

# First Responder



December '05 Newsletter

## IN THIS ISSUE:

- \* New International Resuscitation Guidelines announced
- \* Bits and Pieces of useful information for trainers
- \* LMAs becoming a part of First Response training
- \* The Last Word

## Oxy Kit Special



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## Europe and America announce new Resuscitation Guidelines for 2005

As per our last newsletter suggested, this November saw the worldwide announcement of the most radical and dramatic changes to Resuscitation Guidelines ever seen. Both the European Resuscitation Council (ERC) and The American Heart Association (AHA) has officially announced the adoption of the Guidelines. We have yet to see the Australia Resuscitation Council (ARC) announce the changes and this is expected hopefully by March 2006.

If you scan back through our last newsletters and peruse the information regarding trends in Resuscitation, almost all the trends discussed have been adopted. Over the last two years First Response Australia has strived to make the teaching of Resuscitation simple. We interpreted the guidelines in such a way which allowed us to adopt the inclusion of standard rates, no initial breaths, no pulse checks, compression only CPR where suitable, compressions before breaths, resumption of CPR after defibrillatory shock and the promotion of pharyngeal intubation (Laryngeal Mask Airways) to First Responders.

**All of those initiatives above have been adopted in the new standards.**

Each "resuscitation council" around the world should strive to minimise international differences in resuscitation practice and to optimise the effectiveness of instructional methods, teaching aids, and training networks. Lets hope the ARC are not stifled by the "traditional training agencies" in adopting the changes as has been the case in the past.

This issue will look at a summary of all the changes that will impact on lay first aiders, First Responders, EMTs and other Health Professionals.

Listed below are the ERC recommended guidelines. These differ slightly to the AHA guidelines and appear to be the simplest ones.

### MAIN CHANGES IN ADULT LIFE SUPPORT

- \* The decision to start CPR is made if the victim is unresponsive and not breathing normally
- \* Rescuers should be taught to place their hands on the centre of the chest, rather than spend more time using the "rib margin" method
- \* Each rescue breath is given over 1 sec. rather than 2 sec.
- \* The ratio of compressions to ventilations is 30:2 for all victims of cardiac arrest (adult, child, infant) when attended to by a lay rescuer.
- \* For an adult victim the initial 2 breaths are omitted, with 30 compressions being given immediately after cardiac arrest is established.

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### MAIN CHANGES IN AUTOMATED EXTERNAL DEFIBRILLATION

- \* Public access defibrillation (PAD) programmes are recommended for locations where the expected use of an AED for witnessed cardiac arrest exceeds once in two years.
- \* A single defibrillatory shock is delivered, immediately followed by 2 minutes of uninterrupted CPR, without a check for termination of VF or a check for signs of life or a pulse.

### MAIN CHANGES IN ADULT ADVANCED LIFE SUPPORT CPR before defibrillation

- \* In out-of-hospital cardiac arrest attended, but unwitnessed, by health professionals equipped with manual defibrillators, give CPR for 2 min (i.e. about 5 cycles at 30:2) before defibrillation.
- \* Do not delay defibrillation if an out-of-hospital arrest is witnessed by a healthcare professional
- \* Do not delay defibrillation for in-hospital-defibrillation

### Defibrillation strategy

- \* Treat ventricular fibrillation/pulseless ventricular tachycardia (VF/VT) with a single shock followed by immediate resumption of CPR (30 compressions to 2 ventilations). Do not reassess the rhythm or feel for a pulse. After 2 min of CPR, check the rhythm and give another shock (if indicated)
- \* The recommended initial energy for biphasic defibrillators is 150-200J. Give second and subsequent shocks at 150-360J
- \* The recommended energy when using monophasic defibrillators is 360 for both the initial and subsequent shocks.

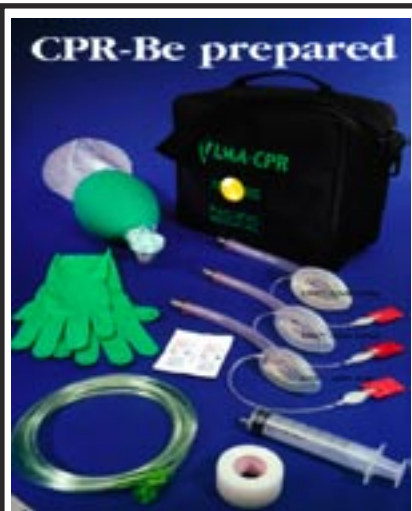
### Fine VF

- \* If there is any doubt about whether the rhythm is asystole or fine VF, do not attempt defibrillation; instead, continue chest compressions and ventilation.

