



Quality standards for cardiopulmonary resuscitation / automated external defibrillation practice and training in the community

1. Introduction and scope

Cardiac arrest can occur at any time and in any place. These standards refer specifically to cardiac arrest in adults where the most important interventions to save a life are: early recognition of cardiac arrest, calling the emergency services (dialling 999), starting cardiopulmonary resuscitation (CPR) and using an automated external defibrillator (AED). In adults, defibrillation within 3-5 minutes of collapse may produce survival rates as high as 50-70%. In certain settings it may be appropriate to teach specific approaches to paediatric resuscitation, but these standards refer to the management of cardiac arrest in adults according to the current Resuscitation Council (UK) (RC (UK)) guidelines for [Basic Life Support and Automated External Defibrillation](#). The RC (UK) Strategic Plan ([Resus 2020](#)) has identified the development of these quality standards for CPR practice and training in the community as one of its key objectives.

With these community quality standards, the RC (UK) aims to:

- improve outcomes from out-of-hospital cardiac arrest
- provide individuals, as members of their community, with guidance on how to act when a person has a cardiac arrest
- provide guidance to organisations on their responsibilities in providing emergency care for victims of cardiac arrest
- provide guidance to organisations on their responsibilities in providing resuscitation training and equipment
- highlight the training, support, guidance and legislation available for individuals and organisations to achieve these standards within the countries of the UK
- promote AED availability and use in the wider community
- ensure all out-of-hospital cardiac arrests are reported accordingly.

The RC (UK) already defines [quality standards for healthcare settings](#). There are numerous other settings where cardiac arrest can occur, and where CPR standards are not as clearly defined, including; workplaces, swimming pools, health clubs, shopping centres, transport

hubs, the home and many more. These RC (UK) standards are aimed at giving guidance to support training and practice in non-clinical settings.

2. Core standards for cardiopulmonary resuscitation

When cardiac arrest occurs, systems and education should be in place to ensure that:

- cardiac arrest is recognised early
- help is called – dial 999 and call for nearby help
- CPR is started according to current guidelines
- an AED is located, retrieved and used as early as possible.

These interventions can be performed with guidance from the 999-call handler including: instructions for confirming cardiac arrest, starting compression-only CPR, and locating, retrieving and using an AED.

3. Methods

A working group reviewed the evidence for specific aspects of resuscitation practice based on the current RC (UK) Guidelines. The process used to produce these guidelines is accredited by the [National Institute for Health and Clinical Excellence](#).

4. The National Standard

All UK citizens/residents should be aware of how to: recognise a cardiac arrest, call the emergency services (dial 999), start CPR, locate and operate an AED.

Organisations where there is an expectation or requirement to perform CPR and operate an AED should have appropriately trained personnel and equipment fit for that purpose.

To achieve this, the RC (UK) is committed to:

- developing strategies to raise national awareness of CPR, for example: Lifesaver, national TV campaigns, World Restart a Heart Day, media engagement
- lobbying UK Governments to mandate that all school children are trained in CPR and use of an AED. English schools have already agreed to this and will be implementing from 2020
- advising 999 call handlers to provide appropriate telephone instructions to help callers: recognise cardiac arrest, start CPR, locate and use the nearest AED
- setting standards for CPR and use of an AED
- setting standards for the teaching of CPR and use of an AED.

- setting standards for provision of CPR-related equipment, its use and maintenance

5. Organisational Standards

5.1 Organisations where resuscitation is not their prime activity should:

- meet the legal requirement for first-aiders in the workplace in accordance with [The Health and Safety \(First-Aid\) Regulations 1981](#)
- nominate a member of staff to manage first-aid and resuscitation related activities including training and equipment monitoring
- train all staff to at least the CPR/AED Awareness standard so that CPR is started without delay whilst waiting for further help
- ensure systems are in place to ensure that: 999 calls are placed rapidly; quality CPR is started early, and an AED is located and used promptly and appropriately
- consider training key staff to an enhanced CPR standard.

To achieve this, organisations should:

- have permissive guidance to enable all staff to act promptly to help save a life
- make training available to all staff
- appoint an accountable person to manage first-aid and resuscitation provision
- conduct a risk assessment with regard purchasing an [AED](#)
- ensure that the location of first-aid equipment (including AED) is clearly and appropriately [signposted](#)
- make all staff aware of where the nearest AED is located
- ensure the AED is readily accessible and that its presence is indicated throughout the premises with appropriate AED signage
- where an AED is provided by the organisation, ensure that it is subject to regular and appropriate function checks and registered with the ambulance service.

5.2 Organisations with a responsibility to provide resuscitation in the community should:

- nominate a member of staff to oversee first-aid and resuscitation activities, including training
- ensure that all staff with a duty to respond have a current first-aid qualification that includes CPR and AED operation
- encourage all other staff to be trained to at least the CPR/AED Awareness Standard
- ensure that all staff have appropriate equipment to carry out their role
- train key staff to an enhanced CPR standard

- Consider training some staff to become CPR trainers.

In order to achieve this, organisations should:

- appoint an accountable person to manage first-aid and resuscitation provision, including training
- have a system in place to facilitate early call for an ambulance and for rescuers to be able to talk directly with call handler if necessary
- ensure local procedures allow emergency services easy access to premises
- have permissive guidance to enable all staff to act promptly to help save a life
- make CPR/AED training available to all staff
- provide access to appropriate training for all those with a duty to respond
- conduct a first-aid needs assessment
- conduct a [risk assessment with regards to purchasing an AED](#)
- provide an AED or access to an AED in the workplace. Staff should know the location of the AED, ensure it is signposted and registered with the local ambulance service.

