



AUSTRALIAN LIFESAVING
ACADEMY

Advanced Resuscitation
Techniques Certificate
(Suction and Defibrillation
Upgrade)
UPGRADE GUIDE

from the
Advanced Resuscitation Certificate only

HLTFA404A – Apply advanced resuscitation techniques

PUAOPE010B – Operate a semi-automatic defibrillator in an emergency situation

PUAEME003C – Administer oxygen in an emergency situation



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Terminology

The following terms are used throughout this guide.

Arrhythmia - An abnormal rhythm of the heart.

Perfused - The passage of a fluid through the vessels of a specific organ or tissue.

Occlude – obstruct the path. Also used to describe blocking the vent on a suction catheter used with an oxygen or electric powered device, this then ensures air is drawn through the end of the catheter creating the suction.








Stress - a disturbing physiological or psychological influence which produces a state of severe tension in an individual.

Agonal Respirations -
intermittent gasps from a casualty who is unresponsive.. Agonal respirations are not classed as normal breathing.



Icons

The following icons (symbols) are used within ALA resources to indicate the types of activities you will be undertaking as you work through the module.

	<p>Course Aim and Objectives This icon is used to bring attention to the course aim and objectives.</p>
	<p>Reading This icon indicates that learners are required to undertake an individual reading task.</p>
	<p>Individual Learning Activity This icon indicates that learners are required to undertake an individual learning activity. This will usually involve the documenting of individual thoughts and ideas.</p>
	<p>Group Learning Activity This icon indicates that learners are required to undertake a group learning activity. Group activities may be completed in pairs, trios or larger groups.</p>
	<p>Case Study This icon indicates that learners are required to undertake an analysis of a particular case or situation used as a basis for drawing conclusions in similar situations.</p>
	<p>Remember this! This icon is used to recap important and critical issues or content that learners should pay particular attention to.</p>
	<p>Assessment Activity This icon indicates that learners are required to undertake an individual assessment of their skills and/or knowledge. This may involve completion of a scenario, a set of multiple choice questions and/or a written exam.</p>



Course Introduction



The aim of this Upgrade course is to address the gap of skills and knowledge between the Defibrillation Certificate, Advanced Resuscitation Certificate and the Advanced Resuscitation Techniques Certificate.

Why upgrade?

In 2007 new industry competencies were released for first aid and resuscitation across Australia. SLSA has since developed strategies to fall in line with these industry standards across its suite of first aid and resuscitation courses

Part of this strategy has been to align SLSA Advanced Resuscitation Award with the industry competency Apply advanced resuscitation techniques. The key components of this unit are the delivery of oxygen (including suction) and defibrillation.

To remain current with the industry standard for resuscitation SLSA will combine its current SLSA Advanced Resuscitation Certificate and SLSA Defibrillation Certificate awards to form a new SLSA award called Advanced Resuscitation Techniques Certificate. The industry competency standard will be attached to this award.

By completing this upgrade you will also develop knowledge and skills to enable you to demonstrate competence in the nationally recognised unit(s) of competency:

- HLTFA404A Apply advanced resuscitation techniques
- PUAEME003C Administer oxygen in an emergency situation
- PUAOPE010B Operate an automated external defibrillator in an emergency

The Public Safety Training Package units (units starting with PUA) form a part of the nationally recognised PUA31310 Certificate III in Public Safety (Aquatic Search and Rescue).



Prerequisites

To commence training for the Advanced Resuscitation Techniques Certificate (Suction Upgrade) you must meet the following course prerequisites:

- Be at least 15 years of age on the date of final assessment
- Hold the SLSA awards shown in the table below
- Already achieved the units of competency shown in the table on the following page.

Surf Life Saving Prerequisite Awards
Advanced Resuscitation Certificate

Prerequisite Units of Competency	
Competency code and title	Found in the following SLSA awards (For club members)
PUAEME001B Provide emergency care	Bronze Medallion Basic Emergency Care Senior First Aid
AND (one of the following)	
HLTCPR201A Perform CPR	Recognition can be granted for HLTCPR201A to participants who hold the Provide emergency care competency and are current in one of the SLSA awards listed above
OR	
HLTFA201A Provide basic emergency life support	Bronze Medallion Basic Emergency Care Senior First Aid
OR	
HLTFA301B Apply first aid	Senior First Aid

Course Outcomes

In addition to refreshing your oxygen resuscitation skills and knowledge, by the end of this course, you should be able to:

- maintain unobstructed airway unaided and by:
 - using suction
 - using oropharyngeal airways (OP airways)
- check defibrillation equipment
- attach and operate defibrillator
- recover and restore defibrillation equipment.



Your current skills and knowledge

If you have already learned how to use suction through other training and workplace duties you may wish to apply for Recognition of Prior Learning (RPL). Speak to your Trainer or Assessor for further information.

What you need to complete this course

You need:

- a trainer/facilitator
- a copy of this Learner Guide
- access to a CPR training manikin (the manikin will need to be compatible with your training defibrillation)
- access to oxygen equipment
- access to a suction device for training
- access to a training defibrillator
- to be a part of a training squad of four or have additional personnel to participate in training scenarios with you.

How to use this Learner Guide

- This course will be delivered using a variety of strategies for learning.
- Read through the guide carefully. The topics cover the knowledge and skills required to complete this course and to prepare you for the assessment activities.
- Work through the information and complete the activities.
- You will be supported by your Trainer/Facilitator who will show you the correct way to do things.
- There will be opportunities for you to ask questions and seek guidance while working through the guide.
- On completion of the guide you will be asked for your feedback.

How to supply feedback on improving this resource

All resources developed by the Australian Lifesaving Academy are reviewed at least annually and updated as required. Feedback can be supplied through the online Improvement Requests form on the Resource Development Page at www.sls.com.au or in writing to:

Training Improvement Requests
Surf Life Saving Australia
Locked Bag 1010
Roseberry, NSW, 2018



Topic 1 – Oxygen and Defibrillation Gap Review

Introduction



While the primary purpose of this upgrade course is to upskill participants in the use of suction and defibrillation, there are also some gaps in skills and knowledge relating to oxygen which were not taught in the previous Advanced Resuscitation Certificate course that are required by the new course.

