

Guideline for Antibiotic Challenge on Paediatric Day Case or Outpatients - Summary Paediatric Clinical Guideline – Derby & Burton

Reference No: CH CLIN G132/Feb 21/v002

Aim and Scope

To give guidance on how to undertake antibiotic challenges in children with possible allergy including immediate or delayed reactions..

Exclusion criteria for a drug challenge

- Reaction to parental antibiotic
- Severe reaction –(Difficulty breathing/persistent cough/wheeze/ throat swelling, change in voice./ difficult swallowing, drooling, floppy, dizzy or LOC)
- Severe delayed reaction eg TEN/DRESS/ SJS etc
- Uncontrolled asthma
- Uncontrolled urticarial
- On beta blockers

Type of scenarios

1. **Low Risk:** A child presents with a recent/historical history of a **mild** maculopapular or urticarial rash, **more than one hour** after the dose is given on day 2-6 of treatment. A **single dose** challenge is appropriate with no prior skin testing
2. **Medium Risk:** A child presents with **immediate** symptoms at **< 1 hour** post antibiotic dose or the history is historical and not quantifiable **BUT NOT** anaphylaxis or severe delayed reaction.
3. **High Risk:** A child has immediate angioedema, wheeze or other systemic symptoms then skin tests, RASTS and consideration of BAT may be appropriate followed by high risk challenge **OR** significant asthma/chronic urticaria **OR** other co-morbidities.- **(We are not doing these in Derby as yet but this might be considered in the future)**
4. **Severe delayed hypersensitivity reactions are almost never challenged**

Location of the challenge

	Oral Drug Challenges (ODC)		Single Dose (SD)
Risk Level	High	Medium	Low
Location	Day Case Unit		Day Case Unit or Paediatric Outpatient Clinic
Nurse:patient	1:1 with consultant present	1:2	1:4
Number of Doses	5* see below	2* split dose	Single Top dose only- consumed as single dose
Observation period	1 hours post top dose	1 hour post top dose	60 min post dose

Challenge Protocols

1. **Low Risk:** Single Dose: age appropriate dose of the antibiotic is given as a single dose followed by 2 further doses to be taken once a day at home
2. **Medium Risk:** An age appropriate dose of the antibiotic is divided into two aliquots at 10% and 90% to be given 20 minutes apart. Two further total doses are to be taken once a day at home
3. **High Risk:** An allergy consultant may wish to devise a protocol (appendix 1) for an individual child but usually 3-5 doses will be used. Two further total doses are to be taken once a day at home.)