

TUH Preoperative Antimicrobial Prophylaxis (In-patient)
Antimicrobial selection and dosing for surgeries included in SCIP

Surgical Procedure	Standard IV Antibiotics	Alternative IV Antibiotics (Penicillin allergy)
CABG, Other Cardiac (i.e valve, open heart surgery) Use TDS order set	Cefuroxime 1.5gm	Vancomycin 1gm + Ciprofloxacin 400mg
VAD Use TDS order set	Vancomycin 1gm + Ciprofloxacin 400mg + Rifampin 600mg + Fluconazole 200mg	
Vascular	Cefazolin 1gm (<80kg) (2gm if ≥80kg, 3gm if ≥120kg) OR Vancomycin 1gm (Use requires justification)*	Vancomycin 1gm OR Clindamycin 600mg (900mg if >80kg)
Hip/Knee Arthroplasty	Cefazolin 1gm (<80kg) (2gm if ≥80kg, 3gm if ≥120kg) AND/OR Vancomycin 1gm (Use requires justification)*	Vancomycin 1gm OR Clindamycin 600mg (900mg if >80kg)
Colon	Cefazolin 1gm (<80kg) (2gm if ≥80kg, 3gm if ≥120kg) + Metronidazole 500mg OR Cefoxitin 2gm	Ciprofloxacin 400mg + Metronidazole 500mg OR Ciprofloxacin 400mg + Clindamycin 600mg (900mg if >80kg) OR Clindamycin 600mg (900mg if >80kg) + Gentamicin 80mg (120mg if >120kg)
Hysterectomy	Cefazolin 1gm (<80kg) (2gm if ≥80kg, 3gm if ≥120kg) OR Cefoxitin 2gm OR Ampicillin/sulbactam 3gm	Ciprofloxacin 400mg + Metronidazole 500mg OR Ciprofloxacin 400mg + Clindamycin 600mg (900mg if >80kg) OR Clindamycin 600mg (900mg if >80kg) + Gentamicin 80mg (120mg if >120kg)

SCIP: Surgical Care Improvement Project

SCIP measures related to preoperative antimicrobial prophylaxis:

- Appropriate prophylactic antibiotic selection
- Prophylactic antibiotic initiated within 60min of surgical incision (120min if vancomycin or ciprofloxacin)
- Prophylactic antibiotic discontinued within 24 hours of surgical end time (48 hours if cardiac surgery)

*Justification for ordering vancomycin (Documentation required):

- Penicillin allergy
- MRSA colonization or infection
- Acute inpatient hospitalization within the last year
- Nursing home or extended care facility within the last year
- Facility-wide or operation specific increased MRSA rate
- Chronic wound care or dialysis
- Inpatient stay >24hours prior to procedure
- Other reason that is specified

Recommendation to Re-Dose Prophylactic Antibiotics

Intraoperative prophylactic antibiotic re-dosing is recommended for operations extending past two half-lives of the antimicrobial agents used, or if there is excessive blood loss.

Recommended Intraoperative Dosing Intervals (from initiation of the preoperative dose)

Antibiotic	Creatinine clearance		
	>50 mL/min	20-50 mL/min	<20 mL/min
Ampicillin/sulbactam	q2-3 hrs	q6 hrs	q12 hrs
Cefazolin	q4 hrs	q8 hrs	q16 hrs
Cefoxitin	q2-4 hrs	q6-8 hrs	q8 hrs or none
Ciprofloxacin (non-cardiac)	8-12 hrs	12 hrs or none	None
Clindamycin	6 hrs	6 hrs	6 hrs
Gentamicin	8 hrs	12 hrs or none	None
Metronidazole	8 hrs	8 hrs	8 hrs
Vancomycin (non-cardiac)	8-16 hrs	16 hrs or none	None
For cardiac surgery: Follow TUH protocol			
Cefuroxime	After separating from bypass (>45 min) or at 3-4 hours		
Vancomycin	Give 7.5 mg/kg after separating from bypass (>45 min) or at 3-4 hours. Do NOT give in patient with increased serum creatinine		
Ciprofloxacin	12 hours or upon arrival in ICU		

- Bratzler DW, Dellinger EP, Olsen KM et al. Clinical practice guidelines for antimicrobial prophylaxis in surgery. *Am J Health-Syst Pharm.* 2013; 70:195-283.
- Alexander JW, Solomkin JS, Edwards M. Updated recommendations for control of surgical site infections. *Ann Surg* 2011; 253: 1082-1093.