Hackettstown Regional Medical Center

REFERENCE #PN.09f

UPDATED 10/1/10 **Antimicrobial Prophylaxis for Elective Surgical Procedures, ADULT**

Updated consensus recommendations of the Surgical Infection Prevention Guideline Writers Workgroup:

A. Optimal time to give a prophylactic antibiotic is to start infusion 30 minutes before induction of anesthesia.
Two exceptions: Vancomycin and quinolones (require infusion ≥ 60 minutes)

B. ****Prophylactic Antibiotics Discontinued within 24 Hours after Surgery End Time****

Surgical procedure	Antimicrobial recommendations
Abdominal or vaginal hysterectomy	**Cefazolin, Cefuroxime, Cefotetan or Ampicillin-Sulbactam[a];** Beta-lactam allergy: clindamycin + aminoglycoside or clindamycin + quinolone (levofloxacin or ciprofloxacin) or clindamycin + aztreonam or metronidazole + aminoglycoside or metronidazole + quinolone (levofloxacin or ciprofloxacin)
Hip or knee arthroplasty	**Cefazolin** or **Cefuroxime**; Beta-lactam allergy: vancomycin or clindamycin High risk for MRSA: vancomycin[d]
Cardiothoracic and vascular surgery	**Cefazolin** or **Cefuroxime**; Beta-lactam allergy: vancomycin or clindamycin High risk for MRSA: vancomycin[d]
Colorectal surgery[e]	C**efotetan, ampicillin-sulbactam[a],** ertapenem, OR cefazolin + metronidazole, or cefuroxime + metronidazole Beta-lactam allergy: clindamycin + aminoglycoside or clindamycin + quinolone (levofloxacin or ciprofloxacin) or clindamycin + aztreonam or metronidazole + aminoglycoside or metronidazole + quinolone (levofloxacin or ciprofloxacin)

NOTE: MRSA= methicillin-resistant *Staphylococcus aureus.*

[a] Although there is little evidence that antibiotic prophylaxis prevents endocarditis, if the clinician decides to provide endocarditis prophylaxis for a patient having surgery, a drug that will inhibit growth of *Enterococcus* species should be used.

[d] For the purposes of national performance measurement in the Surgical Infection Prevention Project & the Surgical Care Improvement Project, use of vancomycin for surgical prophylaxis, in the absence of a documented b-lactam allergy, will require a physician-documented rationale in the medical record.

[e] For the purposes of national performance measurement, a case will pass the antibiotic selection indicator for colorectal surgery if the patient receives oral prophylaxis alone, parenteral prophylaxis alone, or oral prophylaxis combined with parenteral prophylaxis.

Dosing guidelines:

90kg = 198lbs

	≤90kg	>90kg	PEDs	Admin over Direct[#]	Admin over IVPB	Suggested Redose*
Ampicillin-Sulbactam	**1.5 grams**	**3 grams**	**50mg/kg AMP**	**-**	**30 min**	**2-3 hours**
Aztreonam	**1 gram**	**2 grams**	**30mg/kg**	**5 min**	**30-60 min**	**3-5 hours**
Cefazolin	**1 gram**	**2 grams**	**25-50mg/kg**	**5 min**	**30 min**	**2-3 hours**
Cefotetan	**1 gram**	**2 grams**	**40mg/kg**		**30 min**	**4-6 hours**
Cefuroxime	**750 mg**	**1.5 grams**	**25-50mg/kg**	**5 min**	**30 min**	**3-4 hours**
Ciprofloxacin	**400 mg**	**400 mg**	**N/A**	**-**	**60 min**	**4-10 hours**
Clindamycin	**600 mg**	**900 mg**	**10mg/kg**	**-**	**30 min**	**3-6 hours**
Ertapenem	**1 gram**	**1 gram**	**N/A**		**30 min**	**8-12 hours**
Gentamicin	**1.5 mg/kg**	**1.5 mg/kg**	**1.5mg/kg**	**-**	**30 min**	**3-6 hours**
Levofloxacin	**250-500 mg**	**250-750 mg**	**N/A**	**-**	**60-90 min**	**8-12 hours**
Metronidazole	**500 mg**	**1000 mg**	**7.5mg/kg**		**60 min**	**6-8 hours**
Tobramycin	**1.5 mg/kg**	**1.5 mg/kg**	**1.5mg/kg**		**30 min**	**3-6 hours**
Vancomycin	**15 mg/kg**	**15 mg/kg**	**10mg/kg**		**90 min**	**6-12 hours**

[#]Direct injection: injected directly into vein or Intravenous fluids

***Perioperative: Also redose if ≥1500mL of blood loss or hemodilution**