Defibrillation Policy

Purpose

To outline requirements for Defibrillation

Scope

All operational levels of Life Saving Victoria

Policy

Background

Heart disease is one of the most prevalent diseases in modern society. Heart disease may lead to heart attacks, which kill more adult males worldwide than any other disease.

A common effect of a heart attack is to cause ventricular fibrillation, a possibly reversible, potentially fatal event, often rapidly occurring after a heart attack. Reversal of ventricular fibrillation (VF) has been identified as the most effective method of successfully resuscitating a heart attack victim with VF, and one of the greatest advances in first aid techniques ever developed.

Early access to defibrillation has been stated to be one of the most important factors to assist in the successful resuscitation of heart attack victims with VF. Defibrillation of the heart by first aid personnel has become possible with the advent of the semi-automatic external defibrillator (SAED).

Glossary

Cardiac - relating to the heart.

Defibrillation -the electrical reversal of ventricular fibrillation of the heart, using an electrical device (defibrillator). Defibrillators may be internal (inside the body), which are inserted by Medical Personnel, or external, using electrical appliances (paddles or pads) applied to the outside of the chest wall.

Fibrillation – see ventricular fibrillation.
**SAED** – semi-automatic external defibrillator – a device enabling an electric shock to be applied across the heart that may be very effective in converting ventricular fibrillation into a normal heart rhythm. The SAED undertakes rhythm analysis and recognition and automatically charges up if a shockable rhythm is identified.

**Ventricular fibrillation (VF)** - a very rapid contraction of the heart that is so fast (over 300 contractions/minute) that there is no effective cardiac output. This results in absent circulation of the blood with no delivery of oxygen and other nutrients to the body organs, resulting in brain death within a few minutes.

**Discussion**

The use of defibrillation in the treatment of the drowned, or near drowned has never been assessed. However, due to the effects of drowning, or near drowning on the heart, it is thought that it may be of little use. However, neither is it known how many people rescued and resuscitated after apparently drowning, or near drowning, have suffered a heart attack. Surf Life Saving Australia (SLSA) are currently conducting trials, and retrospective analysis of their resuscitation cases to try to obtain this information.

SLSA are acknowledged experts in the field of advanced resuscitation and pioneered the use of oxygen by first aiders. They have been using oxygen safely and successfully since 1973.

**SLSA Trials of Defibrillators (SAEDs)**

Members of SLSA began conducting trials using SAEDs during 1997. During the trial, they performed one successful defibrillation on a beach on a heart attack victim; the first performed by volunteer lifesavers anywhere in the world. For historical purposes the defibrillation took place at 9.50am on Saturday, 26 July 1997 on Noosa’s Main Beach.

Before trials commenced, surf lifesavers were screened and tested to ensure the highest competency in advanced resuscitation. These members then attended an eight (8) hour course to teach all aspects of the use and maintenance of SAEDs. Further evaluation of all trained personnel was arranged at one, three, six and twelve month intervals. This enabled SLSA to determine the best intervals between re-assessment, re-evaluation and retraining.

Surf Life Saving remains at the forefront of the use of advanced resuscitation techniques, including the use of SAEDs.
Training First Aiders in the Use of SAEDs

The advent of the semi-automatic external defibrillator (SAED) has made it possible for people who are well trained in advanced resuscitation procedures, to learn to defibrillate and resuscitate heart attack victims, or others that experience ventricular fibrillation.

With the experience gained from the trials, and with the expertise in the use and training of advanced resuscitation techniques, to include the use of SAEDs, Life Saving Victoria is willing to train certain specific trained first groups in the community on the use of SAEDs.

Prerequisites

The following requirements are required for all applicants before training can commence:
1. Minimum fifteen (15) years of age at commencement of training
2. Must hold LSV Lifesaving Bronze Medallion or the Public Safety Competency or Emergency Care Awards, or their equivalents
3. All candidates must maintain proficiency in all the above prerequisite awards for ongoing SAED accreditation.

Training

Training provided will include as a minimum:
1. Introduction to emergency care and the importance of early defibrillation
2. Safety considerations in the use of the semi-automatic external defibrillators (SAED)
3. Use of the SAED
4. Practice in the use of the SAED
5. Practical and theoretical testing in BLS and ALS competencies.

Proficiency Requirements

All SAED qualified lifesavers are required to undertake a proficiency check on annual basis in order to maintain their accreditation. The proficiency check will cover the following assessments:
1. Basic Life Support (BLS) and Advanced Life Support (ALS) skills including one man and two man CPR incorporating the introduction of the SAED
2. Safety considerations in the use of SAEDs
3. Practice in the use of the SAEDs
4. Practical and theoretical testing in BLS and ALS competencies
References


