Recognition & Management of Anaphylaxis

For more information please visit
http://www.back2life.co.uk/resources

References/ Resources

Resuscitation council UK - www.resus.org.uk

Anaphylaxis campaign - www.anaphylaxis.org.uk

Epipen information - www.epipen.co.uk

Jext information - www.jext.co.uk

Back to Life
01372 361206 backtolife.co.uk admin@backtolife.co.uk

Definition of Anaphylaxis

Anaphylaxis is a severe, life-threatening, generalised or systemic hypersensitivity reaction.
This is characterised by rapidly developing life-threatening airway and/or breathing and/or circulation problems usually associated with skin and mucosal changes.

Anaphylaxis Triggers

Some Causes	Some examples
Insect venom	Bees, wasps
Food	Nuts, legumes, eggs, fish, shellfish, dairy, fruit,
Drugs	Antibiotics, anaesthetics, NSAIDS, opiates, vaccines
Latex	Gloves, dressings, compression hosiery, condoms, syringes, balloons
other	Contrast media, hair dyes,idiopathic

Diagnosing Anaphylaxis

Anaphylaxis is likely when all of the following 3 criteria are met:
- Sudden onset and rapid progression of symptoms
- Life-threatening Airway and/or Breathing and/or Circulation problems
- Skin and/or mucosal changes (flushing, urticaria, angioedema)

The following supports the diagnosis:
- Exposure to a known allergen for the patient

Remember:
- Skin or mucosal changes alone are not a sign of an anaphylactic reaction
- Skin and mucosal changes can be subtle or absent in up to 20% of reactions (some patients can have only a decrease in blood pressure, i.e., a Circulation problem)
- There can also be gastrointestinal symptoms (e.g. vomiting, abdominal pain, incontinence)

Assessment - ABCDE approach

ABCDE	
Airway	Assess for signs of obstruction, Treat airway obstruction as an emergency, Give high concentrations of oxygen
Breathing	Look, listen and feel for signs of respiratory distress, Count respiratory rates, Give high concentrations of oxygen
Circulation	Assess for signs of shock Measure vital signs/ capillary refill, Lay them flat and raise the legs – where possible, If applicable – cannulation and IV fluid challenge
Disability	Assess the level of consciousness AVPU Assess blood glucose – where possible Consider the recovery position if unconscious
Exposure	Assess for skin and mucosal changes if appropriate Minimise heat loss, Maintain dignity

Anaphylaxis

Anaphylaxis?

A = Airway **B** = Breathing **C** = Circulation **D** = Disability **E** = Exposure

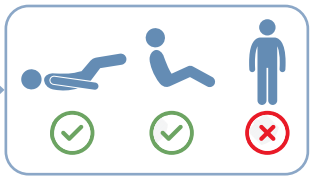
Diagnosis – look for:

- Sudden onset of Airway and/or Breathing and/or Circulation problems[1]
- And usually skin changes (e.g. itchy rash)

Call for HELP

Call resuscitation team or ambulance

- Remove trigger if possible (e.g. stop any infusion)
- Lie patient flat (with or without legs elevated)
  - A sitting position may make breathing easier
  - If pregnant, lie on left side



Give intramuscular (IM) adrenaline[2]

Inject at **anterolateral aspect** – middle third of the thigh

- Establish airway
- Give high flow oxygen
- Apply monitoring: pulse oximetry, ECG, blood pressure

If no response:

- Repeat IM adrenaline after 5 minutes
- IV fluid bolus[3]

If no improvement in Breathing or Circulation problems[1] despite TWO doses of IM adrenaline:

- Confirm resuscitation team or ambulance has been called
- Follow REFRACTORY ANAPHYLAXIS ALGORITHM

1. Life-threatening problems

Airway
Hoarse voice, stridor

Breathing
↑work of breathing, wheeze, fatigue, cyanosis, SpO_2 <94%

Circulation
Low blood pressure, signs of shock, confusion, reduced consciousness

2. Intramuscular (IM) adrenaline
Use adrenaline at 1 mg/mL (1:1000) concentration

Adult and child >12 years:	500 micrograms IM (0.5 mL)
Child 6–12 years:	300 micrograms IM (0.3 mL)
Child 6 months to 6 years:	150 micrograms IM (0.15 mL)
Child <6 months:	100–150 micrograms IM (0.1–0.15 mL)

The above doses are for IM injection **only**.
Intravenous adrenaline for anaphylaxis to be given **only by experienced specialists** in an appropriate setting.

3. IV fluid challenge
Use crystalloid

Adults:	500–1000 mL
Children:	10 mL/kg