

# Neonatal stabilisation for retrieval: Respiratory distress

Contact Retrieval Services Queensland for advice or retrieval activation at any time Phone 1300 799 127

**Work of breathing**

- Tachypnoea
- Chest recession (sternal, intercostal, lower costal)
- Nasal flaring
- Audible expiratory grunt

**O<sub>2</sub> saturations**

- Target:
  - Preterm 90–95%
  - Term 92–98%
- Measure preductally–right hand

**Signs of respiratory distress**

- Increased work of breathing
- O<sub>2</sub> requirement > 30%

Signs of respiratory distress?

Assess and monitor clinical condition

Baby breathing spontaneously?

**Contact RSQ Commence IPPV**

- ETT size and insertion depth–refer to QCG: *Neonatal resuscitation*
- Pressures:
  - PIP 18–20 cm H<sub>2</sub>O
  - PEEP 7–8 cm H<sub>2</sub>O
- O<sub>2</sub> to maintain oxygen saturations
- Flow: 6–8 L/minute
- IT: 0.3–0.4 seconds
- Rate: 40–60 bpm

**Commence CPAP**

- MAP: 8 cm H<sub>2</sub>O
- Check capillary blood gas
- Observe for CPAP failure
- O<sub>2</sub> to maintain oxygen saturations
- O<sub>2</sub>/air:
  - Flow 8–10 L/minute
  - Humidified/warm (37 °C)
- Refer to QCG:
  - *Neonatal respiratory distress including CPAP*
  - *Neonatal resuscitation*

Surfactant indicated/available?

**Surfactant**

- Baby with HMD requiring intubation and ventilation from birth
- Up to 24 hours of age
- Continue IPPV

**Signs of CPAP failure**

- O<sub>2</sub> requirement > 50%
- Increased work of breathing
- Respiratory acidosis–pH < 7.25 or PaCO<sub>2</sub> > 60 mmHg
- Increasing apnoea and/or bradycardia
- Consider total clinical presentation

Signs of CPAP failure?

**Wait for retrieval**

- Continue ongoing care as indicated
- Discuss changes in condition with RSQ

<: less than; >: more than; **bpm**: breaths per minute; **cm H<sub>2</sub>O**: centimetres of water; **CPAP**: continuous positive airway pressure; **ETT**: endotracheal tube; **HMD**: Hyaline membrane disease; **IPPV**: intermittent positive pressure ventilation; **MAP**: mean airway pressure; **IT**: inspiratory time; **O<sub>2</sub>**: oxygen; **PaCO<sub>2</sub>**: partial pressure of carbon dioxide; **PEEP**: positive end expiratory pressure; **PIP**: peak inspiratory pressure; **QCG**: Queensland Clinical Guidelines; **RSQ**: Retrieval Services Queensland

Queensland Clinical Guideline. Neonatal stabilisation for retrieval. Flowchart: F18.18-4-V4-R23

