

# Adult Antibiotic Surgical Prophylaxis Guideline

1. The start of the infusion for all prophylactic antibiotics should be within 60 minutes prior to incision, except for vancomycin & ciprofloxacin which should be within 120 minutes.
2. The pre-op dose of antibiotic prophylaxis must be counted as part of the 24 hour duration. This results in <24 hours of post-op prophylaxis. For example, if cefazolin is given as pre-op prophylaxis x 1 dose and then prescribed as 1gm IV Q8h for post-op prophylaxis, the patient should receive no more than 2 post-op doses.
3. Many procedures are suitable to receive only a single pre-operative dose of antibiotic prophylaxis. Studies addressing duration of prophylaxis have failed to show any benefit of prophylaxis given after wound closure.
4. If  $\geq 1.5L$  of blood is lost intra-operatively, surgical prophylaxis antibiotics should be re-dosed.
5. Post-operative antibiotics (oral or IV) prescribed for an indication other than surgical prophylaxis must have adequate documentation of the indication in the medical record so it will not be interpreted as post-op prophylaxis upon review.

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
Cardiac/Thoracic	Cefuroxime (1.5g)	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ ) + Cefuroxime (1.5g)	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefuroxime = 4 hr Vancomycin = n/a	Should not exceed 48 hours including pre-op dose
VAD & Heart Transplant	Cefepime (2g) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Ciprofloxacin (400mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefepime (2g) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Ciprofloxacin (400mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefepime = 4 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 48 hours including pre-op dose
Vascular	Cefazolin (2g if <120kg; 3g if $\geq 120 kg$ )	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ ) + Cefazolin (2g if <120kg; 3g if $\geq 120 kg$ )	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefazolin = 4 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
Neurosurgery	Cefazolin (2g if <120kg; 3g if $\geq 120 kg$ )	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ ) + Cefazolin (2g if <120kg; 3g if $\geq 120 kg$ )	Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
Skull base surgery	Cefepime (2g) + Metronidazole (500mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Ciprofloxacin (400mg) + Metronidazole (500mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefepime (2g) + Metronidazole (500mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Ciprofloxacin (400mg) + Metronidazole (500mg) + Vancomycin (1g if <120kg; 1.5g if $\geq 120kg$ )	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Metronidazole = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
<b>Orthopedic</b>	<b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Clindamycin</b> (900mg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<b>Head and Neck</b>	<b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Clindamycin</b> (900mg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Ciprofloxacin</b> (400mg)	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Percutaneous procedure</i>	None	None	None	None	n/a	n/a
<i>Lymph Node Dissection</i>	None	None	None	None	n/a	n/a
<i>Soft tissue/bone procedure (no mucosal involvement)</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<b>Gastroduodenal</b>	<b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Clindamycin</b> (900mg) + <b>Ciprofloxacin</b> (400mg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Ciprofloxacin</b> (400mg)	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>EGD with/without biopsy</i>	None	None	None	None	n/a	n/a
<b>Liver &amp; biliary tract</b>	<b>Cefoxitin</b> (2g)	<b>Clindamycin</b> (900mg) + <b>Ciprofloxacin</b> (400mg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Cefoxitin</b> (2g)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg) + <b>Moxifloxacin</b> (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
<i>Liver biopsy</i>	None	None	None	None	n/a	n/a
<i>Splenectomy</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefazolin (2g if <120kg; 3g if ≥120 kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<b>Colorectal</b>	<b>Cefoxitin (2g)</b>	<b>Clindamycin (900mg) + Ciprofloxacin (400mg)</b>	<b>Vancomycin (1g if &lt;120kg; 1.5g if ≥120kg) + Cefoxitin (2g)</b>	<b>Vancomycin (1g if &lt;120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)</b>	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Colonoscopy involving biopsy</i>	None	None	None	None	n/a	n/a
<i>Penetrating abdominal trauma</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefoxitin (2g)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Intestinal fistula repair</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefoxitin (2g)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Excisional hemorrhoidectomy</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefoxitin (2g)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Cytoreductive therapy for peritoneal carcinomatosis</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefoxitin (2g)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
<i>Exploratory laparotomy</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefoxitin (2g)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<b>Reproductive Tract – Female</b>	<b>Cefoxitin (2g)</b>	<b>Clindamycin (900mg) + Ciprofloxacin (400mg)</b>	<b>Vancomycin (1g if &lt;120kg; 1.5g if ≥120kg) + Cefoxitin (2g)</b>	<b>Vancomycin (1g if &lt;120kg; 1.5g if ≥120kg) + Moxifloxacin (400mg)</b>	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Moxifloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Laparoscopic Procedures</i>	None	None	None	None	n/a	n/a
<i>Hysteroscopy</i>	None	None	None	None	n/a	n/a
<i>IUD Insertion</i>	None	None	None	None	n/a	n/a
<i>Endometrial Biopsy</i>	None	None	None	None	n/a	n/a
<i>Laparotomy</i>	None	None	None	None	n/a	n/a
<i>Induced abortion/dilation and evacuation</i>	Doxycycline (200mg)	Doxycycline (200mg)	Doxycycline (200mg)	Doxycycline (200mg)	n/a	Doxycycline (200mg)
<b>Reproductive Tract – Male</b>						
<i>Penile prosthesis (insertion, removal, repair)</i>	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Gentamicin 5mg/kg (use adjusted body weight if obese) Max dose = 600mg	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Gentamicin 5mg/kg (use adjusted body weight if obese) Max dose = 600mg	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Gentamicin 5mg/kg (use adjusted body weight if obese) Max dose = 600mg	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Gentamicin 5mg/kg (use adjusted body weight if obese) Max dose = 600mg	Vancomycin = n/a Gentamicin = call pharmacy for re-dosing	Should not exceed 24 hours including pre-op dose
<i>Vasectomy</i>	None	None	None	None	n/a	n/a
<b>Urologic Tract</b>						
<i>Elective, urethral instrumentation, pre-op culture negative</i>	None	None	None	None	n/a	n/a

