

**HealthCare Training Service**

# **Advanced Life Support Course**



**Participant Information  
Handbook**

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## **HealthCare Training Service (HCTS)**

HealthCare Training Service is a training and professional development company with the vision to provide high quality training and education to Health Care Professionals. Our aim is to provide our colleagues with the knowledge, skills and confidence to fulfil their role in a competent and efficient manner. Our tag line: ‘...providing skills and confidence in Advanced Life Support’.

HealthCare Training Service has an established Code of Practice as outlined in this curriculum document and in the Company Profile statement. Legislative requirements and quality processes are strictly adhered to as a mandatory requirement for all accredited education providers.

Our postal address is PO Box 426, Albany Creek, Queensland 4035. If you need to contact the HealthCare Training Service team for further information about this program you may utilise the following avenues:

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## **Advanced Life Support Courses**

### **Introduction**

The Advanced Life Support (ALS) Course and Advanced Life Support Recertification Course provide the learner with a foundation in theoretical knowledge and the application of practical skills within a solid problem-solving framework essential in adult advanced resuscitation.

As defined by the Australian Resuscitation Council (Guideline 11.1), “Advanced Life Support (ALS) is Basic Life Support (BLS) with the addition of invasive techniques, eg: defibrillation, advanced airway management, intravenous access and drug therapy.”

With the rising acuity of clients within health care environments, life threatening emergencies occur unexpectedly and indiscriminately requiring the timely response of Medical Officers, Registered Nurses and Paramedics. The response of such personnel needs to also be efficient and effective. Our aim is to provide our colleagues with the knowledge, skills and confidence to fulfil their role in a safe, competent and efficient manner. Through undertaking an Advanced Life Support (ALS) course such personnel are able to achieve a sound knowledge base and competence in areas pertinent to advanced resuscitation situations. The Advanced Life Support course covers Basic Life Support, Basic and Advanced Airway Management, Rhythm Recognition, Defibrillation, Emergency (ALS) drugs, as well as the Management of Cardiac Arrest (ALS Algorithms) and Post Resuscitation Care. This course is extremely relevant for health care practitioners to support best practice during a resuscitation event.

The ALS course incorporates more than the provision of information, assessment of knowledge base and demonstration of psychomotor skills. It encompasses the role of the team cohesively approaching the resuscitation of the individual suffering a life threatening emergency, in a systematic and controlled manner.

This program is an Adult Advanced Life Support Course and is consistent with guidelines produced by the Australian Resuscitation Council (ARC), which is Australia's national representative on the International Liaison Committee on Resuscitation (ILCOR).

Our Advanced Life Support Courses have been accredited by the Australian College of Rural and Remote Medicine (ACRRM). Attendance at the Advanced Life Support 2-day Course earns the following points:

- 10 Advanced Life Support points
- 30 PRPD points
- 30 MOPS points Emergency Medicine

Grant Eligibility: Emergency Medicine; Anaesthetics

ACRRM ID: 7914

Attendance at the ALS Recertification Course earns the following points:

- 10 Advanced Life Support points
- 2 PRDP points
- 12 MOPS points Emergency Medicine

ACRRM ID: 7923



Our Advanced Life Support Courses have been approved by the Royal Australian College of General Practitioners (RACGP) QI &CPD Program earning General Practitioners the following points:

- The Advanced Life Support 2-day Course earns General Practitioners **Total 40 Category 1 Points (CPR inclusive)**, Activity No. 83721.
- The ALS Recertification Course earns General Practitioners **Total 40 Category 1 Points**, Activity No. 83734.

Our Advanced Life Support Courses have also been accredited by the Australian & New Zealand College of Anaesthetists (ANZCA) CPD Program and participants may claim their attendance at the Advanced Life Support Course as an emergency response activity in their CPD portfolio.

- Emergency response activity: **Cardiac arrest (ALS)**
- Recognition code: **ER-14-CA-020**

### Continuing Professional Development (CPD) Points

In addition, attendance at this course provides Registered Nurses with Continuing Professional Development (CPD) hours as part of their planned learning activities to maintain, improve and broaden knowledge, expertise and competence. (Nursing and Midwifery Board of Australia, March 2010).

## **Broad Course Objectives**

Following successful completion of this course the learner will be able to:

- ♦ Explain the physiological and pathophysiological response to physical compromise culminating in cardio-respiratory failure.
- ♦ Demonstrate advanced knowledge and clinical competence in the following:
  - Basic Life Support
  - Basic and Advanced Airway Management
  - Defibrillation
- ♦ Demonstrate advanced knowledge and clinical competence in cardiac monitoring including arrhythmia analysis and management.
- ♦ Explain the indications for, the correct dose and the adverse effects of the primary resuscitation drugs.
- ♦ Discuss the indications for Transcutaneous (external) Pacing and explain the implementation of this form of pacing.
- ♦ Demonstrate advanced clinical problem-solving skills and clinical competence in the cohesive management of life threatening situations (cardiac arrest management) in accordance with Australian Resuscitation Council Guidelines.
- ♦ Identify and outline the roles and responsibilities of the Advanced Life Support Team and the Advanced Life Support certified personnel.
- ♦ Outline the management of the individual immediately post-resuscitation.
- ♦ Discuss legal, ethical and occupational health and safety issues in relation to ALS interventions.
- ♦ Discuss the need for and implementation of Critical Incident Debriefing.

## **Target Population**

- ♦ The ALS course is designed for Registered Nurses and Medical Personnel with at least six (6) months experience within the acute care setting.
- ♦ Ambulance personnel, Paramedics and Medics with acute field experience are also eligible to attend the program.

