

Prophylactic Antibiotics Use in Local Anaesthetic Transperineal Ultrasound Guided Prostate Biopsy: A Retrospective Observational Study

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Katherine Rhodes, Vignesh Balasubaramaniam, Anurag Agarwal, Ashok Kailasa, Krassen Donev

¹Department of General Surgery, Betsi Cadwaladr University Health Board, Wales, UK

INTRODUCTION

- Local Anaesthetic Transperineal Ultrasound-guided Prostate Biopsy (LATP) is increasingly preferred over transrectal ultrasound-guided biopsy due to a lower risk of post-procedural infection.
- However, the necessity of prophylactic antibiotic use in LATP remains uncertain.
- This study compares infection rates in patients undergoing LATP with and without prophylactic antibiotics.

METHODS

- A retrospective observational study was conducted involving 103 patients who underwent LATP under the care of a single urologist. The study participants were randomly divided into two groups.
- In Group 1 (Feb–Nov 2022), 53 patients received 240 mg intravenous gentamicin before the procedure.
- In Group 2 (May 2024–Mar 2025), 50 patients received no prophylactic antibiotics.
- Patient demographics, pre- and post-procedure urine dipsticks, MSU results, and post-procedure UTI presentations were reviewed.

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RESULTS

- In Group 1, no patients developed UTIs following the biopsy, two experienced urinary retention but had negative MSUs.
- In Group 2, three patients (n=3/50, 6%) developed post-procedural UTI symptoms and had positive MSU results and were treated with oral antibiotics. One of these had a known history of recurrent UTIs.
- No patients in either group developed sepsis or required hospital admission.

CONCLUSION

- While prophylactic antibiotics appear to eliminate post-procedure infections, the infection rate without antibiotics remains low and manageable.
- These findings align with emerging evidence questioning the necessity of prophylactic antibiotics in LATP.
- Given the risks of antibiotic use, such as resistance, renal toxicity, and cost, further prospective, large-scale trials are needed to inform future guidelines.

