

Standards for *anaphylaxis* education sessions

CONTEXT

The ANZCA CPD standard requires participants to complete two of the four activities from the Emergency Responses category during each CPD triennium.

The purpose of this document is to assist hospital departments, private practice groups, and medical education providers to use the information in this document to develop and/or conduct education sessions that satisfy local needs, incorporating local staff, work environment and equipment.

This document defines the minimum standard required for education sessions to achieve recognition as a valid activity for satisfying the CPD requirement of management of *Anaphylaxis*.

This activity requires participants to complete a recognised education session, of which acceptable formats include practical simulation sessions, workshops or online learning resources.

BACKGROUND TO THE ANAPHYLAXIS ACTIVITY

Anaphylaxis occurs infrequently. However, there is reasonable evidence that suboptimal care has contributed to preventable morbidity.

Numerous factors have been recognised that pose challenges to anaesthetists and pain medicine specialists in crisis situations, including diagnostic uncertainty and insufficient familiarity with management steps.

Lack of knowledge about appropriate follow up and referral (for definitive testing and diagnosis) places patients at risk for recurrence of anaphylaxis.

Anaesthetists and pain medicine specialists should be able to:

- Recognise the onset of suspected anaphylaxis and declare it as an 'Anaphylaxis Emergency'.
- Commit to interventions to maintain or restore cardiovascular stability and oxygenation implemented according to the ANZCA/ANZAAG *Anaphylaxis Management Guidelines*.
- Understand that omitting referral of a suspected episode of anaphylaxis could place the patient at risk of death or morbidity with future anaesthesia. Referral should not be delegated to the surgical team or general practitioner but is the responsibility of the treating anaesthetist or pain medicine specialist.

Knowledge of management guidelines, recognition of anaphylaxis, and rehearsal of emergency procedures are essential components of training. Ideally, training will occur within a team and in the participants' regular working environment.

Participants should be aware of electronic resources to assist them to develop an [Anaphylaxis Box](#), which can be made available to assist with this training, and to be utilized in the event of anaphylaxis in all operating theatres where they work.

Anaesthetists or pain medicine specialists should have knowledge of methods to locate and refer to their nearest anaesthetic testing centre.

RECOGNISED EMERGENCY ALGORITHMS AND GUIDELINES

ANZCA recognises that several published algorithms exist for the treatment of anaphylaxis. Many of these involve the treatment of anaphylaxis in settings other than a highly monitored critical care environment and are intended for use by noncritical care specialists.

ANZCA has co-badged the second version the Australian and New Zealand Anaesthetic Allergy Group (ANZAAG) *Anaphylaxis Management Guidelines* for the management of perioperative anaphylaxis in settings where medical professionals with experience titrating intravenous adrenaline provide continuous monitoring of physiological parameters.

For the treatment of other anaphylaxis outside of these settings, Australian Society of Clinical Immunology and Allergy (ASCI) *Acute Management of Anaphylaxis Guidelines* should be followed. The New Zealand Resuscitation Council also provides algorithms for the management of anaphylaxis in adults and children.

The algorithms can be accessed via the links below:

- [ANZAAG](#)
- [ASCI](#)
- [NZRC](#)

Recommended readings:

Australian and New Zealand College of Anaesthetists (ANZCA) and Australian and New Zealand Anaesthetic Allergy Group (ANZAAG). Perioperative Anaphylaxis Management Guidelines. 2016. [Internet] http://www.anzaag.com/Docs/PDF/Management%20Guidelines/Guidelines-Anaphylaxis_2016.pdf. Accessed August 23 2018.

Australian and New Zealand College of Anaesthetists (ANZCA) and Australian and New Zealand Anaesthetic Allergy Group (ANZAAG). Perioperative Anaphylaxis Management Guidelines: Background Paper. 2016. [Internet] http://www.anzaag.com/Docs/PDF/Management%20Guidelines/BP_Anaphylaxis_2016.pdf. Accessed August 23 2018.

LEARNING OBJECTIVES

To achieve recognition for the ANZCA and FPM CPD program, the education session must address, as a minimum, the objectives below. Objectives that can be addressed in pre-reading are identified. The pre-reading is covered by the ANZCA/ANZAAG Perioperative Anaphylaxis Management Guidelines which has linked references.