## Learning Outcomes

On successful completion of the Advanced Life Support Course participants will be able to:

1. Outline priorities in patient assessment and management.
2. Demonstrate basic life support knowledge and apply basic life support skills.
3. Employ basic and advanced airway management techniques to secure and maintain a patent airway.
4. Demonstrate effective ventilation using a bag-valve-mask device.
5. Recognise and institute appropriate management for life threatening arrhythmias.
6. Perform safe and effective defibrillation for appropriate arrhythmias.
7. Identify, discuss and implement appropriate use of emergency drug therapy.
8. Discuss the Adult ALS algorithm and demonstrate management of cardiac arrest according to the ALS algorithm.
9. Demonstrate effective resuscitation team dynamics during cardiac arrest scenarios.
10. Perform decision making skills in a cardiac arrest situation.
11. Identify occupational health and safety concerns.
12. Discuss ethical and legal implications in a cardiac arrest situation.
13. Explain post-resuscitation care of an individual following cardiac arrest.
14. Identify indications for, implementation and management of transcutaneous pacing.

## Prerequisite

- ♦ A current competency in Basic Life Support is essential and will be assessed on day 1 of the Advanced Life Support Course, however it is a mandatory prerequisite for the ALS Recertification Course.
- ♦ The participant is to hold a current practicing licence as a Medical Officer, Registered Nurse, Paramedic or Medic.
- ♦ It is **mandatory** for participants attending both the Advanced Life Support program and the ALS Recertification program to complete all pre-reading material as well as the ALS activity sheets {timeframe approximately five (5) hours} prior to attending the Advanced Life Support Course or ALS Recertification Course. The course materials will be sent to the participant at least three (3) weeks prior to the date of the course. Participants attending the ALS Recertification Course must comprehend all the material presented in the ALS Course manual and activity sheets prior to attending the recertification program. The completed pre-reading material **must** be brought with the candidate to the course. The pre-reading material will be reviewed to assess completeness prior to the candidate being permitted to commence the course proper.



- ◆ Enrolment in the ALS Recertification Course is dependent upon recognition of prior learning (RPL) and participants must meet one of the three (3) *Recognition Options* criteria (see Recognition Options below) to permit attendance in the ALS Recertification Course. If the participant does not meet one of the three *Recognition Options* criteria stated, the participant will need to enrol in the full 2-day Advanced Life Support Course.

## Recognition Options

Participants seeking any of the recognition options stated below should advise the ALS Coordinator at the time of enrolment to obtain the relevant enrolment form and package. Recognition of Prior Learning is required for enrolment in the ALS Recertification Course.

### Recognition of Current Competence (RCC)

HealthCare Training Service will provide RCC where a participant has previously successfully completed all requirements of the full 2-day advanced life support course or ALS recertification course within the preceding twelve (12) months and is required to be reassessed to ensure that competence is being maintained. RCC does not include any additional training of advanced life support competency. If RCC can be demonstrated by the participant, the participant is entitled to enrol in the ALS Recertification Course.

### Recognition of Qualifications issued by other accredited ALS Providers

HealthCare Training Service recognises Advanced Life Support Certification and statements of attainment issued by any other accredited Advanced Life Support Course provider. A participant who holds certification of ALS competency completed by the participant within the preceding twelve (12) months will be entitled to enrol in the ALS Recertification Course.

### Recognition of Prior Learning (RPL)

Recognition of prior learning is available to all HealthCare Training Service participants. RPL is a process that recognises the individual's non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes or competency outcomes. RPL does not include additional training of advanced life support competency.

RPL involves the assessment of previously unrecognised skills and knowledge an individual has achieved outside of an accredited Advanced Life Support Course. To achieve RPL the individual will need to demonstrate advanced knowledge and clinical competence in advanced life support practices. This may be achieved through the successful completion of an un-accredited advanced life support course and/or demonstrated extensive clinical experience in a critical care, emergency or trauma unit.

A participant who demonstrates prior learning and competence in advanced life support will be entitled to enrol in the ALS Recertification Course. Participants wishing to apply for RPL should contact the ALS Course Coordinator to discuss their suitability for RPL.

# Advanced Life Support Course

## Structure

The course is conducted over two (2) days or fourteen (14) hours, consisting of two (2) essential components:

### ***1. Theoretical component***

The theoretical component is presented over eight (8) hours of direct face-to-face contact involving lecture presentation, group work, group discussion and demonstration.

The theoretical information presented is supported by associated reading material.

There is one (1) theoretical examination with an allocated completion time of twenty-five (25) minutes.

The lecture program will provide a baseline framework upon which knowledge and skills will be developed. Participants will be encouraged to critically examine their individual resuscitation knowledge and skills, as well as reflect upon contextual issues within the function of this complex role.

In addition to the examination paper, the participants' knowledge will also be assessed through undertaking the competency assessments. This will demonstrate their ability to understand, analyse and apply the theoretical information presented in the course.

### ***2. Practical component***

The practical component is presented over six (6) hours and consists of the participants practising their Advanced Life Support skills with support and constructive feedback being provided by an experienced facilitator. This will assist the learner to apply theory to practice in a safe and efficient manner.

Participants will then demonstrate their competency of clinical skills through successful achievement of the following competency assessments:

- Basic Life Support
- Advanced Airway Management
- Defibrillation
- Cardiac Arrest (clinical scenario) Management

The broad program objectives, content outline, lecture program, examination, competency assessment criteria and associated reading material will set the direction for learning outcomes.

## Lecture Program

Unit	Objectives	Time (hrs)	Assessment
1. The Compromised Patient.	<p>Discuss early recognition of the deteriorating patient and prevention of cardiac arrest.</p> <p>Discuss The National Safety and Quality Health Service Standard 9 regarding Clinical Deterioration in Acute Health Care.</p> <p>Identify the common causes of cardiopulmonary arrest utilising the 4 “H’s” and 4 “T’s” mnemonic.</p> <p>Discuss the critical links in the “Chain of Survival”.</p> <p>Review Basic Life Support following the DRSABCD acronym.</p> <p>Demonstrate BLS skills.</p>	1.75	<p>Practical competency assessed during the management of Megacodes practise sessions</p> <p>Knowledge assessment as part of theoretical examination.</p>
2. Advanced Airway Management	<p>Instruction and demonstration of airway management techniques including:</p> <ul style="list-style-type: none"> <li>▪ Head Tilt, Chin Lift</li> <li>▪ Jaw Support</li> <li>▪ Airway clearance procedure</li> </ul> <p>Explain and demonstrate the use of the following airway management adjuncts:</p> <ul style="list-style-type: none"> <li>▪ Oropharyngeal Airway</li> <li>▪ Nasopharyngeal Airway</li> <li>▪ Mask with one-way-valve</li> <li>▪ Bag-valve mask apparatus</li> </ul> <p>Discuss the intubation procedure.</p> <p>Describe the endotracheal tube and correct positioning of same.</p> <p>Outline complications associated with intubation.</p> <p>Demonstrate the role of the assistant during intubation.</p> <p>Discuss laryngeal mask airways (LMAs).</p> <p>Demonstration the insertion of LMAs.</p> <p>Describe the correct positioning of LMAs.</p> <p>Discuss the advantages and disadvantages of LMAs.</p>	1.75	<p>Practical competency assessment.</p> <p>Knowledge assessment as part of theoretical examination.</p>

