ANZCA
FPM

CONTINUING PROFESSIONAL DEVELOPMENT

ANZCA and FPM CPD Program

Cardiac arrest ER session guideline

Group activity

Category 3
Emergency response

Purpose

This guideline assists hospitals, private practice groups and other course providers develop and conduct Cardiac arrest Emergency response (ER) sessions. It defines the learning objectives and other requirements for education providers to become recognised Cardiac arrest ER providers for the purposes of the ANZCA and FPM CPD program.

For CPD participants, this guideline provides information on what recognised Cardiac arrest ER sessions involve and how to record this activity.

Related documents

1. Cardiac Arrest ER activity recognition of suitability application form
   Course providers must apply for college recognition of your session as a suitable Cardiac arrest ER activity for the ANZCA and FPM CPD program. Providers are encouraged to develop sessions that also satisfy local needs, incorporating local staff, work environments and equipment.

Importance of Cardiac Arrest ER education

Perioperative cardiac arrest is uncommon but all anaesthetists, and specialist pain medicine physicians whose practice includes interventional procedures, must be prepared to deal with such a crisis if it occurs. This requires a clear understanding of current Basic and Advanced Life Support guidelines. Perioperative cardiac arrest also has different aetiologies, risk factors, presenting rhythms and survival rates from out-of-hospital and other in-hospital cardiac arrest situations.

Definitions

The college uses the definitions and abbreviations of the Australian Resuscitation Council (ARC) and the New Zealand Resuscitation Council (NZRC).

Acronyms

BLS: Basic Life Support
ALS: Advanced Life Support

Personnel

Clinical Lead: The medical officer nominated by each department/group/other educational provider to provide oversight of the Cardiac arrest ER sessions conducted by that provider but does not need to be directly involved in each Cardiac arrest ER session.

- Must be at specialist level and appropriately skilled and experienced to oversee the development of session content.
- Ideally will have medical education experience and/or credentials.
- Encouraged to complete a provider course for the algorithm being taught, where one has been established.
- May assume the role of lead facilitator for a particular session.

Lead Facilitator: The doctor who oversees the conduct of a specific Cardiac arrest ER session.

- Must be at least at the level of advanced training year 2 (ATY2) or equivalent.
- Must be appropriately skilled and experienced to deliver the session content.

- Ideally will have medical education experience and/or credentials.

Instructor: A health professional who conducts the individual "hands-on" skills stations/ scenario rehearsals with guidance from the lead facilitator.

- May not be a medical officer.
- Must be appropriately skilled and experienced to deliver the session content.
- Ideally will have medical education experience and/or credentials.

Recommended resources

Recognised emergency algorithms

ANZCA exclusively endorses the ALS guidelines of the Australian Resuscitation Council and the New Zealand Resuscitation Council.

Specialists with specific sub-specialty practice, or specialists residing in other countries, should contact the CPD team to ascertain if alternative guidelines are recognised for their individual circumstances.

Session format

Cardiac Arrest ER sessions may be presented face-to-face or virtually.

If Cardiac Arrest ER sessions are delivered virtually, observation of and feedback to each participant must occur in real time. This includes demonstration of leadership skills.

Learning objectives

Mandatory learning objectives

As a minimum, Cardiac Arrest ER sessions must provide the opportunity for participants to meet the learning objectives listed below. Objectives marked with an asterisk (*) require each participant to actively engage in activities to practice this skill during the session.

