

## **Barriers and facilitators of inappropriate surgical antimicrobial prophylaxis in endourological procedures: a qualitative study from Jordan**

*Sondos Abdaljaleel<sup>1</sup>, Rima Hijazeen<sup>1</sup>, Mariam Abdel Jalil<sup>1</sup>, Oriana Awwad<sup>1</sup>, Ghazi Edwan<sup>2</sup>,  
Mohammad Amaireh<sup>3</sup>*

<sup>1</sup> Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, University of Jordan, Amman, Jordan.

<sup>2</sup> Department of Urology, The University of Jordan, Amman, Jordan.

<sup>3</sup> Department of Urology, Islamic Hospital, Amman, Jordan.

DOI: <https://doi.org/10.35516/jjps.v16i2.1540>

### **ABSTRACT**

**Background:** Inappropriate surgical antimicrobial prophylaxis (SAP) practice increases patients' morbidity, healthcare cost, and antimicrobial resistance. Several guidelines have been published to set guidance for SAP before endourological procedures. Such guidelines include the American Urological Association (AUA, 2019) and the European Association of Urology (EAU, 2020). Literature reported that compliance with the recommendations of these guidelines has been suboptimal.

**Aims:** to investigate healthcare professionals' (HCPs) perspectives on the barriers to international guideline adherence regarding SAP for endourological procedures and the potential strategies to optimize adherence to guidelines recommendations.

**Methodology:** This study was a qualitative study based on face-to-face semi-structured interviews conducted with urologists in multiple medical centers across Jordan using a preformulated interview guide regarding barriers and facilitators to the adherence to international guidelines of preoperative SAP during endourological procedures.

**Results:** Nineteen urologists were interviewed. Interviews identified many barriers influencing HCP adherence to guidelines, these included factors related to patients, HCPs, the healthcare system, or other external barriers. Also, during the interviews, HCPs suggested many strategies to enhance SAP practice which included increasing patients' awareness about their actual need for antibiotics, providing training sessions for HCPs about appropriate SAP before endourological procedures, developing national guidelines and conducting local clinical studies, and promoting awareness of the clinical pharmacist's role. In addition to imposing national policy to control antibiotic use and prevent over-the-counter (OTC) prescriptions.

**Conclusion:** Factors related to nonadherence to guidelines were determined. Such knowledge will constitute the backbone for planning appropriate antimicrobial stewardship programs that involve all stakeholders and address all those aspects to optimize SAP prescribing and reduce antibiotic misuse.