Unit	Objectives	Time (hrs)	Assessment
3. Rhythm Recognition	Identify normal sinus rhythm. Identify compromising & life threatening arrhythmias.	1.25	Knowledge assessment as part of theoretical examination.  Also assessed as part of defibrillation & megacode competency assessment.
4. Defibrillation	Explain the physiological response to defibrillation.  Identify the need for emergency defibrillation.  Demonstrate the safe application of defibrillation.	1.75	Practical competency assessment.  Knowledge assessment as part of theoretical examination
5. ALS Drugs	Outline the indications, action, dose, route of administration and adverse effects of the primary resuscitation drugs, including: <ul style="list-style-type: none"> <li>▪ Adrenaline</li> <li>▪ Amiodarone</li> <li>▪ Lignocaine</li> <li>▪ Calcium Chloride</li> <li>▪ Magnesium</li> <li>▪ Potassium</li> <li>▪ Sodium Bicarbonate</li> </ul>	1.0	Knowledge assessment as part of theoretical examination.  Also assessed as part of megacode management competency assessment.
6. ALS Algorithms	Outline the ARC guidelines for appropriate management of life threatening situations.  Identify and competently follow the appropriate algorithm for a simulated resuscitation event.	1.0	Knowledge assessment as part of theoretical examination.  Also assessed as part of megacode management competency assessment.
7. Transcutaneous Pacing	Discuss the indications for transcutaneous (external) pacing and explain the implementation and management of this form of pacing.	0.5	Knowledge assessment as part of theoretical examination.
8. Immediate post-arrest management	Demonstrate accurate and efficient assessment of the patient using a systematic approach – ABCDE survey.  Outline the further assessment and management of the individual immediately post-resuscitation.  Discuss the phases of the post resuscitation syndrome.	0.25	Knowledge assessment as part of theoretical examination.  Also assessed as part of megacode management competency assessment.

Unit	Objectives	Time (hrs)	Assessment
9. Roles of Resuscitation in ALS	<p>Identify and outline the roles and responsibilities of the Advanced Life Support Team.</p> <p>Outline the importance of maintaining the principles of standard precautions during resuscitation.</p> <p>Discuss post exposure prophylaxis in specific circumstances where disease transmission is high.</p>	0.25	Assessed as part of megacode management.
10. Ethical & Legal Issues	<p>Discuss ethical &amp; legal issues associated with resuscitation including:</p> <ul style="list-style-type: none"> <li>◆ Advanced Health Directive</li> <li>◆ The principle of Futility</li> <li>◆ NFR (DNAR) Statements</li> <li>◆ Criteria for terminating resuscitation efforts</li> <li>◆ Presence of family during resuscitation attempts</li> <li>◆ Organ &amp; tissue donation</li> </ul>	0.25	
11. Cardiac Arrest Management	<p>Demonstrate effective and cohesive management of an ALS resuscitation situation in a simulated environment.</p> <p>Discuss care of the patient's significant others.</p> <p>Discuss the purpose and implementation of critical incident debriefing.</p>	2.75	<p>Assessed as part of megacode management competency assessment.</p> <p>Knowledge assessment as part of theoretical examination.</p>

## Advanced Life Support Course - Timetable

### Day 1

Time	Session
0830 – 0845	Welcome and introduction
0845 – 1030	Priorities in an emergency and the 'Chain of Survival' Common causes of collapse and cardiopulmonary arrest Review Basic Life Support
1030 – 1045	<b>Morning Tea !</b>
1045 – 1145	Advanced Airway Management Intubation Procedure
1145 – 1230	Cardiac Electrophysiology Identifying compromising and life threatening arrhythmias Rhythm Recognition
1230 – 1300	<b>Lunch !!</b>
1300 – 1400	Defibrillation
1400 – 1500	Practice stations: Airway Management, Rhythm Recognition, Defibrillation
1500 – 1515	<b>Afternoon Tea !!!</b>
1500 – 1555	Practical Assessments: Airway Management; Defibrillation Basic Life Support
1555 – 1600	Conclusion



## Advanced Life Support Course - Timetable

### Day 2

0830 – 0845	Introduction & Review Day 1
0845 – 0930	Emergency Drugs
0930 – 1000	Transcutaneous (External) Pacing
1000 – 1015	<b>Morning Tea !</b>
1015 – 1100	Post Resuscitation Management Roles and Responsibilities of the Response Team Legal and Ethical Issues
1100 – 1130	ALS Algorithms
1130 – 1230	Practice Session – <i>Managing Clinical Scenarios</i> Rhythm Interpretation, Defibrillation, Emergency Drugs, Cardiac Arrest Management
1230 – 1300	<b>Lunch !!</b>
1300 – 1415	Practice Session – <i>Managing Clinical Scenarios</i> Rhythm Interpretation, Defibrillation, Emergency Drugs, Cardiac Arrest Management
1415 – 1500	Practical Assessment of Advanced Life Support knowledge and skills – Cardiac Arrest Management
1500 – 1515	<b>Afternoon Tea !!!</b>
1515 – 1550	Assessment of Advanced Life Support knowledge - Theoretical Examination
1550 – 1600	Review Program, Feedback and Evaluation



# ALS Recertification Course

## Structure

The Advanced Life Support Recertification course is conducted over four (4) hours, consisting of two (2) essential components:

### *A. Theoretical component*

The theoretical component consists of pre-reading material and completion of ALS activity sheets, with an allocated timeframe of completion of five (5) hours. A further one (1) hour of direct face-to-face contact reviewing current guidelines, activity sheets and ALS algorithm. This session will include lecture presentation, group work, group discussion and demonstration.

