



**THE ASSOCIATION OF ANAESTHETISTS**  
*of Great Britain & Ireland*

**Management of a Patient with Suspected  
Anaphylaxis During Anaesthesia  
SAFETY DRILL**

(Revised 2009)

**Immediate management**

- Use the ABC approach (Airway, Breathing, and Circulation). Team-working enables several tasks to be accomplished simultaneously.
- Remove all potential causative agents and maintain anaesthesia, if necessary, with an inhalational agent.
- **CALL FOR HELP** and note the time.
- Maintain the airway and administer oxygen 100%. Intubate the trachea if necessary and ventilate the lungs with oxygen.
- Elevate the patient's legs if there is hypotension.
- If appropriate, start cardiopulmonary resuscitation immediately according to Advanced Life Support Guidelines.
- Give adrenaline i.v.
  - Adult dose: 50 µg (0.5 ml of 1:10 000 solution).
  - Child dose: 1.0 µg.kg<sup>-1</sup> (0.1 ml.kg<sup>-1</sup> 1:100 000 solution).
- Several doses may be required if there is severe hypotension or bronchospasm. If several doses of adrenaline are required, consider starting an intravenous infusion of adrenaline.
- Give saline 0.9% or lactated Ringer's solution at a high rate via an intravenous cannula of an appropriate gauge (large volumes may be required).
  - Adult: 500 - 1 000 ml
  - Child: 20 ml.kg<sup>-1</sup>
- Plan transfer of the patient to an appropriate Critical Care area.

**CONTINUED OVERLEAF**

## Secondary management

- Give chlorphenamine i.v.

Adult:	10 mg
Child 6 - 12 years:	5 mg
Child 6 months - 6 years:	2.5 mg
Child <6 months:	250 µg.kg <sup>-1</sup>
- Give hydrocortisone i.v.

Adult:	200 mg
Child 6 - 12 years:	100 mg
Child 6 months - 6 years:	50 mg
Child <6 months:	25 mg
- If the blood pressure does not recover despite an adrenaline infusion, consider the administration of an alternative i.v. vasopressor according to the training and experience of the anaesthetist, e.g. metaraminol.
- Treat persistent bronchospasm with an i.v. infusion of salbutamol. If a suitable breathing system connector is available, a metered-dose inhaler may be appropriate. Consider giving i.v. aminophylline or magnesium sulphate.

## Investigation

- Take blood samples (5 - 10 ml clotted blood) for **mast cell tryptase**:
  - Initial sample as soon as feasible after resuscitation has started – do not delay resuscitation to take the sample.
  - Second sample at 1 - 2 h after the start of symptoms.
  - Third sample either at 24 h or in convalescence (for example in a follow-up allergy clinic). This is a measure of baseline tryptase levels as some individuals have a higher baseline level.
- Ensure that the samples are labelled with the time and date.
- Liaise with the hospital laboratory about analysis of samples.

## Later investigations to identify the causative agent

The anaesthetist who gave the anaesthetic or the supervising consultant anaesthetist is responsible for ensuring that the reaction is investigated. The patient should be referred to a specialist Allergy or Immunology Centre (see [www.aagbi.org](http://www.aagbi.org) for details). The patient, surgeon and general practitioner should be informed. Reactions should be notified to the AAGBI National Anaesthetic Anaphylaxis Database (see [www.aagbi.org](http://www.aagbi.org)).

This guideline is not to be construed as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as knowledge advances. The ultimate judgement with regard to a particular clinical procedure or treatment plan must be made by the clinician in light of the clinical data presented and the diagnostic and treatment options available.