

Aberystwyth University Safety Management. Safety Procedure	Automatic External Defibrillators	Ref: SProc 002 Issue: 2 Page: 1 of 5 Date Issued: 10 th February 2014
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1.0 Purpose

To define the management programme for Automatic External Defibrillators (AEDs) at AU, including deployment, maintenance and training in their use.

2.0 Scope

All AEDs obtained as part of AU general first aid provision

3.0 Responsibility

- 3.1 Health, Safety & Environmental Advisor (H.S&EA) to monitor overall AED programme
- 3.2 Health, Safety & Environment (H.S&E) Department to provide consumable items for those AEDs obtained by that department; consumables for other AEDs to be provided by the departments concerned.
- 3.3 H.S&E Department to arrange training for staff by accredited external providers for the use of LIFEPAK[®] CR^{Plus} AEDs, responsibilities for local refresher training are as given in section 4.3
- 3.4 Responsibility for maintenance checks as given in section 4.4
- 3.5 Following successful AED training: all AU First-Aid-at-Work certificated staff to become authorised AED users, plus other members of staff as noted in section 4.3

4.0 Procedure

4.1 Background.

AEDs are used as an adjunct to Cardio-Pulmonary Resuscitation (CPR) when treating victims who have experienced sudden cardiac arrest, while awaiting arrival of the emergency services. AEDs automatically analyse the heart rhythm of a victim and, where appropriate, deliver an electrical shock with the aim of restoring normal heart activity. External defibrillation is most effective if it is applied within 10 minutes of cardiac arrest and it is with this factor in mind that AU decided to establish an AED programme to strengthen the existing First Aid provision at the University.

The AEDs are suitable for use on individuals over the age of eight years. Although electrodes are available for paediatric use these are not supplied by AU. The likelihood of a child under eight suffering from a form of heart failure that would respond to an AED is less than the likelihood of an operator becoming confused with the choice of electrodes in an emergency.

Note: the Sport and Exercise Science Department had previously obtained an AED on the basis of a local risk assessment of their research activities. AU obtained instruments of the same model to help rationalise training.

4.2 Location of AEDs and area of service

It is possible for someone to collapse with the symptoms of sudden cardiac arrest anywhere in AU (and of course it is then vital that the Emergency Services are summoned immediately). However, to inform the decision on how many AEDs should be obtained and where they should be deployed the areas of greatest likelihood can be predicted by an analysis of activities, previous incidents and people at risk. This assessment is summarised in Table 4.2.1.

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Table 4.2.1 Synopsis of assessment outcomes re AU sites for AED deployment

Building / Area	Activities of relevance	People at particular risk	Other factors
Sports Centre Penglais Campus	Wide range of vigorous sports	Large numbers of participants, many of whom are members of the public and over 40 years of age	Three incidents in the past where CPR was given by First Aiders
Arts Centre Penglais Campus	Wide range of audience events	Very large numbers of participants, many of whom are members of the public and over 40 years of age	One incident in the past where CPR was given by First Aiders
<i>Carwyn James Building Penglais Campus</i>	<i>Sport and exercise science research on humans</i>	<i>Cardiac rehabilitation patients</i>	<i>Departmentally-funded</i>
Equine Centre and environs. Llanbadarn campus	Equine sports and shows	Many of the participants are members of the public and over 40 years of age	Separate campus location
Gogerddan campus	Farming	Farm staff	Out of town campus location

The AEDs listed table 4.2.2, are placed in accessible areas but not on open display to minimise the chances of interference which could deplete the batteries.

Table 4.2.2 Location of AEDs

Building	Location of AED
Sports Centre (Penglais Campus)	Behind the main Reception desk
Arts Centre (Penglais Campus)	Behind the Box Office desk
<i>Carwyn James Building (Penglais Campus)</i>	<i>On the wall near to the main Physiology laboratory</i>
Thomas Parry Library	Behind the main library desk
William Davies Building (Gogerddan Campus)	First Aid room near the Porters lodge.

Locations of the AEDs are indicated by this symbol placed in the vicinity:



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4.3 Training and Operation

4.3.1. Arts Centre, Thomas Parry Library, William Davies Building

Accredited local training providers arranged by HS&E Department to deliver primary and annual refresher training in the use of AED and CPR (Cardio Pulmonary Resuscitation) techniques to staff who hold a First Aid at Work Qualification.

