

CHS123 Perform advanced life support for an adult

OVERVIEW

This standard covers the performance of advanced life support for an individual in response to the emergency presentation of an individual or as a reaction to problems that have arisen during an intervention already being conducted. This standard is specifically intended for application to adults requiring advanced life support. Anyone performing advanced life support should only do so within their scope of practice and in accordance with the European and UK Resuscitation Council Guidelines and algorithms. Users of this standard will need to ensure that practice reflects up to date information and policies. Version No 1

KNOWLEDGE AND UNDERSTANDING

You will need to know and understand:

1. The complexity of determining an individual's capacity for decision making and the variable nature of understanding and decision making in some adults or older people
2. Changes in the individual associated with age that will impact on their condition and your response to it
3. The anatomy and physiology of the respiratory and circulatory systems in individuals, including the electrical conduction pathway of the heart
4. The clinical signs of causes and aggravating factors necessitating additional interventions alongside advanced life support
5. The priorities in life support
6. The other means of resuscitation which may be applied while preparation is underway to use a defibrillator
7. The content of the Adult Advanced Life Support Guidelines as issued by the UK Resuscitation Council
8. The time frame within which assessment of the needs of the individual should be carried out and the resuscitation response initiated
9. The universal algorithm for the management of cardiac arrest
10. What is happening when an individual is in each of the following:
 1. ventricular fibrillation (VF)
 2. ventricular tachycardia (VT)
 3. peri-arrest arrhythmia
 4. asystole
 5. pulseless electrical activity (PEA)
11. The normal wave-form pattern of a healthy heart
12. The chest compression technique to use for an adult and anatomy and physiology

- relevant to this
- 13.The measures to be taken to ensure health and safety, infection control and the prevention of contamination
 - 14.The types, properties, function, effect and contra-indications of the pharmacological agents used for the range of interventions
 - 15.The procedures needed for applying the electrodes and paddles of manual and automated defibrillators and for attaching cardiac monitors
 - 16.The implications of pacemakers for defibrillation and Advanced Life Support (ALS)
 - 17.The energy levels (Joules) at which defibrillation shocks should be administered for individuals and the rationale underlying these levels
 - 18.Why it is important not to make a diagnosis of PEA immediately after defibrillation but to conduct a suitable period of pulse palpation and wait for a display of diagnostic quality to be established
 - 19.The techniques by which the individuals' airways may be secured including:
 - 1.endotracheal intubation
 - 2.insertion of a laryngeal mask airway
 - 3.use of a Combitube
 - 20.The differences in techniques needed for conducting cardio-pulmonary resuscitation
 - 21.Why different resuscitation techniques are needed depending on the individuals' condition and other complicating factors such as hypothermia
 - 22.The factors to be taken into account in determining the technique that will lead to the best possible outcome for the individual
 - 23.When and why adjustments to the techniques used in defibrillation and advanced life support may be needed to achieve the best outcome for the individual
 - 24.The different ventilation: compression ratios and rates that could be needed
 - 25.The importance to outcome of the positioning of the individual and the practitioner applying advanced life support
 - 26.The observations to be carried out to identify adequate oxygenation
 - 27.The pulse sites and rate norms for different types of individual
 - 28.The procedure to establish the correct hand/finger placement for applying external chest compression
 - 29.The procedures and state the equipment used for monitoring an individuals' clinical signs during and post resuscitation
 - 30.The upper and lower readings on equipment used in monitoring clinical signs
 - 31.The potential for myocardial stunning
 - 32.The policy and procedures for recording information on the provision of advanced life support and the details which should be recorded
 - 33.The policy and procedures for summoning assistance for prolonged/extended resuscitation
 - 34.The handover procedures for an individual receiving ALS
 - 35.The policies and procedures to be followed regarding samples of fluids suctioned from an individual
 - 36.The legislation regarding confidentiality and information sharing, the provision of services, the rights of the individual, protection issues, anti-discriminatory practice, informed consent, relevant mental health legislation and care programme approach
 - 37.How to interpret and apply legislation to the work being undertaken
 - 38.The ethics concerning consent and confidentiality, and the tensions which may exist between an individual's rights and the organisation's responsibility to individuals
 - 39.The importance of gaining assent from an individual who lacks capacity to consent
 - 40.The anatomy and physiology of the respiratory system
 - 41.The priorities in life support
 - 42.The content of the Paediatric and Adult Advanced Life Support Guidelines as issued

