



# Draft Defibrillator Information and Support Procedures

Work Health and Safety Directorate



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DRAFT

## 1. Definitions

What is an Automated External Defibrillator (AED)?

An automatic External Defibrillator (AED) assesses the rhythm of the heart and, if appropriate, provides audio commands to the rescuer to activate the device. An AED is used in the event of a cardiac arrest where the heart has a disorganized, or fibrillating, cardiac rhythm. Fibrillating heart muscles twitch randomly, rather than contracting in unison. This results in ineffective pumping of blood to the body and brain. The AED provides a 'shock' to a heart in cardiac arrest to help the heart muscles regain a normal rhythm. This is known as defibrillation. The AED will not apply a shock to a heart in a 'non-shockable' rhythm.

## 2. Introduction

These procedures provide workplace managers across the Department of Education with practical strategies for assessing their potential need to install and implement a defibrillator and its associated programs in their workplace. Further to that it will afford managers strategies to implement a program of training and upkeep of records and maintenance.

These procedures have been developed to provide specific guidance for all NSW Department of Education workplaces including NSW government schools and state office locations. They are intended for application with in departmental workplaces. The *Defibrillator Information and Support Program* procedures are to be read in conjunction with the department's *First Aid Procedures*.

Where available, defibrillation makes up a part of the resuscitation protocol of a cardiac arrest victim. However, it is important to note that the use of an AED is only one part of the emergency response for the person and does not negate the need for other priority actions. The steps in responding to the person are:

- Early access to ambulance by calling 000
- Early CPR e.g. CPR must not be delayed by attempts to locate an AED
- Early defibrillation e.g. use of an AED
- Early advanced life support

It is important to note that the use of an AED is only one part of the emergency response for the person and does not negate the need for other priority response actions. But is part of the DRSABCD action plan (summarised below):

D- Danger – In the approach to any emergency, the emergency carer must assess danger to themselves, bystanders and the patient.

R- Response – The purpose of finding a response is to see if the patient is conscious. To establish a response the emergency carer must squeeze the shoulders and shout simple commands at the collapsed person.

S- Send for help – If the patient does not respond, call or ask a bystander to call an ambulance (000 – triple zero). If available, also ask a bystander to gather a first aid kit.

A- Airway – Leave the unconscious patient lying on their back to check their airway. If there is a foreign object in the mouth, roll the patient into the recovery position to clear the airway. Once the airway is clear, tilt the patient's head back to remove the tongue and open the airway.

B-Breathing – To assess for breathing the emergency carer must: a) Look for the rise and fall of the chest and listen for the breath from the mouth and nose b) Feel for breathing and the rise and fall of the chest.

C- If there is no breathing present commence CPR. Locate the compression point by visualizing the centre of the chest. Give 30 compressions, one third the depth of the chest. Following the 30 compressions, commence 2 rescue breaths. Compression rate should be at a speed of 100 compressions per minute.

D- Apply defibrillator, if available – follow voice prompts.

Refer to the [www.ambulance.nsw.gov.au](http://www.ambulance.nsw.gov.au) for further information (e.g. CPR fact sheet)

## 3. Responsibilities

Please refer to the department's First Aid procedures for information about responsibilities for the provision of first aid.

## 4. Developing and implementing a defibrillator program

The NSW Department of Education's *First Aid Procedures* set out the requirements for NSW government schools and other Departmental workplaces to have a defibrillator in place. Schools are considered to be an unusual location for cardiac arrest. However, workplaces may make a decision to purchase and maintain a defibrillator as part of their first

aid equipment if there is an identified risk. Refer to **Section 5 – Risk Management** for an assessment guide that schools and other departmental workplaces should use.

Based on formal advice from the NSW Ministry of Health, **there is no requirement** for NSW Department of Education schools or other workplaces to have a defibrillator in place. Schools are considered to be an unusual location for cardiac arrest. However workplaces may make a decision to purchase and maintain a defibrillator as part of their first aid equipment if there is an identified risk.

The following factors should be considered during the decision making process regarding the purchase of an AED. The workplace will be responsible for all the following elements related to the appropriate management of the AED:

- Initial purchase cost
- Initial training costs
- Ongoing training costs e.g. refresher or due to staff turn over
- Record keeping e.g. training, maintenance, incidents and investigations
- Service and maintenance costs

### *Cost*

The cost of purchase is to be met by the workplace through available funds.

WHS and PSD are looking at setting up a standing offer arrangement with one of the suppliers on Contract 956 to facilitate the purchasing for schools at competitive pricing.

