

# Surgical prophylaxis for patients with a listed $\beta$ -lactam antibiotic allergy

**Cefazolin** is the preferred choice for surgical prophylaxis in all patients

## A What are $\beta$ -lactam antibiotics?

$\beta$ -lactam antibiotics include penicilins (piperacillin, cloxacillin, ampicillin) cephalosporins, and carbapenems

$\beta$ -lactams in the same boxes below share similar side chains and crossreact

**Cefazolin shares no similar chains and does not crossreact with any other  $\beta$ -lactam**

- |  |   |  |   |
|--|---|--|---|
| <ul style="list-style-type: none"> <li>• <b>Cefazolin</b></li> </ul>                 | <ul style="list-style-type: none"> <li>• Ertapenem</li> <li>• Imipenem</li> <li>• Meropenem</li> </ul>    | <ul style="list-style-type: none"> <li>• Amoxicillin</li> <li>• Ampicillin</li> <li>• Cephalexin</li> <li>• Cefadroxil</li> <li>• Cefprozil</li> </ul> | <ul style="list-style-type: none"> <li>• Penicillin</li> <li>• Cefoxitin</li> <li>• Cloxacillin</li> <li>• Piperacillin-tazobactam</li> </ul> |
| <ul style="list-style-type: none"> <li>• Cefuroxime</li> <li>• Cefoxitin</li> </ul>  | <ul style="list-style-type: none"> <li>• Cefotaxime</li> <li>• Ceftriaxone</li> <li>• Cefepime</li> </ul> |  |   |
| <ul style="list-style-type: none"> <li>• Aztreonam</li> <li>• Ceftazidime</li> </ul> |   |  |   |

### External links



AHS surgical prophylaxis recommendations



Bugs and Drugs antimicrobial reference

## B What to give patients with a $\beta$ -lactam allergy?

**i Give cefazolin for surgical prophylaxis**

**⊖ Unless the patient has a history of...**

### 1 any reaction to **cefazolin specifically**

*examples include:*

- Anaphylaxis
- Angioedema
- Wheezing
- Laryngeal edema
- Hypotension
- Hives/urticaria
- severe rash

**Or**

### 2 a serious delayed **non-IgE mediated reaction**;

*(avoid all  $\beta$ -lactams or and consider consultation to allergy)*

*examples include:*

- Toxic epidermal necrolysis (TEN)
- Acute interstitial nephritis (AIN)
- Stevens-johnson syndrome (SJS)
- Drug rash with eosinophilia + systemic symptoms (DRESS)
- Drug induced cytopenias
- Drug-induced hepatitis
- Hemolytic anemia
- Serum sickness

