# USE AND APPROPRIATENESS OF ANTIBIOTICS IN GENERAL MEDICAL UNITS OF A TERTIARY CARE INSTITUTION

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Antibiotics are widely used worldwide and their inappropriate prescription leads to emergence of multi-drug resistant organisms, increased morbidity and mortality. Rational use of antibiotics is the key to reducing the development of resistant organisms. Thus the objective of this study was to ascertain the use and appropriateness of antibiotics used in medical wards at a selected tertiary care institution using available national guidelines.

A descriptive cross sectional study was carried out on the patients prescribed antibiotics in three general medical units. A random sample of patient records (n=543) over a period of 4 months was analyzed. The regimes were assessed for concordance with the guidelines of Sri Lanka Medical Association (SLMA) and the Health Sector Development Programme (HSDP).

The commonest indications to prescribe antibiotics were lower respiratory tract infections (LRTI) (n=235, 43%), urinary tract infections (UTI) (n=60,11%) and infective exacerbation of bronchial asthma (n= 45, 8.3%). The commonest first antibiotic prescribed for LRTI was co-amoxiclav (n=98, 41.7%) which was given in combination in18/98 (18.36%) of episodes, while ciprofloxacin was the first choice in 46.6% of UTIs. For LRTIs the prescribed antibiotics showed a greater concordance with HSDP guidelines (n=157, 66.8%) compared to SLMA guidelines (n=99, 42.1%). The concordance with SLMA guidelines for lower UTIs was only 11.8% (n=4) while that for pyelonephritis was 38.5% (n=10). Co-amoxiclav was the first antibiotic prescribed for infective exacerbation of bronchial asthma in 48.9% (n=22) for which there were no separate guideline in either the SLMA or HSDP. The antibiotic use in LRTI was incorrect due to inappropriate dose and route of the drug (n=20, 8.5%), wrong choice of the drug (n=13, 5.5%) and wrong combination of drugs (n=13, 5.5%) according to the HSDP guidelines. No statistically significant difference was found between individual unit practices.

Antibiotic prescriptions need to be improved to optimize use and reduce development of resistance. Development and effective implementation of a National Antibiotic Policy would be a major step in ensuring appropriate use of antibiotics.

**Keywords:** Antibiotics, prescription, tertiary care,