ANAPHYLAXIS: DIAGNOSIS AND TREATMENT

WORLD ALLERGY ORGANIZATION
A World Federation of Allergy, Asthma & Clinical Immunology Societies

CLINICAL CRITERIA FOR DIAGNOSIS

Anaphylaxis is highly likely when any one of the following **two criteria is fulfilled**

1. Acute onset of an illness (minutes to several hours) with involvement of the skin, mucosal tissue, or both (e.g. generalized hives, pruritus or flushing, swollen lips-tongue-uvula)

and at least one of the following

1.1 Airway/Breathing: Respiratory compromise.

(e.g. dyspnea, wheeze-bronchospasm, stridor, reduced PEF, hypoxemia)

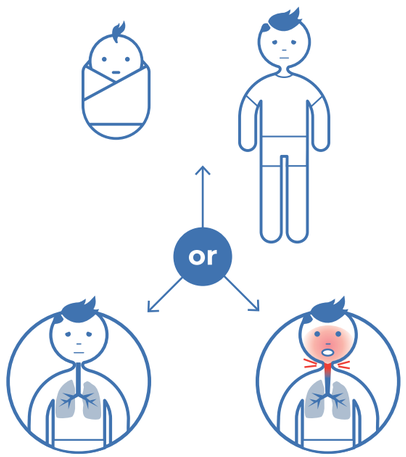
1.2 Circulation: Reduced BP or associated symptoms of end-organ dysfunction.

(e.g. hypotonia [collapse], syncope, incontinence)

1.3 Other: Severe gastrointestinal symptoms.

(e.g. severe crampy abdominal pain, repetitive vomiting), especially after exposure to non-food allergens)

2. Acute onset of **hypotension*** or **bronchospasm** or **laryngeal involvement#** after exposure to a known or highly probable allergen for that patient (minutes to several hours), **even in the absence of typical skin involvement**.



PEF, Peak expiratory flow; BP, blood pressure.

* Hypotension defined as a decrease in systolic BP greater than 30% from that person's baseline, OR
   i. Infants and children under 10 years: systolic BP less than (70mmHg + [2 x age in years])
   ii. Adults: systolic BP less than < 90 mmHg

Laryngeal symptoms include: stridor, vocal changes, odynophagia.

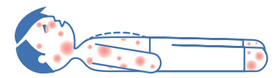
INITIAL TREATMENT

Promptly and simultaneously, perform steps 4, 5 and 6

1. Have a written emergency protocol for recognition and treatment of anaphylaxis and rehearse it regularly.

2. Remove exposure to the trigger if possible, e.g. discontinue an intravenous diagnostic or therapeutic agent that seems to be triggering symptoms.

3. Assess the patient: Airway / Breathing / Circulation, mental status, skin and body weight (mass).

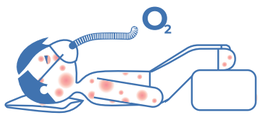


4. Call for help: resuscitation team (hospital) or emergency medical services (community) if available.

5. Inject epinephrine (adrenaline) intramuscularly in the mid-anterolateral aspect of the thigh, 0.01 mg/kg of a 1:1,000 (1 mg/ml) solution, maximum of 0.5 mg (adult) or 0.3 mg (child); record the time of the dose and repeat every 5-15 minutes, if needed. Most patients respond to 1 or 2 doses.

6. Place patient on the back or in a position of comfort if there is respiratory distress and/or vomiting; elevate the lower extremities; fatality can occur within seconds if patient stands or sits suddenly.

7. When indicated, give high-flow supplemental oxygen (6-8 L/minute), by face mask or oropharyngeal airway.



8. Establish intravenous access using needles or catheters with wide-bore cannula (14-16 gauge). Consider giving 1-2 liters of 0.9% (isotonic) saline rapidly (e.g. 5-10 ml/kg in the first 5-10 minutes to an adult; 10 ml/kg to a child).

In addition

9. If indicated at any time, perform cardiopulmonary resuscitation with continuous chest compressions.

10. At frequent, regular intervals, monitor patient's blood pressure, cardiac rate and function, respiratory status, and oxygenation (monitor continuously, if possible).

Source: Cardona V, Ansotegui IJ, Ebisawa M et al. World Allergy Organization Anaphylaxis Guidance 2020. World Allergy Organization Journal 2020; 13(10):100472. DOI: https://doi.org/10.1016/j.waojou.2020.100472

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