You may have learned this information through other training, work or lifesaving duties. For participants who require more information answers to the topics listed below further information can be found in the ALA First Aid Training Manual 2nd Edition, the SLSA Public Safety and Aquatic Rescue 33rd Edition manual or the ALA Advanced Resuscitation Techniques Learner Guide.



Activity (Group) 1.1: Review Brainstorm

In small groups of three or four brainstorm the topics below. If as a group you are not confident that you have covered the topics in enough detail or you do not know the information find the information in the reference documents listed above and share them as a group. Information about some topics may be best supplied by an experienced member of your club.

Topics

- The chain of survival and how resuscitation equipment supports it
- First aid issues relating to a multicultural society
- Shock
- Ambulance response times to your club
- Post traumatic stress
- Material Safety Data Sheets – where can I find them in my Surf Club and what information in them may be useful



Assessment Task 1: Written Questions

Complete questions 1 - 7 in your assessment portfolio now.



Topic 2 – Suction

Suction

Clearing of a casualty's airway can be achieved by using manual finger sweeps. However if you have a unit available with suctioning capability, you may clear additional fluids from the upper airway by using the suction component of the unit.

Suctioning is a skill that will require practice to become proficient. Regular checking and cleaning of the suction device will ensure that you remain familiar with the device(s) used by your club/service.

Suction comes in three types:

- manual
- oxygen powered (vacuum bottle)
- battery (or electric) powered.

Suction device components

While there are many variations to suction devices based on the type and the manufacturer, there are four components common to most suction devices. These are:

Suction Catheter: A plastic tube which is inserted into the casualty's mouth to suction out any foreign material. Suction catheters are single use only and should be disposed of in hazardous waste.

Collection Jar: Fluids and foreign material suctioned from the casualty is collected in the jar. Collection jars are usually single use with the jar being disposed of along with the contents in hazardous waste.

Jar Cap and Connection Port: The jar cap and connection port keeps the contents in the collection jar and includes the fittings to connect the suction catheter and the device which provides the suction power.

Suction Device: Is the device to provide the suction power and is the suction pump handle in manual devices, oxygen equipment in oxygen powered devices or the electric pump in a battery or electric powered device.



Figure 2.1: Using suction to clear a casualty's airway

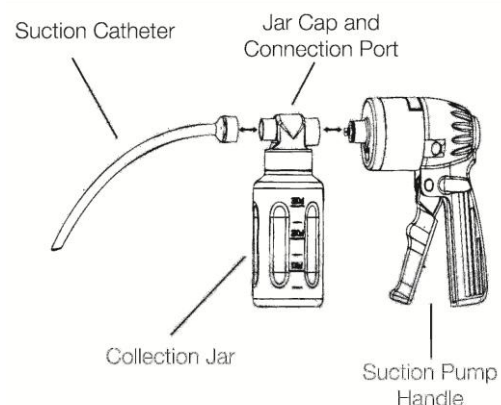


Figure 2.2: Components of a manual suction device



NOTE:

SLSA has currently only approved the use of manual suction devices during surf lifesaving operations.

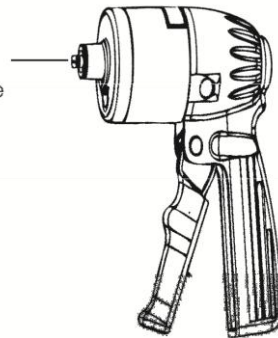
Hypoxia cause by Suction

Hypoxia (lack of oxygen) is always a risk when suction is used. For this reason manual suction should be on for only fifteen seconds at a time with a break for at least five seconds in between operations, this reduces the amount of oxygen taken from the casualty. Due to their constant suctioning action, powered suctioning devices should only be used for five seconds before a five second break.

Suction checks

- Ensure device is clean and all components are available including:
 - Suction catheter
 - Collection jar
 - Collection jar cap
 - Suction tubing (if required)
 - Suction device

Vacuum Port on a Manual Suction Device



- Operate manual suction device (or turn suction on for powered devices).
- Test for suction against thumb or finger by placing over the vacuum port (port should stick to the thumb or finger).
- Turn off (powered devices only).
- Return to case in original position.

Figure 2.3: Vacuum port



Activity (Individual) 2.1: Suction equipment

Look at the suction equipment your club/service has available for use or the equipment you have been provided to train with. Identify the following components:

- Suction catheter
- Collection jar
- Jar cap and connection port
- Suction device
- Vacuum port

If you cannot identify all of the components check with your trainer. Your device may not have these exact components but will have something that performs the same function

Test the function of your suction device by performing the checks described above



Administering suction

To remove mucous, fluid or blood from a casualty's airway using suction, follow these steps outlined below:

1. Check suction device for correct operation (as described on page 47).
2. Select catheter and remove from sealed packaging leaving contact point within the wrapper.
3. Apply gloves.
4. Connect the suction catheter to the connection port (or tubing for powered suction devices).
5. Completely remove catheter from wrapper (Turn on the suction source for powered devices).
6. Measure the maximum length of insertion by placing the tip of the catheter at the corner of the jaw and measuring to the centre of the lips. Mark this point with a finger. (this will ensure that you insert the catheter no further than the back teeth)



Figure 2.4 Measuring insertion length

7. Insert the catheter into the lower cheek of the casualty (in the lateral position), ensuring the catheter is inserted no further than the point

marked by the operator's finger.



Figure 2.5 Inserting catheter no further than length marked by fingers

8. Do not operate manual suction during insertion (or occlude the catheter to operate powered suction devices).
9. Operate suction for no longer than 15 seconds with manual suction devices before a five second break. (If using powered devices suction only for five seconds before a five second break).
10. Rotate the catheter within the casualty's lower cheek, ensuring the action is smooth and gentle, to prevent damage.
11. Ensure that only two thirds of the container is filled.
12. Turn off suction on the completion of the procedure (if using powered suction).
13. Dispose of catheter in the appropriate manner.



