

# Cephalosporin allergies

Assessing patients with cephalosporin allergies

Not all allergies are the same.

It is important to ascertain and accurately document the nature of the allergy.



- What happened and how long ago?
- How many doses had been taken when it occurred (was it immediate or delayed onset)?
- The specific cephalosporin involved (was it a single cephalosporin or a class reaction?)
- What beta-lactams have been tolerated since?

## Nausea, vomiting, headache, dizziness and diarrhoea are not allergic reactions.

If these are documented as allergies in a patient's record, 'delabel' the patient's allergy by documenting the exact nature of the reaction. Update your records and notify all other clinicians responsible for your patient's care. These patients may be safely treated with cephalosporins.

## It is unlikely for patients to be allergic to *all* cephalosporins.

Cephalosporins are a structurally diverse class of antibiotics. Allergic reactions within this class likely relate to the side chains on an individual cephalosporin rather than the core structure. Allergy testing (specific IgE, skin prick or intradermal) may be indicated, seek immunologist advice.

## An allergy to penicillin does not mean a patient cannot be prescribed a cephalosporin.

Recent figures show that only 1 to 2% of patients with a confirmed penicillin allergy have a cephalosporin allergy.

## Patients with a cephalosporin allergy may still be treated effectively with other beta-lactam antibiotics.

These include structurally dissimilar cephalosporins, penicillins, carbapenems and monobactams. For example, cefazolin is often tolerated by patients with penicillin or cephalosporin allergies. This is because it does not have any common side chains with the other beta-lactam antibiotics. Seek specialist advice.

### Cross reactivity?

Allergy	Action
Cefalexin or cefaclor	Avoid amoxicillin or ampicillin—similar R1 side chains.
Ceftriaxone	Avoid cefotaxime, cefepime and cefuroxime—similar R1 side chain
Ceftazidime	Avoid aztreonam—similar R1 side chain

#### References:

- Romano et. al., IgE-mediated hypersensitivity to cephalosporins: Cross-reactivity and tolerability of alternative cephalosporins, Journal of Allergy and Clinical Immunology, 2015-09-01, Volume 136, Issue 3, Pages 685-691.e3
- Antimicrobial Hypersensitivity. In: eTG complete [Internet]. Melbourne: Therapeutic Guidelines Limited; 2019 Jun.