



APP ABSTRACT - APP 2026 - 096

## AN EVALUATION OF ANTIBIOTIC PRESCRIPTION PATTERN AND DRUG RATIONALITY ANALYSIS AMONG OUTPATIENTS AT PUBLIC HEALTH SETTING, INDIA

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### Abstract:

Antimicrobial resistance (AMR) poses a top global health threat, driven largely by inappropriate antibiotic prescribing. The WHO's Global Action Plan emphasizes prudent antibiotic use to curb AMR, yet up to 50% of prescriptions worldwide remain irrational, especially in outpatient settings of developing countries like India. Factors such as overprescription without diagnostics exacerbate the issue. Purpose of this study evaluated antibiotic prescribing patterns and rationality in a public community health facility serving 12,900 urban-rural populations in North India, aiming to identify gaps and inform stewardship interventions. A cross-sectional audit of 1,219 outpatient antibiotic prescriptions occurred from August 2021 to August 2022. Experts (ID specialists, clinical pharmacologists) assessed drug type, dose, duration, adherence to NCDC/PGIMER guidelines, WHO AWaRe classification, diagnoses, and essential drug list compliance using standard protocols. Prescriptions skewed female (54%) and aged 20-40 years. Amoxicillin-clavulanic acid (27.2%), metronidazole (13.4%), and azithromycin (10.3%) dominated. AWaRe breakdown: 49.7% Access, 27.3% Watch, 0% Reserve. Diarrhea and respiratory infections emerged as key areas for reducing overuse. Findings highlight suboptimal prescribing, particularly for self-limiting infections, underscoring needs for prescriber training, audit oversight, and evidence-based guidelines to boost Access antibiotic use toward WHO targets and combat AMR.

**Keywords:** Antibiotic prescribing patterns, Antimicrobial resistance (AMR), Drug rationality, AWaRe classification, Amoxicillin-clavulanic acid, Antimicrobial stewardship, Prescription audit, Drug use evaluation, Community health facility, Inhibitors, Viral replication inhibition