Activity (Group) 2.2: Administering suction

In pairs or groups of three, practice assembling your suction equipment and sizing the insertion distance on your partner. If an appropriate manikin is available practice performing suction. NOTE: To ensure infection free training, do not place the suction catheter in your own mouth or that of your partner(s).

Post use maintenance of the suction unit

- Dispose of disposable jars in a suitable manner.
- Reusable jars can be flushed with clean cold water and rinsed with antiseptic solution.
- Ensure all unit components are disassembled and thoroughly cleaned as per ARC guidelines.

Trouble shooting suctioning

There are a number of reasons that suction equipment can fail or not operate correctly. If experiencing problems check the following:

- is the suction tubing blocked
- is the contents bottle full or cracked
- is the seal missing or perished
- is the unit not turned on
- is the oxygen supply exhausted (for oxygen powered units)
- is the battery flat (if battery powered unit).



Assessment Task 2: Peer Assessment - Suction

Ask peer to assess you as test and use the suction device to provide clear an airway (Details page 62)



Assessment Task 1: Written Questions

Complete questions 9 - 11 in your assessment portfolio now.



Topic 3 - Defibrillation

What is defibrillation?

Defibrillation is the delivery of an electrical current to the heart to correct an ineffective irregular heart beat. The electricity is delivered indirectly to the heart via the chest wall.

Today in Australia public access defibrillators are becoming more widely available and training in their use is easily accessed.

The Australian Resuscitation Council supports the implementation of public access defibrillation programs and recommends that defibrillation should preferably be undertaken by trained lay people or health professionals.

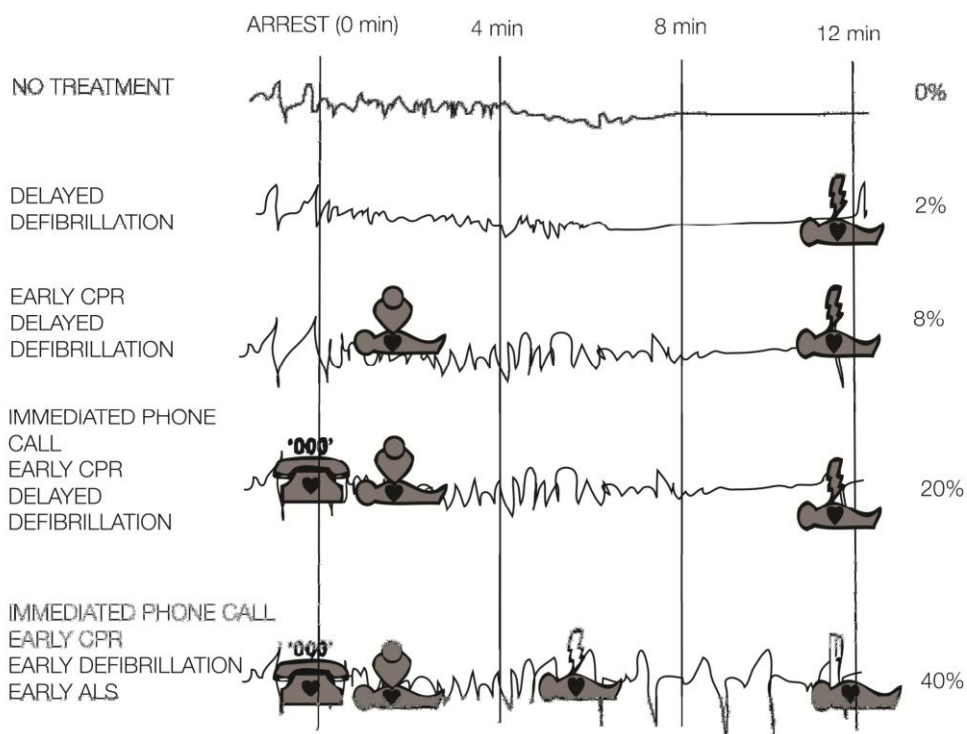


Figure 3.1 Comparison of survival rates from sudden cardiac arrest showing the difference made by defibrillation.



Circulatory system

Despite its vital importance, the heart does not work alone. It is part of the cardiovascular (circulatory) system which also includes the kilometres of blood vessels that run through the body. Tissue cells take in nutrients and oxygen and expel waste 24 hours per day. This can only happen with the continuous beating of the heart which is a muscular organ that pumps blood through a system of arteries and veins.

Arteries are large blood vessels which carry oxygen-rich blood from the heart to the rest of the body. The arteries subdivide into smaller blood vessels and ultimately become capillaries. The capillaries transport blood to all the cells of the body. After the oxygen is given to the cells, veins carry the blood low in oxygen back to the heart.

Conditions which require first aid

The delivery of oxygen to the body can be threatened by the following cardiovascular conditions:

- blood loss caused by severe bleeding (internal or external)
- impaired circulation
- failure of the heart to pump adequately, eg heart attack, or dysrhythmia (irregular heart beat).

If body tissues do not receive oxygen they are damaged beyond repair, an example of this stroke. Stroke is when one of the arteries supplying the brain is blocked or ruptures resulting in an area of the brain receiving no blood and the tissues becoming damaged. A similar effect occurs when one of the arteries supplying the heart with blood becomes blocked, the heart tissues are damaged by the lack of oxygen and a heart attack is a possible outcome.

If the heart stops beating (cardiac arrest), it is inevitable that breathing will also cease. There may be some agonal respirations but these are not enough to sustain life.



The heart

The relative size and weight of the heart contradicts its incredible strength and endurance. About the size of your fist, the hollow cone shape looks nothing like the heart that is traditionally shown. The heart weighs about 250–350 grams and is about 12–14 cm long. Approximately two thirds of the heart is located just to the left of the sternum (breastbone).

The heart has two actions, mechanical and electrical. Electrical stimulus causes mechanical reaction which results in coordinated pumping action leading to effective circulation.

Mechanical action

The mechanical action of the heart pumps blood through its structures in the following way:

- from the body (upper and lower)
 - to the right atrium
 - to the right ventricle
 - to the lungs
- then from the lungs
 - to the left atrium
 - to the left ventricle
- and out to the body (upper and lower).