In the interim schools should be considering the following items when looking at purchase:

- Do they cater for children (under 8 less than 25kg) and also for adults (or which models do)
- What is the price(s)
- What is the battery life
- How portable are they
- Do they come with a wall mounting bracket and Signage – or are those purchased separately
- Are they fully automated or semi automated

(This section is currently being developed in consultation with Procurement Directorate to include information about purchase of government contract)

### *Training*

Recent advances in defibrillation technology have enabled AEDs to be operated with relatively minimal or no-prior instruction. However, it is important that training is conducted to ensure that staff are aware of the proper application of the AED and how this is incorporated into other workplace emergency planning.

If an AED is purchased the workplace will need to establish and maintain a record keeping system of staff qualifications, competencies and training undertaken. These records would outline how the elements listed below have been addressed and include workplace based elements such as incorporation of the use of the AED into emergency plans.

Comprehensive training of persons in the operation of an AED should include the following elements:

- Development and testing of on-site action plans for response to cardiac arrest, including: calling for an ambulance, basic life support, and safe use of an AED
- Correct measures to minimise risk of cross infection during skills training and rescue procedures
- Incident recording, data collection and notification of each incident requiring deployment of an AED
- How to access the department's Employee Access Program (EAP)
- AED storage and maintenance.
- Access to re-certification training.

## 5. Risk management

### Risk assessment

NSW Department of Education workplaces, including schools, should conduct a risk assessment and forward the assessment to their Work Health and Safety Consultant for review and advice.

Refer to **tables and checklists below** for a risk assessment guide that schools and other departmental workplaces should use.

The following factors should be considered during the decision making process regarding the purchase of an AED. The workplace will be responsible for all of the following elements related to the appropriate management of the AED:

- Initial purchase cost
- Initial training costs
- Ongoing training costs e.g. refresher or due to staff turn over
- Record keeping e.g. training, maintenance, incidents and investigations
- Service and maintenance costs

Considerations for the purchase and use of AEDs

**Important note:** Defibrillators are not required under the Department's *First Aid Procedures*. There is no need to complete this risk assessment unless you believe that a defibrillator may be required for your workplace

### Risk Assessment Questionnaire for Automated External Defibrillator

<b>Name of workplace</b>	
<b>Address of workplace</b>	
<b>Date of assessment</b>	
<b>Contact person</b>	
<b>Contact phone number(s)</b>	

Due to the relatively low likelihood of cardiac arrest in a workplace (1.5%) and public places (12%)\*, the following assessment criteria are recommended for review to help determine the benefits of having an AED available in a particular location/facility. The risk of cardiac arrest from cardiovascular (e.g. heart) disease does increase with age and is generally higher for males than females. This should be taken into consideration in the assessment.

### Existing controls

The purchase of a defibrillator needs to be reviewed in the context of existing first aid and emergency care arrangements of a workplace. Maintaining first aid arrangements in accordance with the Departments first aid Procedures is a priority. This is because your first aid plan forms the basis for the school's response in an emergency. It needs to be considered in the context of other key arrangements eg first aid training, and the risk profile for your school.

<b>Existing first aid controls</b>	<b>Yes</b>	<b>No</b>
Do you have an existing and up to date first aid plan?		
Does you plan factor in time for emergency services to arrive at		

your workplace following contact?		
Do you have an appointed first aid officer(s)?		
[For schools] Have employees completed CPR training?		
Do you maintain a first aid or first aid kits in accordance with the First Aid Procedures?		
[For schools] Have employees completed emergency care training?		
Do you report all incidents and injuries?		
Do you maintain and update individual health care plans for students, with emergency response plans?		

### Risk assessment criteria

Risk Assessment Criteria		Yes	No
1	(a) Estimated more than 50,000 visitors to site per year, and/or (b) Major public gathering where on-site first aid is provided, and /or (c) Specific locations/events of high risk due to age (>50) or activity levels.		
2	Identifiable persons able to: (a) Undertake appropriate first aid training including AED. (b) Be available for response to the victim within four minutes. (c) Be available during operational / opening hours		
3	Isolation from emergency services response due to distance or potential access delays e.g. large crowds (>10 minutes)		
4	You have confirmed there is no access to an AED from neighbouring building that is readily accessible?		
5.	a. Have you consulted with relevant users for your workplace e.g. P & C b. Have you consulted with your employees where you believe a defibrillator may be required and if yes, c. Are they supportive of the purchase of the defibrillator and are they confident and willing to use it in an emergency		

Other relevant comment/information (e.g. community views)

Where required, workplace should use the [risk management tools](#) on the WHS Intranet to complete the risk assessment.

