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## CHICA-CANADA POSITION STATEMENT

### PERIOPERATIVE ANTIBIOTIC PROPHYLAXIS FOR THE PREVENTION OF SURGICAL SITE INFECTION

Perioperative antibiotic prophylaxis has been demonstrated to prevent surgical site infections in designated clean and clean-contaminated procedures. To be effective, the following must be considered:

Antimicrobial Prophylaxis (AMP) should be used for all clean contaminated procedures, and for certain clean procedures in which clinical trials have proven their use will reduce surgical site infection (SSI) rates.

The agent used for AMP should be safe, inexpensive and bactericidal with an *in vitro* spectrum that covers the most probable intraoperative contaminants for the operation.

The infusion of the initial dose of antimicrobial agent must be timed so that a bactericidal concentration of the drug is established in serum & tissues by the time the skin is incised. Ideally the administration of prophylactic antibiotics should be completed within 30 minutes and no more than 1 hour before the time of incision.

Therapeutic levels of the AMP should be maintained in both serum & tissues throughout the operation and until at most a few hours after the incision is closed. This may necessitate an antibiotic "top-up" intra-operatively at intervals of one to two times the half life of the drug. In most cases, AMP antibiotics should not be given beyond the operative period.

### REFERENCES

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2. American Society of Health-System Pharmacists. ASHP therapeutic guidelines on antimicrobial prophylaxis in surgery. *Am J Health Syst* 1999;

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	3. Dellinger EP, Gross PA, Barrett TL et al. Quality standards for antimicrobial prophylaxis in surgical procedures. Clin Infect Dis 1994; 18: 422-7.
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