

Nursing Considerations and Patient Safety of Transperineal Prostate Biopsy in a Urology Clinic

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Introduction

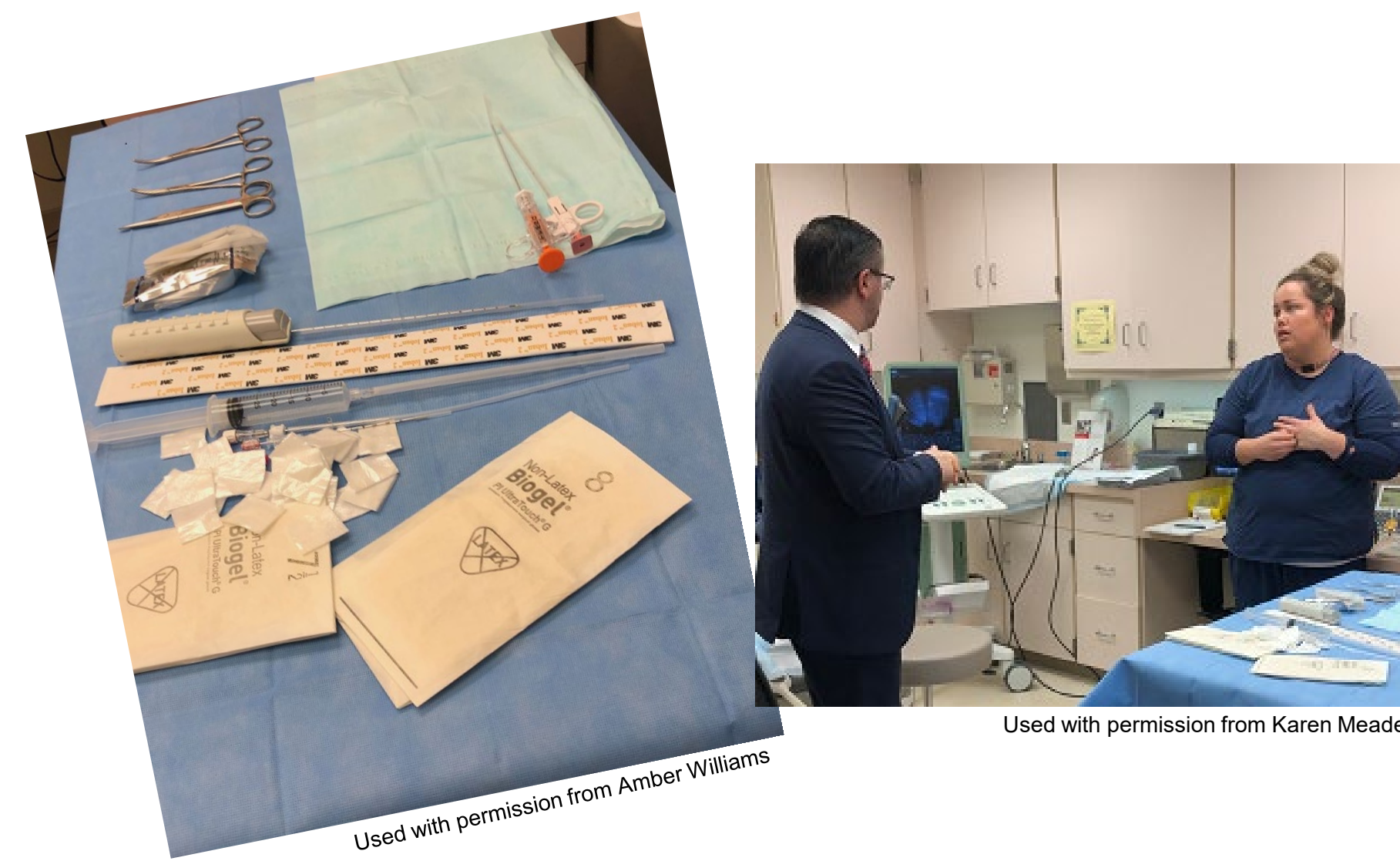
- **Prostate Cancer**- 2nd leading cancer in men in U.S.¹
- **Prostate Biopsy**- Gold standard for prostate cancer diagnosis
 - **Transrectal approach**- most common approach
 - Typically performed outpatient setting
 - Documented sepsis rate of 1-17.5%²
 - **Perineal approach** or transperineal prostate biopsy (TPPB)- more commonly performed in Europe
 - Typically performed in OR in U.S.
 - Documented sepsis rate of <1%³
- **Nurses Role**- manage procedure set-up, assist during procedure, provide emotional support and education to the patient

Purpose

- TPPB- enhanced sampling, ↑ accuracy of diagnosis, ↓ sepsis risk
- Implementation to high volume outpatient urology clinic
 - Performs ≈ 50 prostate biopsies a month
 - Evaluate safety, utility and feasibility of procedure
- Share the logistics and nursing implications on transitioning TPPB to outpatient setting

Nursing Considerations

- Positioning patient- use of Allen stirrups
- Set-up time- longer than rectal approach
- Pain control- EMLA, PainEase spray, lidocaine injection
- Prepping patient- scrotal support
- Observed prostate seed insertion
- Patient education- developed handout