### MAIN CHANGES IN PAEDIATRIC LIFE SUPPORT Paediatric basic life support

- \* Lay rescuers or lone rescuers witnessing or attending paediatric cardiac arrest will use a ratio of 30:2. They will start with 5 rescue breaths and continue with the 30:2 ratio as taught in adult BLS
- \* Two or more rescuers with a duty to respond will use the 15:2 ratio in a child up to the onset of puberty. It is inappropriate and unnecessary to establish the onset of puberty formally; if the rescuer believes the victim to be a child then they should use the paediatric guidelines.

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- \* In an infant (less than 1 year) the compression technique remains the same; two-finger compression for single rescuers and two-thumb encircling technique for two or more rescuers. Above 1 year of age, there is no division between one or two hand technique. The one or two hands technique may be used according to rescuer preference.
- \* AED may be used in children above one year of age. Attenuators of the electrical output are recommended between 1 and 8 years of age.
- \* For foreign body airway obstruction relief, in an unconscious child or infant, attempt 5 rescue breaths and in the absence of response, proceed to chest compressions without further assessment of the circulation

## For all you trainer's out there - bits and pieces of useful information

**(from the 2005 International Consensus Conference)**

**Did you know that:**

- \* Approximately 400,000 to 460,00 people in the USA , 700,000 people in Europe and 18,000 people in Australia experience SCA each year.
- \* Resuscitation is attempted in approximately two thirds of these victims.
- \* Of all the victims of out-of-hospital cardiac arrest treated by EMS providers, only 5-10% survive.
- \* Of those in Ventricular Fibrillation (VF) only 15% survive to hospital discharge
- \* "International Guidelines" now recommend that for locations where the expected use of an AED for witnessed cardiac arrest exceeds once in two years that AEDs should be deployed at such locations.
- \* Skills provided by paramedics (tracheal intubation and intravenous cannulation) whilst attending to SCAs made no difference in survival to hospital discharge.
- \* CPR is often withheld from a victim of SCA because the witnesses often report that the victim is "breathing" when in fact the victim is demonstrating agonal gasps.
- \* Mouth to nose is an acceptable alternative to mouth to mouth which in fact is almost never taught in Europe.
- \* It is now recommended for laypeople and healthcare professionals to be taught to position the heel of their dominant hand in the centre of the chest of an adult victim, with the nondominant hand on top when doing chest compressions.
- \* The majority of people doing chest compressions, compress the chest insufficiently. Depth of chest compressions become shallow within 1 minute of commencing although the provider may not complain of fatigue.
- \* Rescuers should be encouraged to do compression only CPR if they are unwilling to do mouth to mouth.



## Laryngeal Mask Airways - readily accepted as a "First Responder" skill

The use of Laryngeal Mask Airways (LMAs) as a "First Responder" skill has been well received by many of our clients. Over the last few months First Response Australia has trained a number of "First Response" teams in the use of LMAs in Resuscitation.

Amongst those trained have been "dive teams", "emergency response teams" and "airport security/response" staff. The feedback from the program has been extremely positive with trainees suprised at the fast aquisition of skills, retention of the skill and how quickly a secure airway can be established when compared with more traditional methods such as when using a Bag Valve Mask device.

Once the students had quickly become confident with the use of the LMA, the realisation of the limitations of their previous training and equipment resourses became apparent. This along with the application of the new resuscitation and defibrillation guidelines produced a more confident and prepared "First Responder"



*Pictured above are the Watersports Team from Lizard Island Resort practicing their Advanced Airway Management skills with the LMA*

## The Last Word

Well, there you have it!!!

It's finally happening. The 2005 International Consensus Conference findings have been published and we have seen Europe and the United States of America adopt the new guidelines immediately. Many the issues we have discussed in our newsletters over the last year, we now see as recommend treatment in the "New Guidelines". This is the most exciting change we have ever seen in Resuscitation.

In 2003 the European Resuscitation Journal editorial advocated "time to change". In Tuscon, Arizona USA earlier this year the entire EMS system adpoted the dramitic changes we see listed.

And yet, this year in Australia at the 2005 "Spark of Life" conference, not even a wisper of "changes in the wind". The information was there for discussion. Isn't it the role the each country's resuscitation organisation to educate, promte debate and innovation in this field. The conference should have been the perfect venue for this. Unfortunately the "Spark" did not shine very bright in this instance. Even in the last few weeks when officials of the ARC and some member groups where asked about the coming changes, nothing was forthcoming. It was if it was their little secret and everyone would have to wait.

For those people who spent large sums of money in attending the "Spark of Life Conference", they might well now be reflecting on the lack information that could have been shared and wondering if they should attend the next one.

I've made up my mind !!!!!!!

**THANKS TO EVERYONE FOR YOU SUPPORT THROUGHOUT THE LAST YEAR.  
FROM ALL THE TEAM AT FRA WE WISH YOU, YOUR FAMILY AND FRIENDS A SAFE AND  
JOYOUS FESTIVE SEASON**

*Charles Makray  
Managing Director*

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