Antibiotic Prophylaxis by Surgical Procedure (Table 1)

- Recommendations on this chart are for empiric coverage in surgical procedures that require perioperative antibiotics.
- Patients with a history of colonization or infection with an organism not covered by these recommendations should receive targeted prophylaxis.
- The practice of continuing antimicrobial prophylaxis until invasive lines, drains, and indwelling catheters are removed is not supported due to concerns regarding the development of drug-resistant organisms, super-infections, and drug toxicity.
- SBE prophylaxis: in procedures where no surgical prophylaxis is required, ampicillin is appropriate; in procedures where cefazolin or cefoxitin is indicated, cefazolin or cefoxitin can be used for both surgical and SBE prophylaxis.

Surgery	Preferred antibiotic[1]	Penicillin allergy[2]	Cefazolin allergy[2]	Post-op prophylaxis duration
Biliary Tract				
Low risk, elective laparoscopic	Not indicated			
High risk[3], elective laparoscopic	Cefazolin	Cefazolin	Clindamycin AND gentamicin	< 24 hours
Open or emergent	Cefazolin	Cefazolin	Clindamycin AND gentamicin	< 24 hours
General Surgery or Gastrointestinal				
Appendectomy	Piperacillin/tazobactam	Ciprofloxacin AND metronidazole[4]	Ciprofloxacin AND metronidazole	Non-perforated: < 24 hours
Cholecystectomy	Cefazolin	Cefazolin	Clindamycin AND gentamicin	Not indicated
Esophageal, gastroduodenal, or jejunal	Cefazolin	Cefazolin	Clindamycin AND gentamicin	< 24 hours
Hernia repair (with mesh)	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Ileal or colorectal	Cefoxitin	Ciprofloxacin AND metronidazole	Ciprofloxacin AND metronidazole	< 24 hours
Small bowel, non-obstructed	Cefazolin	Cefazolin	Clindamycin AND gentamicin	< 24 hours
Small bowel, obstructed	Cefoxitin	Ciprofloxacin AND metronidazole	Ciprofloxacin AND metronidazole	< 24 hours

Antibiotic Prophylaxis by Surgical Procedure (Table 1)

Cardiac				
All procedures	Cefazolin	Cefazolin	Clindamycin	< 48 hours
ENT or ENT with Plastics				
Clean	Not indicated			
Cleft alveolar bone graft, cleft lip, cleft palate	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Facial cartilage graft	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Rhinoplasty	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Cochlear implant	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Other clean-contaminated OR with placement of prosthesis	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Neurosurgery				
Clean procedures, CSF shunt placement, or intrathecal pump placement	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Orthopedic				
Hip, lower extremity, hand, foot, elbow	Cefazolin	Cefazolin	Clindamycin	< 24 hours
Orthopedic + Neurosurgery				
Spine	Cefazolin	Cefazolin	Clindamycin	Not indicated
Plastics				
Clean	Not indicated			
Breast (reduction, implant, or reconstruction)	Cefazolin	Cefazolin	Clindamycin	Not indicated
Craniomaxillofacial	Cefazolin	Cefazolin	Clindamycin	Not indicated
Other clean-contaminated OR clean with risk factors[4]	Cefazolin	Cefazolin	Clindamycin	Not indicated

Antibiotic Prophylaxis by Surgical Procedure (Table 1)

Transplant				
Heart[5]	Cefazolin	Cefazolin	Clindamycin	< 24 hours; if open chest continue < 24 hours after closure
Kidney	Cefazolin	Cefazolin	Clindamycin AND ciprofloxacin	< 24 hours
Liver	Piperacillin/tazobactam	Ciprofloxacin AND metronidazole	Ciprofloxacin AND metronidazole	< 24 hours
Urology				
Cystourethroscopy	Targeted therapy			
Ureteral reconstruction, urinar diversion, urinary reflux	Cefazolin	Cefazolin	Clindamycin AND gentamicin	Not indicated
All other procedures	Cefazolin	Cefazolin	Clindamycin AND gentamicin	Not indicated

[1] For patients with MRSA colonization or current infection, ADD vancomycin or clindamycin (preferred for clindamycin-susceptible organisms).

[2] Cefazolin may be used in any patient with a penicillin or cephalosporin allergy as long as the reported allergy is not “cefazolin”.

[3] Diabetes, long procedure duration, ASA classification ≥ 3, re-intervention w/in 30 days

[4] If the Penicillin Allergy Questionnaire has been completed and patient is classified as low risk, use of piperacillin/tazobactam is reasonable. If high risk or questionnaire is not done, then ciprofloxacin + metronidazole is recommended.

[5] Individualize antibiotic choice & duration for patients who have been maintained on suppressive antibiotics for VAD or ECMO circuit infection

Antibiotic Prophylaxis by Surgical Procedure (Table 1)

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