Prescription usage of antibiotics in geriatric patients

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Introduction: Geriatric patients are patients with impaired overall functions. There is no set age, but usually more than 60 years old with chronic illness, physical impairment or cognitive impairment. Evidence shows high prevalence of inappropriate usage of antibiotics in the special population such as geriatrics, which could lead to increased risk of adverse drug reactions, mortality, morbidity, increase cost of treatment and increase antibiotic resistance.

Objectives: The aim of this study is to analyze the prescription guidelines/usage of antibiotics administered in geriatric patients, disease conditions for which the antibiotics were prescribed and adherence of this antibiotics prescriptions to the WHO guidelines.

Methodology: A prospective and observational study was carried out over the duration of six months at Apollo Hospital, Bengaluru. Patients of either sex and above 60 years of age admitted into general medicine, obstetrics and gynecology, urology and nephrology departments due to infections or those who acquired infections due to hospitalization and were on antibiotic treatment/prophylaxis were included. Data collection was done by going through inpatients and out-patients case notes, treatment charts, laboratory reports and patient interview and individual data were collected based on inclusion and exclusion criteria.

Results: Out of 290 patients enrolled for the study, 220 (75.9%) are in-patients and 70 (24.1%) were out-patients. 59 (21.3%) patients had poly-pharmacy in their prescription and 231 (79.7%) patients had just one antibiotics. The most prescribed poly-pharmacy antibiotics were cefotaxime, azithromycin prescribed to 28 (9.73%) patients. Maximum number of patients (70 patients), were diagnosed with asthma and acute febrile illness. Most common adverse drug reactions include nausea and diarrhea for cefotaxime, thrombocytosis.

Conclusion: Antibiotics usages vary with individuals according to their disease conditions. Health care professionals must understand the usage of antibiotics for specific conditions in elderly patients so as to minimize the adverse drug reactions, side effects, cost of treatment and other medication errors.

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