The theoretical information presented is supported by associated reading material.

There is one (1) theoretical examination with an allocated completion time of twenty-five (25) minutes.

The course material will provide the supporting framework upon which knowledge and skills will be updated, refreshed and consolidated. Participants will be encouraged to critically examine their individual resuscitation knowledge and skills, as well as reflect upon contextual issues within the function of this complex role.

In addition to the examination paper, the participants' knowledge will also be assessed through undertaking the competency assessments. This will demonstrate their ability to understand, analyse and apply the theoretical information presented in the course.

### *B. Practical component*

The practical component is presented over three (3) hours and consists of the participants practising their Advanced Life Support skills with support and constructive feedback being provided by an experienced facilitator. This will assist the learner to apply theory to practice in a safe and efficient manner.

Participants will then be required demonstrate their competency of clinical skills through successful achievement of the following competency assessments:

- Basic Life Support (mandatory pre-requisite)
- Advanced Airway Management
- Defibrillation
- Megacode Management

The broad program objectives, content outline, lecture program, examination, competency assessment criteria and associated reading material will set the direction for learning outcomes.



## Lecture Program

Unit	Objectives	Time (mins)	Assessment
1. Review of current guidelines and evidence based practice in resuscitation.	<p>Discuss the critical links in the “Chain of Survival”.</p> <p>Review Basic Life Support following the DRSABCD acronym.</p> <p>Discuss current guidelines and current research findings in relation to resuscitation.</p> <p>Discuss latest emergency drug trends, forms, presentation and packaging.</p> <p>Discuss trends in defibrillation and current defibrillation protocols.</p>	30	<p>Practical competency assessed during the management of Megacodes practise sessions</p> <p>Knowledge assessment as part of theoretical examination.</p>
2. Advanced Airway Management	<p>Instruction and demonstration of airway management techniques including:</p> <ul style="list-style-type: none"> <li>▪ Head Tilt, Chin Lift</li> <li>▪ Jaw Support</li> <li>▪ Airway clearance procedure</li> </ul> <p>Explain and demonstrate the use of the following airway management adjuncts:</p> <ul style="list-style-type: none"> <li>▪ Oropharyngeal Airway</li> <li>▪ Nasopharyngeal Airway</li> <li>▪ Mask with one-way-valve</li> <li>▪ Bag-valve mask apparatus</li> </ul> <p>Discuss the intubation procedure.</p> <p>Describe the endotracheal tube and correct positioning of same.</p> <p>Outline complications associated with intubation.</p> <p>Demonstrate the role of the assistant during intubation.</p> <p>Discuss laryngeal mask airways (LMAs).</p>	30	<p>Practical competency assessment.</p> <p>Knowledge assessment as part of theoretical examination.</p>
3. Rhythm Recognition	<p>Identify normal sinus rhythm.</p> <p>Identify compromising &amp; life threatening arrhythmias.</p>	10	<p>Knowledge assessment as part of theory examination.</p> <p>Also assessed as part of defibrillation &amp; megacode competency assessment.</p>

Unit	Objectives	Time (mins)	Assessment
4. Defibrillation	<p>Explain the physiological response to defibrillation.</p> <p>Identify the need for emergency defibrillation.</p> <p>Demonstrate the safe application of defibrillation.</p>	20	<p>Practical competency assessment.</p> <p>Knowledge assessment as part of theoretical examination</p>
5. ALS Algorithms	<p>Outline the ARC guidelines for appropriate management of life threatening situations.</p> <p>Identify and competently follow the appropriate algorithm for a simulated resuscitation event.</p>	30	<p>Knowledge assessment as part of theoretical examination.</p> <p>Also assessed as part of megacode management competency assessment.</p>
6. Cardiac Arrest management	<p>Demonstrate effective and cohesive management of an ALS resuscitation situation in a simulated environment.</p> <p>Discuss care of the patient's significant others.</p> <p>Demonstrate accurate and efficient assessment of the patient using a systematic approach – ABCDE survey.</p> <p>Outline the further assessment and management of the individual immediately post-resuscitation.</p> <p>Discuss the phases of the post resuscitation syndrome</p> <p>Discuss the purpose and implementation of critical incident debriefing.</p>	100	<p>Assessed as part of megacode management competency assessment.</p> <p>Knowledge assessment as part of theoretical examination.</p>

## ALS Re-certification Course - Timetable

**Must have current certification in BLS Competency**

**Program Outline: ½ Day Program, Morning Program**

Time	Session
08.00 - 08.30	Information update and review of worksheets (if any new guidelines, latest research, equipment etc)
08.30 - 09.30	Two practical assessment stations ✓ Advanced airway management assessment ✓ Defibrillation assessment
09.30 - 10.00	ALS algorithm
10.00 - 10.15	<i>Morning Tea!!</i>
10.15 - 11.00	Practice session: Cardiac Arrest Clinical Scenario Management <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">           ✱ VF            ✱ VT            ✱ Asystole            ✱ PEA         </div> <div style="font-size: 3em; margin-right: 10px;">}</div> <div>Algorithms</div> </div>
11.00 - 11.30	Assessment: Cardiac Arrest Clinical Scenario Management <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">           ✱ VF            ✱ VT            ✱ Asystole            ✱ PEA         </div> <div style="font-size: 3em; margin-right: 10px;">}</div> <div>Algorithms</div> </div>
11.30 - 11.55	Theoretical examination
11.55 - 12.00	Feedback of results Review & course evaluation



## Teaching & Learning Strategies

Lecture presentation

Demonstration

Group discussion

Simulation

Case Scenarios

Role play

Reflective Practice

A combination of the various training strategies will be utilised to accommodate the differing learning styles of our participants, the visual learner, the auditory learner, and the kinaesthetic learner, will be catered for. Training pace may also be altered when possible to accommodate varying pace of learning for our adult participants. Both reflective practice and experiential learning will be utilised to enhance learning outcomes.