Patient Population and Outcomes

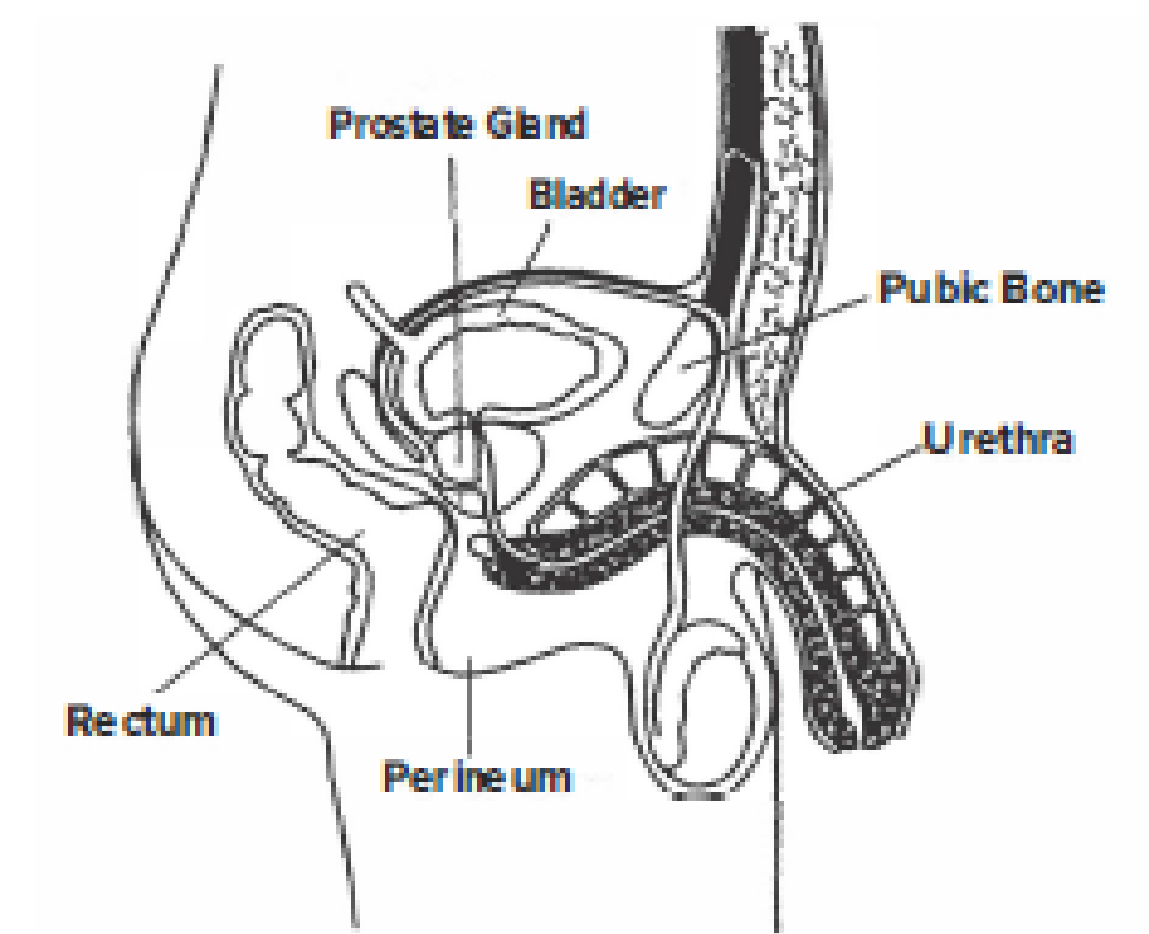
- 4 Patients- April 2019 to Present
 - 3 post kidney transplant
 - 1 hemorrhoids
- 100% without sepsis
- 0% diagnosed with prostate cancer
- Patients tolerated well
 - 1 required vasovagal symptom management

Patient Education⁴

Transperineal Prostate Biopsy

The prostate is a small walnut-shaped gland that sits in front of your rectum and below the bladder. Your prostate also wraps around your urethra, the tube that carries urine out of the body. Your perineum is the soft tissue between your scrotum and rectum.

During a **transperineal prostate biopsy**, your doctor places a needle through your perineum to remove small samples of prostate tissue.



Discussion & Future Directions

- Challenging with limited space
 - Clinic exam room utilized as procedure room
- Low volume use due to barriers
 - Space, ↑ set-up time, physician preference
- Patient considerations
 - Immunocompromised, ileal pouch-anal anastomosis
- Budgeting concerns
 - Equipment needs- device to hold ultrasound
- Nursing role contributes to enhanced patient experience
 - Emotional support, facilitation, education

References
1. American Cancer Society. (2020). Facts and figures 2020. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2020/cancer-facts-and-figures-2020.pdf>
2. Meyer, A.R., Joice, G.A., Schwen, Z.R., Partin, A.W., Allaf, M.E., & Gorin, M.A. (2017). Initial experience performing in-office ultrasound-guided transperineal prostate biopsy under local anesthesia using the precisionpoint transperineal access system. *Urology*, 115, 8-13. [10.1016/j.urology.2018.01.021](https://doi.org/10.1016/j.urology.2018.01.021)
3. Grummet, J. (2017). How to biopsy transperineal versus transrectal, saturation versus targeted, what's the evidence? *Urologic Clinics of North America*, 44, 525-534. [10.1016/j.ucl.2017.07.002](https://doi.org/10.1016/j.ucl.2017.07.002)
4. The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute. (2019, May 15). *Transperineal prostate biopsy*. <https://www.healthwise.net/summarychart/Content/StdDocument.aspx?DOCHWID=custom.ic0336>