A study on antimicrobial use in Intensive care unit for implementation of antimicrobial stewardship program in a Tertiary Care Hospital

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Abstract

Background: Antimicrobial over use and rapid growth rate of antimicrobial resistance are particularly serious in ICU because these patients usually have serious health problems. Antimicrobial Stewardship Program helps in ensuring patient's safety and providing quality health care by the rationale use of antimicrobials, aims to protect the current antibiotics and to minimize the negative consequence of inappropriate use of antimicrobials.

Objective: To assess the prescribing pattern of antimicrobial drugs in Medicine Intensive Care Unit, Rationality of antimicrobial use in the Medicine Intensive Care Unit of a tertiary care hospital. Methodology: Study was undertaken over a period of 6 months after the approval from the IEC. A prospective observational study was conducted to assess the pattern of antimicrobial usage in the Medicine ICU, Govt. Medical College, Kannur by analysing the case records of patients selected as the study population. A data collection form is prepared to collect the information regarding antimicrobials given, its dose, frequency of administration and duration. Data was analysed using descriptive statistics with the help of IBM SPSS statistic version 21.

Result: Total 307 cases from the Medicine ICU were included during study period. Coronary Artery Disease (9.8%), cerebrovascular attack (9.4%), lower respiratory tract infections (8.5%) were the commonly reported diseases in ICU. Cephalosporins (63.39%) were commonly prescribed class of antibiotics followed by Beta lactam + beta lactamase inhibitors (28.13%) and fluroquinolones (4.46%) in patients receiving single antibiotic therapy. Ceftriaxone (59.82%) and Piperacillin + Tazobactum combination (16.07%) followed by amoxicillin + clavulanate combination (8.48%) were the antibiotics prescribed.

Conclusion: Study concluded that there is a need of ASP for the rationale use of antimicrobials in MICU to decrease resistance and promote cost effective therapy and measures to prevent ADR associated. Key words: antimicrobial stewardship, antimicrobial resistance, Medicine ICU

Biography:

Dr Kiron.S.S has completed his PhD at Govt. Kannur University. He is the Professor of Department of Pharmacy Practice, Government Medical College Kannur, Kerala, India. He has published more than 42 papers in reputed journals and has been serving as an editorial board member of repute. Member of different Academic bodies of Universities in India.

Speaker Publications:

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2." Bleeding-related hospital admissions and 30-day readmissions with dabigatran versus warfarin in patients with nonvalvular atrial fibrillation 2, March–April 2018

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