## Assessment

There are five (5) components to the assessments. Learners are required to pass both the theoretical and clinical components of the course in order to achieve a pass for the overall course.

Assessment	Pass Mark	Undertaken	Learning Outcome Assessed
1. Examination One (1) written examination will be undertaken during the course. This assessment will include both rhythm strip analysis and multiple-choice questions.	80%	On conclusion of Day 2 of the program.	1, 2, 7, 8, 12, 14
2. Basic Life Support Competency	Pass Achieved	Day 1 of the program.	1, 2
3. Basic & Advanced Airway Management Competency	Pass Achieved	Day 1 of the program.	3, 4
4. Defibrillation Competency	Pass Achieved	Day 1 of the program.	5, 6
5. Cardiac Arrest Management Competency	Pass Achieved	On conclusion of Day 2 of the program.	5, 7, 8, 9, 10, 11, 12, 13

## **Examination**

There will be one (1) written examination to assess the learners understanding of the theoretical information and concepts presented. The examination will take place on the conclusion of the Advanced Life Support course.

The examination paper will involve rhythm strip analysis and multiple-choice questions.

The examination is of twenty-five (25) minutes duration.

Participants are required to achieve a minimum of 80% for the theoretical examination. Should a participant be unsuccessful in achieving the minimum grade of 80%, s/he will be offered an opportunity to undertake a supplementary examination within two (2) weeks of the completion of the course.

## **Competency Assessment**

The practical competency assessments will be undertaken during the course. This will include oral questioning of the participant and observation of the participant's ability in each of the four competency areas: Basic Life Support, Basic & Advanced Airway Management, Defibrillation and Cardiac Arrest (clinical scenario) Management.

The participants will be assessed against the competency performance criteria, and rated as either achieving or not achieving a competent level of practice. The competency assessment criteria for the practical assessments will be distributed to the participants with the course notes at least three (3) weeks prior to the commencement of the program. During the course the participants will have an experienced clinical facilitator supporting them and providing constructive feedback regarding performance.

Participants are required to achieve 100% pass for each of the competency assessments. Participants who do not successfully achieve competence for any of the practical assessments will be provided with feedback and consultation with the ALS course coordinator.

The participant will be provided with a second opportunity to successfully achieve competency during the running of the course. If competency is not achieved on the second attempt, the participant will be advised to undertake the entire Advanced Life Support Course again at a later date.

## **Exit Criteria**

Participants are required to successfully pass all assessment criteria for the course including theoretical and practical competency assessments to be awarded a HealthCare Training Service Certificate of Attainment in Advanced Life Support.

Should a participant be unsuccessful in passing all assessment items for the course (either theoretical or practical), the participant will be awarded a HealthCare Training Service Advanced Life Support Certificate of Attendance only outlining course content and duration.

If a participant is unsuccessful in completing the course an opportunity will be made for reassessment – please see “Appeals Process”.

A participant who undertakes and successfully completes the Basic Life Support Competency but fails to successfully complete the Advanced Life Support competency assessments during the ALS course, will be awarded a Basic Life Support Certificate of Attainment as well as an Advanced Life Support Certificate of Attendance.

## **Failure to Complete**

If a participant commences the course and is unable to complete it, they must make arrangements to undertake all assessment items for the course within two (2) weeks of the course date. Failure for a participant to undertake the course assessments within this time frame will result in the participant having to undertake the entire course again at a future date.

The advanced clinical competency assessments will only be assessed by one of the ALS Course Facilitators or the ALS Course Coordinator. An opportunity to undertake a re-assessment in any of the advanced clinical competencies will be made available to the participant during the course or at a HealthCare Training Service ALS Course scheduled within the following two (2) week timeframe from the course date. The participant will be given the opportunity to decide between reassessment on the day of the course or within the two (2) week timeframe.

A resit of the theoretical examination is to be completed within two (2) weeks of the ALS Course date. The theoretical examination will not be re-examined on the day of the course. The participant will be instructed to re-read all of the ALS Course material to enhance their understanding of the information presented and to complete a resit examination within two (2) weeks of their course date.

The resit examination can be undertaken at a HealthCare Training Service ALS Course scheduled within the following two (2) week timeframe from the course date and be supervised by the ALS Course Coordinator/Facilitator or alternatively the participant may resit the examination at their place of employment.

If the participant chooses to resit the examination at their place of employment, the examination will need to be supervised by the participant’s reporting officer, such as a Practice Manager, Practice Supervisor, Nurse Unit Manager, Clinical Nurse Consultant, Nurse Educator, Clinical Development Coordinator, Medical or Nursing Director or equivalent. The appropriate person will be contacted by HealthCare Training Service’s ALS Course Coordinator to seek an agreement from the reporting officer to supervise the resit examination and to provide instruction regarding the conditions in which the resit examination is to be conducted.

The examination supervisor will be forwarded the resit examination paper along with instructions pertaining to the examination conditions. The instructions for the examination supervisor will contain the following:

“Would you please be able to organise a time in the next two weeks for Jane Doe to undertake her resit of the theoretical examination for the Advanced Life Support Course. The details regarding undertaking the examination are on the front page of the paper. Would you then please immediately seal the paper in the envelope provided, sign the envelope seal and return it to the ALS Course Coordinator for marking. The candidate is not to refer to any materials during the examination and no discussion regarding the paper is to be entered into. Under no circumstances is the examination paper to be copied, serious consequences will occur if such an incident arose. If the examination paper is deemed to be interfered with in any way, the resit examination paper will not be accepted and the candidate’s status of fail will remain. Would you also please ensure an appropriate place for the examination to be undertaken where the examinee will not be disturbed during the examination and conditions are suitable to completing an examination of this nature.”

