EMERGENCY MANAGEMENT OF ADULT & CHILD ANAPHYLAXIS

1 RECOGNIZE THE SUDDEN ONSET OF EITHER:

EXPOSURE TO KNOWN OR UNKOWN ALLERGEN

SKIN/MUCOSAL INVOLVEMENT
(rash, swelling) **AND ANY OF:**

RESPIRATORY COMPROMISE
(dyspnoea, wheeze)**, OR**

CARDIOVASCULAR DYSFUNCTION, OR

SEVERE GASTROINTESTINAL SYMPTOMS
(abdominal pain, repetitive vomiting)

AFTER EXPOSURE TO KNOWN ALLERGEN

RESPIRATORY DIFFICULTY
(stridor, voice change, wheeze, hypoxaemia, distress)

AND/OR:

CARDIOVASCULAR DYSFUNCTION
(shock, hypotension, syncope, collapse)

(No need for skin or mucous membrane involvement)

2 IMMEDIATE TREATMENT:

⊘ REMOVE EXPOSURE
⓵ CALL FOR HELP

ADRENALINE

1mg/ml (1:1000) - 0.01mg/kg IM (Max 0,5ml IM) anterolat aspect of thigh
Repeat every 5-15 minutes if no improvement or use an **auto-injector**
<6yrs - 0,15ml IM; 6-12 yrs - 0,3ml IM; >12 yrs - 0,5ml IM

3 ASSESS VITAL SIGNS: OXYGEN - MONITORS - IV ACCESS

High flow oxygen, maintain patent airway (Intubate/Cricothyrotomy if necessary)
High flow IV line, BP, Sats, ECG monitoring
Lie patient supine with legs elevated if hypotensive

4 ADJUNCTIVE TREATMENT IF NECESSARY

H1 ANTIHISTAMINE
Promethazine
2-6 yrs - 6,25mg IM or slow IV
6-12 yrs - 12,5mg IM or slow IV
>12 yrs - 25mg IM or slow IV
(Avoid if <2yrs old and low BP)

CRYSTALLOID
(e.g. **Ringers/Balsol**)
Rapid infusion of 20ml/kg (max 1-2 litres)
Repeat IV infusion as necessary
Adrenaline infusion (0,1 - 1 ug/kg/min)
ONLY if unresponsive to IM adrenaline & fluids

NEBULISED BRONCHODILATORS
Every 15-20 mins if severe bronchospasm
Salbutamol 5mg
WITH
Ipratropium 0,5mg

H2 RECEPTOR ANTAGONIST
Cimetidine
IM or Slow IV
5mg/kg (Max - 300mg)
Diluted in 20ml over 2 min

CORTICOSTEROIDS
Hydrocortisone
IM or Slow IV
<1 yr - 25mg; 1-6 yrs - 50mg;
6-12 yrs - 100mg; >12 yrs - 200mg

GLUCAGON
20ug/kg (Max 1-2mg)
IM or slow IV every 5 mins if unresponsive to adrenaline (Look out for vomiting and hyperglycaemia)

RISK REDUCTION STRATEGIES

- Only discharge patient if clinically stable 4-6 hours after resuscitation (may need longer if at risk of biphasic reaction)
- Provide a written anaphylaxis emergency action plan, including how to administer IM adrenaline
- Refer to specialist for investigation and management
- Provide patient eduction (www.allergyfoundation.co.za) and medic-alert bracelet

FAQ's:

When is it appropriate to initiate treatment for Anaphylaxis?
Treat anaphylaxis at diagnosis with IMI adrenaline even if severe respiratory or cardiovascular symptoms are not (yet) present.
Why are Antihistamines considered adjunctive treatment?
H1-antihistamines may relieve itching and urticaria but do not prevent or relieve life-threatening symptoms of anaphylaxis. Antihistamines should not be used alone, or instead of adrenaline, for anaphylaxis.

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Ref: Cardona et al. World allergy organization anaphylaxis guidance. WAOJ;13(10):2020.