- by the UK Resuscitation Council
- 43.The time frame within which assessment of individual needs should be carried out and the life support response initiated
 - 44.The differences in techniques needed for conducting advanced life support on different types of individual
 - 45.Why different techniques are needed depending on the individual's condition and circumstances
 - 46.The factors to be taken into account in determining the technique that will lead to the best possible outcome for the individual, including contra-indications to the use of a given technique
 - 47.The situations under which advanced life support (ALS) should not be initiated, as set down in IAW and ALS guidelines (e.g. decapitation, submersion of an adult for longer than 30 minutes)
 - 48.The measures to be taken to ensure health and safety, infection control and the prevention of contamination
 - 49.The importance of the positioning of the individual and the practitioner applying intermediate life support (ILS), including the specific positioning needs of pregnant women in the third trimester
 - 50.The anatomy and physiology relevant to different external chest compression techniques
 - 51.The pulse sites and rate norms for different types of individual
 - 52.The upper and lower readings for different types of individual on equipment used in monitoring clinical signs
 - 53.The clinical signs and causes of airway obstruction
 - 54.The policies and procedures to be followed for the use of suction apparatus
 - 55.What to do in the event of foreign body obstruction of an individual's airway
 - 56.Why the head tilt techniques should not be used where neck or spinal injury is suspected
 - 57.The purpose of oropharyngeal and nasopharyngeal airways
 - 58.The indications for the use of oropharyngeal and nasopharyngeal airways and the circumstances for their removal
 - 59.The insertion procedures for oropharyngeal and nasopharyngeal airways
 - 60.The procedures for suctioning in the presence of oropharyngeal and nasopharyngeal airways
 - 61.The ventilation ratio and rate for different types of individual
 - 62.The observations to be carried out to identify adequate oxygenation in different types of individual
 - 63.The resuscitation of an individual where two people are present
 - 64.The compression: ventilation ratio in one and two person ALS
 - 65.The procedure to establish the correct hand/finger placement for applying external chest compression
 - 66.The procedures and equipment used for monitoring an individual's clinical signs during and post resuscitation
 - 67.Why adjustments to the techniques used in ALS may be needed, including the variations needed when the individual is hypothermic
 - 68.Different methods of chest thrusts and back slaps to use for children and young people, adults of a working age and older people

PERFORMANCE CRITERIA

You must be able to do the following:

- 1.apply standard precautions for infection prevention and control and take other appropriate health and safety measures
- 2.identify and respond appropriately to any risks to your own or others' safety
- 3.obtain the individual's valid consent before working with them
- 4.perform a systematic and thorough check of the individual's airway, breathing and circulation
- 5.form an accurate, full and balanced assessment of the nature and severity of the individual's condition, appropriate to the limits of your competence
- 6.prepare the individual, yourself, materials and equipment in a manner appropriate to their needs, condition and the intended first aid
- 7.place the individual in a safe position which does not adversely affect their condition
- 8.provide first aid in a manner that is consistent with:
 - 1.legislation
 - 2.your level of competence
 - 3.achieving the optimum outcome for the individual
- 9.respect the privacy, dignity, wishes and beliefs of individuals when working with them
- 10.interact with individuals:
 - 1.in a calm and reassuring manner
 - 2.by actively listening and responding to what the individual says, observing his/her behaviour and reactions
- 11.support the individual throughout, encouraging them to promote their own health and wellbeing
- 12.monitor, identify and respond to any changes in the individual's condition
- 13.determine and confirm when death has occurred, within the limits of your own role, accountability and scope of practice, or inform an appropriate other of the need for them to make this confirmation
- 14.summon additional and specialist assistance immediately where an individual's needs exceeds your competence, providing support and first aid as required until such assistance arrives
- 15.provide accurate and clear information about the individual's health status and needs when transferring them into the care of others

ADDITIONAL INFORMATION

This National Occupational Standard was developed by Skills for Health. This standard links with the following dimension within the NHS Knowledge and Skills Framework (October 2004): Dimension: HWB7 Interventions and treatments