



Medicine for Managers

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Anaphylaxis

Anaphylaxis (An-ah-fill-ack-siss) occurs as a serious and severe allergic reaction in someone who displays an extreme response to such allergens as foodstuffs or insect stings. Patients who develop anaphylactic shock suffer rapid progression of symptoms which may be life-threatening without swift and appropriate treatment.

An **allergic reaction** occurs when the body over-reacts to an allergen by producing chemicals including **histamine**. It may be relatively mild, affecting only a part of the body and producing symptoms such as itching, runny nose or watering eyes.

However, for some people, the reaction is more severe and the result is anaphylaxis. In such people symptoms commonly include shortness of breath, difficulty swallowing, wheezing and choking and the response can affect many parts of the body at the same time.

It is estimated, from European data, that anaphylaxis occurs in between 1.5 and 8 people per 100,000 of the population each year. This equates to about 0.3% of the population

experiencing an anaphylaxis during their lifetime. The figures provided are higher in the USA for reasons which are unclear.

Anaphylaxis is commonly caused by foods including eggs and milk, a variety of nuts, including peanuts, walnuts and Brazil nuts, shellfish and wheat. Other culprits are some medications, such as antibiotics, non-steroidal anti-inflammatory drugs, and the iodine containing dyes used in scanning. Bee and wasp stings and the latex, used in some gloves and adhesive tape, may be the cause.

The symptoms of anaphylaxis depend on the severity of the reaction and usually start

between five and thirty minutes after contact with the allergen, although sometimes it may occur more than an hour after exposure. It commonly starts with itching of the face and eyes.

After a few minutes, other features appear:

- Breathlessness and wheezing with chest tightness
- Difficulty swallowing
- Abdominal pain and diarrhoea
- Vomiting
- A red or blistery rash.

The condition can progress to life-threatening symptoms including:

- Raised heart rate with a weak thready pulse
- Fall in blood pressure

- More severe respiratory symptoms
- Shock and unconsciousness

and, if the symptoms develop, the person can inject themselves immediately, usually into the thigh.

had an anaphylactic reaction is strongly advised to take precautions.

Diagnosis of anaphylaxis is often made from the history and symptoms.

Despite treatment, the person may be very unwell and it is important to dial 999 and to provide assistance, such as helping them into the most comfortable position if they are struggling to breathe, or placing them in the recovery position if they become unconscious.

An *Epipen* or similar should be carried at all times, implicated foods should be rigorously avoided (including checking meal choices in restaurants), insect bites should be avoided if a cause and medications should be discussed with the prescriber.

Anyone who has had marked allergic symptoms is at risk of experiencing a more severe attack with severe anaphylactoid features in the future.

It is also important to tell all friends and family, with whom

If someone experiences severe symptoms, referral to a specialist in allergic disorders may be made so that the individual can be tested to identify the substance(s) causing the reaction.

Anaphylaxis can be treated effectively by recognising symptoms using the **A B C D E** system:

- A** Airway
- B** Breathing
- C** Circulation – skin changes such as pallor, flushing, swelling of face
- D** Disability – reduced level of consciousness or loss of consciousness
- E** 'Exposure' – flushing, itching, urticarial rash or bodily swelling

the person may spend time, that they may be subject to severe allergic reactions and educate them about the adrenaline injection, how to recognise the symptoms and how to use the injector.

A small sample of the suspected allergen is placed on the skin and the individual is monitored to see if a reaction occurs.

Anaphylaxis can cause death in severe and

Management of patients at risk of anaphylaxis has been revolutionised by the introduction of the adrenaline injection (*Epipen* and similar products) It treats the symptoms caused by the anaphylactic reaction.

Professional medical staff attending may have to place a tube into the larynx (windpipe) to enable air to reach the lungs.

untreated circumstances, but early use of the adrenaline therapy and recognition by family and friends of the development of symptoms with appropriate response, can dramatically reduce the risk and the prognosis is good.

If the patient is in shock, IV fluids are administered together with steroids, antihistamines and oxygen.

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The person at risk carries an injection with them at all times

Clearly, anyone who has specific allergies or who has

