



INTRODUCTION OF THE AEDS AND PUBLIC ACCESS DEFIBRILLATION

The public perception that deployment of AEDs alone saves lives is incorrect; “rather the implementation and maintenance of AED programs embedded in the ‘chain of survival’ saves lives” (Zed 2008, p 2340) (See Emergency Preparedness below).

The plan of Public Access Defibrillation (PAD) is to eliminate delays by having non traditional first responders (e.g. security staff) and laypersons to apply the technology of defibrillation. PAD is a very effective strategy for patients suffering SCA in public places where AEDs are installed. The value of mobile response is supported by a study of security officers where the mean time for delivery of the first shock was 4.4 minutes there was a 53% recovery. When the shock was delivered within 3 minutes there was a 74% recovery. A “call-to-shock time interval of 5 min is the goal” (Ramaswamy & Page 2003, p240).

Criteria for Deployment

The first two AEDs were installed at UWA in 2003, the University Safety Committee has approved the purchase of a further 18 AEDs (Through full and partial funding models). These units were installed considering the criteria for deployment outlined below:

- areas of medical need
- mobile first response requirement
- sport venues
- location – central or distant (likely mobile response time of less than five minutes)
- populated areas greater than 500*
- public venues
- after hours requirements
- hazardous environments
- support for the chain of survival.

* Analysis of likely benefits of provision of AEDs on population size alone is difficult. The University of Brighton, using the data from the American Heart Association (http://circ.ahajournals.org/content/102/suppl_1/I-60.full), of one SCA per 1000 person years and then considering the average time at work, use populations of 500 or more as the bench mark for AED provision based on population numbers alone.

Security and Parking, being mobile and first responders were supplied with two units to be carried in their vehicles and provide an important service covering the Crawley and Nedlands Campuses.

While funding may not be available for an AED through the USC, the USC supports their acquisition particularly where at risk groups are present e.g. medical clinics. AEDs require regular checks by a trained technician and also have components that need to be replaced over time e.g. batteries and pads. Please contact Safety and Health for guidance on the purchase of AEDs. Submissions for the assistance in purchase of defibrillators must consider the Criteria for Deployment.

Placement

The placement of the AED should be located close to where a SCA may be witnessed and be visible and easily accessible. Reception, common areas and main corridors may be convenient locations. Some units have alarmed boxes where security may be an issue.

Emergency Preparedness

UWA has an effective communication system with a 24 hour manned control room with an emergency response officer (Security and Parking) in contact via two-way radio. These officers are trained in cardiopulmonary resuscitation and AED use. UWA is a member of the

St Johns first responder scheme and regularly reviews the need for further AEDs and has a debriefing after each incident.

UWA's Security and Parking officers have both senior first aid and defibrillator training. These officers have radio contact and vehicles equipped with first aid kits, oxygen and defibrillators. The Security and Parking have central first responder role in the UWA Emergency Procedures via the University's emergency phone number (6488 2222), which is extensively promoted in induction and training, as well as on posters and on all University phones.

In addition to the trained security and parking officers, the University has designated first aid officers with senior first aid training. Other first aid trained staff as required for the local circumstances support these officers. The formal first aid program is supported by shorter first aid courses provided to the University workforce. Various levels of training in defibrillators are included in first aid training and refresher training.

REFERENCES

Ramaswamy, K & Page, R 2003 'The automated external defibrillator: Critical link in the chain of survival', Annual Review of Medicine, vol. 54 pp 235-243. Available from: PubMed. [17/4/2009].

Zed, P 2008 'Update on cardiopulmonary resuscitation and emergency cardiovascular care guidelines', American Journal of Health-System Pharmacy, vol 65 pp 2337-2346. Available from: PubMed. [17/4/2009].