Should a participant be unsuccessful in passing all assessment items for the course (either theoretical or practical), the participant will be awarded a HealthCare Training Service Certificate of Attendance only.

## **Appeals Process**

The appeals and reassessment process forms an integral part of the Advanced Life Support Course Curriculum. A fair and impartial appeals process is available to participants of HealthCare Training Service’s ALS Courses. Each appellant has an opportunity to formally present his/her case.

Following notification of failure to meet the identified standards as stated in the course exit criteria, a participant has the right to appeal his/her assessment result. The participant must first discuss the issue with the trainer/assessor. If the participant would like to proceed further with the request after discussions with the trainer/assessor a formal request is to be made in writing to the ALS Course Coordinator outlining the reason(s) for the appeal. HealthCare Training Service's time period for acceptance of appeals is seven (7) days after the participant has been issued with the results of their assessment.

The ALS Course Coordinator will discuss the participant’s results with the participant to provide discussion in the areas of concern. The ALS Course Coordinator will then provide an opportunity for reassessment. If the participant is not satisfied with the subsequent action of the ALS Course Coordinator, then the ALS Course Coordinator will submit a report, along with the participant’s appeal, to HealthCare Training Service’s Executive within fourteen (14) days of the reassessment. The participant will be given a written statement of the appeal outcomes, including the reasons for the decision within fourteen (14) days following receipt of the report.

An appeal on the basis of medical illness or compassionate grounds must be submitted accompanied by appropriate documentation (i.e. medical certificate). An opportunity for reassessment will be arranged at an agreed time. However, a participant who willingly enters into an assessment knowing they are unfit to ably undertake the assessment, on

whatever grounds, must be willing to accept the outcome of the assessment as determined by the ALS Course Facilitator/Coordinator.

A participant who appeals on theoretical or competency achievement grounds will be given an opportunity for counselling, remedial assistance and reassessment. If further psychological support is required for a participant, the ALS Course Coordinate will recommend the participant to formal counselling.

## **Records Maintenance**

All course participants are entered into a secure database detailing participant's name, participant's contact details, course attended, date attended and assessment outcome (e.g. pass or fail). An alert mechanism is in place to issue reminder letters to the participants when it is nearing 12 months since they last completed the Advanced Life Support Course.

On completion of the course, the participant's details are reviewed with course assessment outcome (e.g. pass or fail) entered into the database. The attendance list signed by the participants is noted with course assessment outcome (e.g. pass or fail) again each participant's name and the attendance sheet is then scanned and saved onto the computer system.

All hard copies of the assessment items (i.e. competency assessment form and theoretical examination paper) are then filed and stored in a secure storage facility with 24 hour monitoring. All hard copies of the course assessment items, except the attendance sheet, are shredded once three (3) years has passed since the date of course completion.

## **Participant Privacy**

Information concerning participants, including information submitted at enrolment, will be used by HealthCare Training Service for the purposes of general enrolment administration, communication, reporting, program monitoring and evaluation. The provision of this information is necessary for both initial enrolment and re-enrolment in all HealthCare Training Service's Advanced Life Support courses. Information provided will be held securely and disposed of securely when no longer required. The information may be disclosed to an agency authorised to undertake accreditation surveys. HealthCare Training Service does not sell or give away our customer lists.

Confidentiality is a priority and is strictly maintained at all times. All student records are confidential and are only accessed by appropriate HealthCare Training Service staff and the client themselves.

## **Maintaining Competence**

Participants will be informed of the requirement to successfully pass a theoretical examination and achieve competency status in all four (4) competency assessments on an annual basis. The participants will be advised that the Certificate of Attainment will lapse twelve (12) months after the date of achievement.



Thus, in order to maintain clinical competence attendance at either an ALS Recertification Course or Advanced Life Support full Course, as selected by the participant, is required within twelve (12) months of the date of the current ALS Certificate. If the participant fails to attend either a recertification or 2-day course within the twelve (12) month timeframe, they will no longer be deemed competent in advanced life support practice.

## **Location and Frequency of Course**

The ALS course will be offered frequently throughout the year, both at a HealthCare Training Service training facility and onsite at various healthcare facilities / hospitals throughout Queensland and all other states as requested.

## **Enrolment and Management of Course Fees**

Due to the demand for the courses, course registration will only be confirmed upon receipt of a completed application form and full payment, subject to availability. Fee payment will only be processed if received by accepted payment methods and will be deposited into a trust until such time as the service has been delivered. All payments will be processed promptly and receipts issued as soon as possible

Payments for programs are required to be paid in full, one week prior to the commencement of the program. Part payments, payment plans and delayed payments are assessed on an individual needs basis by HealthCare Training Service Executive. Non-discriminatory, fair and equitable assessments of payment arrangements will be maintained.

Accepted payment methods are as follows:

- Credit Card – MasterCard or Visa
- Direct Deposit
- Personal cheque
- Bank cheque
- Australia Post Money Order
- Cash

Due to the logistics of arranging presenters and allocating resources, registrations will not be accepted within two (2) weeks of the course date. Numbers of course participants are strictly limited and will not be exceeded at any time.

Cancellation of attendance at any course must be received no later than seven (7) days prior to the course date and a cancellation fee of fifty dollars (\$50.00) will apply. Course cancellation cannot be accepted within 7 days of a scheduled course workshop. Upon seven (7) days notification of cancellation of attendance, the registration may be transferred, with no additional cost, to a future HealthCare Training Service course within the next four (4) months, if registration numbers permit. Registration in any course may only be transferred once unless a specific case requires special consideration which will be assessed by the Director of HealthCare Training Service.

In the unlikely event that a course is cancelled, the registration fee will be returned in full.

