- Antibiotic hypersensitivity is common, and most frequently involves beta lactams.  
- While many nonspecific reactions are labelled as 'allergic', true type I (IgE-mediated) antibiotic hypersensitivity is strongly suggested by the development of urticaria, angioedema, bronchospasm, or anaphylaxis (with objectively demonstrated hypotension, hypoxia or tryptase elevation) within one hour of drug administration.
- Some instances of 'pseudo-allergy' (eg anaphylactoid responses to vancomycin infusions such as 'red-man syndrome') involve direct release of vasoactive mediators by non-IgE mechanisms. While not truly allergic, these latter responses may be ameliorated by preventive antihistamines, in combination with slowing of the infusion rate.
- Drug allergy is more commonly seen with certain infections, particularly with HIV and Epstein-Barr virus infections, and allergic reactions are more likely to be severe in individuals receiving beta-blocker therapy.

- Between 1% and 10% of beta-lactam courses result in manifestations interpreted as due to hypersensitivity.  
- Most reactions are late, non-IgE mediated and involve skin rash.  
- Other later manifestations include fever, haemolysis and serum sickness-like reactions.  
- The minority of reactions are immediate hypersensitivity reactions. Anaphylactic responses to penicillin occur approximately once every 10 000 courses administered, with 10% of these reactions being fatal, most often associated with parenteral rather than oral administration.  
- Most of these reactions occur in people without a history of prior penicillin allergy.  
- Notwithstanding this, a detailed history of penicillin reaction should always be sought before a course of penicillin is commenced.

- A history of an immediate hypersensitivity reaction (urticaria, angioedema, bronchospasm, or anaphylaxis within one hour of drug administration) or other life-threatening reactions (eg Stevens-Johnson syndrome) contraindicates further exposure to penicillin and other beta-lactams apart from aztreonam.
- Between 3% and 10% of patients hypersensitive to penicillin exhibit cross-reactivity with cephalosporins and carbapenems.
- A patient with a known beta-lactam hypersensitivity should be encouraged to wear an alert bracelet or necklace containing this information.
- Late manifestations are only a relative contraindication. Rashes, especially with amoxy/ampicillin, are much less predictive of future reactions and repeat exposure to beta-lactam drugs is not necessarily contraindicated.
- In the unusual circumstance that it is necessary to use a penicillin, expert advice should be sought on desensitisation, or a test dose of penicillin should be given under controlled conditions to reduce the risk in this situation.