In addition, people who hold the Emergency First Aid at Work certificate and work in the Arts Centre, or on the Llanbadarn or Gogerddan centres, will be invited to training. These people have been assessed as competent with CPR techniques.

4.3.2. Sports Centre

Training for all first-aid trained staff in the Sports Centre is arranged by the Centre using accredited trainers.

4.3.3. Sport and Exercise Science Department

AU first aiders based in Carwyn James are trained as per 4.3.1. Local training using accredited trainers is arranged by the department for other SES staff and students as required.

4.3.4. AED Training Unit

A Lifepak CR Plus training device is maintained and stored by the HS&E Department. This unit is available for all AED training sessions.

4.3.5. General Operation

The primary response to an unconscious, non breathing casualty is to call for emergency assistance and to perform CPR. Whilst this is being administered a request can be made by the First Aider to another person present to fetch the AED. CPR should not be interrupted, even if there is no one present to fetch the AED.

AEDs have been situated in buildings in which there is perceived to be people at the greatest risk of cardiac arrest. It is not envisaged or required that First Aiders will have to travel to other buildings to collect an AED on the Penglais campus. On Llanbadarn the Equine Centre may request that the AED is brought to the Equine Unit.

Once the AED unit is opened, a series of automatic voice prompts will start, which lead the First Aider through the deployment of the electrodes on the casualty's body and will automatically assess the heart rhythms. If the electrodes are incorrectly sited then the device will ask for them to be relocated. If appropriate the AED will issue a warning to stand clear and will shock the patient before reassessing the heart activity. The AED will prompt to continue with CPR as required.

The unit should be left attached to the casualty until the Emergency Services arrive.

4.4 Communication, Staff & Authorities

Trained staff are provided with a summary of the AED procedure, (Appendices)

The Emergency Services section of the Health Board Hywel Da have been communicated with to inform them of these AED arrangements, ref SHE file 171

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4.5 Maintenance

A quarterly inspection of most of the AED units is undertaken by the H.S & E Department and records are kept of these checks. The AEDs based in the Sports Centre and Carwyn James building are checked by respective departmental staff.

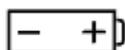
The units performs weekly self tests and the display changes if anything requires attention.

OK indicator

OK

- no action required

Charge pak indicator



- replace charge pack and electrode pack

Attention indicator



- refer to operating instructions

Wrench indicator



- contact authorised service personnel.

Batteries and electrodes have a use-by date and are replaced on these dates as part of planned preventative maintenance (PPM).

5.0 **Records**

Maintenance records of the AEDs located in Carwyn James and the Sports Centre are held locally.

Maintenance records of the other AEDs are stored on the HS&E Sharepoint site.

6.0 **References**

Medtronic (2003) Lifepak CR plus Defibrillator operating instructions

Cambrian Independent Ambulance Service Ltd (2004) Defibrillation

Copies in SHE file 171

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7.0 Appendices

Information for Aberystwyth University First Aiders

Automated External Defibrillator

Insurance

If you carry out first aid whilst at work on Aberystwyth University's business; then provided you **do not** go outside the scope of your training then you will be covered by the University's insurance.

First Aid at Work Certificated

Although you may not be located in a building that contains an AED, you are expected to attend incidents in any AU buildings if requested, and so an AED may be available.

Emergency First Aid at Work

You will have undertaken this AED training as you are located in a building that contains one of the AEDs.

Automated External Defibrillator Location

When you have completed your AED training please go and familiarise yourself with the exact locations of the defibrillators. They are not locked away but are located out of sight to prevent theft and malicious use which can seriously deplete the battery. Please be discrete about their location. This sign is used by Aberystwyth University to indicate the location of the AED:



Arts Centre - Behind the Box Office desk.

Thomas Parry Library (Llanbadarn)- behind the main desk

Sports Centre – Behind the reception desk.

William Davies (Gogerddan) - In the medical room by the porters lodge on one of the shelves.

Please note the AEDs are located where they are most likely to be required. The prime first aid approach for someone with Cardio Respiratory Failure is CPR. In the remote possibility of someone requiring CPR in a different location it is **not** the intention that the AED should be collected from a distant building but instead CPR should continue until the Ambulance arrives.