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
<i>Elective, urethral instrumentation, pre-op culture positive</i>	Based on culture	Based on culture	Based on culture	Based on culture	Based on culture	Should not exceed 24 hours including pre-op dose
<i>Emergent, urethral instrumentation</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Ciprofloxacin (400mg)	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Ciprofloxacin (400mg)	Cefazolin = 4 hr Ciprofloxacin = n/a	Should not exceed 24 hours including pre-op dose
<i>Illeal Conduit</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Urologic/cutaneous fistula repair</i>	Cefoxitin (2g)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Cefoxitin = 2 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Indwelling bladder catheter insertion/removal</i>	None	None	None	None	n/a	n/a
<i>Robotic prostatectomy</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Pubovaginal sling</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Cefazolin (2g if <120kg; 3g if ≥120 kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Transrectal prostate biopsy</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Ciprofloxacin (400mg)	Cefoxitin (2g)	Ciprofloxacin (400mg)	Cefazolin = 4 hr Ciprofloxacin = n/a	Should not exceed 24 hours including pre-op dose
<i>Transurethral prostatectomy (TURP)</i>	See elective urethral instrumentation	See elective urethral instrumentation	See elective urethral instrumentation	See elective urethral instrumentation	See elective urethral instrumentation	See elective urethral instrumentation
<b>Kidney +/- Pancreas</b>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg) + Ciprofloxacin (400mg)	Cefazolin = 4 hr Clindamycin = 6 hr Ciprofloxacin = n/a Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Living Kidney Donor</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose

Procedure	Preferred Regimen	Severe Beta-Lactam Allergy	MRSA Colonization		Intraoperative Re-dosing (until wound closure)	Post-operative Re-dosing
			Without severe Beta-lactam allergy	Severe Beta-lactam allergy		
<b>Skin and Soft Tissue</b>	<b>Cefazolin</b> (2g if <120kg; 3g if ≥120 kg)	<b>Clindamycin</b> (900mg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg)	<b>Vancomycin</b> (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Hernia repair (ventral, inguinal)</i>	None	None	None	None	n/a	n/a
<i>Hernia repair w/ mesh placement</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose
<i>Biopsy (lymph node, muscle, bone marrow)</i>	None	None	None	None	n/a	n/a
<i>Central venous catheter insertion</i>	None	None	None	None	n/a	n/a
<i>I&amp;D of abscess</i>	None	None	None	None	n/a	n/a
<i>Liposuction</i>	Cefazolin (2g if <120kg; 3g if ≥120 kg)	Clindamycin (900mg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Vancomycin (1g if <120kg; 1.5g if ≥120kg)	Cefazolin = 4 hr Clindamycin = 6 hr Vancomycin = n/a	Should not exceed 24 hours including pre-op dose