RECOGNITION AND TREATMENT OF ANAPHYLAXIS

Signs of anaphylaxis

Anaphylaxis causes respiratory and/or cardiovascular signs or symptoms AND involves other organ systems such as skin or GI tract, with:

- skin signs, such as the rapid development of urticarial lesions or erythema,
- signs of upper airway obstruction, such as hoarseness and stridor,
- indications of lower airway obstruction, such as subjective feelings of retrosternal tightness, dyspnoea or wheeze,
- limpness and pallor, which are signs of severe anaphylaxis in children,
- profound hypotension in association with tachycardia, and/or other signs of cardiovascular disturbance, such as sinus tachycardia or severe bradycardia,
- abdominal cramps, diarrhoea and/or vomiting.

Management of anaphylaxis

- If the patient is unconscious, place him/her on the left side and position to keep the airway clear. If the patient is conscious, place supine in 'head down and feet up' position (unless this results in breathing difficulties).
- Give adrenaline by intramuscular injection (see below for dosage) for any signs of anaphylaxis with respiratory and/or cardiovascular symptoms or signs. Although adrenaline is not required for generalised non-anaphylactic reactions (such as skin rash without other signs or symptoms) administration of intramuscular adrenaline is safe.
- **If there is no improvement in the patient's condition by 5 minutes, repeat doses of adrenaline every 5 minutes until improvement occurs.**
- If oxygen is available, administer by facemask at a high flow rate.
- Call for professional assistance and call an ambulance. Never leave the patient alone.
- Begin expired air resuscitation for apnoea, check for a central pulse. If central pulse not palpable, commence external cardiac massage (ECM).
- All cases should be admitted to hospital for further observation and treatment.

Experienced practitioners may choose to use an oral airway if the appropriate size is available, but its use is not routinely recommended unless the patient is unconscious.

Antihistamines and/or hydrocortisone are not recommended for the emergency management of anaphylaxis.

Adrenaline Dosage

The recommended dose of 1:1000 adrenaline is 0.01 mL/kg body weight (equivalent to 0.01 mg/kg up to a maximum of 0.5 mL or 0.5 mg) given by deep intramuscular injection into the thigh (*not* the deltoid region). Adrenaline 1:1000 *must not* be administered intravenously.

Adrenaline 1:1000 contains 1 mg of adrenaline per mL of solution in a 1 mL glass vial.

The use of 1:1000 adrenaline is recommended because it is universally available. Use a 1 mL syringe to improve the accuracy of measurement when drawing up small doses.

The following table lists the doses of 1:1000 adrenaline to be used if the exact weight of the individual is not known.

Doses of 1:1000 (one in one thousand) adrenaline:			
Less than 1 year	0.05–0.1 mL	7–10 years (approx. 30 kg)	0.3 mL
1–2 years (approx. 10 kg)	0.1 mL	11–12 years (approx. 40 kg)	0.4 mL
2–3 years (approx. 15 kg)	0.15 mL	13 years and over (over 40 kg)	0.5 mL
4–6 years (approx. 20 kg)	0.2 mL		

For more detailed information, see Section 1.5.2, *Adverse events following immunisation*