

Pilot Program for the use of laryngeal mask airway devices by first responder lifeguards

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Within the current SLSA training guides, the options for delivery of rescue breaths during CPR by a single person or by a team of two are limited, including only mouth to mouth or mouth to mask techniques. Currently, the use of the bag valve mask in a CPR scenario requires three rescuers. Even when the bag valve mask is used, allowing greater oxygen delivery to the patient, the technique probably delivers adequate ventilation to only 50% of patients.

Training lifeguards in a single-handed mask hold technique potentially allows for greater oxygen delivery but is technically difficult for the inexperienced and likely to lead to a further fall in the percentage of patients adequately ventilated.

SLSA has approved the introduction of laryngeal mask airway (LMA) devices for use by select groups of skilled advanced airway providers. The belief is that this will confer a greater chance of successful ventilation and ultimately, improve survival and outcome in drowned or other patients.

Laryngeal mask airways have long been used for in-hospital procedures, with up to 80% of surgical patients anaesthetised via an LMA in some institutions. The device is well accepted by medical personnel as safe, cost efficient and easy to use. Worldwide it is promoted as an alternative device on difficult or failed intubation flowcharts. The use of LMAs has now moved outside the operating theatre and emergency room. LMAs are found on crash carts on hospital wards, for use by nurses and junior doctors, with little anaesthetic or advanced airway training. They are used by ambulance services and by remote area field medics. Use of LMAs by first responders other than ambulance services is an area still requiring further evaluation but initial research suggests some distinct advantages over both face masks and bag valve mask devices.

Single use, low cost LMA devices, along with suitable training manikins, has allowed the practical application outside the hospital environment. Along with oropharyngeal airways and suction devices, LMAs move to inserting something in, rather than on a patient, and this may cause hesitation by some groups. LMA use by many first responders will be infrequent, therefore supports, training and refresher programs will be required to maintain the skill set and user confidence.

Infrequency of use in the lifesaving field means an improved survival outcome will be difficult to show in the short term but competencies and acceptance by users will be assessed, along with collation of positive and negative feedback and adverse events associated with LMA use.

The pilot program being instigated by SLSA aims to provide a superior alternative to lifeguards, particularly those working solo or in pairs. LMA use is likely to be of benefit to all unconscious patients requiring airway or respiratory support, not only the non-breathing patient, but also to the unconscious patient after successful resuscitation and to breathing patients, unconscious due to a variety of other causes. SLSA will be one of the initial non-medical first responder groups to introduce laryngeal mask airways and will report the outcomes, adding much needed knowledge in this area.

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