



Table 1. Details of reported β-lactam allergy

| β-lactam examples include | Symptoms of an IgE-mediated reaction include | Severe non-IgE-mediated/non-anaphylactic reactions usually require hospitalization and include |
|---|---|---|
| <p>Penicillins: amoxicillin, amoxicillin/clavulanate, ampicillin, dicloxacillin, penicillin, piperacillin/tazobactam</p> <p>Cephalosporins: cefadroxil, cefazolin, cefdinir, cefepime, cefixime, cefotaxime, cefoxitin, cefpodoxime, ceftaroline, ceftazidime, ceftolozane, ceftriaxone, cefuroxime, cephalexin</p> <p>Carbapenems: ertapenem, imipenem, meropenem</p> | <p>Immediate (within 1-6 h after exposure) Urticaria (hives) Angioedema Bronchospasm Anaphylaxis</p> <p><i>Patients who experience an IgE-mediated reaction or cannot recall their allergic reaction to a non-cefazolin β-lactam agent can safely receive cefazolin due to a structurally different side chain (no cross-reactivity).</i></p> | <p>Interstitial nephritis Hepatitis Hemolytic anemia Serum sickness Serious skin reactions: Stevens-Johnson syndrome (SJS) Toxic epidermal necrolysis (TEN) Drug rash with eosinophilia & systemic symptoms (DRESS)</p> <p><i>Patients who experience any of the above to ANY β-lactam agent should receive a non β-lactam agent.</i></p> |

Table 2. Pre-procedural urine screen and/or other urine culture in last 90 days with bacterial organism NOT susceptible to cefazolin/cephalexin

| Cascading selection* of antimicrobial prophylaxis by organism | <i>E. coli, Citrobacter koseri, Klebsiella oxytoca, K. pneumoniae, Proteus mirabilis</i> | <i>Enterobacter cloacae</i> complex, <i>Enterobacter (Klebsiella) aerogenes, Citrobacter freundii</i> complex, <i>Serratia marcescens</i> | <i>Pseudomonas aeruginosa</i> | Enterococci only | MRSA only | Any other organism |
|---|---|--|--|--|---|--------------------|
| Clean-contaminated WITHOUT entry into GI tract | ceftriaxone --> ertapenem® --> contact ASP† <u>severe cephalosporin allergy ‡</u> vancomycin + aztreonam --> ertapenem® --> contact ASP† | ceftriaxone --> cefepime --> ertapenem® --> meropenem ® --> contact ASP† <u>severe cephalosporin allergy ‡</u> vancomycin + aztreonam --> ertapenem® --> meropenem ® --> contact ASP† | cefepime --> meropenem ® --> contact ASP† <u>severe cephalosporin allergy ‡</u> vancomycin + aztreonam --> meropenem ® --> contact ASP† | ampicillin + cefazolin OR ampicillin/sulbactam --> vancomycin + aztreonam --> daptomycin ® + aztreonam --> > contact ASP† <u>severe penicillin allergy ‡</u> vancomycin + aztreonam --> daptomycin ® + aztreonam --> > contact ASP† | vancomycin + cefazolin <u>IgE-mediated reaction to cefazolin or severe non-IgE mediated reaction to other β-lactam agent ‡</u> vancomycin + aztreonam | |
| Clean-contaminated WITH entry into GI tract | ceftriaxone + metronidazole --> ertapenem® --> contact ASP† <u>severe cephalosporin allergy ‡</u> vancomycin + aztreonam + metronidazole --> ertapenem® --> contact ASP† | ceftriaxone + metronidazole OR piperacillin/tazobactam --> cefepime + metronidazole --> ertapenem® --> meropenem ® --> contact ASP† <u>severe penicillin or cephalosporin allergy ‡</u> vancomycin + aztreonam + metronidazole --> ertapenem® --> meropenem ® --> contact ASP† | cefepime + metronidazole OR piperacillin/tazobactam --> meropenem ® --> contact ASP† <u>severe penicillin or cephalosporin allergy ‡</u> vancomycin + aztreonam + metronidazole --> meropenem ® --> contact ASP† | piperacillin/tazobactam --> vancomycin + aztreonam + metronidazole --> daptomycin ® + aztreonam + metronidazole --> contact ASP† <u>severe penicillin allergy ‡</u> vancomycin + aztreonam + metronidazole --> daptomycin ® + aztreonam + metronidazole --> contact ASP† | vancomycin + cefazolin + metronidazole <u>IgE-mediated reaction to cefazolin or severe non-IgE mediated reaction to other β-lactam agent ‡</u> vancomycin + aztreonam + metronidazole | contact ASP† |
| If concomitant | Enterococci (ampicillin susceptible) | piperacillin/tazobactam --> imipenem ® --> contact ASP† <u>severe penicillin allergy ‡</u> vancomycin + aztreonam (+ metronidazole if entry into GI tract) --> contact ASP† | | N/A | | |
| | Enterococci (ampicillin resistant/vancomycin susceptible), MRSA | ADD vancomycin to above selection | | N/A | | |
| | Enterococci (ampicillin & vancomycin resistant) | ADD daptomycin ® to above selection | | N/A | | |

* Antimicrobial agents are listed in order of institutional preference based on assumed susceptibility for isolated bacteria in that column (i.e., E. coli resistant to ceftriaxone should prompt request to ASP† for ertapenem® approval).

† Preferred method for contacting ASP is via email: CL_DOM_Antimicrobial_Stewardship; time-sensitive issues may be directed to ASP PIC 1337

‡ Use of alternative agents for surgical prophylaxis is associated with inferior clinical efficacy and safety outcomes. See Table 1 or see full guidance in UVA Surgical and Procedural Antimicrobial Prophylaxis Guideline on PolicyTech. For elective procedures, consider formal ambulatory referral to the UVA Drug Allergy Clinic if concerned for IgE-mediated (anaphylactic) or severe non-IgE-mediated β-lactam allergy.

‡ Use of alternative agents for surgical prophylaxis is associated with inferior clinical efficacy and safety outcomes. See Table 1 or see full guidance in UVA Surgical and Procedural Antimicrobial Prophylaxis Guideline on PolicyTech. For elective procedures, consider formal ambulatory referral to the UVA Drug Allergy Clinic if concerned for IgE-mediated (anaphylactic) or severe non-IgE-mediated β-lactam allergy.

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Antimicrobial Name Color Coding Key:

Black Text = IV Push, administer in OR **Orange Text** = IV infusion over 15 – 30 min, administer in OR **Red Text** = IV infusion over 30 min – 2 h, initiate administration in pre-procedural area (e.g., SAS)