

## WORLD HEALTH ORGANIZATION AWARE CLASSIFICATION FOR ANTIMICROBIAL STEWARDSHIP: a hospital-based consumption analysis and benchmarking versus national data



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### BACKGROUND AND IMPORTANCE

Antimicrobial resistance represents a critical public health threat across Europe. The World Health Organization (WHO) developed the AWaRe classification as a stewardship tool, categorizing antibiotics into Access, Watch, and Reserve groups to optimize prescribing patterns. Systematic monitoring remains essential to identify prescribing gaps and guide interventions.

### AIM AND OBJECTIVES

This study aimed to evaluate antibiotic consumption patterns at a public hospital using the AWaRe framework, assess alignment with national benchmarks

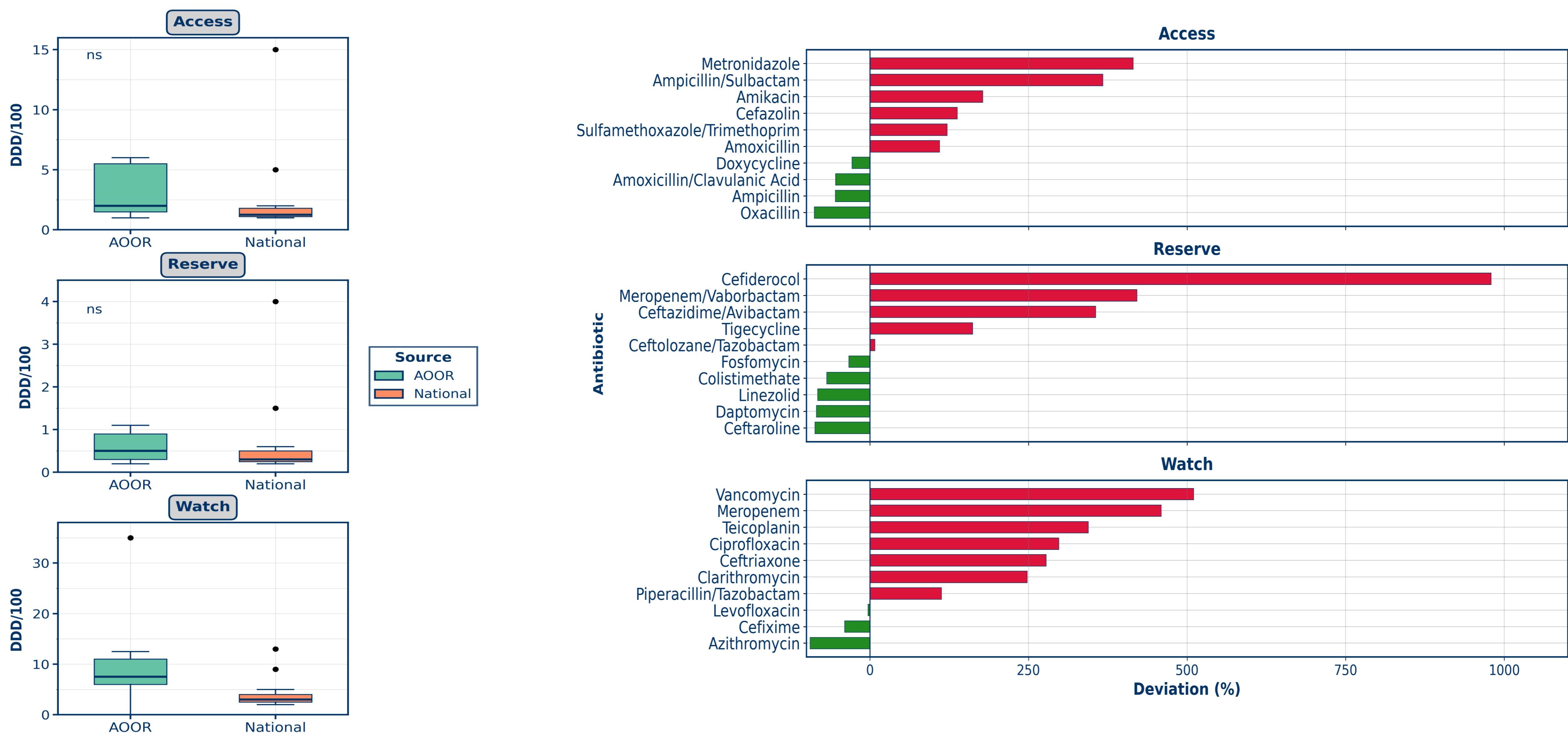
### MATERIALS AND METHODS

A retrospective analysis of systemic antibiotic consumption (ATC J01) throughout 2023 was benchmarked versus the national medicines agency annual report on antibiotic use (2023). Analysis focused on the top 10 systemic antibiotics, classified according to AWaRe groups. Statistical comparisons were performed using t-test or Mann-Whitney test based on data distribution. Results were expressed as percentage deviation from national consumption rates.

### RESULTS

Significant overutilization of **Watch** group antibiotics was observed compared to national averages ( $t(9)=2.32$ ,  $p=0.045$ ) (Figure A). Among **Reserve** antibiotics, **cefiderocol** demonstrated the highest deviation (**+979.16%**). (Figure B)

**A** DDD/100 AOR Villa Sofia - Cervello vs National Average **B** Percentage Deviation by AWaRe Class AOR Villa Sofia - Cervello from National Average



Therapeutic category comparison revealed significant differences versus national averages ( $W=284$ ,  $p=0.023$ ), with marked increases in **carbapenems, other cephalosporins and penems, glycopeptides, and third/fourth-generation cephalosporins.**

### CONCLUSION AND RELEVANCE

The findings, indicating excessive reliance on Watch antibiotics and selective, potentially inappropriate use of Reserve agents that deviate from WHO recommendations, will be evaluated by the hospital antimicrobial stewardship committee. These patterns underscore critical prescribing gaps requiring strengthened antimicrobial stewardship programs and the Hospital pharmacists play a strategic role in implementing AWaRe-guided protocols, monitoring consumption patterns, and promoting evidence-based prescribing.

