

Automatic Pre- and Post-operative Cefazolin Therapeutic Interchange

Rationale:

Cefazolin is the most commonly used antimicrobial agent for surgical site infection (SSI) prophylaxis. Pharmacokinetic and pharmacodynamic studies have suggested that the typical dose of cefazolin 1 gram prior to surgery may not be adequate enough for many adult patients, especially those weighing more than 80 kilograms. **The 2013 ASHP Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery recommend pre-op doses of cefazolin 2 grams for all adult patients <120 kg and cefazolin 3 grams for adult patients ≥ 120 kilograms.**

In an effort to help reduce the number of surgical site infections at our institution, **all pharmacists will automatically change all pre-op doses of cefazolin for adult patients to the appropriate dose based on the patient's weight** regardless of what dose is ordered by the prescriber. This interchange has been approved by P&T and MEC.

Approach:

When processing cefazolin perioperative orders for adult patients the pharmacist will change the dose as shown below based on the patient's weight:

Patient Weight	Pre-operative dose	Post-operative dose
< 120 kg	Cefazolin 2 gm IV	Cefazolin 2 gm IV
≥ 120 kg	Cefazolin 3 gm IV	Cefazolin 2 gm IV

Note: **Cefazolin 1 gm IV should not be used for perioperative prophylaxis for adult patients**

In addition, ensure **original stop times** and/or **original number of post-operative doses** are carried over to new orders. Orders will be entered **per protocol** with the order comment "dose adjustment per P&T approved protocol for perioperative cefazolin dosing".