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Analysis of Pattern of Antimicrobial use in Respiratory Tract Infections in a Tertiary Care Hospital of Central India- A Drug Utilization Study

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Abstract

Background: Respiratory tract infection (RTI) is leading infection among all the infections and antimicrobial agents (AMAs) are prescribed for the same more commonly. It is well known fact that, most common mechanism of antimicrobial resistance is irrational use. **Aims and Objectives:** To analyze the prescribing pattern of antimicrobial drugs used in respiratory tract infections for rational use, in a tertiary care hospital of central India. **Materials and Methods:** It was a six months observational, retrospective study, carried out on total of 400 records, obtained from Medical Record Department. WHO drug utilization indicators- ATC/DDD was used. **Results:** Upper RTI (URTI) and Lower RTI (LRTI) were found in 240 & 160 patients, respectively with non-specific RTI (viral fever) topping the list. Most common AMA prescribed was Azithromycin (23.9%), while Amoxicillin+Clavulanic acid, was most commonly used fixed dose combination-FDC (14.9%). Maximum cost was shared by Penicillins, Cephalosporins and Azithromycin. 9 out of 15 AMAs used (60%) were prescribed from WHO-essential drug list. No generic drug was prescribed. Culture/sensitivity was done only in 20 cases. **Conclusion:** Some irrationality seen can be corrected by continuous medical education (CME) for physicians. Prescription indicators should be used to evaluate the prescriptions from time to time, for improving quality of health care with minimal expenses.