



GUIDELINE

Cuffed Endotracheal Tube (ETT) Management

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

The aim of this guideline is to outline the criteria and process for cuffed endotracheal tube (ETT) management in the neonatal population.

Risk

Incorrect use of a cuffed ETT may result in ineffective ventilation or potential damage to the airway of the neonate.

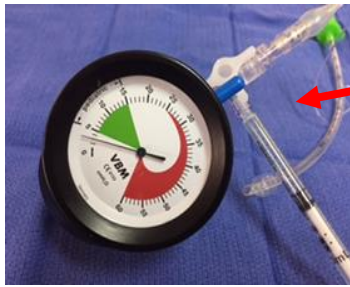

Background


- Uncuffed ETTs are routinely used and inserted by the neonatal team at PCH.
- Cuffed ETTs are routinely used by anaesthetists for operative procedures at PCH.
- Cuffed ETTs should be used for
 - infants >2.7kg with surgical or cardiac diagnoses
 - infants who are suspected/positive for COVID-19.
- Cuffed ETTs may be used in infants who have a large ETT leak (interfering with ventilation) with a 3.5mm uncuffed ETT insitu. This decision is at the discretion of the treating consultant.
- There may be consideration for the use of cuffed ETT's in other cases.

Key points

- The ventilator leak % (from ventilator screen) is to be recorded hourly on the observation chart.
- The nurse (or doctor) is to set/adjust the cuff pressure on ETT insertion or admission from theatre. It is then checked 4 hourly **or** if the leak becomes consistently >20%*.
 - The cuff pressure should be recorded 4 hourly on the observation chart.
- The cuff pressure should never exceed 20cmH₂O.
- The ETT should not be shortened however may be cut if ordered by the medical team.
- The cuff must be deflated prior to ETT adjustment or removal.
- A cuff pressure of 0cmH₂O is equivalent to a deflated cuff.
- If the cuff pressure is 0cmH₂O and the leak remains <20%*, a cuff adjustment procedure is not necessary.
- ***When using cuffed ETTs in suspected/positive COVID patients, aim for an ETT leak of 0%.**


Procedure

Steps	Additional Information
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).	
2. Press the red button on the back/side of manometer until the needle comes to 0cmH ₂ O.	
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 20cmH ₂ O.	<p>If the cuff pressure is 0cmH₂O and the leak remains <20%*, a cuff adjustment is not necessary.</p> <p>NB Discuss with the medical team if the leak does not reduce sufficiently with a cuff pressure of 20cmH₂O.</p>

Steps	Additional Information
4. Turn 3 way tap so it is off to all ports, and briskly detach the whole setup from ETT.	
5. Record the cuff pressure 4 hourly on the observation chart.	
6. Check the cuff pressure (+/- adjustment) every 4 hours or earlier if there is a consistent leak >20%.	

Related CAHS internal policies, procedures and guidelines
Respiratory Management of Neonates with Suspected or Confirmed COVID-19 Ventilated Neonate: Nursing Care of

This document can be made available in alternative formats on request.

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