## **Course Evaluation**

Each Advanced Life Support Course will undergo comprehensive evaluation culminating in the formulation of a quality improvement (QI) report. The evaluation will include formal (written) and informal (verbal) feedback from the course participants as well as course feedback and reflection from the Course Facilitators/Coordinator. The QI report will be forwarded to each of the ALS Course Facilitators, ALS Course Coordinator, HealthCare Training Service's Executive, Royal Australia College of General Practitioners (RACGP), Australian College of Rural and Remote Medicine (ACRRM), and Australia and New Zealand College of Anaesthetists (ANZCA) as part of the reporting requirements for Continuing Medical Education (CME) point allocation.

## **Course Certificate**

Candidates will be forwarded their Advanced Life Support Certificate at completion of their course via email in pdf file format. In addition, an Advanced Life Support Attainment Card will be provided to successful candidates on conclusion of their course.

## **Curriculum Review**

The Advanced Life Support Course curriculum, reference material, theoretical examination, competency assessments and evaluations will undergo a comprehensive review annually.

On completion of each program a Quality Improvement Report will be compiled detailing participant formal evaluation and informal feedback, as well as Course Coordinator / Facilitator reflective comment. From each review, areas identified as requiring improvement will be actioned with further follow-up conducted at future courses.

## **Material Resources**

Course participants will each receive comprehensive reference material with competency assessment criteria attached at least three (3) weeks prior to the commencement of the program. The participants will have access to, as well as Facilitator support in using, the essential equipment for performance of ALS, including:

- Advanced Resuscitation / Defibrillation Manikins
- Monitors / Defibrillators
- ECG Simulators
- Advanced Airway Management Trainer
- Variety of Adjunctive Airway Management equipment
- A sample of ALS emergency response drug packaging
- Intraosseous access devices & simulated training equipment (3)
- Transcutaneous pacing electrodes & defibrillator with pacing capability for demonstration

The cleaning, maintenance and storage of all equipment will conform to the manufacturer's guidelines and ARC Guidelines.

## Human Resources

Participant numbers for any one course will be limited to a maximum of eighteen (18) for the 2-day Advanced Life Support Course and a maximum of fifteen (15) for the ALS Recertification Course. Each course will have a Course Co-ordinator and a Course Facilitator to ensure effective delivery of course material, whilst maintaining the safety of participants and themselves.

The ratio of participants to trainers will not exceed 6 participants to 1 trainer and be maintained at that ratio (6:1) during all practical sessions and competency assessment for the Advanced Life Support full Course. The ratio of participants to trainers will not exceed 5 participants to 1 trainer and be maintained at that ratio (5:1) during all practical sessions and competency assessment for the ALS Recertification Course.

## Course Coordinator

### Denise Airey

RN, RM, BN, Critical Care Certificate,  
Certificate IV Workplace Assessment & Training  
Graduate Diploma Adult Education & Training (in progress)  
ARC Advanced Life Support Provider Certificate  
CSDS Certificate in Advanced Life Support  
ACCCN Certificate in Advanced Life Support  
ACCCN Certificate in Paediatric Advanced Life Support  
MRCNA, MACCCN, MAAMHP

## Course Facilitators

### Ann Bonny

RN, BN, Graduate Certificate Critical Care –  
Cardiothoracics  
Certificate IV Workplace Assessment &  
Training  
ARC Advanced Life Support Provider  
Certificate  
Certificate in Advanced Life Support  
Certificate in Paediatric Advanced Life  
Support  
MACCCN

### Angela Holsheimer

RN, BN  
Masters of Advanced Practice –  
Emergency  
Graduate Certificate Health Science (Maj  
Disaster Management)  
Certificate IV Workplace Assessment &  
Training  
Certificate in Advanced Life Support  
Certificate in Paediatric Advanced Life  
Support

## Access to ALS Course Coordinator/Facilitators

Participants are invited to contact the ALS Course Coordinator or Course Facilitators with any queries, issues or concerns. The ALS Course Coordinator or Course Facilitators can be contacted by one of the following options:

Telephone:	07 3325 0188 (Office Hours)
Fax:	07 3325 0388
Mobile:	0419 675 740 (Course Coordinator)
Email:	<a href="mailto:mail@hcts.com.au">mail@hcts.com.au</a>
Postal address	PO Box 426, Albany Creek, Queensland 4035.

If the ALS Course Coordinator or one of the Course Facilitators is not immediately available to respond to your initial contact, you are invited to please leave a message regarding your reason for contact with the office staff and the ALS Course Coordinator will attempt to make contact you within forty-eight (48) hours of your initial contact.

## Administration Officer

The role of the Administration Officer is to support a high standard of business functions by utilising effective communication skills to enhance team function. The Administration Officer ensures prompt processing of an applicant's course registration, ensuring confirmation letter, taxation receipt and all course materials are forwarded to the applicant in a timely manner (i.e. a minimum of two weeks prior to course commencement).

The Administration Officer collaborates with other staff for effective implementation of training, ensuring appropriate paperwork and course materials are ready for each scheduled training event.

The Administration Officer will at all times adhere to and maintain student enrolments' procedures.

## Resource Manager

The Resource Manager's role is to ensure a range of educational resources and materials are readily available to provide learners with range of approaches to learning.

The Resource Manager conducts a comprehensive assessment of human and material resource requirements to enable the effective and efficient delivery of the Paediatric Advanced Life Support Courses. The Resource Manager ensures all training equipment, e.g. manikin and associated equipment, is cleaned to resuscitation guideline standards and in accordance with the manufacturer's guidelines.

The Resource Manager maintains safe and effective working order for all training and office equipment, attending to or arranging repairs as required.

## References

If at all possible, it would be beneficial for the participant to access additional reference material. Listed below is a sample of reference material which provide additional and supportive information to the material presented in the course.

ANZCOR, 2014 **Standards for Resuscitation: Clinical Practice and Education**. ARC: Melbourne.

