Suggested management of patients reporting hypersensitivity to penicillins in whom a beta-lactam antibiotic is the preferred drug

Therapeutic in whom a beta-lactam antibiotic is the preferred drug Guidelines Penicillin hypersensitivity reported by a patient in whom a beta-lactam antibiotic is the preferred drug History of immediate (IgE-mediated) penicillin History of delayed (T-cell mediated) penicillin hypersensitivity History of non-History of penicillin (typically occurs days after starting treatment, but can occur more rapidly on rechallenge) hypersensitivity (typically occurs within 1 to 2 hours of AND cephalosporin immune-mediated immune-mediated adverse effect drug exposure) hypersensitivity (eg gastrointestinal intolerance) Immediate nonsevere Immediate severe Delayed severe penicillin Delayed nonsevere penicillin hypersensitivity (eg severe cutaneous adverse reaction penicillin hypersensitivity penicillin hypersensitivity hypersensitivity (usually a Avoid all beta lactams, (eg mild urticaria or Safe to administer (eg extensive urticaria, maculopapular rash or except for aztreonam any beta lactam. compromised airway, immediate rash) [NB3] or significant organ benign childhood rash; not a angioedema, hypotension, involvement such as acute severe cutaneous adverse collapse or anaphylaxis) interstitial nephritis) reaction [NB3] and no Avoid penicillins significant organ involvement) Remove penicillin Refer to specialised Safe to administer most allergy from the antibiotic allergy Avoid penicillins and Avoid penicillins and cephalosporins. Avoid patient's medical cephalosporins [NB1]. cephalosporins [NB4]. testing centre. cefalexin and cefaclor in Avoid penicillins However in record or annotate Safe to administer a a non-urgent situation and Safe to administer a patients with amoxicillin or the true nature of the non-beta-lactam antibiotic ampicillin allergy. non-beta-lactam antibiotic or under specialist guidance, reaction. or aztreonam. aztreonam. consider a single dose of a Safe to administer penicillin followed by a Can consider a Can consider a carbapenem carbapenem [NB2] or prolonged (5 to 7 day) carbapenem [NB2]. aztreonam. [NB2]. provocation test. Safe to administer a Avoid desensitisation in If a penicillin is essential, If a penicillin is essential, cephalosporin in patients with patients with a history of perform desensitisation. perform desensitisation. a history of a mild reaction or Penicillins include: phenoxymethylpenicillin, benzylpenicillin, amoxicillin, ampicillin, dicloxacillin, flucloxacillin, piperacillin delayed severe In a non-urgent situation, In a non-urgent situation, a reaction that occurred in hypersensitivity because

consider specific allergy

testing and drug

provocation under

available)

specialist supervision

(where such testing is

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- NB1: In a critical situation, a cephalosporin can be considered in this group after undertaking a risk-benefit analysis and assessment of potential side-chain cross-reactivity. Seek expert advice.

 NB2: In patients with pencifilm hypersensitivity, the rate of immune-mediated cross-reactivity with carbapenems is approximately 1%; therefore, carbapenems can be considered in supervised settings. However, in patients with a history of a severe cutaneous adverse reaction (eg drug rash with eosinophilia and systemic symptoms (DRESS), Stevens-Johnson syndrome / toxic epidemal necrolysis [SJS/TEN], acute generalised exanthematious pustulosis [AGEP]), consider a carbapenem only in a critical situation when there are
- NB3: For example DRESS, SJS/TEN, AGEP.

the distant past [NB5].

Safe to administer a

carbapenem or aztreonam.

NB4: There is limited evidence on the safety of cephalosporins in patients with a history of penicillin-associated acute interstitial nephritis (AIN). In a critical situation, directed therapy with a cephalosporin can be considered.

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NB5: In patients who have had a **recent** reaction, consider avoiding cephalosporins with the same or similar R1 side-chain as the implicated penicillin.

Cephalosporins include: cefalexin, cefuroxime, cefaclor,

Carbapenems include: imipenem, meropenem, ertapenem

cefazolin, cefalotin, cefoxitin, ceftriaxone, cefotaxime ceftazidime, cefepime

NB6: However, avoid aztreonam in patients hypersensitive to ceftazidime; these drugs have the same R1 side-chain, so there is a risk of cross-reactivity.

further drug exposure can be