

Impact of education intervention on surgical prophylaxis practices to contain antimicrobial resistance

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Background Irrational use of antimicrobials is common. It imposes financial burden on institutions and causes emergence of antimicrobial resistance. In the present study, surgical antimicrobial prophylaxis for elective clean uncomplicated surgeries was assessed to develop an educational learning module to orient surgeons. The module was based on ASHSP -Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery. The module focused on common principles, timing and duration of prophylaxis. Post-education adherence to guidelines was also assessed.

Aims: To assess the surgical prophylaxis practices in a specific group of surgeries (elective clean uncomplicated surgeries).

Methods: This was an interventional, before and after study wherein educational intervention was carried out in the Department of Surgery, Government Medical College Amritsar a 1000 bedded tertiary care health institution. Consecutive patients which fitted the inclusion and exclusion criteria. Pre-existing data from case files of 75 adult patients before and 75 after intervention admitted for surgery as per inclusion and exclusion criteria was collected. Data was tabulated and compiled to evaluate the results.

Result: Pre-interventional data revealed that antimicrobials were continued beyond 24 hours in 61% patients, though justified in only 8% patients due to prolonged surgery and post-operative pyrexia, signifying irrational use. Post-interventional data showed adherence to educational module resulting in 75% improvement in post-operative antimicrobial utilization in patients without altered incidence of surgical site infections.

Conclusion: Educational intervention and training of surgeons and ancillary staff has a vital role in promoting rational use of antimicrobials and keeping the emergence of antimicrobial resistance in check. An institutional multidisciplinary committee for guidelines development & implementation was proposed as a result of the study.

References:

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