



Title	Guidance on Penicillin allergy assessment
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Approved by	NHS Borders Antimicrobial Management Team
Owner/Person Responsible	Anne Duguid
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Guidance on Penicillin allergy assessment

A history of adverse drug reaction (ADR) to penicillins is relatively common though often these ADRs do not represent true allergic phenomena. Excluding penicillins and beta-lactam agents as possibilities for treatment and prophylaxis can restrict antimicrobial therapy choices significantly. On the other hand, true anaphylactic reactions do occur in some people (the BNF gives a figure of 0.05% of patients) . A detailed history of the adverse reaction can provide useful information to support an informed assessment of the risk and decision about antibiotic use.

Information required from history

What happened when the person took the antibiotic?

- Did a rash occur? If so what type of rash was it? e.g. Was it urticarial? How widespread was it and where did it occur? Was there any blistering or skin shedding?
- Did the patient develop swelling or possible angio-oedema? What was the distribution?
- Was there any effect on breathing , upper or lower airway symptoms, e.g wheezing , stridor
- Was there fainting or collapse?
- Did the patient require treatment or hospital admission for the reaction?
- Is it a history only that the patient is allergic but they do not know any more details?

What was the timing of the reaction in relation to the administration of the antibiotic?

- Did it occur immediately, within an hour of the first dose or did it appear after a delay.

Have they received an antibiotic in the same class since, and if so what happened?

Does the patient have other conditions related to atopy e.g asthma, eczema, hay-fever?

Assessment

Rash with blistering. Oral or genital ulceration or blistering. Rash associated with severe illness requiring admission to hospital. Previous association of penicillin/beta-lactam antibiotic with Erythema multiforme Stevens-Johnson syndrome Toxic epidermal necrolysis Acute generalised exanthematous pustulosis DRESS (Drug reaction with eosinophilia and systemic symptoms) syndrome Haemolysis Acute interstitial nephritis or acute renal failure Vasculitis	Do not give penicillin or other beta-lactam (carbapenems or cephalosporin) antibiotic
Rash, swelling or angio-oedema, breathing difficulty or fainting/collapse within 1 hour of drug administration.	Do not give penicillin. Do not give other beta-lactam agent. If beta-lactam therapy considered necessary discuss with Consultant Microbiologist.
Rash greater than 72 hours after dose or poorly described symptoms not requiring treatment	Allergy status uncertain. Beta-lactam other than penicillin can be considered

Some ADRs such as prior gastrointestinal symptoms or the occurrence of candidiasis are not the result of penicillin allergy as such and are not automatic exclusions to receiving the same antibiotic.