

# 5 TOP MESSAGES

- 1. High-quality chest compression with minimal interruption, early defibrillation, and treatment of reversible causes remain the priority**
- 2. Premonitory signs and symptoms often occur before cardiac arrest in- or out-of-hospital - cardiac arrest is preventable in many patients**
- 3. Use a basic or advanced airway technique - only rescuers with a high success rate should use tracheal intubation**
- 4. Use adrenaline early for non-shockable cardiac arrest**
- 5. In select patients, if feasible, consider extracorporeal CPR (eCPR) as a rescue therapy when conventional ALS is failing**



# HIGH-QUALITY CPR WITH MINIMAL INTERRUPTION

## KEY EVIDENCE

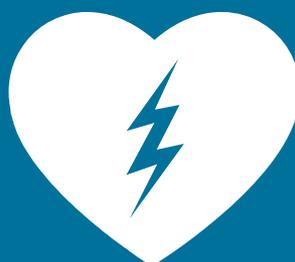


Early CPR, early defibrillation when appropriate, and high-quality CPR with minimal interruption improves survival from cardiac arrest

## KEY RECOMMENDATIONS



Give a shock as early as possible for a shockable cardiac arrest



Deliver shocks with minimal interruption to chest compression, and minimise the pre-shock and post-shock pause - with a manual defibrillator aim for a total pause of less than 5 seconds



Aim for less than a 5 second interruption in chest compression for tracheal intubation

# PREVENTION OF CARDIAC ARREST

## KEY EVIDENCE



In-hospital cardiac arrest is often preceded by physiological deterioration



Sudden cardiac death in the community is often preceded by unrecognised signs and symptoms



This provides an opportunity to recognise those at risk and prevent the cardiac arrest

## KEY RECOMMENDATIONS



Hospitals should have a clear policy for the clinical response to abnormal vital signs and critical illness



Symptoms such as chest pain, or syncope (especially during exercise, while sitting or supine), should be investigated

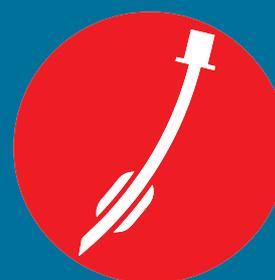


# AIRWAY MANAGEMENT

## KEY EVIDENCE

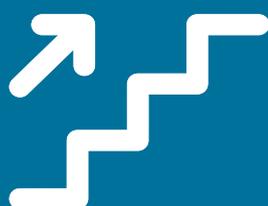


A systematic review that included 3 large RCTS of OHCA found no difference in outcomes between airway strategies using bag-mask ventilation, supraglottic airway, or tracheal intubation



The evidence suggests that tracheal intubation should only be used in settings where the success rates are high

## KEY RECOMMENDATIONS



During CPR, start with basic airway techniques and progress stepwise according to the skills of the rescuer until effective ventilation is achieved

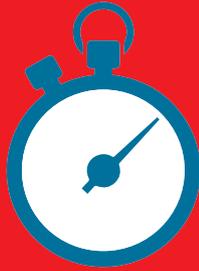


If an advanced airway is required, only rescuers with a high tracheal intubation success rate should use tracheal intubation. The expert consensus is that a high success rate is over 95% within two attempts at intubation



# ADRENALINE

## KEY EVIDENCE



If used, adrenaline is most likely to be beneficial when given early



Any benefit from adrenaline is likely to be greater for a non-shockable rhythm cardiac arrest

## KEY RECOMMENDATIONS

Give adrenaline 1 mg IV (IO) as soon as possible for adult patients in cardiac arrest with a non-shockable rhythm



Give adrenaline 1 mg IV (IO) after the 3rd shock for adult patients in cardiac arrest with a shockable rhythm

Repeat adrenaline 1 mg IV (IO) every 3-5 minutes whilst ALS continues

# EXTRACORPOREAL-CPR (eCPR)

## KEY EVIDENCE



A recent RCT and a large number of observational studies suggest eCPR improves survival in select patients in systems that have the expertise and resources to implement it

## KEY RECOMMENDATIONS



Consider extracorporeal CPR (eCPR) as a rescue therapy for selected patients with cardiac arrest when conventional ALS measures are failing or to facilitate specific interventions (e.g. coronary angiography and percutaneous coronary intervention (PCI), pulmonary thrombectomy for massive pulmonary embolism, rewarming after hypothermic cardiac arrest) in settings in which it can be implemented