# Study on Practice of Antibiotic Prophylaxis in Cesarean Section in Two Hospitals of Kathmandu Valley

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**Background**

The potential for the prophylactic antibiotics to reduce maternal morbidity after cesarean section is well established. But the inappropriateness of the antibiotic prophylaxis is still a worldwide problem. There is variation in the dose regimen and duration of prophylaxis. The main objective of this study was to compare the prophylactic antibiotic regimen used in two different hospitals of Kathmandu valley.

**Methods**

A prospective follow up study was used to evaluate the patients undergoing cesarean section. Total of 100 patients, 50 each from Prasuti Griha and Tribhuwan University Teaching Hospital were taken for the study. The outcome measured were development of any postoperative complications: fever, urinary tract infection, wound infection, endometritis. Data on dose, duration and time of administration of prophylactic antibiotics were taken.

**Results**

Prophylactic antibiotics were prescribed to all patients. But there was a practice variation of prophylaxis in both hospitals. Groups of antibiotics used for prophylaxis were fluroquinones and penicillin in Prasuti Griha and cephalosporins in Tribhuwan University Teaching Hospital. Though the single dose of antibiotic intraoperatively was sufficient as prophylaxix, the duration was longer in both hospitlas and administered postoperatively in 92% of cases. There was no significant difference in total duration of antibiotic therapy in Prasuti Griha and Tribhuwan University Teaching Hospital (6.8 vs.6.7; P>0.05). The proportions of development of postoperative complications in both hospitals were insignificant (P>0.05). There were no significant difference in the effectiveness of regimen measured in terms of postoperative complications (P=0.545). But the total cost of therapy of all regimens differ significantly (P=0.00) and also within the same hospitals (P<0.05).

**Conclusions**

The practice of prophylactic antibiotics was inappropriate in both hospitals. They were prescribed unnecessarily for longer duration though single dose of prophylaxis was sufficient.
**Keywords:** cesarean section; postoperative infections; prophylactic antibiotics; prophylaxis; utilization.