



Anaphylaxis

Initial Therapy

1. Stop administration of drug(s) likely to have caused the anaphylaxis.
2. Call for help.
3. Maintain airway: give 100% oxygen.
4. Lay patient flat with feet elevated.
5. Give **ADRENALINE (epinephrine)**. This may be given intramuscularly in a dose of 0.5 mg to 1 mg (0.5 to 1 mL of 1:1,000) and may be repeated every 10 minutes according to the arterial pressure and pulse until improvement occurs.

Alternatively, 50 to 100 µg intravenously over 1 minute has been recommended (0.5 to 1 mL of 1:10,000) for hypotension, with titration of further doses as required.

In a patient with cardiovascular collapse, 0.5 to 1 mg (5 to 10 mL of 1:10,000) may be required intravenously, in divided doses by titration. This should be given at a rate of 0.1 mg/minute, stopping when a response has been obtained.

6. Start intravascular volume expansion with suitable crystalloid or colloid.

Secondary Therapy

1. Antihistamines: **CHLORPHENIRAMINE** - 10-20 mg by slow intravenous infusion

Consider H₂ antagonists

2. Corticosteroids: **HYDROCORTISONE** - 100-300 mg intravenously

3. Catecholamine infusions - Starting doses:

ADRENALINE 0.05-0.1 µg/kg/min; (approx. 4-8 µg/min)

(epinephrine) 5 mg adrenaline in 500 mL saline gives 10 µg/mL

NORADRENALINE 0.05-0.1 µg/kg/min; (approx. 4-8 µg/min) **(norepinephrine)** 4 mg noradrenaline in 500 mL dextrose gives 8 µg/mL

4. Perform arterial blood gas analysis

Consider **BICARBONATE** (0.5 - 1.0 mmol/kg iv) for acidosis.

0.5 - 1.0 mmol is equivalent to 0.5 - 1.0 mL of an 8.4% solution of sodium bicarbonate

5. Airway evaluation

6. Bronchodilators may be required for persistent bronchospasm

Investigations

1. Do not attempt any investigation until the immediate treatment of the emergency has been completed.
2. Diagnosis is made on clinical grounds. It is important to make a detailed written record of events, including timing of administration of all drugs in relation to onset of reaction.
3. Approximately 1 hour after the beginning of the reaction, take 10 mL venous blood into a plain glass tube. Separate serum and store at -20 C until the sample can be sent to a reference laboratory for estimation of serum tryptase concentration.
4. The patient and his/her doctor should be made aware of the reaction and its implication.

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~~If you have a case of anaphylaxis in Western Australia, please see the ALLERGY TESTING PAGE on his website to arrange for testing and follow-up.~~

Royal Perth Hospital, April 1999

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