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

1. Describe the BLS and ALS algorithms including 'shockable' and 'non shockable' pathways
2. Recognise ventricular fibrillation (VF), pulseless ventricular tachycardia (VT), pulseless electrical activity (PEA) and asystole.
3. Describe reversible causes of cardiac arrest in any setting:
    - 4 H's - Hypoxia, Hypovolaemia, Hypothermia, Hyperkalaemia
    - 4 T's - Tension pneumothorax, Tamponade, Toxins, Thromboembolism
4. Recognise other causes of cardiac arrest that are relatively more specific to the perioperative setting (anaphylaxis, local anaesthetic toxicity, gas/fat embolism, high-spinal, complete heart block)
5. Recognise the clinical features of cardiac arrest*
6. Initiate the management of patients with cardiac arrest*
7. State the appropriate timing and role of endotracheal intubation in ALS (technical expertise with airway management is assumed and need not be demonstrated)
8. Explain ventilation strategies, including need to recognise life-threatening auto-PEEP
9. Demonstrate external cardiac compression*
10. Recognise need for early defibrillation if shockable rhythm
11. Demonstrate the safe use of a defibrillator* (It is strongly recommended that practitioners familiarise themselves with the type of defibrillator(s) available in their usual workplace/s)
12. Demonstrate appropriate selection and administration of drugs in cardiac arrest*
13. Demonstrate leadership, including clear instruction of resuscitation priorities to the team*
14. Recognise return of spontaneous circulation
15. Discuss the appropriate time and manner in which to cease resuscitation efforts
16. Describe the fundamentals of post-resuscitation care
17. Recognise that non-technical and teamwork skills, as well as initiation of management protocols, are vital in the management of cardiac arrest.

Optional learning objectives

Cardiac Arrest ER session providers may elect to expand the focus of teaching to include additional objectives if it is deemed that this would facilitate more effective teaching for the particular target audience. Suggestions for consideration include:

- Recognise the non-technical and teamwork competencies that have a positive impact during management of peri-operative cardiac arrest and employ strategies to use these
- Discuss the role of cognitive aids in the management of cardiac arrest
- Recognise the role of human centred design as it relates to emergency equipment and hospital systems
- Discuss the use of cardio-version and external pacing
- Recognise peri-arrest arrhythmias
- Discuss the legal, ethical, and occupational health and safety issues associated with ALS interventions
- Describe documentation requirements around cardiac arrest.

Session structure

Each Cardiac Arrest ER session:

1. Must include pre-course reading on relevant algorithms/guidelines and relevant foundation knowledge for the session.
2. May be delivered as a continuous session or in parts (provided other criteria in this guideline are met)
3. Must have a minimum total duration of ninety (90) minutes and provide hand-on activities, including scenario-based rehearsal to achieve learning objectives marked with an asterisk (*) above. A minimum of eighty (80) minutes of group practice is recommended.
4. Be conducted by a lead facilitator with at least one instructor per four participants. Facilitators/instructors must observe each participant working through scenarios and provide verbal feedback to ensure they are achieving the session learning objectives.
5. Include a variety of team-based scenarios, including for shockable and non-shockable rhythms
6. Include use of the following equipment:
    - Mannequin that can be ventilated via bag-mask, intubated, have CPR performed on it and be defibrillated.
    - Self-inflating bag plus face mask
    - Laryngeal mask airways
    - Endotracheal tube and laryngoscope
    - Defibrillator
    - Monitor or hard copy display of relevant arrhythmias.
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

The following materials (in hard or electronic format) may be provided to facilitators and/or participants, as relevant:

- Facilitator guide (including equipment list, scenario outlines, and a guide to the safe use of the defibrillator/s to be used)
- Participant list (date, venue, participant names)
- Session learning objectives and outline
- ALS algorithms handout
- Session evaluation form (for feedback from participants)
- Certification of completion, including ANZCA recognition code and session duration in hours (must be provided to participants).

ANZCA and FPM CPD portfolio recording

Participants record this activity under

- Category 3 *Emergency response: Cardiac arrest ER* with the Certificate of completion uploaded as evidence.

Facilitators who are also CPD participants record this activity under

- Category 3 Emergency response: *Cardiac arrest ER* with confirmation of facilitation uploaded as evidence.

Change control register

Version	Author/s	Reviewed by	Approved by	Approval date	Sections modified
1	Advancing CPD 2013 Working Group	CPD team	CPD Committee	2013	Created
2		CPD team ANZCA DPA education		2023	• Updated branding • Incorporated change control register