

ADULT ADVANCED LIFE SUPPORT

SUMMARY OF CHANGES

Following the ILCOR Consensus on Science and Treatment Recommendations (CoSTR) process concluding in October 2015 a number of ANZCOR ALS guidelines have been reviewed and revised. Treatment recommendations have not changed unless there are compelling reasons to change them. The ILCOR systematic reviews showed that the quality of evidence for many ALS interventions is low or very low, with resultant pre-dominantly weak recommendations. For some ALS recommendations, despite low quality evidence, AZCOR has made strong recommendation consistent with ILCOR, in particular when there was consensus that not doing so could lead to harm. The main developments and recommendations in ALS in these draft guidelines are:

Defibrillation:

If the first shock is not successful and the defibrillator is capable of delivering shocks of higher energy, it is reasonable to increase the energy for subsequent shocks.

Airway, oxygenation, and ventilation:

There is equipoise between the choice of an advanced airway or a bag-mask device for airway management during CPR, and the choice between a supraglottic airway or tracheal tube as the initial advanced airway during CPR.

The role of waveform capnography during ALS is further emphasized, including its use to confirm and continually monitor tracheal tube position, the quality of CPR, and to provide an early indication of return of spontaneous circulation (ROSC).

Circulatory support during CPR:

We recommend against the routine use of the impedance threshold device (ITD) in addition to conventional CPR (which we do not consider is commonly [if at all] used in Australia and New Zealand)

The routine use of automated mechanical chest compression devices is not recommended but they are suggested as a reasonable alternative in situations where sustained high-quality manual chest compressions are not feasible.

Extracorporeal cardiopulmonary resuscitation (ECPR) is suggested as a reasonable rescue therapy for select patients with cardiac arrest when conventional CPR is failing.

Physiological monitoring during CPR:

Cardiac ultrasound during resuscitation is suggested as a diagnostic tool to identify reversible causes.

Postresuscitation care:

Emphasis is placed on avoiding hypoxia and hyperoxia in adults with ROSC after cardiac arrest, while maintaining normocarbia.

ANZCOR now recommends selecting and maintaining a constant target temperature between 32°C and 36°C for those patients in whom targeted temperature management (TTM) is used following ROSC. The suggested duration for TTM should be at least 24 hours.

Fever in persistently comatose adults after completion of TTM should be prevented and treated. Routine seizure prophylaxis in post-cardiac arrest patients is not recommended. There are increased suggestions to guide prognostication in the victims who remain comatose after ROSC whether receiving or not receiving TTM postresuscitation care. Patients who have restoration of circulation after CPR and who subsequently progress to death (by brain death criteria or following circulatory death) should be evaluated for organ donation.