CHILDREN’S SERVICES
Guidelines For The Initial Management Of Acute Allergic Reactions

For subsequent management, refer to sheet No 2 whenever initial stabilisation has been achieved.

- Stop exposure to allergen
- Check for respiratory or circulatory involvement; if present - treat accordingly

If there is history of previous severe allergic reaction to same allergen:
- Give IM Adrenaline now
  - > 12 years: 500 micrograms (0.5 mL)
  - 6-12 years: 300 micrograms (0.3 mL)
  - < 6 years: 150 micrograms (0.15 mL)

For all cases also give:
- Piriton 4mg orally (<2y: 2mg)
- Ranitidine 2mg/kg/dose TDS
- Prednisolone 2mg/kg

- Special risk cases includes:
  - history of past severe reactions
  - presence of chronic asthma, particularly if poorly controlled
  - history of biphasic reactions
  - exposure to large amount of allergen

Refer to sheet No 2 for further management

\[\text{Adrenaline = epinephrine} \]
\[\text{NB should be given when child is supine} \]
CHILDREN’S SERVICES

Guidelines For The Subsequent Management Of Acute Allergic Reactions Following initial stabilisation

Refer to sheet No 1. for initial management, and whenever there is recurrence of the acute manifestations.

**Facial Soft tissue swelling**

**Stridor**

**Wheeze**

**Respiratory distress**

**Hypotension**

**Urticaria/ angioedema**

*All children should be observed for >2 hrs. Longer observation or admission to hospital will be necessary if they belong to the special risk group.*

*Allow home on*

- **piriton 6 hourly for 2-4 days**
- For the special risk group & children with mild respiratory symptoms who did not require admission, also give** prednisolone 2mg/kg for 2-4 days**
- Assess & optimise the treatment of any coexistent asthma
- Attempt to identify allergen(s) and ask parents/child to avoid them
- Prescribe Epipen, according to age, to all those who had any respiratory involvement
- Fax referral to Community Nursing Team for epipen training and liaison with the dietition
- Refer to Dr Haddad’s Allergy clinic.

**Children whose respiratory symptoms are mild and who respond promptly to treatment should be observed further for at least for 4-6 hrs prior to discharge. Longer observation or admission to hospital will be necessary if they belong to the special risk group.**

*All children whose initial respiratory symptoms were severe & responded to initial treatment poorly should be admitted. Depending on severity they may need:*

- transfer to PICU
- admission to Ash Ward

**Discharged**

**Admitted**

*If remains at SPH*

- Will need monitoring for at least 12-24 hr

**Continue**

- **Hydrocortisone / prednisolone for 2-4 days**
- Piriton regularly for 2-4 days
- Ranitidine 2-4 days
- Assess & optimise the treatment of any coexistent asthma/Eczema
- Attempt to identify allergen(s) and ask parents/child to avoid them
- Prescribe Epipen according to age and arrange training with:
  - Community nurses (fax referral) or
  - Oak ward sister  ex: 2016
- Paed. Dietician: ex: 2202  *for dietetic advice*
- Refer to Dr Haddad’s Allergy clinic, after checking with the child’s Consultant.

---

**Drug Dosages**

- **Hydrocortisone** 4mg/kg IV/IM 6 hourly
- **Prednisolone** 2mg/kg (max 40mg) orally
- **Chlorpheniramine** 200mcg/kg IV 4 hourly 4 mg orally (2mg if < 2yrs)
- **Ranitidine 1-2mg/kg/dose TDS**
- **Adrenaline nebulised**: 5 ml (1:1000) adrenaline
- **Salbutamol nebulised** 5mg (2.5mg if <1y)
- **Adrenaline = Epinephrine**
Figure 3. Anaphylaxis algorithm

1 Life-threatening problems:
Airway: swelling, hoarseness, stridor
Breathing: rapid breathing, wheeze, fatigue, cyanosis, SpO2 < 92%, confusion
Circulation: pale, clammy, low blood pressure, faintness, drowsy/coma

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)
- Child less than 6 years: 150 micrograms IM (0.15 mL)
Adrenaline IV to be given only by experienced specialists
Titrated: Adults 50 micrograms; Children 1 microgram/kg

3 IV fluid challenge:
Adult: 500 – 1000 mL
Child: crystalloid 20 mL/kg
Stop IV colloid if this might be the cause of anaphylaxis

4 Chlorphenamine
(IM or slow IV)
- Adult or child more than 12 years: 10 mg
- Child 6 - 12 years: 5 mg
- Child 6 months to 6 years: 2.5 mg
- Child less than 6 months: 250 micrograms/kg

5 Hydrocortisone
(IM or slow IV)
- Adult or child more than 12 years: 200 mg
- Child 6 - 12 years: 100 mg
- Child 6 months to 6 years: 50 mg
- Child less than 6 months: 25 mg
SUBSEQUENT MANAGEMENT
Observe for a minimum of 6 hr to detect potential biphasic reactions and usually for 24 hr, especially in following situations:
- Severe reactions with slow onset caused by idiopathic anaphylaxis reactions in individuals with severe asthma or with a
  previous history of biphasic reactions
- Patients presenting in evening or at night, or those who may not be able to respond to any deterioration
- Patients in areas where access to emergency care is difficult

Monitor SpO2, ECG and non-invasive BP, as a minimum
Sample serum (clotted blood – must get to lab immediately) for mast cell tryptase if clinical diagnosis of anaphylaxis uncertain
and reaction thought to be secondary to venom, drug or idiopathic at following times and send to immunology:
- immediately after reaction
- 1–2 hr after symptoms started when levels peak
- >24 hr after exposure or inconvalescence for baseline
- If patient presenting late, take as many of these samples as time since presentation allows
- Write mast cell tryptase lab request form with time and date of onset and sample to allow interpretation of results

DISCHARGE AND FOLLOW-UP
Discuss all children with anaphylaxis with a consultant paediatrician before discharge
Give following to patient, or as appropriate their parent and/or carer:
1. Information about anaphylaxis, including signs and symptoms of an anaphylactic reaction
2. Information about risk of a biphasic reaction
3. Information on what to do if an anaphylactic reaction occurs (use adrenaline injector and call emergency services)
4. A demonstration of correct use of the adrenaline injector and when to use it
5. Advice about how to avoid suspected trigger (if known)
6. Information about need for referral to a specialist allergy service and the referral process
7. Information about patient support groups

Reference:
1. www.nice.org.uk/guidance/CG134 Dec 2011
2. www.rcpch.ac.uk/allergy/anaphylaxis, Allergy Care Pathways for Children
3. Emergency treatment of anaphylactic reactions. Resuscitation Council (UK)