



## **AUSTRALIAN RESUSCITATION COUNCIL**

### **GUIDELINE 8.23**

### **ANAPHYLAXIS – FIRST AID MANAGEMENT**

#### **INTRODUCTION**

Anaphylaxis is the most severe form of allergic reaction and is potentially life threatening. It must be treated as a medical emergency, requiring immediate treatment and urgent medical attention. Anaphylaxis is a generalised allergic reaction, which often involves more than one body system. A severe allergic reaction usually occurs within 20 minutes of exposure to the trigger.<sup>1</sup> It is characterised by rapidly developing airway and / or breathing and / or circulation problems usually associated with skin and mucosal changes. Many substances can cause anaphylaxis but the most common are:

- foods (especially nuts, eggs and seafood)<sup>2</sup>
- drugs (e.g. penicillin<sup>3</sup>)
- venom of stinging animals (e.g. bees, wasps or ants).

#### **RECOGNITION**

Anaphylaxis encompasses a variety of symptoms and signs. Diagnosis is largely based on history and physical findings. Onset can range from minutes to hours of exposure to a substance<sup>2</sup>. Symptoms and signs are highly variable and may include<sup>4</sup>:

- difficult / noisy breathing
- wheeze or persistent cough
- swelling of face and tongue
- swelling / tightness in throat
- difficulty talking and /or hoarse voice
- loss of consciousness and / or collapse
- pale and floppy (young children)
- abdominal pain and vomiting
- hives, welts and body redness.

## **MANAGEMENT**

People with diagnosed allergies should avoid all trigger agents and have a readily accessible anaphylaxis action plan and medical alert device. Whenever possible, this information should be sought and implemented provided this does not delay emergency treatment and seeking medical assistance.

The injection of adrenaline is the first line drug treatment in life threatening anaphylaxis.<sup>5,6,8,9</sup> People who have suffered a prior episode of anaphylaxis often have prescribed medication including adrenaline in the form of an auto-injector. Parents and carers who administer adrenaline to children by way of an auto-injector can do so safely and effectively.<sup>7</sup> [Class A; LOE 4]

If the victim's symptoms and signs suggest anaphylaxis the following steps should be followed.<sup>4</sup>

- Prevent further exposure to the triggering agent if possible
- Administer adrenaline<sup>8</sup> (eg: auto injector) (Class A; LOE 4)
  - Child less than 5 years - 0.15 mg intramuscular injection.
  - Older than 5 years - 0.3mg intramuscular injection
- Call an ambulance (Dial Triple Zero - 000)
- Allow the victim to assume a position of comfort.
- Administer oxygen (Class B LOE Expert Consensus Opinion) and / or asthma medication for respiratory symptoms.
- Further adrenaline should be given if no response after five minutes.
- If breathing stops follow the Basic Life Support Flow Chart Guideline (Guideline 7)

## **REFERENCES:**

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3. Fisher, M. Anaphylaxis to anaesthetic drugs. *Novartis Found. Symp.* 2004. **257**: 193-206
4. Australasian Society of Clinical Immunology and Allergy. Action Plan for Anaphylaxis. [http://www.allergy.org.au/images/stories/anaphylaxis/Action\\_Plan\\_anaphylaxis\\_general.pdf](http://www.allergy.org.au/images/stories/anaphylaxis/Action_Plan_anaphylaxis_general.pdf) accessed 7th February 2009.
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7. Dobbie,A, Robertson, C.M. Provision of self-injectable adrenaline for children at risk of anaphylaxis: Its source, frequency and appropriateness of use, and effect. *Ambulatory Child Health.* 1998.**4**:283-288
8. Sheikh, A, Shehata, Y.A, Brown, S.G.A., Simons, F.E.R. Adrenaline (epinephrine) for the treatment of anaphylaxis with and without shock. *Cochrane Database of Systematic Reviews* 2008, Issue 4. Art. No.: CD006312. DOI: 10.1002/14651858.CD006312.pub2.
9. Brown, S.G.A, Mullins, R.J., Gold, M.S. Anaphylaxis: diagnosis and management. *Med. J. Aust.* 2006. **185**(5):283-9

## **FURTHER READING**

ARC Guideline 4 Airway

ARC Guideline 7 Cardiopulmonary Resuscitation

ARC Guideline 8.9.4 Envenomation – Bee, Wasp and Ant Stings

ARC Guideline 10.1.2 – The Use of Oxygen by First Aiders