

Evaluation of Post-Surgical Antibiotic Utility Patterns in an Indian Tertiary Care Teaching Hospital

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ABSTRACT

Rationale use of antibiotic prophylaxis is essential to reduce the incidence of surgical site infections and cost inefficiency. However, inappropriateness of antibiotic prophylaxis administration is still commonly observed in surgical hospitals. A prospective and observational study was carried out in 111 patients at tertiary care hospital in India. Among the 111 study population enrolled in the study, the majority of study populations were males 70.270% and the females were about 29.729%. Among the 111 study populations enrolled in the study, the majority of the subjects belonged to the age group ≥ 18 years (88%) and followed by 13-17 years (7%) and 1-12 years (4%). Among 111 patients included in the study, the majority of patients were found ulcer (18%) and followed by hernia (12%), appendicitis (9.9%), head injury (4.5%), burn (3.6%), abscess (3.6%), cystitis (2.7%), hemorrhoids (2.7%), cholelithiasis (2.7%), cancer (3.6%), breast infection (1.81%), miscellaneous (4.5%). Among 111 subjects

enrolled in the study, the majority of the subjects (74) had surgery (66%) and 37 subjects did not get surgery (33.33%). Among 111 subjects included in the study, the majority of subjects stayed (5-10days) in the hospital for 11 to 31 days. In 78 (70%) cases, there was no drug interaction and only 33 (30%) subjects showed drug interactions at mild to moderate level. In 66 subjects, antibiotics were prescribed in fixed dose combination. In 45 subjects, antibiotic were prescribed by generic name and 35 subjects got antibiotics from both fixed dose combination and generic version. Within 111 subjects, majority of subjects got rational use of antibiotics (85 subjects, 76%) and irrational use of antibiotic found in 26 subjects (23%). This study confirms that the use of antibiotic prophylaxis needs to be continuously focused in surgery department in order to improve rational use of antibiotic prophylaxis to decrease morbidity and cost.

KEYWORDS: Antibiotic; surgical prophylaxis; rational use; resistance.