

# Prophylactic Antibiotics in Surgical Patients "Improving compliance with 00-60 minutes window"

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**Problem:** Errors in antimicrobial prophylaxis for surgical patients remain one of the most frequent types of medication errors in hospitals. Failure to administer the antimicrobial prophylaxis within the 0-60 minutes window of time before incision is associated with 2- to 6-fold increases in rates of surgical site infection.<sup>1\*</sup>

**Background:** Surgical site infections remain one of the leading types of hospital acquired infections. The administration of prophylactic antibiotics within a specific interval has been shown to reduce the burden of surgical site infections, but adherence to proper timing guidelines remains problematic. Hamad General Hospital requires that, for all eligible procedures, peri-operative areas administer the prophylactic antibiotics within a specified time frame (0-60 minutes prior to skin incision)<sup>2\*</sup> Also, special focus is on the right choice of prophylactic antibiotics and their discontinuation within 24 hours of surgery.<sup>3\*</sup>

**Aim:** To achieve 100% compliance with prophylactic antibiotics administration within 00-60 minutes prior to skin incision by July, 2014.

## Intervention:

- Involved pharmacists and infection control team. They helped us with a variety of actions such as providing criteria and guidelines for appropriate prophylactic antibiotics, patient inclusion/exclusion criteria and developing prompt methods if these are not administered or discontinued
- Interactive educational sessions for surgeons, anesthesiologists, operating room nurses and anesthesia technicians to Prophylactic Antibiotic Protocols
- Use of pre-printed standing orders specifying antibiotic agent, timing, dose, and discontinuation
- In stock availability of prophylactic antibiotics as per national guidelines.
- Use of visual reminders on educational white board in the theatre
- Verifying antibiotic administration during 'time-out'
- Daily collection of data for the pilot unit by using data collection form

**Conclusions:** With the formation of multidisciplinary team , active participation from responsible peri-operative healthcare professionals and education sessions significantly improved the compliance with on time prophylactic antibiotics administration.

## Way Forward:

- Involve stakeholders
- Continue education for all involved areas
- Re-evaluate and analyze processes as changes are implemented
- Share data

## References

- 1-CDC /APIC Guidelines
- 2-IHI
- 3-HMC policy antimicrobial prescribing CL7197

