

staff training

# Life saving training

Does your practice have adequate resuscitation skills, asks Jane Lambert?

**S**udden cardiac arrest, particularly from coronary heart disease remains one of the commonest causes of death in the UK and many such deaths occur outside hospital (Resuscitation Council (UK), 2001).

Basic life support and defibrillation are the key to providing your patients with the best possible outcome from cardiac arrest. As the incidence of cardiac arrest within dental practices remains low, many staff may regard preparing for emergencies as a low priority.

Many cases of sudden cardiac arrest are caused by the onset of ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT). These are shockable heart arrhythmias which can be treated using an automated external defibrillator (AED).

With each minute's delay, the chance of a successful outcome falls by about seven to ten per cent. Therefore the wait for an ambulance to arrive and the paramedic to perform defibrillation usually reduces the chance of early defibrillation, and therefore, survival.

All general dental practices should recognise the need for and make provision for staff to have sufficient time to train in resuscitation skills as part of their employment.

### Training

I have been providing resuscitation



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is a director of ECG Ltd.



● Trained staff can save lives.

training for 11 years, initially as an NHS resuscitation officer, and now in running a training company (ECG Ltd), providing resuscitation training predominantly to primary care trusts and dental practices around the UK.

Usually the training will include, as a minimum, basic life support for both adults and children. These courses will routinely cover the management of choking and the use of the recovery position. We run 'mock' emergency scenarios at the end of the training course as a way of making a more realistic setting for the staff to evaluate the skills they have learnt or updated on the course.

Our instructors always review what resuscitation equipment is currently in stock in these practices to ensure it is still in working order and that

appropriate equipment is ready for use. We often identify a gap in clinical practise and a lack of equipment to respond to emergencies in the practice.

Many practices fail to recognise the need for all staff to refresh their skills regularly. Often staff have been previously trained in adult basic life support, but maybe not in paediatric skills, and usually no training has been given on the use of equipment

such as pocket masks or bag-valve-masks.

Cardiac arrests among children continue to occur

rarely. Children usually show signs of deterioration which means that prompt action can be taken to avoid this happening in many cases, and especially with training in recognising medical emergencies. However, if

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## staff training

☛ If your practice treats children then your staff should be trained in resuscitation skills for children, as well as stocking equipment suitable for paediatric resuscitation.

It has been extremely useful to now have guidance from the Resuscitation Council UK in the provision of training and equipment for dental practices; these should be seen as a recommended standard for all practices.

### Equipment

The Resuscitation Council UK recommend the following minimum equipment be available within any dental practice:

- Portable oxygen cylinder (D size) with pressure reduction valve and flowmeter.
- Oxygen face mask with tubing
- Basic set of oropharyngeal airways (sizes 1,2,3 and 4).
- Pocket mask with oxygen port.
- Self-inflating bag and mask apparatus with oxygen reservoir and tubing (1 litre size bag) where staff have been appropriately trained.
- Variety of well fitting adult and child face masks for attaching to self-inflating bag.
- Portable suction with appropriate suction catheters and tubing, for example, the yankauer sucker.
- Single use sterile syringes and needles.
- 'Spacer' device for inhaled bronchodilators.
- Automated blood glucose measurement device.
- Automated External Defibrillator.

### Automated External Defibrillator

It is an expectation of the public that AEDs should be available in every healthcare environment and the dental surgery is not an exception.

AEDs can now be purchased for as little as £1K or leased for £29 per month, enabling more practices to obtain them. Modern AEDs are light, portable, compact, relatively inexpensive and easy to use. Most of

the machines perform self-checks and advise if any servicing or replacement batteries are required.

AEDs eliminate the need for training in the complex skills of ECG recognition. The simplicity of operation decreases the time and expense of initial training, and increases considerably the range of people who can operate the defibrillator. All clinical and non-clinical staff within dental practices can be trained in its use.

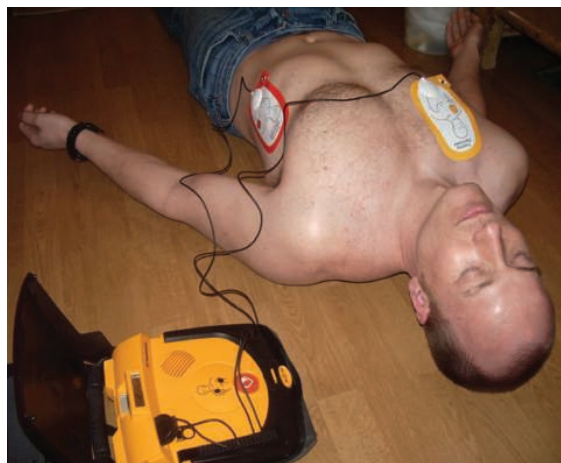
### Children

Most companies who sell AEDs have paediatric pads available for the machine. This will ensure that a lower amount of joules are delivered during defibrillation. Standard AEDs are suitable for use in children older than eight. In children between one and eight paediatric pads should be used if available. If not, the AED should be used as it is. (Contact us for more information on the lease or purchase of a defibrillator.)

### Guidelines

The Resuscitation Council UK announced new resuscitation guidelines in November 2005. All staff should, by now, be updated in these guidelines. The new 'simple to follow' guidelines enable healthcare professionals to learn and remember the treatment for both adult and paediatric cardiac arrest with much more ease than previous guidelines.

Defibrillation guidelines were also updated. AEDs are now programmed to deliver a single shock followed by a pause of two minutes for immediate resumption of CPR. The 'old' guidelines recommended a repeated series of shocks followed by one minute of CPR. This recommendation



● Patients expect staff to know what to do in an emergency.

was changed because the chances of converting VF in the first shock are as high as 90 per cent. If the first shock does not convert the VF, this is most likely the result of a lack of oxygen to the heart.

Those practices who already have an AED can contact us to discuss the 'upgrading' of your defibrillator to meet these new guidelines, again improving the chance of survival of your collapsed patient.

### Summary

All dental practices have a duty of care to their patients. The new recommendations by the Resuscitation Council UK are a useful tool to assess the level of training and equipment supply within your practice. This document can be downloaded from their website [www.resus.org.uk](http://www.resus.org.uk)

### Further reading

1. Lambert J. Is your practice ready to deal with an emergency? *Practice Nursing* 2005, Vol 16, No12.
2. Resuscitation Council (UK) publications.

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