A Pilot Study on Antibiotic Prescription by General Practitioners in Ragama Medical Officer of Health (MOH) area, Western Province, Sri Lanka

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Introduction: Antibiotic usage in healthcare has increased dramatically over past few decades. In parallel, bacteria have developed antibiotics resistance (AR) making a great challenge in healthcare. However, antibiotic misuse is a key behind AR. Therefore, strict regulation of antibiotic use is mandatory to minimize the development of AR. Hence, antibiotics are color-coded as red (Circular No. 01-56/2016, Ministry of Health, Sri Lanka), orange and green light antibiotics according to the level of authorization. However, these circulars and national antibiotic guidelines are mainly focusedinhospital practice. Hence, it is important to understand the current antibiotic prescription at general practitioner (GP) level.

Objective: To study antibiotic prescription patterns of GPs in Ragama MOH area, Western Province, Sri Lanka.

Methods: A cross-sectional, descriptive study was piloted involving 100 antibiotic prescribing encounters. (Total sample number was six hundred according to the WHO manual on "how to investigate drug use in health facilities"). Six randomly selected general practitioners, registered in general practitioners' registry, published by College of General Practitioners of Sri Lanka, and practicing in Ragama MOH area were involved for the study which was conducted from May – August 2017. Data were collected from patients, using a pre-tested, interviewer-administered questionnaire. Demographic and clinical data of patients &details of antibiotic prescription as type, dose, frequency and duration were analyzed.

Results: Of 100 antibiotic prescriptions, 23% for children (<12-65 years), 64% for adults (12-65 years) and 13% for elderly (>65 years) patients. Antibiotic prescription; 69% for respiratory tract infections (RTI), 12% skin infections 7% digestive tract infections, 2% urinary tract infections (UTI) and 10% for other infections. Common antibiotics prescribed for RTIs were amoxicillin (27.5%), Cephalexin (24.6%), followed by amoxiclav (17.4%), azithromycin (14.5%), clarithromycin (11.6%) cefixime (2.9%) & levofloxacin (1.4%). Ciprofloxacin was prescribed for digestive tract infections, UTI& sinusitis. All antibiotics were prescribed as per recommended doses and frequencies. Duration of antibiotics prescribed for RTI ranged from 3-15 days; in 29.4%, it was for 5 days, in 25% and 17.5% it was for 3 & 4 days respectively. In 33.8% prescriptions, duration of antibiotic therapy was more than 5 days.

Conclusion: RTIs were the commonest condition for which antibiotics were prescribed. The most common antibiotics prescribed for RTIs were amoxicillin & cephalexin. A considerable number of prescriptions for RTIs was less than the minimum treatment duration recommended in the national guideline for empirical and prophylactic use of antimicrobials. Use of ciprofloxacin, (orange light antibiotic) and levofloxacin (red light antibiotic) has been noted in general practice.

Keywords: Antibiotics Prescription, General Practitioners

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