OHSI 11.4 Anaphylaxis

1.Purpose and Scope

To describe the arrangements for prevention and medical management of anaphylaxis in the workplace by suitably trained practitioners. Appropriate training in the medical management of anaphylaxis goes beyond the scope of this document. Applies to all operating units and departments.

2.Definitions

Anaphylaxis

Anaphylaxis is the state in which a patient is hypersensitive to an antigen, and liable to have an anaphylactic reaction if exposed to it. Anaphylactic reactions are severe systemic allergic reactions. There is no exact definition. At least one of the two severe (i.e., potentially life-threatening) features should be present for the diagnosis to be made:
1. Respiratory difficulty due to laryngeal oedema or asthma,
2. Circulatory disturbance such as hypotension.

Occupational health nurse

Registered general nurse with a post-registration specialist qualification in occupational health nursing recognised by the statutory nursing bodies of the UK or:

Registered general nurse who has received specific training from and is under the supervision of an occupational health nurse or occupational physician.

Occupational health physician

Registered medical practitioner with diploma or higher qualification in occupational health (AFOM, MFOM, FFOM or specialist accreditation)

3.Principles

Where procedures with a known risk of anaphylaxis are to be carried out (e.g. certain vaccinations) then adrenaline should be available. Other emergency drugs emergency drugs such as hydrocortisone and chlorpheniramine for injection may be kept if skilled personnel are present to use them. It should be possible to quickly obtain assistance from qualified medical staff or first-aiders.

4.Responsibilities

4.1. Occupational Health Nurse

Be aware of persons who may have a tendency to severe allergic reactions. Give appropriate advice to employees and management regarding exclusion from potential sources of allergen in the workplace.

Individuals who have been advised to carry an adrenaline auto-injector should be told to ensure that the device is easily available to them while they are at work.

Take suitable precautions when carrying out procedures with a risk of anaphylaxis and refer doubtful cases to the site occupational physician.

Make regular checks to ensure that appropriate drugs are available in the health centre and in emergency call-out bags.

Provide prompt treatment where the potentially life-threatening features-of anaphylaxis are present i.e. hypotension and / or respiratory difficulty due to laryngeal oedema / asthma.

To seek assistance from site occupational physician and / or emergency services.

4.2. Occupational Health Physician

Ensure that Occupational Health Advisers are adequately trained and authorised to provide treatment, including drugs, in cases of anaphylaxis.

When present, to take charge in cases of medical emergency, and provide ongoing treatment.

Where severe allergic reactions have occurred, to liaise with the employees' General Practitioner and Manager in order to prevent or reduce the likelihood of recurrence.

5.Audit Criteria

Are appropriate facilities and drugs available for the treatment of anaphylaxis?

Have occupational health staff received training in the management of anaphylaxis?

6.References

Resuscitation Council (UK). Emergency Treatment of Anaphylactic Reactions. Guidance for Healthcare Workers. January 2008.
www.resus.org.uk/anaphylaxis/emergency-treatment-of-anaphylactic-reactions/

7.Revision History

Author	Issue	Date	Reason for revision	Review by
David Shackleton	1	November 2001	First Issue	
David Shackleton	2	November 2005	Reference resuscitation council guidelines	
David Shackleton	3	April 2017	Updated references	April 2020
David Shackleton	4	September 2020	Minor amendments	September 2023

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Appendix 1. Treatment of Anaphylaxis

1. Adrenaline (epinephrine)

Adrenaline should be given intramuscularly to all patients with anaphylactic shock or definite breathing difficulty. Adult dose is 500 micrograms, equivalent to 0.5 ml of 1 in 1,000 (1 mg/ml) solution. This is nearly always effective if given early. A second dose should be given after five minutes if there is no improvement. Rarely, further doses may be required*.

2. Antihistamines and corticosteroids

When a medical practitioner or other suitably qualified person is present the first dose of adrenaline should be followed by chlorpheniramine 10 mg intramuscularly or slow intravenously. For all severe or recurrent reactions and for patients with asthma give hydrocortisone 200 mg intramuscularly or slow intravenous.

3. Other treatment considerations

Difficulties may arise in gauging severity, since the patient may be seen first when the reaction is evolving. If there is clearly a systemic allergic reaction of moderate severity, without marked respiratory difficulty or symptomatic hypotension, chlorpheniramine and hydrocortisone should be given as above and the patient monitored.

4. Supportive treatment

In hypotension the patient should be immediately laid flat, with the legs elevated. If there is respiratory difficulty only it may be better to sit the patient up, and oxygen should be administered. 500 to 1000ml of intravenous fluids must be infused rapidly if shock does not quickly respond to adrenaline. A crystalloid may be safer than a colloid.

5. Other drugs

An inhaled beta2-agonist, such as salbutamol, should be given if bronchospasm is severe and does not respond rapidly to other treatment

**Note. If adults are treated with an adrenaline auto-injector, the 300 micrograms will usually be sufficient. A second dose may be required. Half doses of adrenaline (epinephrine) may be safer for patients on amitriptyline, imipramine, or beta blocker.*