

## **Audit on Antibiotic Prophylaxis and Post-Procedure Complication Rate for Patients Undergoing Transperineal Template Biopsies of the Prostate**

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**Abstract :** Context: Prostate cancer is a prevalent cancer in males in Europe and the US, with diagnosis primarily relying on PSA testing, mpMRI, and subsequent biopsies. However, this diagnostic strategy may lead to complications for patients. Research Aim: The aim of this study is to assess compliance with trust guidelines for antibiotic prophylaxis in patients undergoing transperineal template biopsies of the prostate and evaluate the rate of post-procedure complications. Methodology: This study is conducted retrospectively over an 8-month period. Data collection includes patient demographics, compliance with trust guidelines, associated risk factors, and post-procedure complications such as infection, haematuria, and urinary retention. Findings: The audit includes 100 patients with a median age of 66.11. The compliance with pre-procedure antibiotics was 98%, while compliance with antibiotic prophylaxis recommended by trust guidelines was 68%. Among the patients, 3% developed post-procedure sepsis, with 2 requiring admission for intravenous antibiotics. No evident risk factors were identified in these cases. Additionally, post-procedure urinary retention occurred in 3% of patients and post-procedure haematuria in 2%. Theoretical Importance: This study highlights the increasing use of transperineal template biopsies across UK centres and suggests that having a standardized protocol and compliance with guidelines can reduce confusion, ensure appropriate administration of antibiotics, and mitigate post-procedure complications. Data Collection and Analysis Procedures: Data for this study is collected retrospectively, involving the extraction and analysis of relevant information from patient records over the specified 8-month period. Question Addressed: This study addresses the following research questions: (1) What is the compliance rate with trust guidelines for antibiotic prophylaxis in transperineal template biopsies of the prostate? (2) What is the rate of post-procedure complications, such as infection, haematuria, and urinary retention? Conclusion: Transperineal template biopsies are becoming increasingly prevalent in the UK. Implementing a standardized protocol and ensuring compliance with guidelines can reduce confusion, ensure proper administration of antibiotics, and potentially minimize post-procedure complications. Additionally, considering that studies show no difference in outcomes when prophylactic antibiotics are not used, the reminder to follow trust guidelines may prompt a re-evaluation of antibiotic prescribing practices.

**Keywords :** prostate, transperineal template biopsies of prostate, antibiotics, complications, microbiology, guidelines

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