

Compliance with Antimicrobial Prophylaxis Guidelines in Endourological Procedures: Frequency and Related Outcomes

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DOI: <https://doi.org/10.35516/jjps.v16i2.1541>

ABSTRACT

Introduction: Surgical antimicrobial prophylaxis (SAP), when used appropriately based on evidence-based guidelines, reduces the rate of infectious complications following endourological procedures without compromising patient outcomes.

Aims: to audit the appropriateness of the current SAP used in endourological surgeries based on international guidelines and report their associated outcomes (urinary tract infection (UTI) and bloodstream infection (BSI)).

Methodology: The adherence to international guidelines recommendations; AUA 2019 and EAU 2020, regarding indication, duration, choice, and dose of the antibiotics used in endourological procedures were assessed in two medical centers in Amman/Jordan. Also, patients were asked to conduct laboratory urine test to determine the rate of infectious complications within one-month post-procedure.

Results: Three hundred sixty-one patients were recruited for the study. The adherence rate to guidelines regarding indication, choice, and dose of pre-operative antibiotics was 90.3%, 2.8%, and 77.8% respectively. The duration was concordant with guidelines in only 3.4% of participants. A total of 41.8% of patients completed follow-up. Among those, 4.6% developed bacterial UTIs, and 0.7% developed BSI.

Conclusion: Adherence to SAP guidelines in endourological procedures is far from optimal, especially by an inappropriate selection of broad-spectrum antibiotics as the agent of choice and prolonged use of antibiotics after the procedure in the absence of any documented infectious complication.