

THE DISPENSE AND ADMINISTRATION OF AN ALTERNATE DRUG PRODUCT MUST BE DEEMED ACCEPTABLE BY THE PHARMACY & THERAPEUTICS COMMITTEE.

- This document is used to support best practices for administration of surgical antibiotic prophylaxis.
- If history of severe or life-threatening allergic reaction to the preferred antibiotic, then give alternative antibiotic.
- Initial antibiotic dose for all drugs must be started within one hour prior to incision except Vancomycin AND Fluoroquinolones, which must be started within 2 hours prior to incision because of the prolonged infusion time required for these drugs (TCHHN policy 2.43.127)
- The National Surgical Infection Prevention (SIP) project mandates that prophylactic antibiotics not be extended beyond 24 hours of the end of the operation.
- CMS requirements are indicated with an asterisk (*).
- Cefazolin dosing is 2g unless patient weight is ≥ 120 kg.
- Gentamicin dosing is based on ideal body weight unless the patient is 20% above their IBW; then, an adjusted dosing weight is used: Dosing weight (kg) = IBW + [0.4 x (ABW – IBW)].
- All antibiotics indicated are given intravenously, unless otherwise noted.
- Shaded procedures are screened for MRSA colonization. If positive, use Vancomycin 15 mg/kg dosing based on actual body weight; maximum dose of 2g.

| Type of Procedure | Preferred First Line Use | | Alternative if allergy to Preferred Antibiotic | |
|---|----------------------------|------------------------------|--|--------------------------------|
| | Pre-Op | Interop Redosing | Pre-Op | Interop Redosing |
| Cardiac/Thoracic: | | | | |
| <ul style="list-style-type: none"> • Any open-heart surgery including mediastinal re-exploration* | Cefuroxime 1.5 g | Cefuroxime 1.5 g every 4 hrs | Vancomycin 15mg/kg | Not Recommended |
| <ul style="list-style-type: none"> • Esophagectomy • Non Cardiac Thoracotomy Procedures (Lobectomy /biopsy) • TAVR or TAVI | Cefazolin 2 g | Cefazolin 2g every 4 hrs | Vancomycin 15mg/kg | Not Recommended |
| <ul style="list-style-type: none"> • ASD closures • Pacemaker or defibrillator Implant* | Cefazolin 2 g | Cefazolin 2g every 4 hrs | Vancomycin 15mg/kg | Not Recommended |
| <ul style="list-style-type: none"> • Cardiac Cath • EP studies (afib ablation, perivalvular leak closures) • TEE | No antibiotics recommended | | | |
| Vascular: | | | | |
| <ul style="list-style-type: none"> • Any AAA procedure* • Any LE Bypass procedure or amputation* • Any procedure with a groin incision* • Arterial surgery involving a prosthesis* • AV fistula – any surgical or radiologic manipulation* • Carotid endarterectomy* • Dialysis Cath removal * | Cefazolin 2 g | Cefazolin 2 g every 4 hrs | Clindamycin 900 mg | Clindamycin 900 mg every 6 hrs |
| <ul style="list-style-type: none"> • Any Angiography procedure including stenting | No antibiotics recommended | | | |

References

- Bratzler, DW, Dellinger, EP, Olsen, KM et. al. *Clinical practice guidelines for antimicrobial prophylaxis in surgery. Am J Health-Sys Pharm. 2013; 70:195-283.*
- Antibiotic prophylaxis for gynecologic procedures. ACOG Practice Bulletin No. 104. American College of Obstetricians and Gynecologists. Obstet Gynecol 2009; 113:1180-9.*
- Wolf Jr, JS, Bennett, CJ, Dmochowski, RR et.al. *Best Practice Policy Statement on Urologic Surgery Antimicrobial Prophylaxis 2008. (Revised 2011)*
- The Christ Hospital Health Network Policy 2.43.127 – Perioperative Antibiotic Dosing.*
- Piraino, Beth, Bernardini, Judith, Brown, Edwina, Figueiredo, Ana, Johnson, David W, Lye, Wai-Choong, Price, Valerie, Ramalakshmi, Szeto, Cheuk-Chu. *ISPD Position Statement on Reducing the Risks of Peritoneal Dialysis-Related Infections. Peritoneal Dialysis International, 31: 614-630.*