

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

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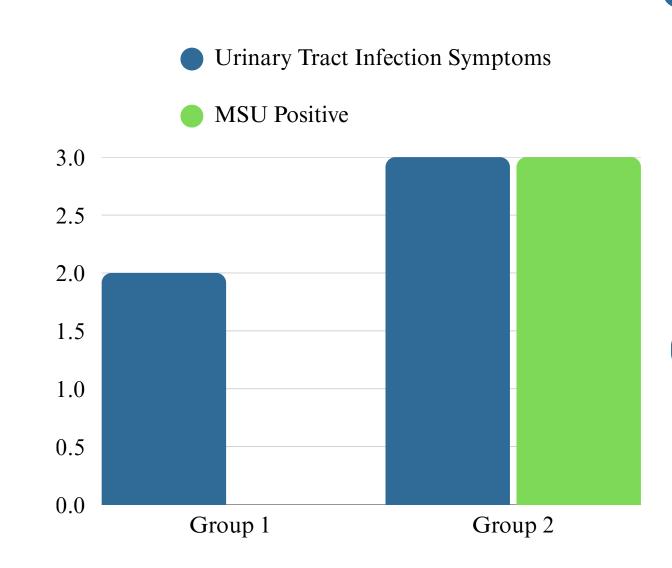
Katherine Rhodes, Vignesh Balasubaramaniam, Anurag Agarwal, Ashok Kailasa, Krassen Donev 
<sup>1</sup>Department of General Surgery, Betsi Cadwaladr University Health Board, Wales, UK

#### INTRODUCTION \

- Local Anaesthetic Transperineal Ultrasound-guided Prostate Biopsy (LATP) is increasingly preferred over transrectal ultrasound-guided biopsy due to a lower risk of postprocedural 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.



## 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 postprocedure 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.

#### REFERENCES

- 1. Jacewicz M, Günzel K, Rud E, Sandbæk G, Magheli A, Busch J, Hinz S, Baco E. Antibiotic prophylaxis versus no antibiotic prophylaxis in transperineal prostate biopsies (NORAPP): a randomised, open-label, non-inferiority trial. Lancet Infect Dis. 2022;22(10):1465-1471.
- 2. Basourakos SP, Alshak MN, Lewicki PJ, Cheng E, Tzeng M, DeRosa AP, Allaway MJ, Ross AE, Schaeffer EM, Patel HD, Hu JC. Role of prophylactic antibiotics in transperineal prostate biopsy: a systematic review and meta-analysis. Eur Urol Open Sci. 2022;37:53-63.
- 3. Castellani D, Pirola GM, Law YXT, Gubbiotti M, Giulioni C, Scarcella S, Wroclawski ML, Chan EK, Chiu PKF, Teoh JYC, Gauhar V. Infection rate after transperineal prostate biopsy with and without prophylactic antibiotics: results from a systematic review and meta-analysis of comparative studies. J Urol. 2022;207(1):25-34.