

Antibiotic Prescribing in the Acute Care in Iraq

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Abstract : Background: Excessive and inappropriate use of antimicrobial agents among hospitalized patients remains an important patient safety and public health issue worldwide. Not only does this behavior incur unnecessary cost but it is also associated with increased morbidity and mortality. The objective of this study is to obtain an insight into the prescribing patterns of antibiotics in surgical and medical wards, to help identify a scope for improvement in service delivery. Method: A simple point prevalence survey included a convenience sample of 200 patients admitted to medical and surgical wards in a government teaching hospital in Baghdad between October 2017 and April 2018. Data were collected by a trained pharmacy intern using a standardized form. Patients' demographics and details of the prescribed antibiotics, including dose, frequency of dosing and route of administration, were reported. Patients were included if they had been admitted at least 24 hours before the survey. Patients under 18 years of age, having a diagnosis of cancer or shock, or being admitted to the intensive care unit, were excluded. Data were checked and entered by the authors into Excel and were subjected to frequency analysis, which was carried out on anonymized data to protect patient confidentiality. Results: Overall, 88.5% of patients (n=177) received 293 antibiotics during their hospital admission, with a small variation between wards (80%-97%). The average number of antibiotics prescribed per patient was 1.65, ranging from 1.3 for medical patients to 1.95 for surgical patients. Parenteral third-generation cephalosporins were the most commonly prescribed at a rate of 54.3% (n=159) followed by nitroimidazole 29.4% (n=86), quinolones 7.5% (n=22) and macrolides 4.4% (n=13), while carbapenems and aminoglycosides were the least prescribed together accounting for only 4.4% (n=13). The intravenous route was the most common route of administration, used for 96.6% of patients (n=171). Indications were reported in only 63.8% of cases. Culture to identify pathogenic organisms was employed in only 0.5% of cases. Conclusion: Broad-spectrum antibiotics are prescribed at an alarming rate. This practice may provoke antibiotic resistance and adversely affect the patient outcome. Implementation of an antibiotic stewardship program is warranted to enhance the efficacy, safety and cost-effectiveness of antimicrobial agents.

Keywords : Acute care, Antibiotic misuse, Iraq, Prescribing

Conference Title : ICPCE 2018 : International Conference on Pharmacy and Chemical Engineering

Conference Location : Dublin, Ireland

Conference Dates : August 16-17, 2018