

Frequently Asked Questions on Adrenaline Auto-injectors

Question: Can an unqualified bystander administer an AAI in the community if needed?

Answer: Yes, if they are doing this in the best interests of that person in a life-saving situation and they cannot administer it themselves. It is legal to do so and there are no risks associated with the bystander for trying to assist. See FAQs Resus council *

Question: Can pregnant women receive adrenaline via an AAI?

Answer: Pregnant women should be prescribed and have adrenaline administered as normal. Management for anaphylaxis in pregnant women is approached in the same way as for non-pregnant women, alongside modifications to positioning with the mother lying on her left side (left lateral position) to improve venous return to the heart*.

Question: What dose of adrenaline would you give a child under six months?

Answer: Children under 6 months rarely require intramuscular adrenaline, as severe allergy is rare and allergen avoidance is usually easily achieved as the parents control the diet, but it can be prescribed at a dose of 150mcg. The patient should be discussed with the local paediatric allergy clinic.

Question: If you need to give a second dose of adrenaline when can you give it?

Answer: You should give a second dose of intramuscular adrenaline after 5 minutes if there is no improvement.

Question: What is biphasic anaphylaxis?

Answer: Biphasic anaphylaxis is the recurrence of anaphylaxis after treatment. This is estimated to occur in up to 20 percent of cases however it is difficult to get accurate numbers as the studies are of poor quality. Most often it occurs within 4-12 hours, but it can occur up to 72 hours afterwards. A delay in giving the initial dose of adrenaline may increase the risk of biphasic reactions.

Question: What is idiopathic anaphylaxis?

Answer: Idiopathic anaphylaxis is thought to occur spontaneously i.e., there is no trigger. It is diagnosed from the history combined with tests to exclude other causes. It can be of slower onset with evolution over an hour or longer, beginning with pruritus then erythema/urticaria often including gastrointestinal features followed by hypotension. There is a higher risk of recurrence.

Question: Which allergies are commonly outgrown?

Answer: Most children outgrow milk allergy. However, when the allergy persists into adulthood, they may have severe reactions. Egg allergy is more common in children than in adults and most children will outgrow this. Peanut allergy tends to persist with only approximately 10 to 20 percent of children outgrowing the allergy.

Question: Why is positioning important during anaphylaxis?

Answer: It is important to maintain blood pressure and circulation if there is hypotension by lying flat, but if breathing difficulty is the main problem (as is usual in food allergy) it is better to support respiration by sitting the patient up. Avoid sudden movements. For collapse, lie patient flat with legs raised (if breathing is difficult, sit patient up). Do not stand the patient up - this is to avoid empty ventricle syndrome, which can be fatal. Avoid sudden movements in changing in position such as sitting up which can cause hypotension. Patients who are unconscious should be placed in the recovery position.

Question: What are different causes of anaphylaxis in different age groups?

Answer: The common causes in adults are food, drugs, venom and idiopathic. In children, the main cause is food allergy.

Question: Is the presentation of anaphylaxis different in adults and children?

Answer: Children mainly present with respiratory difficulty such as breathlessness, stridor or wheeze because the anaphylaxis is usually due to food allergy. In adults, the presentation is often predominantly cardiovascular e.g., in venom or drug allergy.

Question: What are the causes of fatalities?

Answer: Fatal reactions in the United Kingdom are due to drugs (about 50% of those whose cause was identified), foods (about 25%) and venom (about 25%).

Question: What are the common foods involved in food allergy?

Answer: Cow's milk, eggs, tree nuts, peanuts, shellfish, fish, soy and wheat.

Question: What are the different clinical presentations of anaphylaxis?

Answer: With parental allergens, such as insect or IV drugs, hypotension is the dominant symptom and patients can present with sudden loss of consciousness. This contrasts with foods where airway involvement is dominant (laryngeal oedema and/or asthma)

Question: What is exercise induced anaphylaxis?

Answer: This is a rare condition where anaphylaxis occurs after physical activity. This is more often seen in adults than children.

Question: Are Black and Minority Ethnic (BAME) groups more at risk of anaphylaxis?

Answer: Limited published data indicate a higher risk of food allergy associated anaphylaxis, ED attendance and shorter specialist follow up. 36

Question: Are there any contraindications to using adrenaline in anaphylaxis?

Answer: There are no absolute contraindications to the use of IM adrenaline in an allergic emergency.

Question: Where can you report adverse events?

Answer: It is important to document these this can be done at www.mhra.gov.uk/yellowcard

Question: Where is there information about possible reactions to the Covid vaccination?

Answer: The green book has a chapter on this, available on the BSACI website *

Question: Are there any other conditions that look like anaphylaxis?

Answer: Idiopathic angioedema and urticaria are often confused with anaphylaxis (see clinical cases). Another rare condition is hereditary

angioedema, which can cause laryngeal oedema, which is not responsive to adrenaline. These patients need a specialist review and treatment with c1 inhibitor.