Noncompliance with surgical antimicrobial prophylaxis guidelines: A Jordanian experience in cesarean deliveries

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Abstract

BACKGROUND:
Surgical site infections are common, especially in developing countries. Nevertheless, up to 60% of surgical site infections can be prevented with appropriate perioperative care, which includes among other measures using suitable surgical antimicrobial prophylaxis (SAP).

METHODS:
After a short interview with patients and retrospective review of medical charts, compliance with 6 SAP parameters was assessed for appropriateness; those parameters are indication, choice, dose, time of administration, intraoperative redosing interval, and duration of prophylaxis in 1,173 operations.

RESULTS:
Overall compliance was poor; nevertheless, certain components showed high compliance rates, such as indication and choice of antibiotics. The most frequent error noted was extended administration of prophylactic antibiotics, which was observed in 88.2% of the study population. Emergency operations were associated with a lower risk of noncompliance in administering the correct dose at the correct time (odds ratio, 0.63; 95% confidence interval, 0.47-0.83 and odds ratio, 0.21; 95% confidence interval, 0.14-0.3, respectively). On the other hand, women who underwent an emergency operation were associated with a 6-fold higher risk of receiving prophylactic therapy following surgery.

CONCLUSIONS:
The present study demonstrated the existence of a surprisingly low level of overall compliance with the hospital-adapted SAP guidelines. Factors implicated in noncompliance were investigated, and the present results create a starting point to improve the current practice.