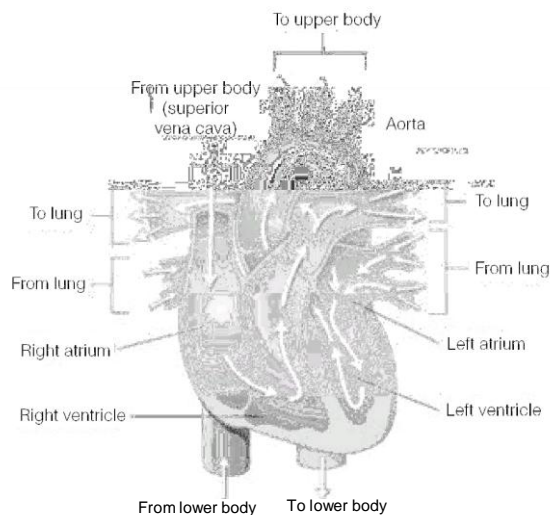


Figure 3.2 Mechanical action of the heart

Electrical action

In a normal heart, electrical impulses travel a well-defined pathway:

- sinoatrial (SA) node
- atrioventricular (AV) node
- right and left bundle branches
- Conduction pathways (Purkinje fibres)

This electrical conduction pathway synchronises the atria and ventricles to contract and relax in a coordinated motion necessary to pump blood efficiently.

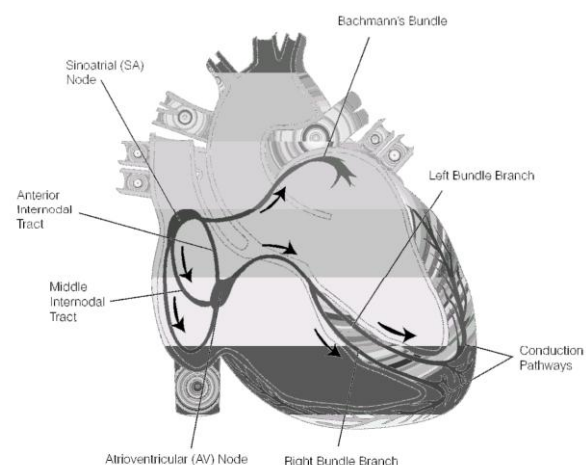


Figure 3.3 Electrical action of the heart



Electrocardiogram (ECG)

The electrical impulses passing through the heart can be mapped on a graph called an Electrocardiogram (ECG). When a person's heart becomes stressed, changes can be seen in the ECG.

An Automated External Defibrillator (AED) measures the electrical activity in a casualty's heart, through electrodes placed on their chest, and recognises life-threatening abnormal rhythms (arrhythmias) such as Ventricular Fibrillation and Pulseless Ventricular Tachycardia.

Sinus rhythm

The normal rhythm of a healthy heart is called Sinus Rhythm. An AED will not recommend a shock if it detects this rhythm in a casualty.

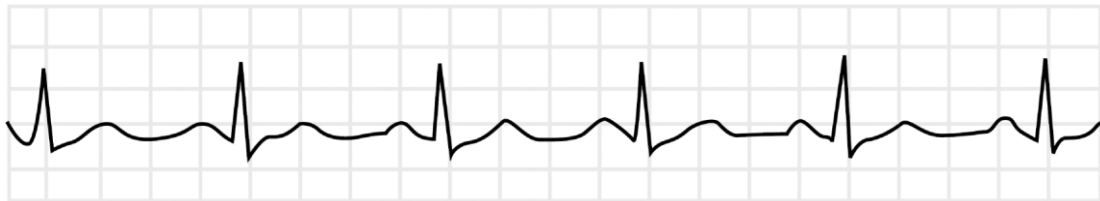


Figure 3.4 ECG of a sinus rhythm

Ventricular fibrillation

Ventricular fibrillation (VF) is a life threatening heart arrhythmia which is characterised by chaotic electrical and mechanical heart activity and produces a quivering action rather than co-ordinated contractions. It is most commonly associated with coronary artery disease and heart attack (myocardial infarction). Electrical shock, poisoning, and drowning can also cause ventricular fibrillation.

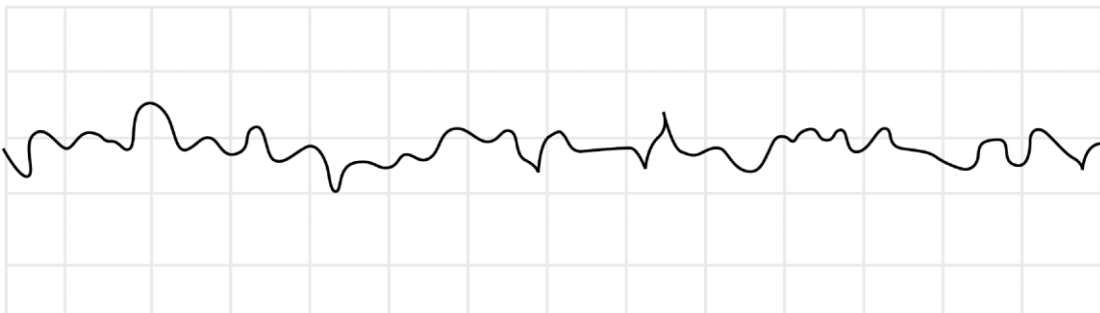


Figure 3.5 ECG of ventricular fibrillation



Ventricular tachycardia (VT)

Ventricular Tachycardia occurs when the ventricles beat faster than the rhythm generated by the SA node. The rate will vary, however it is always faster than 100bpm and generally slower than 200bpm.

