

## **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 (April 2021)**

### **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 <32 weeks' gestation or <1500g birth weight
- Woollen hats (various sizes)

### **Monitoring equipment**

- Stethoscope (neonatal size)
- Pulse oximeter with neonatal sensor
- Posy to secure the oximeter sensor
- ECG monitor, leads and appropriately sized ECG 'dots' for term and preterm infants (if available)

### **Suction equipment**

- Suction catheters: Fg 6, Fg 8, and either Fg 10 or Fg 12
- Suction tubing
- Suction unit set at a negative pressure of 100mmHg (133 cmH<sub>2</sub>O, -13kPa or 1.9 Psi)
- Meconium suction device to apply suction directly to an endotracheal tube (optional)

### **Positive pressure ventilation equipment**

- T-piece device or
- Flow inflating bag with a pressure safety valve and a manometer
- Self-inflating bag (<300 mL) with a removable oxygen reservoir (plus a manometer and a PEEP valve, if available)
- Face masks- range of sizes suitable for term and preterm infants
- Oropharyngeal (Guedel™) airway, sizes 0 & 00 (50mm and 60mm)
- Supraglottic airway (laryngeal mask airway™ or i-gel™), size 1

### **Medical gases**

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

### **Intubation equipment**

- Laryngoscope with straight blades, sizes 00, 0 and 1
- Spare batteries and bulbs (unless using a fiberoptic laryngoscope handle)
- Endotracheal tubes (un-cuffed), sizes 2.5, 3.0, 3.5 and 4mm ID
- Endotracheal stylet or introducer (for oral intubation only)
- End-tidal colorimetric CO<sub>2</sub> detector (Pedi-Cap™ or Nellcor™ or similar)
- Magill's forceps, neonatal size (optional)

**Equipment for gastric decompression**

- Feeding tubes sizes Fg 6 and Fg 8
- 10mL syringe for aspirating the gastric contents

**Equipment for umbilical vessel catheterization (UVC)**

- Paediatric instrument set
- Umbilical venous catheter Fg 5 or Fg 4 (term infant) and Fg 3.5 (preterm infant <1000g BW)

**Equipment for peripheral intravenous (IV) cannulation and/or intraosseous (IO) cannulation**

- Intravenous cannula: size Fg 24
- Intra-osseous needles (and/or IO gun), newborn size (15 mm)
- Skin preparation solution suitable for a newborns skin
- Three-way tap and/or luer lock extension tubing, primed with 0.9% sodium chloride
- Arm board (for peripheral cannulation)

**Equipment for securing an endotracheal tube (ETT), UVC, peripheral IV and an IO**

- Tapes and devices for securing ETT, UVC, IV and IO
  - o Non-adhesive tape (leucoplast™ and Elastoplast™) or ETT holder (NeoBar™)
  - o Cotton or silk ETT ties (optional)
  - o Hydrocolloid dressing (DuoDerm™ or similar) to protect the face
- Scissors

**Drugs and fluids**

- Adrenaline, 1:10,000 concentration (0.1mg/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

**Equipment for drug administration**

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

**Resuscitation record sheet****Resuscitation equipment for COVID +ve or suspected COVID-19 +/ve mothers and/or newborns**

- Personal protective equipment (PPE), including N95 face mask, face shield, gown, gloves
- Consideration should be given to preparing a dedicated equipment box and separate resuscitation trolley for these patients with COVID-19 specific equipment.