EXTUBATION

To remove the endotracheal tube while minimising the degree of atelectasis and trauma. Medical staff must be made aware of an extubation commencing, and be present in the nursery.

KEY POINTS

- There is always a risk that the infant may deteriorate once the endotracheal tube has been removed. It is important that resuscitation and reintubation equipment is available in the event that it may be needed.
- If the infant requires suction this should be performed at least 30 minutes prior to extubation. Endotracheal suction may cause atelectasis. Therefore the infant requires time to recover before the endotracheal tube is removed.
- Most preterm infants will be extubated to continuous positive airway pressure (CPAP) to prevent atelectasis. Some infants will be extubated to head box oxygen or PBF oxygen if they have an ongoing oxygen requirement. CPAP may be contraindicated in some infants following abdominal surgery.
- It is beneficial for the infant to be nursed prone following extubation. The prone position improves oxygenation due to mechanical advantages on chest wall expansion. Positioning of the infant is dependent upon their condition, surgical infants may not be able to be positioned prone.
- Extubation can be performed in either an incubator or on a radiant warmer
- Extubating an infant may provide the first opportunity to obtain a photograph of the infant's face for the parents. If the infant's condition allows, obtain a photograph before applying CPAP, or placing the infant in a headbox.

PROCEDURE

Endotracheal extubation is a two-person procedure. One to be NNT or Dr.

- Apply transcutaneous monitoring (if appropriate) and allow to stabilise before extubation.
- Ensure CPAP, headbox, nasal cannula is set-up if required.
- Place infant in supine position. Head midline.
- Using protective wipe, remove tape.
- Withdraw the endotracheal tube smoothly.
- Suction the OP/NP as needed
- If CPAP required, apply promptly and secure.
- If oxygen required, apply headbox or nasal cannula with low flow O2.
- Observe the infant for increased signs of respiratory distress.
- Measure and record a blood gas one hour post extubation or as ordered.
- Infants who have been ventilated long term may need referral to the physio.