If all the answers in the assessment table were 'Yes', there is a strong case for the purchase of AEDs for your workplace. If a decision is made to purchase an AED the criteria provided in the checklist below should be actioned

### Recommendation

A defibrillator is / is not required for the workplace (circle the applicable statement)

Signature (workplace manager)

Date:

Comment of WHS Consultant:

### Checklist criteria

AED Checklist Criteria		Yes	No
1	Update your first aid plan to incorporate defibrillator location, use, training, maintenance and communication protocols		
1	Program is integrated with community medical and emergency services authorities' response.		
2	Responders have CPR, first aid, and AED knowledge and skills verified through assessment.		
3	Systems to document, review, and collect data on each 'incident'. Each incident must be reported to the WHS Hotline		
4	A system to provide post-incident support to the responder such as counselling and debriefing.		
5	On-site action plans for response to cardiac arrest incorporated into workplace emergency response plans.		
6	A system for on-site AED storage and maintenance, including ensuring that the		

	AED will be serviceable whenever needed, e.g. battery charged, pads not old/dry.		
7	Weekly check that Defibrillator has not failed its self-test (Recommended)		

## Security

Consideration is to be given to securing the AED in such a way as to minimise risk of machine theft whilst also allowing immediate access to the machine when required.

## 6. Providing and recording information

### Notification to WHS Directorate

It is important that the Department of Education maintains records of defibrillators kept in workplaces. If school/workplace purchases a defibrillator, please contact the WHS hotline on 1800 811 523 or email the WHS Directorate on:

[safeworking.learning@det.nsw.edu.au](mailto:safeworking.learning@det.nsw.edu.au)

### Record Keeping

Incident reporting: Please note, as the use of defibrillators is a new requirement and training and incident management needs to be monitored in order to improve systems and protocols, please report any use of the defibrillator to the WHS Incident Reporting Hotline on 1800 811 523.

In addition to training records, each workplace would need to establish and maintain a reporting system to:

- document each incident requiring AED deployment – **in addition to local records, all defibrillator uses must be reported to the WHS Directorate hotline on 1800 811 523 or email the WHS Directorate on:**  
[safeworking.learning@det.nsw.edu.au](mailto:safeworking.learning@det.nsw.edu.au)

### Service and Maintenance

Like any piece of plant or equipment, an AED is to be maintained in accordance with the manufacturer's specifications. The requirements of the *Work Health and Safety Act 2011* and *Managing Risks of Plant in the Workplace 2012*.

Based on recommendations of a number of first aid providers, it is recommended that a weekly inspection be performed on the machine to ensure the machine has not failed a self-check; this inspection only takes a minute to complete.

This includes checking:

- electrode pads are updated and within their use by date
- Batteries are replaced in accordance with manufacturer advice
- Weekly checks** are conducted on machine to ensure it has not failed a 'self-check'

### Signage

A defibrillator sign should be purchased and displayed at the point where the defibrillator is located.



### Students and defibrillators

**It is important to be aware that there are separate pads required for children who are less than 8 years of age and/or less than 25 kg, for defibrillator use. You will need to check the manufacturer's instructions for the**



**use of pediatric defibrillation electrode pads. This should be addressed in first aid planning and training.**

If a student's parents or carers provide the school with a Do Not Resuscitate order for their child advice should be sought from the Legal Services Directorate about the impact of the order on any emergency response the school will need to provide the student.

Update to the workplace First Aid Plan and treatment protocols

First aid plans and protocols must be updated to include defibrillators when they are purchased. It is important to note that the use of defibrillators should not take place in isolation from CPR. Staff should follow the emergency protocols established through their first aid training including e-emergency care, following the Doctors ABCD protocol.

## **7. Legal liability for staff administering defibrillator**

In the unlikely event that a student is injured in some way as a result of the administration of first aid by a staff member, the staff member is protected by the legal principle of vicarious liability.

This means that unless the staff member has deliberately injured the student, or behaved with reckless disregard for the student's safety in the administration of first aid, the Department will be liable for any injury caused by the negligence of the employee.

Of course, if there is no negligence then neither the staff member nor the Department is liable. The same principles apply where first aid is rendered to another staff member or a member of the public.

Please also refer to Legal Issues Bulletin No 46, Legal issues concerning the administration of prescribed medications, health care procedures and medical emergencies in schools and TAFE NSW

[Legal issues Bulletin No 46](#)

## **8. Supporting Resources**

Support and Information

WHS Consultants can provide support and assistance in relation to first aid management and defibrillators. Please contact your WHS Consultant if you would like assistance or contact the WHS Hotline on 1800 811 523

Guiding Principles for the deployment of AED in public/work places

See section 5 – risk assessment

Assessment Criteria

See section 5 – risk assessment

AED Checklist Criteria

See section 5 – risk assessment

## **9. Further information and support**

For further information and support please contact the WHS Directorate Incident and Injury Notification Hotline on 1800 811 523 or your local WHS Consultant