



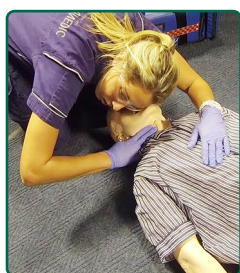
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Cardiopulmonary Resuscitation and Defibrillation



1 Preparing for the procedure

- Wear gloves and protective eyewear. Check scene for dangers.
- Gain access to patient.

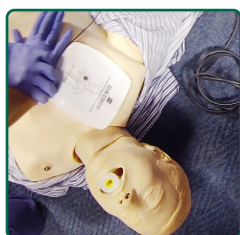


2 Performing the procedure

- Commence primary survey. Confirm cardiac arrest by checking for a response to voice and tactile stimulation. Open the patient's airway and check for and manage obstruction. Presence of breathing should be checked simultaneously. Cardiac arrest is confirmed by absent or agonal breathing and unresponsiveness. If local protocol requires a pulse check do this at this stage. Note: a pulse check is not required to confirm cardiac arrest.



- Advise assistant that cardiac arrest is confirmed and instruct them to expose the patient's chest and apply defibrillation pads after drying the chest if necessary. Apply one pad below the right clavicle and the other at V6 in the mid-axillary line.



- The lead operator commences chest compressions. Place the hands on the lower half of the sternum. Compress at 100 per minute at a depth of one third the depth of the chest (4-5 cm in an adult). Allow the chest to recoil completely between compressions.



- Turn on the defibrillator and apply the defibrillation pads. Ensure that monitoring is via the pads.
- Select energy level (200 J biphasic) and charge defibrillator after calling "compressions continue, others stand clear..."
- When the defibrillator is charged, call "hands off." The rescuer performing compressions then places both hands in the air and says "I'm safe". Remove any free flowing oxygen.
- Check ECG rhythm and if shockable, confirm that all personnel are clear of the patient then press the shock button. Minimise time without compressions to < 5 seconds. Immediately recommence CPR without checking for a pulse. Perform CPR at a ratio of 30:2, starting with chest compressions.



- The lead operator moves to the patient's head to insert a correctly sized oropharyngeal or nasopharyngeal airway and commences ventilations using a self-inflating bag and mask. Consider reversible causes of cardiac arrest.
- Plan for the next shock. As the two minute mark approaches select the appropriate energy setting on the defibrillator and press the charge button after calling "compressions continue, others stand clear". Remove any free flowing oxygen delivery device.

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Background

All health professionals must be able to perform effective cardiopulmonary resuscitation (CPR). Evidence has shown that the interventions that have the greatest success in restoring cardiac output in cardiac arrest are good quality CPR and early defibrillation. The odds of terminating a shockable rhythm are improved by minimising any delay between stopping CPR and defibrillation. Individuals performing CPR must be aware of the recommended compression:ventilation ratios for neonates, children and adults. The video associated with this skill sheet demonstrates defibrillation using the defibrillator in manual mode, which requires operator diagnosis of the underlying rhythm. If in doubt about the rhythm, select shock advisory mode (where available) to determine whether defibrillation is indicated.

Equipment required

- Gloves and safety glasses
- Full range of airway sizes for adult and paediatric patients
- Suction equipment
- Resuscitation mask appropriate to patient size
- Self-inflating bag-valve device appropriate to patient size
- Defibrillator



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j. Repeat steps f and g. If the rhythm check reveals electrical activity compatible with cardiac output dump the charge and check for evidence of ROSC. If no pulse, continue CPR and follow the Australian Resuscitation Council Guideline 11.2: Protocols for Adult Advanced Life Support.

3 Documentation

a. Document the procedure, record vital signs following return of spontaneous circulation, and print an ECG summary report.

Note: Check the most recent resuscitation guidelines at www.resus.org.au

References

Australian Resuscitation Council. Guideline 11.1.1: Cardiopulmonary resuscitation for advanced life support providers [Internet]. 2012 [updated 2010 Dec; cited 2014 May 15]. Available from: http://www.resus.org.au/policy/guidelines/section_11/guideline-11-1-1dec10.pdf.

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