PAEDIATRICS

ANAPHYLAXIS



Resuscitation Council (UK)

Anaphylaxis algorithm

Anaphylactic reaction?

Airway, Breathing, Circulation, Disability, Exposure

Diagnosis - look for:

- Acute onset of illness
- Life-threatening Airway and/or Breathing and/or Circulation problems 1
- And usually skin changes
 - Call for help
 - · Lie patient flat
 - Raise patient's legs

Adrenaline²

When skills and equipment available:

- Establish airway
- High flow oxygen
- IV fluid challenge ³
- Chlorphenamine ⁴
- Hydrocortisone

Monitor:

- Pulse oximetry
- ECG
- Blood pressure

1 Life-threatening problems:

Adult or child more than 12 years

Child 6 - 12 years

Child 6 months to 6 years

Child less than 6 months

Airway: swelling, hoarseness, stridor

Breathing: rapid breathing, wheeze, fatigue, cyanosis, SpO2 < 92%, confusion

pale, clammy, low blood pressure, faintness, drowsy/coma Circulation:

2 Adrenaline (give IM unless experienced with IV adrenaline) IM doses of 1:1000 adrenaline (repeat after 5 min if no better)

 Adult 500 micrograms IM (0.5 mL)

Child more than 12 years: 500 micrograms IM (0.5 mL)

· Child 6 -12 years: 300 micrograms IM (0.3 mL)

150 micrograms IM (0.15 mL) Child less than 6 years:

Adrenaline IV to be given only by experienced specialists

3 IV fluid challenge:

Adult - 500 - 1000 mL

Child - crystalloid 20 mL/kg

Stop IV colloid

if this might be the cause of anaphylaxis

Titrate: Adults 50 micrograms; Children 1 microgram/kg

4 Chlorphenamine

(IM or slow IV)

10 mg

5 mg 2.5 mg

250 micrograms/kg

5 Hydrocortisone

(IM or slow IV) 200 mg

100 mg 50 mg

25 mg

Anaphylactic reactions – Initial treatment See also:

HOW TO USE EPIPEN®

It is important to familiarise yourself with how to use the $EpiPen^{\oplus}$ so that you can show your patients. Various studies have shown that many patients (or parents of patients) do not use their pen properly, or in some cases at all, because they have not had sufficient training. ^{10, 11, 12, 13}

The procedure is shown below:

Lie down with your legs slightly elevated or sit up if breathing is difficult.



The pathophysiology and clinical features of anaphylaxis are similar in adults and children; the main difference in the management of anaphylaxis in children is the drug dosages.

| Drug | Age >12 | 6-12 Years | 6 months - 6 years | <6 months |
|----------------|------------------------|----------------|-----------------------|-----------------|
| Adrenaline | 500mcg | 300mcg | 150mcg | 150mcg |
| | (0.5ml 1:1000) | (0.3ml 1:1000) | (0.15ml 1:1000) | (0.15ml 1:1000) |
| Chlorphenamine | 10mg IM/IV | 5mg | 2.5mg | 250mcg/kg |
| Hydrocortisone | 200mg IM/IV | 100mg | 50mg | 25mg |
| Fluids | 20ml/kg crystalloid | | | |