ANZCOR January 2016 **ARC Guidelines** online at [www.resus.org.au](http://www.resus.org.au)

ANZCOR April 2016 **ARC Guideline 11.10.1 Management of Cardiac Arrest due to Trauma** online at [www.resus.org.au](http://www.resus.org.au)

Atkins, D.L., et al 2015 **Part 11 Pediatric Basic Life Support and Cardiopulmonary Resuscitation Quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* *S519-S525* [online] at <http://circ.ahajournals.org>

Atkins, D.L., et al 2015 **Part 12 Pediatric Advanced Life Support: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* *S526-S542* [online] at <http://circ.ahajournals.org>

Bhanji, F., et al 2015 **Part 8: Education, implementation, and teams: 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (ILCOR)** 2015 in *Circulation* *95* S242 – S268

Bhanji, F et al 2015 **Part 14: Education: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* *S561-S573* [online] at <http://circ.ahajournals.org>

Avidan, M et al, 2003 **Perioperative Care, Anaesthesia, Pain Management & Intensive Care**. Churchill Livingstone: Edinburgh

Bossaert, L.L., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 11. The ethics of resuscitation and end-of-life decisions** in *Resuscitation* *95* (2015) 302 – 311

Brooks, S.C., et al 2015 **Part 6: Alternative Techniques and Ancillary Devices for Cardiopulmonary Resuscitation: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* *S436-S443* [online] at <http://circ.ahajournals.org>

Brown, M.R., Denman, R., & Platts, D., 2009 **Analgesic Patches and Defibrillators: a Cautionary Tale**. European Society of Cardiology [online] at <http://europace.oxfordjournals.org/content/11/11/1552>

Caen, A.R., et al 2015 **Part 6: Pediatric Basic Life Support and Pediatric Advanced Life Support: 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (ILCOR)** 2015 in *Circulation* *95* S177 – S203

Callaway, C.W., et al 2015 **Part 4: Advanced life support: 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (ILCOR) 2010** in *Circulation* 95 S84 – S145

Callaway, C.W., et al 2015 **Part 8: Post-Cardiac Arrest Care: 2015 American Heart Association Guideline Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* S465-S482 [online] at <http://circ.ahajournals.org>

Cheskes, S., et al. 2014 **Compressions during defibrillator charging shortens shock pause duration and improves chest compression fraction during shockable out of hospital cardiac arrest.** *Resuscitation*. Aug;85(8):1007-11, online j.resuscitation.2014.05.001

Edelson, D.P., 2010. **Safety and efficacy of defibrillator charging during ongoing chest compressions: a multi-center study.** *Resuscitation*. Nov;81(11):1521-6. online j.resuscitation.2010.07.014.

Gale, M et al (Eds) 2011 **Advanced Life Support.** 11th Edition. Uniprint: Mt Claremont.

Greif, R., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 10. Education and implementation of resuscitation** in *Resuscitation* 95 (2015) 288 – 301

Hazinski, M.F., et al 2015 **Part 1: Executive summary: 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (ILCOR) 2015** in *Circulation* 95 S2 – S39

Huszar, R.J. 2002 **Basic Dysrhythmias.** 3rd Edition. Mosby Lifeline: St Louis.

Kleinman, M.E., et al 2015 **Part 5: Adult Basic Life Support and Cardiopulmonary Resuscitation Quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* S414-S435 [online] at <http://circ.ahajournals.org>

Lavonas, E.J., et al 2015 **Part 10: Special Circumstances of Resuscitation: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* S501-S518 [online] at <http://circ.ahajournals.org>

Link, M.S., et al 2015 **Part 7: Adult Advanced Life Support: 2015 American Heart Association Guideline Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* S444-S464 [online] at <http://circ.ahajournals.org>

Maconochie, I.K., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 6 Paediatric life support** in *Resuscitation* 95 (2015) 223 – 248

Monsieurs, K.G., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 1. Executive Summary** in *Resuscitation* 95 (2015) 1 – 80

Morrison, L.J. et al 2010 **Part 8: Advanced Life Support**: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations in *Circulation online* at <http://circ.ahajournals.org>

Neumar, R.W., et al 2015 **Part 1: Executive Summary: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** in *Circulation* S315-S317 [online] at <http://circ.ahajournals.org>

Nolan, J.P., et al 2015 European Resuscitation Council and European Society of Intensive Care Medicine Guidelines for **Post-resuscitation Care 2015 Section 5** of the European Resuscitation Council Guidelines for Resuscitation 2015 in *Resuscitation* 95 (2015) 202 – 222

Nolan, J. et al (Eds) 2011 **Advanced Life Support**. 11th Edition. Resuscitation Council: London.

O’Riordan, M 2003 “Reverse” CPR generates higher mean systolic blood pressure and mean arterial pressure than standard, online [www.theheart.org](http://www.theheart.org)

Perkins, G.D., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 2. Adult basic life support and automated external defibrillators** in *Resuscitation* 95 (2015) 81 – 99

Soar, J., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 3. Adult advanced life support** in *Resuscitation* 95 (2015) 100 – 147

Soar, J. et al 2015 **Summary of Changes in Advanced Life Support since 2010 Guidelines** Resuscitation Council: London, online

Travers, A.H., et al 2015 **Part 3: Adult basic life support and Automated external defibrillation: 2015 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (ILCOR) 2015** in *Circulation* 95 S51 – S83

Truhlar, A., et al 2015 European Resuscitation Council Guidelines for Resuscitation 2015 **Section 4. Cardiac arrest in special circumstances** in *Resuscitation* 95 (2015) 148 – 201

Veldhoen, E.S., de Vooght, K.M., Sliker, M.G., Versluys, A.B., & Turner, N.M., 2013 **Analysis of bloodgas, electrolytes and glucose from intraosseous samples using an i-STAT(®) point-of-care analyser**. *Resuscitation* Mar;85(3) (2014) 359-63.

Willmott, L 2007 **Advanced Directives to Withhold Life-Sustaining Medical Treatment**. in *Flinders Journal of Law Reform* 10(2) 287 – 314

## **Further references**

Other useful reference material to support the learners' integration of knowledge and application to practice are databases and clinical journals.

Useful databases include:

- CINAHL

- Medline

Useful clinical journals include:

- Australian Critical Care

- Circulation

- Critical Care Nurse

- Heart and Lung

- Intensive and Critical Care Nursing

- Resuscitation