



Advice and Best Practice Guidance for the use of Automated External Defibrillators (AED)

The purpose of this document is to provide practical advice and information on all aspects of managing an AED. This document is not a standard or a policy but aims to promote best practice in the care and use of AEDs.

An AED is a sophisticated, reliable, safe, computerised device that delivers a controlled electric shock to treat victims in cardiac arrest (when the heart stops pumping). An AED should **only** be applied to casualties who are unconscious and **not** breathing normally. The AED will analyse the heart rhythm and advise the operator if a shock **is** required or if it is **not** required to continue Cardiopulmonary Resuscitation (CPR). Ongoing CPR will help to maintain a shockable rhythm within the victim's heart and provides the best chance of survival.

Coronary Heart Disease is Northern Ireland's single biggest killer. More than 1 in 7 men and 1 in 10 women die from coronary heart disease. Many of these deaths occur suddenly and outside of hospital following a sudden cardiac arrest.

The chances of survival are very time dependent on; the longer the attempted resuscitation is delayed, the worse the outcome. For every minute that passes without CPR, the victims chances of survival is reduced by 10%. Two of the most important factors influencing survival are the early effective CPR and early defibrillation.



It is important to remember that defibrillation is the **third** link in the chain of survival. **All** of the links are vital and of equal importance.

If you wish to proceed with the purchase of an AED, here are some important considerations:

AED placement. Where should the AED be placed?

It should be somewhere central, easily accessed and preferably mounted on a wall in a secure position. Ideally, the device should be available within **2 minutes** brisk walk from anywhere in the building/site. Display appropriate signage throughout your site indicating the AED location/s.

The owner/co-ordinator should ensure that the AED is **‘emergency ready.’** Unpack and fully assemble the AED with electrode pads and battery in place and in date, to ensure there is no delay if immediately required.

Please include an **‘emergency ready rescue kit’** comprising:

- Disposable Gloves
- Disposable razor
- Pocket Mask or Face Shield
- Paper Towel
- Tuff Cut Scissors

Cabinets: Coded, locked or emergency push button cabinet and available 24/7?

Consider placing your AED in a coded, locked or emergency push button cabinet whether available 24/7 or not **OR** placed inside or outside the building, please ensure that members of staff within the building are aware of the code (if used) and location of where the code is recorded. If outside the building, remember, it will require an electrical supply to provide latent heat on cold winter days to ensure the AED operates correctly if used in an emergency.

Who can operate an AED?

AED’s are designed to be operated by **ANY** member of the public whether trained or untrained. The ambulance service call taker will also give CPR and defibrillator instructions. This is vital to ensure CPR starts as quickly as possible. Organisations should have trained first aiders who can respond immediately to an incident and provide CPR and defibrillation. **DO NOT** delay CPR until their arrival. Please inform your insurance company that you have an AED located on site.

Who will provide the AED/CPR awareness training?

An accredited first aid organisation/person should provide this training. The average length of a training session is approximately 3 hours. The contents of the course should be in accordance with the training recommendations and learning outcomes set out by the Resuscitation Council UK for CPR and AED. (This training manual is available from (www.resus.org.uk)

Ongoing training commitment.

It is highly desirable that those who are providing CPR or using an AED, are appropriately trained and that their skills are kept up to date.

However, do not discourage those not trained or whose training has expired but are willing to use the AED.

(See Appendix 1 for sample training record)

Who will be responsible for checking the AED?

There should be a Co-ordinator or designated person/s (**See Appendix 2**) with responsibility for checking the AED on a weekly basis and following use of the device. This should be carried out in accordance with the manufacturer's recommendations.

On a weekly basis the following should be checked:

- The AED – is in its correct location and has not been tampered with
- Battery status indicator - to ensure the battery is working correctly & not alarming
- Electrode Pads – ensure that these are unopened and still in date
- Additional equipment – this should include disposable face/pocket mask, tuff cut scissors, disposable razor, disposable gloves and towel/dry cloth/paper towel.

NB: If the AED alarms outside of these checks then please contact the manufacturer for further guidance.

(See Appendix 3 for a sample checklist)

How will AED operators be alerted if a collapse occurs?

It is the individual organisation's responsibility to ensure an appropriate protocol is in place for an immediate, co-ordinated response by the trained AED operators.

Is there aftercare/debriefing available for the person/s who have used the AED in a cardiac arrest situation?

It is the responsibility of your organisation to offer aftercare/debriefing after an AED is used. However, NIAS if requested, can provide this through their Community Resuscitation Team – resus.admin@nias.hscni.net

REMEMBER:

- Complete your standard accident/incident report form
- Ensure all relevant information is given to Northern Ireland Ambulance Service (NIAS) at the time of the incident.
- Ensure aftercare/debriefing is available for the individual/s involved in the resuscitation attempt if required.

Buying tips for a public access AED:

- Buy the AED that is best for your circumstances (including purchase price)
- Buy the AED that your community/organisation is most likely to be comfortable with using in an emergency
- Think beyond the initial purchase to the long term cost of battery and electrode (pad) replacement.
- Consider the warranty offered.
- Consider the cost of regular maintenance checks (as recommended by the manufacturer.
- Try and purchase your AED from a local provider who can provide a local aftercare service as required.

Consider:

- Will the device be fixed to a location or will it be moved around a lot (i.e. team bus/transport)
- The durability of the device
- Storage conditions as extremes of heat or cold, dust and moisture could potentially damage the device
- If your AED is placed in an area where noise is a factor, or might be used by people with visual or hearing impairments, you should consider an AED with both visual and verbal prompts.
- Regardless of the location, the AED should deliver simple, clear and loud voice prompts to help the user in an emergency.

What does the AED IP rating mean?

Each AED has an **Ingress Protection (IP)** code. This code dictates the level of protection that electrical appliances have against the intrusion of solid objects or dust, accidental contact, and water. The higher the value of the number, the higher the resistance to the contaminants listed. AED's with a lower numerical IP rating are generally intended for use indoors or in a heated cabinet.

It is helpful for the public and public organisations to know the location of Public Access Defibrillators (PAD) in an emergency. Therefore, if you have or are purchasing an AED please remember to register it with the NI Ambulance Service at www.thecircuit.uk

Details of Site AED Co-ordinator

Site Name:

Site Address:

Your Site AED Co-ordinator is:

Name:

Department:

Contact No:

Email:

Please contact the above person if there are any issues in relation to the AED or if the device is used.

