Women and Newborn Health Service
Neonatal Directorate

Cuffed Endotracheal Tube (ETT) Management

Key Points

- The bedside nurse is to record the ventilator leak % (from ventilator screen) hourly on the bedside observation chart.
- The bedside nurse (or doctor) is to set/adjust the cuff pressure, as below, on admission from theatre/ETT insertion and then 4 hourly or if the leak becomes consistently >20%. The cuff pressure should be recorded on the bedside observation chart.
- A cuff pressure of >20cmH₂O should never be used.
- The ETT should not usually be cut, but may be if ordered by the medical team.
- Deflate cuff prior to ETT re-adjustment or removal.
- 0cmH₂O is equivalent to a deflated Cuff.

Cuff Adjustment Procedure

Step 1: Connect the manometer, ETT balloon and 1 ml syringe using a 3-way tap as shown. The 3-way tap should be open to everything (ETT, syringe and the manometer).

Step 2: Press the red button on the back/side of manometer until the needle comes to 0cmH₂O.

Step 3: Observe the ventilator leak % reading for ~30secs. If leak is >20% then, using the syringe, introduce air into the cuff until the leak reads about 10%, ensuring the cuff pressure does not exceed 20cmH₂O. If the leak does not reduce sufficiently with a cuff pressure of 20cmH₂O, then discuss with medical team.

Step 4: Briskly detach the whole setup from ETT.

Step 5: Record the cuff pressure on bedside observation chart.

Step 6: Repeat the cuff adjustment in 4 hours or earlier if there is a consistent leak >20%.

Note: If the cuff pressure is 0cmH₂O and the leak remains <20%, a cuff adjustment procedure is not necessary.