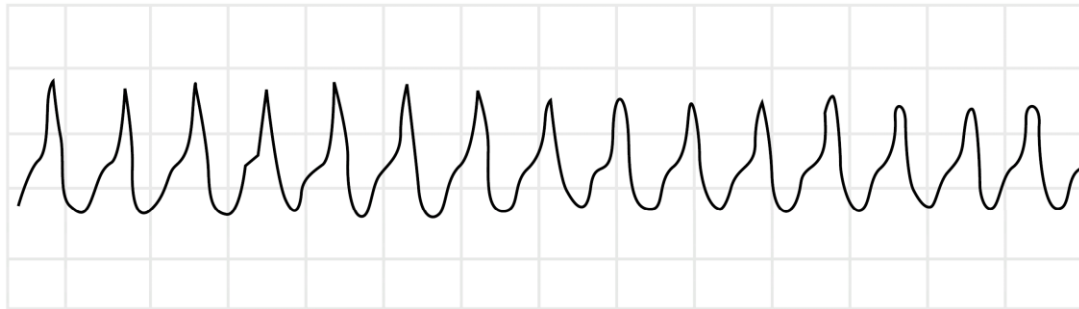


Figure 3.6 ECG of ventricular tachycardia

Ventricular Tachycardia can be life threatening as it may degenerate into Pulseless Ventricular Tachycardia inhibiting effective distribution of oxygenated blood throughout the body, leading to hypoxia and organ damage, which may lead to death.

Signs and symptoms of VT include:

- fainting
- difficulty breathing or shortness of breath
- very rapid pulse or no pulse
- palpitations — the casualty may feel like their heart is racing
- light-headedness or dizziness
- chest pain
- pale/grey skin colour
- sweating
- nausea.

Management of VT

- Minor cases may spontaneously revert to normal sinus rhythm without treatment.
- Pulseless VT will require treatment with an AED.

Asystole

Asystole refers to the absence of electrical activity in the heart. (Note: An AED will not recommend a shock as it can only correct the heart's electrical activity, not create it from nothing)

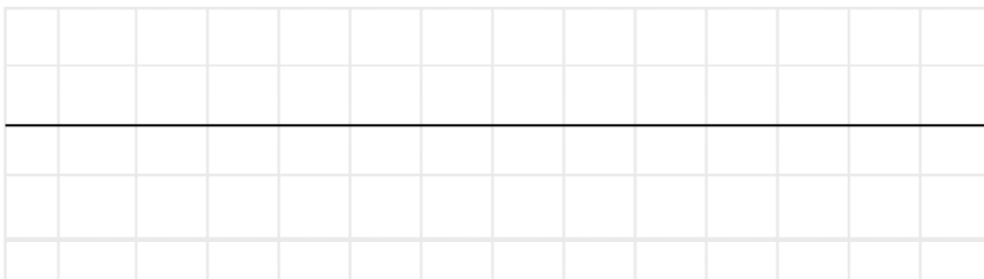


Figure 3.7 ECG showing asystole



Automatic External Defibrillators (AED)

An AED is used to reverse the effect of a cardiac arrest. Cardiac arrest occurs when a casualty:

- is not responding
- is not breathing
- has no detectable pulse.



Figure 3.8 Example of an AED

An AED is only to be attached to casualties who are unresponsive and not breathing normally. However, an AED should be on standby in all first aid situations where there is a possibility the patient may go into cardiac arrest

The defibrillation process uses electricity to contract (depolarise) the entire heart muscle at one time. Following this, resting (repolarisation) of the whole heart muscle occurs.

Effectively the process stops the heart. Once repolarisation has occurred, it is hoped that the heart's normal electrical activity will resume. Defibrillation is the definitive treatment for Ventricular Fibrillation.

Public access defibrillation

Defibrillation technology and training has reached a level in society where it is making an extremely positive impact in chain of survival. AEDs are simple for members of the public to use and are widely available through PAD programs in public places such as airports, train stations, stadiums and shopping malls.

While AEDs may be used by members of the public, the best outcomes for the casualty will be achieved when use by trained personnel. Accordingly, when working in a team situation, a team member with specific training in the use of an AED (such as this Advanced Resuscitation Techniques Certificate) should operate it.

Use of defibrillators on children

An AED can be used on children aged one and above. For children aged one to eight; if the AED has a setting that reduces the joules delivered this should be used. If this is not available the adult setting should be used.

AED operator responsibilities

It is the responsibility of the AED operator to apply and operate the AED and ensure the safety of bystanders and other first aiders. To do this the AED operator must take control of the resuscitation team, directing team members and bystanders as required to ensure the safe operation of the AED.



Approval of equipment

All defibrillation units must meet Australian Standards. For use within surf lifesaving they must also be trialled by SLSA in accordance with Policy 1.6 (New and Modified Equipment), before they are certified for approval as surf rescue equipment.

Defibrillator components

A portable defibrillator of the type commonly used by first aiders consists of a case containing the base unit with single use self adhesive electrode pads. In addition to the AED the following accessories should be kept with the unit (either in the same case if possible or in a case attached to the unit):

- resuscitation masks (adult)
- gloves
- shears
- gauze wipes (or similar)
- spare battery (if applicable to AED)
- spare electrode pads
- space blanket
- pen and paper
- chamois or towel.

Pre-patrol checks

All modern AEDs will have a self check mechanism to ensure that they are operational. This check usually includes ensuring that there is a sufficient level of charge in the battery and that all electronic components are functioning correctly. You should make yourself familiar with the unit used by your club/service, including what is included in the automatic self-check and how you check that the unit has passed the self-check.

At the start of patrol you should check the following:

- AED has passed the self test
- electrode Pads are in date (this will be marked on the outside of the packaging) and that the packaging has not been damaged.
- that all additional equipment as listed above or required by your state or service is included and in an operational condition.

Major faults

A major fault is any fault that cannot be repaired through basic maintenance (such as cleaning and replacement of spare or missing parts that are routinely stocked in the first aid room) and affects the safety or ability to use the equipment properly. All major faults should be logged in the patrol log and reported to the Club/Service First Aid Officer.



Defibrillation pads

Pad positioning

Correct positioning of the electrode pads is essential for successful defibrillation to take place. The optimal position is usually indicated on the electrode pads or on the packaging they come in.

- place the sternum electrode pad to the right of the sternum (breastbone) below the collarbone and above the right nipple
- place the apex electrode pad to the left of the sternum, with the upper edge of the pad below and to the left of the left nipple.

