

Automated External Defibrillators (AEDs) in the Workplace

There has been a significant amount of publicity on the subject of Automated External Defibrillators (AEDs) in recent months, both in the popular press and in specialist health and safety publications. This relates both to the siting of such devices in public places and also discussions with regards to their effectiveness in the workplace.

The success of AEDs in reducing the death rate following a sudden heart attack is well established.

An AED is a lightweight portable device which, when attached to a person who is having a heart attack and in particular when the heart stops, can deliver an electric shock through the chest wall. The electric shock can disrupt an irregular heart rhythm and restore regular rhythm to allow the heart to function properly. The success of such treatments declines by approximately 10% for each minute that the irregular heart rhythm persists, as the heart muscle energy becomes depleted. Therefore, timely treatment in conjunction with basic life support/resuscitation procedures can increase an individual's potential of survival from a sudden heart attack or heart event.

A number of features need to be considered before introducing an AED into the workplace. It is important that you undertake a risk assessment of your workplace, which should include the following:

1. The number and frequency of sudden heart events and deaths due to heart attack in your work population.
2. The reasonable probability that an AED will be used at least once in five years.
3. The accessibility to your local paramedic services.
4. The time from callout of the conventional paramedic services to the delivery of shock treatment (defibrillation) – can this be achieved within five minutes?
5. The time from collapse of the individual due to a heart event in the workplace to the point where an AED can be administered. This must be less than five minutes.

AED development is constantly advancing, producing even more lightweight and user friendly machines. The cost presently of a device ranges from £1500 to £3000 depending upon the model and specifications. The cost, however, of the device is only the initial capital outlay. In addition other costs will include maintenance of the device, the training and skill maintenance of staff who use the machine and the cost of the administration of the programme. The benefits of AEDs need to be considered in conjunction with the practical issues involved in

installing such equipment BEFORE embarking on the purchase of a machine. Prior to the introduction of such a workplace based facility, clear and unambiguous guidelines are required and the development of a notification process for involving the emergency paramedic services must be clear and discussed with those services.

The component of a workplace defibrillation programme should include:

1. The establishment of a centralised management system for the AED programme
2. Medical direction and control of the workplace AED programme.
3. Awareness and compliance with manufacturers recommendations and legislation, where applicable.
4. A written AED policy for each workplace location
5. Clear coordination with the local emergency services.
6. Integration in an overall emergency response plan for your workplace
7. Selection, placement and scheduled maintenance of equipment and ancillary supplies in accordance with the manufacturer's guidance.
8. The establishment of an AED audit programme to include a medical review, record keeping and programme evaluation
9. A periodic review and modification of the workplace AED programme protocols in accordance with national guidance, manufacturers guideline and employee response.

Other issues which will need to be addressed before an AED is purchased and introduced into the workplace are:

1. The legal position of such equipment and the employees who are tasked to deliver the service
2. The training requirements for the users of AEDs
3. Whether the AEDs are regarded as medication
4. The exact details of the medical supervision and involvement in an AED programme



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It is clear that the introduction of AEDs into the workplace is significantly more complex than just placing an order for the equipment or accepting a charitable gift. We hope this article assists you in addressing the issues that need to be considered before issuing the purchase order, however well meaning this may be. If you have any questions, please do not hesitate to contact us at Preventative Healthcare on at <mailto:talk2us@phcohealth.co.uk>