6. Training Standards

Training standards are defined for three distinct groups:

1. The general population - CPR/AED Awareness.
2. School children (taught via curriculum) - Basic CPR/AED Training.
3. Those without a formal duty of care - Basic CPR/AED Training.
4. Those with a duty of care – Enhanced CPR/AED Training.

Following this consultation phase, a detailed curriculum for these groups will be developed. CPR/AED awareness will not require hands on training, Basic CPR/AED Training will require hands on practice with appropriate manikins and Enhanced CPR/AED Training will require hands on practice and assessment of skills using manikins that give feedback on performance. Appendix A provides guidance for organisations and suggestions as to the level of training required for specific groups.

The principles underlying these training standards are that:

- individuals should receive training based on their role and responsibilities
- CPR training may comprise a variety of methods (e.g. formal courses, simulation training, video-based training/self-instruction, videos). For example, [Lifesaver](#) and [Lifesaver VR developed](#) by the RC (UK) teach CPR and AED use through interactive gaming on a smartphone, tablet or computer

- all training should include: recognition of cardiac arrest, the need for an early 999 call, performance of chest compressions and retrieving and using an AED
- enhanced training should include the above, plus: methods of artificial ventilation, compression/ventilation ratios, simulated use of an AED in a real-world (e.g. workplace) environment. Where possible, CPR performance should be objectively assessed using a simulated incident and a resuscitation training manikin that gives feedback on compression rate, depth, position and recoil. Records of an individual's CPR training performance should be retained by the organisation
- at least annual refresher training should be provided.

7. Equipment Standards

Organisations should have equipment available based on the level of resuscitation response they provide:

- there should be a process in place to ensure all equipment and supplies are in working order
- all organisations should conduct a risk assessment regarding the provision of an AED.

To achieve this, organisations should have systems in place to:

- ensure that emergency equipment is located and signposted appropriately and checked according to manufacturers' guidelines
- ensure that training covers the use, location and checking of equipment
- monitor the checking of equipment, including record of expiry dates and functionality of equipment, using signed and dated checklists
- where owned or leased by the organisation, ensure the AED is registered with the local ambulance service.

8. Supporting Documents:

RC (UK) Guidelines 2015

<https://www.resus.org.uk/resuscitation-guidelines/>

A guide to AEDs

<https://www.resus.org.uk/publications/a-guide-to-aeds/>

Guide to AED signage

<https://www.resus.org.uk/defibrillators/standard-sign-for-aeds/>

HSE – First aid at work legislation

<http://www.hse.gov.uk/pubns/books/l74.htm>

Links to National Strategy Documents

England

<https://www.resus.org.uk/publications/resuscitation-to-recovery/>

Northern Ireland

<https://www.health-ni.gov.uk/articles/community-resuscitation>

Scotland

<http://www.gov.scot/Publications/2016/11/7733/2>

Wales

http://gov.wales/topics/health/nhswales/plans/heart_plan/?skip=1&lang=en

http://gov.wales/topics/health/nhswales/plans/heart_plan/?skip=1&lang=cy

UK Out-of-Hospital cardiac arrest outcomes project

<https://warwick.ac.uk/fac/med/research/ctu/trials/ohcao/>

CPR, AEDs and the law

<https://www.resus.org.uk/cpr/cpr-aeds-and-the-law/>

APPENDIX A

Responsibility to provide training and definitions of ‘duty of care’ are a complex issue and may be formal or perceived. It is up to the organisation to define the limits of their own responsibilities to provide first aid and CPR and, therefore, the training requirements for their workforce or volunteers. The table below offers a guide to organisational standards and suggested levels of training.

Organisation / Individual	Includes	Recommended Training Standard
Lay person, member of the general public	All citizens /residents of the UK	CPR/AED Awareness
School children in compulsory education	All those parts of the UK where there is mandatory inclusion on the school curriculum	CPR/AED Basic
Non-medical Voluntary organisations	Military Cadet Forces (ATC, CCF, ACF, NCF etc) Public Service Cadet Forces (PCF, FCF etc) RNLI Lifesavers Scouts, Girl guiding Diving instructors Drivers association	CPR/AED Basic or Enhanced
Medical Voluntary organisations	St John Red Cross British Heart Foundation Arrhythmia Alliance First responder schemes Heartstart schemes	CPR/AED Basic or Enhanced
Non-medical Public service workers who currently are required to have CPR training	Police Fire Service Lifeguards Coastguard Highways Agency (Driver First Assist) Prisons/Youth Offender Institutions Transport providers - i.e. Land, Sea, Air	CPR/AED Enhanced
Non-medical Public service workers who currently are not required to have CPR training	Teachers in compulsory and post compulsory sectors Transport providers - i.e. Land, Sea, Air (those not covered above)	CPR/AED Basic

Industry Sector that requires BLS or AED training	May be too large to define, so is defined by those organisations requiring FAW training (at any level), targeted through First-Aid at Work Training stakeholders below	CPR/AED Basic
CPR/BLS Instructors – public and private sector	First-aid Instructors registered with validating body First-aid Instructors not registered with validating body. BLS Instructors embedded with any organisation above	CPR/AED Enhanced

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