AUSTRALIAN RESUSCITATION COUNCIL

Key recommendations: ANZCOR Neonatal Guidelines: 2021

neoResus
The Victorian Newborn Resuscitation Project

	2021 Updates	
Recommendation	**Worded as: 'ANZCOR recommends', 'ANZCOR suggests', 'ANZCOR suggests against' or 'ANZCOR state'**	**Guideline**
Thermoregulation	ANZCOR recommends maintaining a temperature between 36.5 -37.5°C for all non-asphyxiated (non-compromised) infants of all gestational ages	13.1
	ANZCOR recommends maintaining normothermia in term and near-term infants at risk of hypoxic ischaemic encephalopathy (HIE) until assessment to determine if the newborn meets the criteria for cooling	13.1
Cord clamping	ANZCOR suggests delaying/deferring cord clamping for at least 60 seconds in term and late preterm infants ≥34 weeks' gestation who are vigorous or do not require immediate resuscitation at birth ANZCOR suggest delaying/deferring cord clamping for at least 30 seconds in infants born <34 weeks' gestation who do not require immediate resuscitation ANZCOR state: In infants born at <34 weeks' gestation who require immediate resuscitation, there is insufficient evidence to make a recommendation with respect to cord clamping management ANZCOR state: There is insufficient evidence recommendation regarding cord management in specific maternal, fetal, or placental conditions. ANZCOR suggest individualised decisions based on the severity of the condition and assessment of maternal and neonatal risk	13.1

	ANZCOR state: For all newborns at high risk of needing resuscitation or subsequent neonatal intensive care, leaving at least 3-4 cm length of umbilical cord below the cord clamp is helpful in case umbilical access is needed	13.8
Cord milking	ANZCOR suggest there is insufficient evidence to recommend milking of the **intact** cord for term and preterm infants ≥34 weeks' gestation ANZCOR suggests against milking an **intact** cord for infants born at $<28^{+0}$ weeks' gestation ANZCOR suggest against milking a **cut** cord for all newborns, irrespective of gestational age	13.1
Pre-prepared equipment	ANZCOR state: Prior preparation of standardised kits containing equipment needed for procedures such as umbilical catheterization can save considerable time in an emergency	13.1
ECG monitoring	ANZCOR suggests that ECG monitoring can also be used to display heart rate more rapidly and accurately in the first 3 minutes of life	13.3
Meconium-stained amniotic fluid (MSAF)	ANZCOR suggests against routine direct laryngoscopy immediately after birth, with or without tracheal suctioning in all newborns exposed to meconium-stained amniotic fluid (MSAF)	13.4
Positive end expiratory pressure (PEEP)	ANZCOR suggests the use of PEEP (commencing at of 5 to 8cm H_2O) during resuscitation of newborns whenever appropriate equipment is available (e.g T-piece device) ANZCOR state: On devices that can deliver PEEP, 5cm H_2O is the suggested initial setting, especially for preterm infants	13.4
Air versus supplemental oxygen	ANZCOR state: If oxygen saturations reach 90% while supplemental oxygen is being administered, the concentration of oxygen should be decreased	13.4

Supraglottic airway (SGA)	ANZCOR suggests that a supraglottic airway (SGA), [e.g LMA™ or iGel™ or similar], should be considered if facemask ventilation is unsuccessful in term and near infants >34 weeks, approximately 2000g BW) ANZCOR state a supraglottic airway (SGA) should be considered as an alternative to tracheal intubation if tracheal intubation is unsuccessful or not feasible ANZCOR state a supraglottic airway (SGA) may be considered as a primary alternative to a facemask for positive pressure ventilation in infants ≥34 weeks, >2000g BW ANZCOR state a size 1 supraglottic airway (SGA) is suitable for newborns up to 5kg BW	13.5
Chest compressions	ANZCOR state: Compressions and inflations should be coordinated to avoid simultaneous delivery of a compression and an inflation. Ratio 3:1 ANZCOR suggests continuous chest compressions at 120 compressions per minute without interruptions for breaths can be considered in the intubated newborn	13.6
Adrenaline	ANZCOR suggests the intravenous adrenaline dose can be repeated every 3 to 5 minutes if the heart rate remains <60/min despite effective ventilation and chest compressions	13.7
Preterm infants <32 weeks' gestation	ANZCOR suggests commencing CPAP rather than intubation and ventilation in spontaneously breathing preterm infants <32 weeks' gestation who have signs of respiratory distress and require respiratory support in the first few minutes after birth ANZCOR suggests against routine use of an initial sustained inflation (>5 seconds) in preterm infants. Sustained inflations may be considered in individual circumstances and in research settings ANZCOR suggest that to maintain normothermia (body temperature 36.5 -37.5°C.) in very preterm infants <32 weeks, use a radiant warmer and place the newborn immediately after birth (without drying) into a polyethylene bag or under a polyethylene sheet. The bag or sheet should not be removed during resuscitation and it should be left in place until the temperature has been checked and other measures to prevent heat loss are ready (e.g pre-warmed incubator)	13.8

Preterm infants <32 weeks' gestation (cont.)	ANZCOR suggests additional measures that may be needed alone or in combination, including: - Ambient environmental temperature of at least 26˚C. - Exothermic warming mattress - Warmed, humidified resuscitation gases - Cover the head (except the face) with a hat/bedding ANZCOR state: Gentle handling is essential. Use antiseptic solutions sparingly, especially those containing alcohol, detergent excipients, or chlorhexidine as these can cause serious damage to immature skin	
Cord blood gases	ANZCOR state: Cord blood gases should be measured in every resuscitated newborn as the most objective way to access the condition just before birth	13.8
Discontinuing resuscitation	ANZCOR suggest that if, despite provision of all the recommended steps of resuscitation and excluding reversible causes, a newborn requires ongoing cardiopulmonary resuscitation (CPR) after birth, a discussion of discontinuing resuscitative efforts with the clinical team and family should occur. ANZCOR suggests that a reasonable time frame to consider this change in goals of care is around 20 minutes after birth.	13.10

Adapted from the Australian and New Zealand Committee on Resuscitation (ANZCOR) 2021 Neonatal Guidelines 13.1-13.10