By the end of the session, participants will be able to:

KNOWLEDGE

1. Explain why intravenous administration of medications or mucosal exposure to substances, coupled with the physiological derangements associated with anaesthesia, may exaggerate the speed of onset and severity of the features of anaphylaxis.
2. Describe some risk factors for perioperative anaphylaxis including common patterns of cross reactivity such as those within classes of neuromuscular blockers, antibiotics, colloids and blue dyes. (Pre-reading)
3. Recognise that non-technical and teamwork skills, as well as initiation of management protocols, are vital to the management of anaphylaxis.
4. Identify the common clinical features of anaphylaxis, including recognition that anaphylaxis associated with anaesthesia may not present with all of these features, and that the onset will depend on the route of administration, the severity, the patients comorbidities and may be temporally delayed.
5. Explain how age, comorbidities and pregnancy impact on the management of preoperative anaphylaxis. (pre-reading)
6. Describe the clinical grading of anaphylaxis and its relevance to management.
7. Explain the pivotal role that adrenaline plays in the treatment of perioperative anaphylaxis and the need for appropriate titration of intravenous adrenaline or the use of intramuscular adrenaline or intramuscular adrenaline in order to mitigate the risks associated with adrenaline administration.
8. Describe the critical importance of adequate fluid resuscitation in the management of hypotension.
9. Recognise refractory anaphylaxis switching to an adrenaline infusion, and calling for assistance in order to review the diagnosis, ensure adequate fluid resuscitation, introduce alternative therapies and institute further monitoring
10. Describe the steps required once the patient is stabilised including tryptase measurements and the reasons for serial measurements at appropriate times (1, 4 and 24 hours from the beginning of the reaction).
11. Explain why it is the anaesthetist's responsibility to ensure that a patient is appropriately investigated by a specialist testing centre.

SKILLS

12. Apply the ANZAAG *Anaphylaxis during Anaesthesia: Immediate Management* card for urgent measures.
13. Communicate with other health professional that a critical situation exists when anaphylaxis is suspected and use cognitive aids to improve team performance.
14. Adopt the role of team leader in the treatment of anaphylaxis, co-ordinating the team response.
15. Use the ANZAAG *Anaphylaxis during Anaesthesia: Differential Diagnostic Card* to grade the reaction and apply this management recommendations and to review other differential diagnoses.
16. Apply the ANZAAG *Anaphylaxis during Anaesthesia: Refractory Management* card in situations where the *Immediate Management* steps would not have resulted in stabilisation of the patient's vital signs.
17. Apply the ANZAAG *Anaphylaxis during Anaesthesia: Post-Crisis Management* card including discussing with a patient/family about what has occurred and the planned follow up, providing a list of drugs and/or other substances that were given to the patient prior to the suspected episode of anaphylaxis, in order to alert health professionals in case of an emergency before testing has taken place and arranging follow-up at a specialist testing center.

STRUCTURE OF EDUCATION SESSION

The education session must:

1. Provide pre-course reading (could be web-based) that refers to the ANZCA/ANZAAG Perioperative Anaphylaxis management guidelines and provides relevant foundation knowledge of the session content.
2. Have a minimum total duration of ninety (90) minutes, which should be discussion of cases and application of the guidelines.
3. Provide case-based discussion or scenario-based simulation activities to practice implementation of the ANZCA/ANZAAG Perioperative Anaphylaxis management guidelines.
4. Utilise anaphylaxis cases that include a variety of clinical features and degrees of severity at presentation.
5. Be facilitated by a post-Fellowship specialist who is appropriately skilled and experienced to deliver the content of the session. If possible the facilitator will have medical education experience and/or credentials.
6. Provide one facilitator per 15 participants' for practical simulation or workshops. Facilitators must engage with each participant while they are working through scenarios to ensure they are achieving the objectives of the session
7. Course directors who wish to record information relating to the performance or conduct of participants must obtain written consent and adhere to the privacy policies of their organisation and location. ANZCA does not collect this information and it is optional for the course provider and director to do so.

SESSION MATERIALS

Session materials must include the following (in hard copy or electronic form):

- Session objectives
- Session outline
- Facilitators' guide (including scenario outlines)
- ANZAAG Anaphylaxis management resources as handouts
- Session evaluation forms for feedback from participants
- Participant list template to record date, venue, names and appointment type of participants