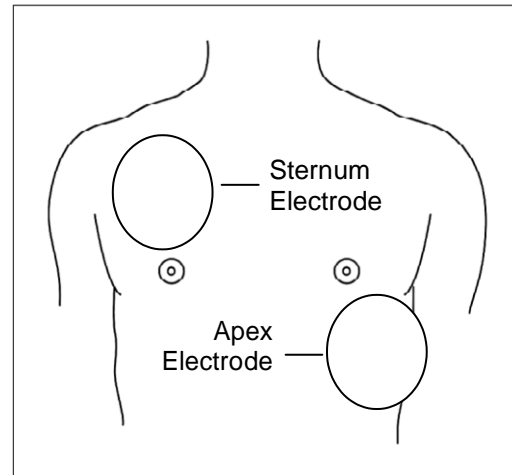


Figure 3.9 Defibrillator pad placement

To prepare the casualty

- expose the casualty's chest (including removing undergarments)
- it may be necessary to trim hair if the casualty is very hairy with scissors/shears in locations where pads will be placed in order to have good adhesion to the skin
- dry the casualty's skin if necessary due to immersion or sweat
- remove any metal jewellery and medication patches
- ensure the casualty is not lying on metal grates, in pools of water or on other conductive material.

Note: Life Saving Victoria no longer supports the use of a razor when removing chest hair as the pressure of the situation leads to an increased risk to both the operator and patient of being cut by the razor which adds further biohazardous risk to the first aider and patient.



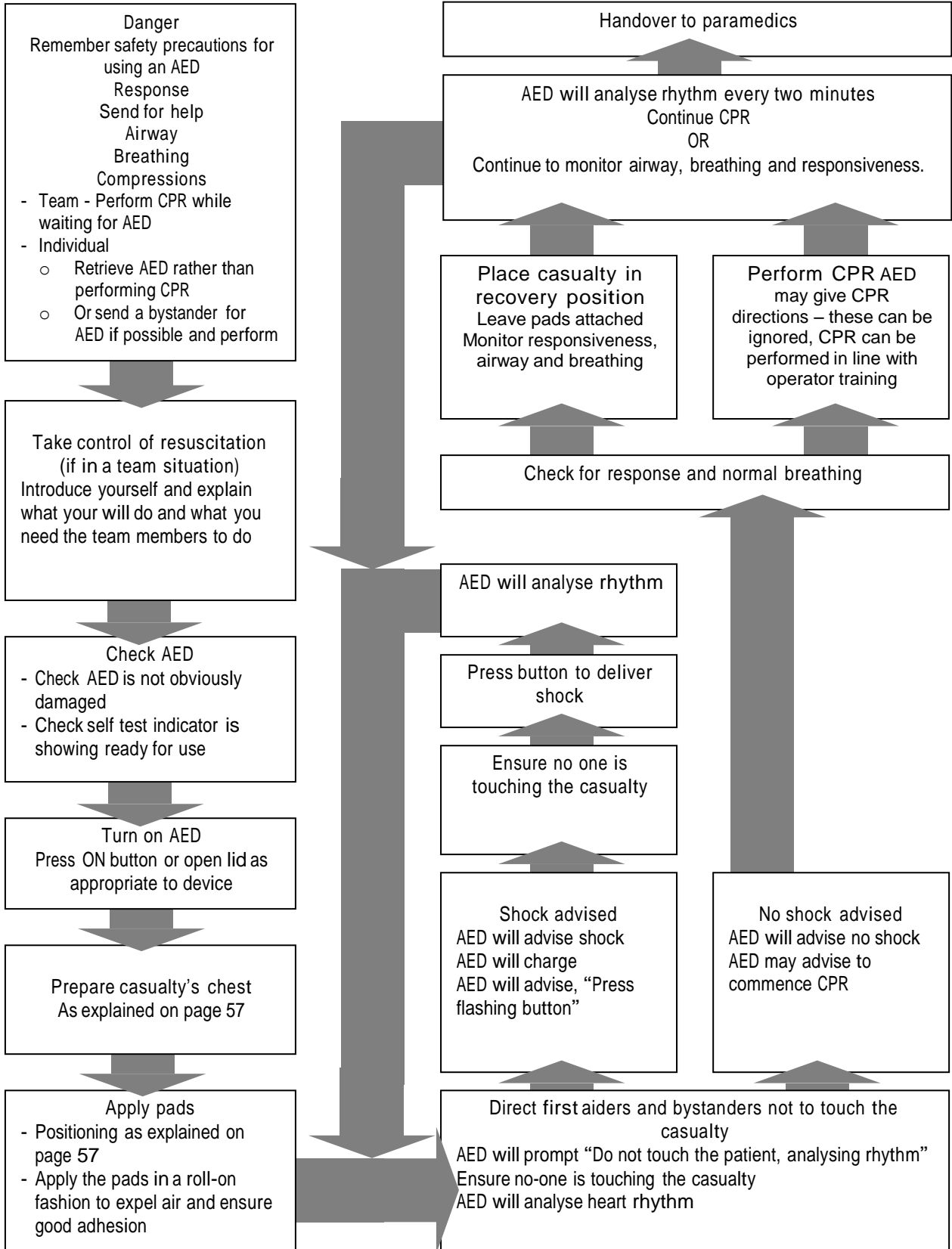
Safety precautions

A safe working environment must be created before defibrillation occurs. There are three areas of danger directly related to the defibrillation process:

- **Contact**
No person or conductive material is to be in direct or indirect contact with the casualty at the time of defibrillation.
- **Conduction**
There should be no conductive items near the casualty, such as:
 - water/rain (ensure you are clear of the incoming tide if in a beach environment)
 - metal/grates
 - moisture on the chest (e.g. vomit, blood or perspiration)
- **Explosion**
Do not defibrillate if there is a chance of explosion due to the presence of:
 - oxygen
 - petrol/LPG
 - flammable substances on clothes.



AED operation





NOTE:

- Do not remove electrodes even after a casualty's breathing resumes. Keep them in place to allow prompt action should the casualty's condition deteriorate.
- Do not place electrodes over medication patches.
- If the casualty has an implanted pacemaker, make sure that the pads are at least 10 cm away from it.

