Management of Anaphylaxis in the Emergency Department

Signs or symptoms of;
- **Airway Obstruction**
- **Bronchospasm**
- **Hypotension**

IMMEDIATE ACTIONS

- ***Adrenaline*** I.M. (lateral thigh) 0.01 mg/kg up to 0.5 mg
- Stop / remove suspect allergen (e.g. drug infusion)
- I.V. access
- Lie flat / elevate legs
- Elevate Torso if S.O.B.
- High flow oxygen
- Airway and Ventilation Support

AIRWAY OBSTRUCTION

- Nebulised ***Adrenaline*** (5 mg)
- Prepare for difficult airway including early surgical airway

BRONCHOSPASM

- Continuous ***Salbutamol*** neb
- I.V. ***Hydrocortisone*** 5 mg/kg

HYPOTENSION

- Wide bore I.V. access
- ***Normal Saline*** bolus 20 ml/kg over 1–2 min

INADEQUATE RESPONSE, IMMEDIATE LIFE THREAT, or DETERIORATION

- I.V. ***Adrenaline*** infusion 1 mg in 1000 mls Saline (or standard infusion if immediately available)
  - Start at 6ml/kg/hour = 1 mcg/kg/minute, and increase by the starting rate every 2 minutes if needed

OR

- Repeat I.M. ***Adrenaline*** every 3–5 minutes

OR

- For imminent life threat: Dilute ***Adrenaline*** 1 mg into 20 ml and give I.V. 1 ml boluses (50 mcg)

HYPOTENSION - Inadequate response

- Repeat Normal Saline boluses 10–20 ml/kg, up to 50 ml/kg total over the first 30 minutes

Consider the following (low level evidence for efficacy);
- Severe bradycardia - I.V. ***Atropine*** 20 mcg/kg
- I.V. ***Metaraminol*** 2–10 mg in adults.
- I.V. ***Glucagon*** and/or balloon pump if ß-blocked or heart failure: Glucagon dose in adult: load with 1–5 mg over 5 min, followed by 5–15 mcg/min

ANAPHYLACTIC CARDIAC ARREST

- Follow ALS arrest protocol

AND

- Immediate ***Adrenaline***
- Rapid escalation to high dose ***Adrenaline*** (3–5 mg every 2–3 minutes) might be effective
- Ensure high volume I.V. fluid resuscitation as above