

# Obstetric Anaphylaxis

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# 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<sup>1</sup>
- 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<sup>2</sup>

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<sup>3</sup>

### If no improvement in Breathing or Circulation problems<sup>1</sup> 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<sub>2</sub> <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 is 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

#### TRYPTASE LEVELS

To confirm anaphylaxis tryptase levels need to be taken.

Samples should be taken:

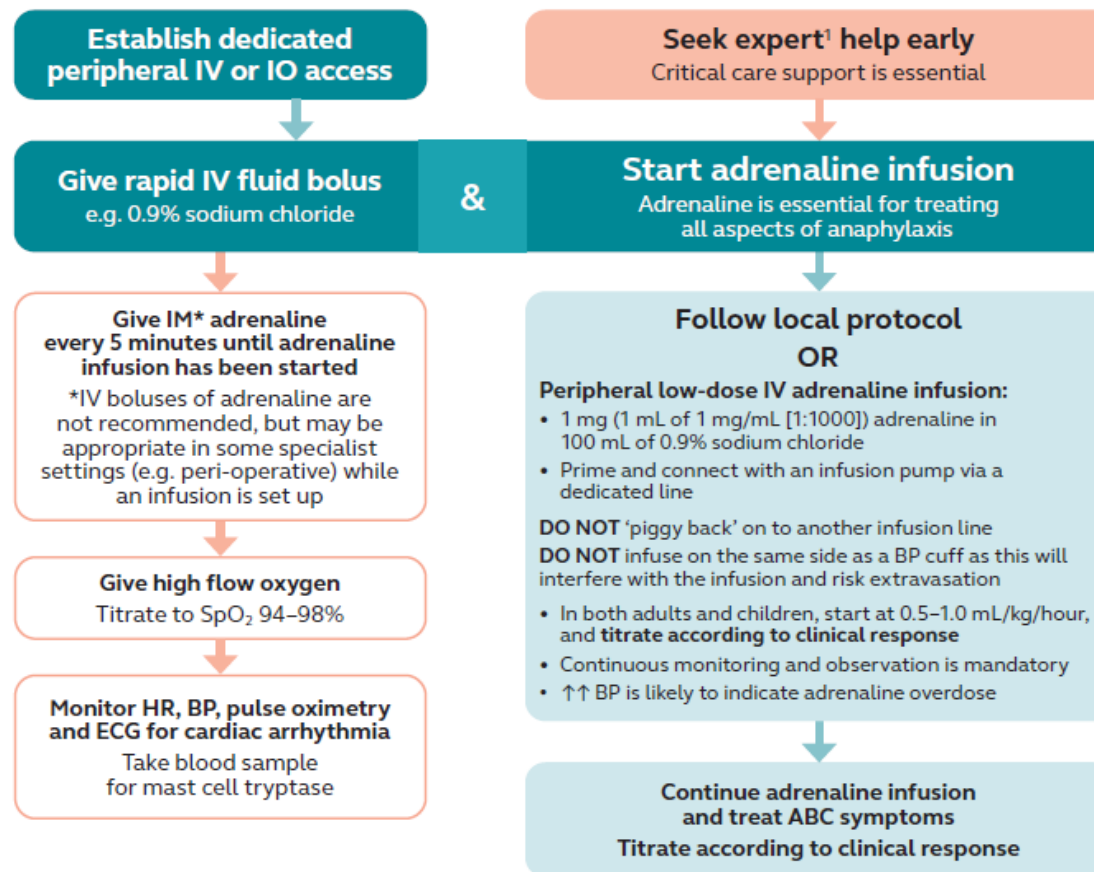
As soon as possible after event (ideally during)

1-2 hours after symptoms

At 24 hours

# Refractory anaphylaxis

No improvement in respiratory or cardiovascular symptoms despite 2 appropriate doses of intramuscular adrenaline



<sup>1</sup>Intravenous adrenaline for anaphylaxis to be given only by experienced specialists in an appropriate setting.

## A = Airway

**Partial upper airway obstruction/stridor:**  
Nebulised adrenaline (5mL of 1mg/mL)

**Total upper airway obstruction:**  
Expert help needed, follow difficult airway algorithm

## B = Breathing

Oxygenation is more important than intubation

**If apnoeic:**

- Bag mask ventilation
- Consider tracheal intubation

**Severe/persistent bronchospasm:**

- Nebulised salbutamol and ipratropium with oxygen
- Consider IV bolus and/or infusion of salbutamol or aminophylline
- Inhalational anaesthesia

## C = Circulation

**Give further fluid boluses and titrate to response:**

Child 10 mL/kg per bolus

Adult 500-1000 mL per bolus

- Use glucose-free crystalloid (e.g. Hartmann's Solution, Plasma-Lyte®)

Large volumes may be required (e.g. 3-5 L in adults)

**Place arterial cannula for continuous BP monitoring**

**Establish central venous access**

**IF REFRACTORY TO ADRENALINE INFUSION**

Consider adding a second vasopressor in addition to adrenaline infusion:

- Noradrenaline, vasopressin or metaraminol
- In patients on beta-blockers, consider glucagon

**Consider extracorporeal life support**

**Cardiac arrest – follow ALS ALGORITHM**

- Start chest compressions early
- Use IV or IO adrenaline bolus (cardiac arrest protocol)
- Aggressive fluid resuscitation
- Consider prolonged resuscitation/extracorporeal CPR

## Maternity Services

### Checklist for Clinical Guidelines being Submitted for Approval by Maternity Quality & Safety Group

Title of Guideline:	Obstetric anaphylaxis
Name(s) of Author:	Nigel Jenkins
Chair of Group or Committee approving submission:	Labour Forum
Brief outline giving reasons for document being submitted for ratification	
Details of persons included in consultation process:	
Name of Pharmacist (mandatory if drugs involved):	
Issue / Version No:	1
Please list any policies/guidelines this document will supercede:	
Date approved by Group:	October 2021
Next Review / Guideline Expiry:	October 2024
Please indicate key words you wish to be linked to document	Obstetrics, anaphylaxis
File Name: Used to locate where file is stores on hard drive	