Set protocols for shock delivery

There are three main steps for operating an AED:

- turn the machine on
- apply the pads
- respond to the prompts.

Different AED machines have different protocols for shock delivery. Some have set joule settings, others have variable joule settings, and some even measure impedance and calculate the joules needed.

When to introduce the AED

In a team situation - after the casualty has been declared as 'unresponsive' and 'not breathing normally', commence CPR immediately. A second operator should introduce the AED at the same time CPR is commenced and prior to Oxygen.

As an individual - after the casualty has been declared as 'unresponsive' and 'not breathing normally' the AED is introduced prior to CPR and Oxygen. CPR should be commenced as soon as possible.



Activity (Group) 3.1: Applying an AED

In groups of three, practice performing two-operator CPR with the third person arriving and applying the AED. Rotate the roles until each person in the group has performed the role of AED operator.

Make sure you:

- take control of the situation
- assess casualty's response, airway and breathing
- prepare the casualty's chest
 - remove clothing
 - clip hair
 - remove metal jewellery
 - remove medication patches
- apply pads to casualty
 - in correct positions
 - using a rolling motion
- follow the prompts of the AED



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- ensure all first aiders and bystanders are clear of the casualty
- deliver the shock as indicated by the AED
- direct team to continue CPR as required.

Each participant should also apply the defibrillator and perform CPR as a single operator.

Post-defibrillation casualty care

If the defibrillation has not been successful and when the standard protocol is exhausted:

- leave the pads on the casualty
- continue CPR until relieved or unable to continue
- care for family and friends of the casualty.

If the defibrillation has been successful:

- leave the pads on the casualty
- check for breathing
- if they are not breathing, continue CPR
- if they are breathing, check for a response
- if they are not responding, place them in the lateral position
- if they are responding, reassure and make them comfortable.

Post-defibrillation equipment maintenance

After every use, the defibrillator should be disassembled, cleaned of sand and debris, reassembled and tested as per the manufacturer's instructions. Single use items such as electrode pads and gloves should be disposed of and replaced from stores in the first aid room. All other equipment should be cleaned and disinfected and replaced in the kit.



Assessment Task 1: Written Questions

Complete questions 12 - 20 in your assessment portfolio now.



Assessment Information

There are eight assessment tasks required to complete the Advanced Resuscitation Techniques Certificate course. Below is a description of the assessment tasks required to demonstrate competence in this course, this section is for information only. All evidence should be collected in the assessment portfolio section of this Learner Guide.

Assessment Tasks



Assessment Task 1: Written Questioning

All candidates are required to answer the questions outlined in the assessment portfolio section of this Learner Guide in their own words.

It is not acceptable to copy the words directly from the Learner Guide or another source.

These questions will be reviewed by your trainer. Once your trainer is satisfied that you have correctly answered all the questions they will sign the appropriate section of the assessment summary on page two of the assessment portfolio in this Learner Guide.



Assessment Task 2: Peer Assessment

Suction (Assessment Portfolio page 7)

To complete this assessment task you will need to find a peer assessor who can watch you complete the task and sign off that you correctly completed all components.

A peer assessor can be someone who is undertaking the course along with you or somebody who already holds the qualification.

Your peer assessor will tick actions taken by you, providing relevant comment in the peer assessor's notes on delivery.

On successful completion of each peer assessment present the completed checklist to your trainer or assessor who will sign the appropriate section of the assessment summary on page two of the assessment portfolio in this Learner Guide.



Assessment Task 3: Scenario - Defibrillation

You will operate the defibrillator whilst working with a team performing CPR. You will commence the scenario on a live casualty and change to manikin at assessor's direction.

Your assessor will use the observation list below when judging your competence.

Your assessor will mark the competency outcome and sign the appropriate section of the assessment summary on page two of the assessment portfolio in this Learner Guide.

Live Casualty Assessment

- Identify hazards and risks to self, casualty and bystanders — isolate electricity, check slip hazard, etc.
- Assess position of casualty and/or equipment.
- PPE put on.
- Check breathing and response
- Physical appearance.
- Medical history.
- Details of incident and other signs & symptoms.
- Call for ambulance

CPR & Defibrillation on Manikin

- CPR operators to commence CPR
 - Oxygen resuscitator operator to operate airbag resuscitator
- Apply AED — Defibrillator operator to:
- Communicate actions with team
 - Check surrounding area for hazards — conductors, placement of oxygen unit, etc.
 - Assess casualty for breathing and response

- Prepare casualty's chest ready to apply electrode pads — dry, clip excessive hair, check for pacemaker, medical patches
- Apply electrode pads — working around CPR operator
- Connect electrode pads to unit and turn on defibrillator unit
- Maintain communication with other members of the team to facilitate the effective delivery of oxygen.

Casualty is now breathing

- Team to reassess response and breathing and monitor casualty in appropriate position (lateral position if unconscious).
- Team to treat casualty for shock.
- Electrode pads to remain on casualty until ambulance arrives.
- Defibrillation operator to communicate future actions with team.
- Incident details to be recorded.
- Reassure casualty and make comfortable.
- Handover to ambulance.
- Defibrillator unit to be checked and made ready for use.



Assessment Task 4: Proficiency Scenario – Oxygen and suction use during resuscitation

Your Assessor will set a scenario where you will work in a team performing resuscitation. You will be required to use the airbag and suction during the scenario.

Alternately your assessor may have you complete the state set proficiency assessment for the Advanced Resuscitation Certificate



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Assessment Portfolio
Advanced Resuscitation Techniques Certificate

Assessment Portfolio

This portfolio includes all of the evidence you are required to submit to your assessor to demonstrate competence in the Advanced Resuscitation Techniques Certificate and the related competencies listed in the competency record below.

