

"DOCTOR AT SEA" a monthly Column in The Islander Magazine

Resuscitation - DRS ABCD

It is now required that all UK general practitioners and their staff undergo an annual refresher course in CPR (cardiopulmonary resuscitation) and defibrillation. The British Heart Foundation is funding the widespread availability of defibrillators in public places. The combined benefits of lay training and easy-to-use equipment have become overwhelming - near my wife's practice in NE England over the past few years, two patients were revived successfully by trained receptionists using an automatic external defibrillator. These two people would have died without the intervention of the non-medical staff who had received training and who had access to a defibrillator.

MCA approved medical training courses provide yachties with a similar training which could be life saving either at sea or on land. The resuscitation guidelines are under regular review and the MCA courses follow the UK Resuscitation Council guidelines which are in line with European Resuscitation Guidelines.

The acronym in the title is meant to be a helpful framework to organise an effective response in the tense moments when a person has collapsed and is near death. On approaching the casualty it is important to ensure that the rescuer or the casualty is not at risk of Danger from, for example, electric faults, sharp objects, toxic spillages. At the same time the rescuer is making an assessment of the casualty's Responsiveness by shouting at them or eliciting a Response in some other way by, for example, inducing slight pain by rubbing knuckles on the breast bone or squeezing an ear lobe and is also Shouting for assistance. On board ship, it is good practice to have a drill which ensures that anyone calling for "medical help", and giving their location, can rely on a fellow crew member to go for the grab bag, oxygen and defibrillator and bring it quickly to the location.

For a few vital moments before this help arrives, the first person on the spot is in the driving seat and must make a basic assessment of the casualty. The Airway may be blocked by the tongue or by another obstacle such as food, seaweed, or false teeth. Bending the neck back will relieve obstruction from the tongue and a sweep of a finger can remove obstructing material. In some situations this may be enough to restore normal breathing and recovery. In a serious collapse, for instance following a heart attack, the open airway will not be sufficient and Breathing may still be absent when assessed by placing one ear near the mouth of the casualty and listening for breath sounds or feeling expired air on the cheek or seeing the chest rising and falling with successive breaths. This careful assessment of possible Breathing should continue for up to ten seconds before concluding that Breathing has ceased.

If normal Breathing is absent then chest Compressions should be started in order to squeeze the heart and pump blood around the body, most importantly to the brain. The rescuer kneels by the side of the casualty and places the heel of one hand in the centre of the chest and the heel of the other hand on top of the first with the fingers interlocked. The rescuer keeps straight arms and rocks forward to achieve 4-5cm compression at the rate of 100 compressions per minute. After 30 compressions the rescuer provides two rescue breaths by maintaining the open airway, pinching the nostrils and placing lips around the mouth of the casualty then blowing into the mouth whilst watching the chest rise. After a second rescue breath the rescuer returns to chest Compressions and maintains this ratio of 30 to 2 until further help arrives with the Defibrillator.

Modern Defibrillators have a built-in instruction commentary and are easy and safe to use. They produce an electric shock across the heart, which may correct the chaotic rhythm in a collapsed person who is unresponsive and is not Breathing. Up to the point that the Defibrillator is applied, the casualty is simply being kept in a viable condition and the corrected heart beat produced by a successful Defibrillation gives the best chance of recovery. The combination of compressions and rescue breaths is known as cardio-pulmonary resuscitation (CPR) but is not likely on its own to lead to recovery. It is a holding operation until the Defibrillator arrives and it is for this reason that Defibrillators are increasingly available in the community and also on sailing craft.

European resuscitation guidelines were last overhauled in 2005 and this affects things like the ratio of compressions to rescue breaths, the place of rescue breaths, the checking for neck pulses and the positioning of

the hands on the chest. There are still some variations when compared with North American or Australian guidelines but in the land of the blind, the one-eyed man is king “ in a near-death collapse, something is better than nothing “ even the best-trained rescuer can be forgiven a little panic and a little confusion and a little variation on the international guidelines if the end result saves a life which would otherwise be lost because of lack of any training.

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