

## 2-4a Anaphylaxis v.1

Anaphylaxis is a life-threatening hypersensitivity reaction featuring rapidly developing hypotension and tachycardia, and potentially life threatening airway obstruction or bronchospasm. **Common causative agents:** antibiotics, anaesthetic agents, IV colloids, blood products. Latex: catheters, dressings, gloves. Chlorhexidine: skin preparation, impregnated lubricants, or catheters

### START

- 1 **Call for help** (obstetrician, midwife, anaesthetist +/- neonatal team +/- cardiac arrest team)
  - ▶ Ask: "who will be the team leader?"
  - ▶ **Team leader assigns** checklist reader and scribe
  - ▶ **Note time**
- 2 **Assess clinical status using the ABCDE approach**
  - ▶ Position woman appropriately (**Box A**)
  - ▶ Check airway –*then*– give high flow oxygen
  - ▶ If airway involvement → call anaesthetics/ICU
  - ▶ Start continuous monitoring: SpO<sub>2</sub>, respiratory rate, 3-lead ECG and blood pressure
- 3 **Treat anaphylaxis**
  - ▶ Give adrenaline 500 mcg IM. If no improvement → repeat at 5 minute intervals (**Box B**)
  - ▶ Give rapid IV crystalloid bolus
  - ▶ Remove any suspected causative agents
- 4 **Assess response**
  - ▶ If no improvement in cardiac or respiratory symptoms after two doses of IM adrenaline state 'refractory anaphylaxis' –*then*– → **2-4b**
- 5 **Take mast-cell tryptase sample**
  - ▶ 5-10 mL clotted blood drawn as soon as feasible following initial resuscitation
- 6 **Consider transfer of the woman to critical care setting**
- 7 **Start post event action (Box C)**

#### Box A: Position

**If cardiovascular compromise.** Lie flat, tilt bed head down

**Avoid aortocaval compression:**

- ▶ Place in full left lateral position; *or*
- ▶ Supine with manual uterine displacement; *or*
- ▶ 15° lateral tilt (if bed/operating table permits)

**If respiratory problems without cardiovascular compromise:**

- ▶ Place in sitting position

#### Box B: Drug doses and treatments

- ▶ **Adrenaline bolus** \*500 micrograms IM (0.5 mL of 1:1000 adrenaline) to anterolateral aspect of mid-thigh –*or*– [specialist use] 50 micrograms IO/IV with appropriate monitoring.
- \**IM generally preferred; IV/IO adrenaline ONLY to be given by experienced specialists*
- ▶ **Oxygen** 15 L/min via reservoir mask –*then*– titrate to SpO<sub>2</sub> 94-98%
- ▶ **Crystalloid bolus** e.g., 500-1000 ml Hartmann's titrate to response (**reduce to 250-500 ml if pre-eclamptic**)

#### Box C: Post event actions

- ▶ Stop suspected triggers currently prescribed
- ▶ Take 2nd tryptase sample at 1-2 hrs, and 3rd after 24 hrs
- ▶ Consider cetirizine (10-20 mg PO) for cutaneous symptoms
- ▶ Make referral to a specialist allergy clinic or immunology centre to identify the causative agent (see [www.bsaci.org](http://www.bsaci.org))
- ▶ Report anaphylactic drug reactions ([www.mhra.gov.uk](http://www.mhra.gov.uk))
- ▶ Inform the woman and her GP

#### Box D: Critical changes

Refractory anaphylaxis → **2-4b**

Cardiac arrest → **1-1**