

P2731 Variations in antibiotic utilisation for surgical prophylaxis in 5 Asian countries: through Global Point Prevalence Survey

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Background: It is well known that short course of antibiotic prophylaxis perioperatively helps in reducing surgical site infections. Evidence show little variation in common infections seen in major surgical specialties. However, a large variation in use of antibiotic classes are seen across countries, differing from standard international guidelines. We attempted to look into these variations across five Asian countries as part of the Global-PPS (2015-17).

Materials/methods: We analyzed data on antimicrobial utilization from India, Iran, Pakistan, Philippines, and Singapore from the Global-PPS study. The variation in antibiotic selection among the five most common surgical specialties: Gastrointestinal (GI), Cardiovascular (CVS), Obstetrics & Gynaecological (OBG), Orthopedic, and Neurological (CNS) surgeries were analyzed. This was compared to the recommendations in the Infectious Disease Society for America (IDSA) guidelines for deviations in antibiotic prophylaxis by each surgical specialty.

Results: Out of 2,251 surgical prophylaxes documented from the Global-PPS, 1,845 were from GI, CVS, OBS-GYN, orthopedic, or CNS. GI (28.2%) and OBG (23.4%) specialties use Metronidazole and its combinations maximally though Cefazolin is recommended. Ceftriaxone (20.4%) is the commonest prophylaxis in CNS surgeries, where Cefazolin is the drug of choice. Meropenem (broad-spectrum) have also been used prophylactically in CVS (5.5%) and CNS (6.2%) surgeries. Orthopedic surgeries use Cephazolin (32.7%) as their prophylactic antibiotic conforming with international guidelines. When analyzed country wide use, the variation in classes of antibiotics used are shown in the figure below.

[CHART]

Conclusions: There is a wide variation in antibiotic selection for surgical prophylaxis among the 5 south and south-east Asian countries. Efforts to reduce the utilization of high-end broad-spectrum antibiotics as surgical prophylaxes should be encouraged. Quality processes needs to be implemented to prevent further development of antimicrobial resistance which is already high in all 5 countries.

