



In-office Transperineal Prostate Biopsy Using Biplanar Ultrasound Guidance: A Step-by-Step Guide

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OBJECTIVE	To provide a step-by-step guide for performing in-office transperineal prostate biopsy using biplanar ultrasound guidance.
PATIENTS AND METHODS	Biopsies are performed using a freehand technique with the PrecisionPoint Transperineal Access System (Perineologic, Cumberland, MD). This disposable needle guide includes 3 components: a rail/clamp subassembly, a needle carriage with 5 aperture holes, and a 15 gauge access needle. The device is clamped to a side-fire biplanar ultrasound probe, ensuring alignment of the biopsy needle with the probe's ultrasound arrays. Once the patient is sufficiently anesthetized using 1% lidocaine, the access needle is engaged into the perineal skin. This allows for multiple passes of the biopsy needle through a common puncture site. A separate puncture is made for each side of the prostate and the aperture hole is chosen based on the overall height of the prostate. Biopsies are taken using a disposable 18 gauge biopsy gun.
RESULTS	The presented video details our approach for performing transperineal prostate biopsy under local anesthesia. Biopsies are performed in the office setting without the need for peri-procedural antibiotics. The PrecisionPoint Transperineal Access System ensures proper alignment of the biopsy needle with the ultrasound probe, while minimizing the number of individual needle sticks to the perineal skin. The use of biplanar ultrasound makes it possible to guide the biopsy needle with excellent precision to virtually any area of the prostate. The described technique can be used for systematic biopsies as well as for targeted biopsies using cognitive fusion with magnetic resonance imaging.
CONCLUSION	We provide a step-by-step guide for performing in-office transperineal prostate biopsy. The presented technique minimizes the risk of infectious complications by eliminating the need for biopsy needles to pass through the rectal mucosa. Biopsies are performed without the need for peri-procedural antibiotics, thus furthering the goals of antibiotic stewardship. UROLOGY 133: 247, 2019. © 2019 Elsevier Inc.



The video related to this article can be found online at: [doi:10.1016/j.urology.2019.07.021](https://doi.org/10.1016/j.urology.2019.07.021).

Conflicts of Interest: None.

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