

Antibiotic Stewardship Program in a Tertiary Private Hospital in India- a Case Study

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Abstract

Introduction: Inappropriate use of antibiotics and increasing antibiotic resistance among inpatient flora is of concern in India. A tertiary private hospital in India, pioneered in establishing Antibiotic stewardship program with objective to minimize the misuse of high-end antibiotics in inpatient care.

Methods: A case study. We reviewed records from 2011 to 2016 and interviewed key stakeholders in study hospital.

Results: We established Anti-microbial committee. Between 2011 and 2014, we audited high-end antimicrobial use for in-patients. We divided prescriptions into medical and surgical, and further into elective and emergency use, for septic and aseptic cases. We conducted passive surveillance and collated information on micro-organisms and antibiotic resistance six monthly. Based on the results, we developed hospital specific policy for empirical and prophylactic antibiotic use for inpatients.

In early 2015, all the staff in the hospital were trained for revised policy. We initiated regular internal real-time audits (within 24 hours) to monitor and correct any antibiotic misuse. We regularly analysed our data to assess compliance to the policy, changes in antibiogram and patient outcomes.

We faced challenges in building consensus and commitment from concerned departments and, mandatory filling of antibiotic proformas. Involvement of strong leadership and monitoring by Infection control nurse helped to establish proper systems. Compliance to policy on antibiotic use increased from 53% to 97%, and use of reserved drugs reduced from 872 to 698, between 2015 and 2017.

Conclusion: We established antibiotic stewardship program, adapted to local requirements, and achieved high compliance to policy on antibiotic use for inpatients.