



## **Oral Penicillin Challenge – Initial management of patients experiencing allergic symptoms**

Patients undergoing oral penicillin challenge should be managed by appropriately trained staff with immediate access to full resuscitation facilities including advanced life support equipment and drugs.

Patients experiencing mild to moderate allergic symptoms (e.g. itch, urticaria, sneezing or rhinitis) following an oral challenge should have their vital signs (heart rate, blood pressure, oxygen saturation and respiratory rate) monitored as part of an approach.

**Airway**  
**Breathing**  
**Circulation**  
**Disability**  
**Exposure**

If symptoms remain stable and non life-threatening consider:

**Oral antihistamines** (e.g. 4mg chlorphenamine)  
**Inhaled bronchodilators** (e.g. 2 puffs salbutamol)  
**Oral steroids** (e.g. 30mg prednisolone)

Patients should be monitored closely and reassessed regularly. If symptoms do not improve, or the clinical picture deteriorates, call for senior medical assistance. Supplementary oxygen via should be given via a face mask and intravenous access obtained.

Signs and symptoms of a severe allergic or anaphylactic reaction include:

**Respiratory compromise (e.g. shortness of breath, wheeze or stridor)**  
**Loss of consciousness**  
**Hypotension**  
**Collapse**  
**Worsening skin reaction changes (e.g. widespread rash, hives or itch)**

**If anaphylaxis is suspected treat according to Resuscitation Council (UK) guidelines below**

# Anaphylaxis

Anaphylaxis?

**A** = Airway **B** = Breathing **C** = Circulation **D** = Disability **E** = Exposure

## Diagnosis – look for:

- Sudden onset of Airway and/or Breathing and/or Circulation problems<sup>1</sup>
- And usually skin changes (e.g. itchy rash)

## Call for HELP

Call resuscitation team or ambulance

- Remove trigger if possible (e.g. stop any infusion)
- Lie patient flat (with or without legs elevated)
  - A sitting position may make breathing easier
  - If pregnant, lie on left side



Inject at anterolateral aspect – middle third of the thigh



## Give intramuscular (IM) adrenaline<sup>2</sup>

- Establish airway
- Give high flow oxygen
- Apply monitoring: pulse oximetry, ECG, blood pressure

## If no response:

- Repeat IM adrenaline after 5 minutes
- IV fluid bolus<sup>3</sup>

## If no improvement in Breathing or Circulation problems<sup>1</sup> despite TWO doses of IM adrenaline:

- Confirm resuscitation team or ambulance has been called
- Follow REFRACTORY ANAPHYLAXIS ALGORITHM

### 1. Life-threatening problems

#### Airway

Hoarse voice, stridor

#### Breathing

↑work of breathing, wheeze, fatigue, cyanosis, SpO<sub>2</sub> <94%

#### Circulation

Low blood pressure, signs of shock, confusion, reduced consciousness

### 2. Intramuscular (IM) adrenaline

Use adrenaline at 1 mg/mL (1:1000) concentration

**Adult and child >12 years:** 500 micrograms IM (0.5 mL)

**Child 6–12 years:** 300 micrograms IM (0.3 mL)

**Child 6 months to 6 years:** 150 micrograms IM (0.15 mL)

**Child <6 months:** 100–150 micrograms IM (0.1–0.15 mL)

The above doses are for IM injection **only**.

Intravenous adrenaline for anaphylaxis to be given **only by experienced specialists** in an appropriate setting.

### 3. IV fluid challenge

Use crystalloid

**Adults:** 500–1000 mL

**Children:** 10 mL/kg