Learner Details

First Name:		Surname:	
Date of Birth:		Club / Group:	
Telephone:			
Email:			

Competency Record

	Competent	Not Yet Competent
SLSA Course		
Advanced Resuscitation Techniques Certificate		
Nationally recognised units of competency		
PUAEME003C Administer oxygen in an emergency situation		
PUAOPE010C Operate an automated external defibrillator in an emergency		
HLTFA404A Apply advanced resuscitation techniques		
Assessor Name		
Assessor Signature		Date



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Assessment Summary

Participant Name:			
Assessment Tasks	Date Completed	Satisfactory/ Not Satisfactory (S/NS)	Assessor Signature
Task 1: Written Questioning			
Task 2: Peer Assessment - Suction			
Task 3: Scenario - Defibrillation			
Task 4: Proficiency Scenario – Oxygen and suction use during resuscitation			
Comments:			



Assessment Task 1: Written Questions

All candidates are required to answer the questions outlined below in their own words.

It is not acceptable to copy the words directly from the Learner Guide or another source. These questions will be reviewed and signed off by your trainer/facilitator.

Topic One – Oxygen Gap Review

1. The catch phrase of the Australian Resuscitation Council is ‘any attempt at resuscitation is better than no attempt.’ Consider the italicised sentence and explain how bystander CPR contributes to the Chain of Survival sequence.

2. Explain why advanced resuscitation techniques (oxygen use and defibrillator shock) can improve a casualty’s survival in a cardiac arrest.

3. Australia is a multicultural society and as a first aider you may need to treat a casualty with different customs and beliefs to you. What should you do to respect their customs and beliefs?
 - a. Do nothing as they may not want you to because of their beliefs.
 - b. Seek permission before providing any treatment from the casualty or family member if present.
 - c. Do not worry about their beliefs, providing first aid is more important.
 - d. Treat them only if a male family member is present to give permission.



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4. What is the standard response time of an ambulance to your club/area of operation?

5. Performing resuscitation can be a stressful event. If you or a fellow club member are experiencing negative reactions to an incident where can you find information about stress management techniques and support offered by SLSA?

6. What is shock?

7. What is a MSDS and what information found in it will be useful to you as a first aider?

M _____ S _____ D _____ S _____

8. This question is left intentionally blank to align with the suction only Upgrade Guide.

Topic Three - Suction

9. How far can you insert the suction catheter into the unconscious casualty's mouth?

10. What can the operator do to limit hypoxia developing when using suction equipment?



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11. Can suction catheters be re-used on a different casualty? Circle the correct answer.
- a. Yes — in an emergency.
 - b. No must be discarded.
 - c. Yes — after sterilisation.

Topic Four - Defibrillation

12. Fill in the blanks in the paragraph below.

_____stimulus causes a _____reaction
which results in coordinated _____leading to effective
_____.

13. Describe the steps you take to perform a pre-patrol check on the defibrillator unit at your club.

14. How frequently do SLSA recommend the defibrillation unit be serviced?
- a. Annually, according to current SLSA policy.
 - b. Annually, according to manufacturer's instructions.
 - c. Annually, according to SLSA and manufacturer's instructions.
 - d. Only after use.

15. During the pre-patrol check you find the spare electrode pads are out of date. What will you do to make the defibrillation unit operational?



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16. List the steps required to achieve effective adherence of electrode pads to the casualty?

17. As a surf lifesaver, in what circumstances would you not use a defibrillator on a casualty?

18. The defibrillator will recognise and advise the operator if a casualty has a shockable arrhythmia. Circle the term that describes a normal heart rhythm.

- a. asystole
- b. ventricular tachycardia
- c. ventricular fibrillation
- d. sinus rhythm

19. Defibrillator pads should be removed when a casualty regains consciousness. Circle the correct answer.

TRUE / FALSE

20. In some places it may not be safe to operate a defibrillator. List one example.



Assessment Task 2: Peer Assessment - Suction

Instructions to peer assessor

- Tick actions taken by candidate, providing relevant comment in Assessor's notes on delivery.
- Candidate should describe what they are doing as the use suction verbally identifies each piece of equipment checked and the reason for checking.

Observation	Tick
<p>1 Suction</p> <ul style="list-style-type: none"> • Gloves applied. • Suction tested by placing hand over nozzle and operating hand pump. • Correct fitting of disposable sealed jar checked. • Suction catheter removed from sealed packaging and attached to suction device. • Distance from centre of lips to angle of jaw measured. • Fingers placed on catheter tip to mark distance. • Casualty's mouth opened. • Catheter inserted no further than back of teeth (marked distance as measured above) • Suction operated for no longer than 15 seconds without a break 	
<p>Peer assessor's notes</p> <p>The learner has successfully completed this task: YES / NO</p> <p>Peer Assessor signature: _____ Date: _____</p>	



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Course Feedback
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Course date: _____ Location: _____ Your name: _____
 (Optional)

Trainer(s) and Assessor(s): _____

Your evaluation of this program is very important. It enables us to improve our training programs and the quality of our service.

Statements	Strongly disagree	Disagree	N/A	Agree	Strongly Agree
Course Content					
The course was explained to me prior to commencing and met my expectations.					
The course had the right balance between theory and practice.					
The course was the right duration and intensity.					
General comments on course content					
Course Material					
The course materials were clear and easy to follow.					
The activities were realistic and effective.					
The course materials will be a useful ongoing reference.					
General comments on course material					
Training Personnel					
Knowledge was sufficient to effectively deliver the course.					
Kept the course interesting and interactive.					
Provided clear and complete answers to questions.					
General comments for the facilitator					
Overall outcomes					
My knowledge and skills increased as a result of this course.					
This course has helped me meet or clarify my goals.					
Course assessment activities were fair and realistic.					
General comments about the overall outcomes of the course					

Thank you for taking the time to provide this feedback



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Course Feedback

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Version Control Table

Version	Date	Change Comment
VER 1.0	130709	Developed from SLSA Advanced Resuscitation Certificate and Defibrillation Certificate Learner Guide VER 3.0. Includes reformatting of chapters and inclusions of further diagrams and some content.
VER 1.1	280311	Includes updated SLSA contact details, updated unit code and minor updates due to changes to CPR guidelines - see SLSA circular 62/2010-11 for more details
LSV V1	27.06.11	Minor changes to equipment included with a defib, removed any references to 'signs of life'