
28. If received in one piece, locate the urethra and divide the specimen into halves, inking one half black and one half blue.
29. Serially section the fragments or whole piece and describe the cut surfaces.
30. Submit a total of 8 blocks (regular-sized cassettes), sampling any yellow, softened or firmer areas within the stroma. If received in one piece, submit 4 blocks (regular-sized cassettes) from each side of the prostate (apex, mid, mid, base).
31. Load cassettes on the appropriate large processor to allow for proper fixation and processing.
32. **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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