

Equipment & drugs for resuscitation of the newborn

Based on the recommendations of the Australian and New Zealand Committee on Resuscitation (ANZCOR) Neonatal Guideline 13.1 (January 2016)

Appropriate area for resuscitation of the newborn

- Infant resuscitaire with inbuilt heater and light, *or*
- A firm, padded resuscitation surface and an overhead warmer
- Clock with timer in seconds
- Good light in the resuscitation area

Temperature maintenance

- Warmed towels or warm wraps
- Polyethylene bag or sheet (food grade, heat resistant) for infants <1500 grams birth weight
- Woollen hats (various sizes)

Medical gases

- A source of medical oxygen (cylinder or reticulated)
- Oxygen flow meter allowing a flow rate of up to 10 L/minute
- A source of medical air (cylinder or reticulated)
- Air flow meter allowing a flow rate of up to 10 L/minute
- Oxygen and air tubing (green argyle)
- Air/oxygen blender

Monitoring equipment

- Stethoscope (neonatal size)
- Pulse oximeter and neonatal probe
- Posy to secure oximeter sensor

Suction equipment

- Suction catheters: Fg 6 and Fg 8 and either Fg 10 or Fg 12
- Suction tubing
- Access to a suction unit set at a negative pressure of 100 mmHg (133 cmH₂O, 13 kPa or 1.9 Psi)

Positive pressure ventilation equipment

Either:

- T-piece device *or*
- Flow inflating bag with a pressure safety valve and a manometer

And:

- Self inflating bag with a removable oxygen reservoir (plus a manometer and a PEEP valve, if available)
- Face masks in a range of sizes suitable for premature and term infants (not Rendell Baker type)
- Laryngeal mask airway: size 1
- Oropharyngeal (Guedel) airways sizes 00 & 0

Intubation equipment

- Laryngoscope handle with straight blades: sizes 00, 0 & 1
- Spare bulbs & batteries (unless using a fiber optic laryngoscope handle)
- Endotracheal tubes (un-cuffed): sizes 2.5, 3.0, 3.5, 4.0 mm ID
- Endotracheal stylet or introducer (for oral intubation only)
- End tidal carbon dioxide detector (Pedi-Cap™) or similar
- Magill's forceps, neonatal size (optional)
- Meconium aspirator to apply suction directly to the endotracheal tube (optional)

Equipment for gastric decompression

- Feeding tubes: sizes Fg 8 and/or Fg 10
- 10 mL syringe for aspirating the gastric contents

Equipment for umbilical venous catheterization

- Paediatric instrument set
- Umbilical catheters:
 - o Fg 5.0 > 1000 gram infant *or*
 - o Size Fg 5 feeding tube if umbilical catheters are not available
 - o Fg 3.5 < 1000 gram infant (in a tertiary birth centre)

Equipment for peripheral intravenous cannulation or intra-osseous cannulation

- Intravenous cannula: size Fg 24
- Intra-osseous needle Fg 18
- Skin preparation solution
- Three way tap and extension tubing primed with 0.9% sodium chloride
- Arm board

Equipment for securing IV's, UVC's and endotracheal tubes

- Non-latex adhesive tape (Leukoplast™ & Elastoplast™)
- Cotton or silk ties
- Thin DuoDerm™ (or similar) to protect the skin on the face
- Scissors

Equipment for drug administration

- Syringes: 2 mL, 5 mL, 10 mL & 20 mL
- Needles: Fg 19, Fg 21, Fg 23, Fg 25 and blunt drawing up needles

Drugs and fluids

- Adrenaline 1: 10,000 concentration (0.1 mg/mL)
- Volume expanders:
 - o 0.9% sodium chloride
 - o O Rh negative blood (needs to be readily available)
- 0.9% sodium chloride for priming and flushing intravenous lines
- Sterile water for injection

Resuscitation Record Sheet