



ETT Suction

Guide to best Practice



Southern West Midlands
Neonatal Operational Delivery Network

Hygiene: Meticulous hand hygiene before and after patient contact.¹
Ensure condensate emptied from vent tubing before turning and suction.¹
Use gloves according to unit policy. Use suction function on vent.

Frequency: Only as indicated.^{2,3,4}

Indications include: Visible/audible/palpable secretions, ↓ breath-sounds on auscultation, desaturations, ↓ chest movement, ↑ pCO₂, ↓ pO₂, ↑ RR, ↑ PIP, ↓ volumes. Do not suction routinely.^{2,3,4}

Catheter size: Less than ½ diameter of ETT⁴ (size of ETT X 2).

Pressure: Max 100mmHg/13kPa, slow and steady catheter withdrawal. With inline, hold a little longer to ensure equalisation. Always <15 secs⁴.

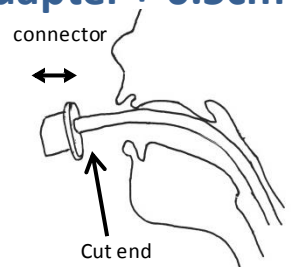
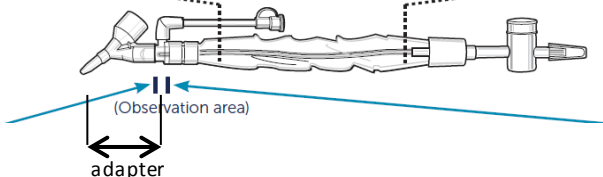
Saline: Do not instil routinely. Can use *only* 0.2-0.3mls for lubrication if indicated (secretions not moving through catheter).^{1,2,3,4,5}

Saline *MUST* be used following every inline circuit suctioning episode to flush *the circuit*. Approx 1-2ml. Ensure correct technique or seek advice.⁶

Care: Use facilitated tucking⁷ and 2x carers⁸ to ↓ stress. Include parents for second pair of hands.

Depth: Use measured technique³. Suggest 0.5cm below length of ETT. Don't hit resistance. Slow withdrawal. Calculate suction length:

ETT Length (where cut) + connector/adapter + 0.5cm





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Scan for link to:

The Bedside Clinical Guidelines Partnership
(Staffordshire, Shropshire & Black Country
Neonatal Operational Delivery Network,
Southern West Midlands Neonatal
Operational Delivery Network)

References:

1. Weber et al 2016 "Applying Adult Ventilator-associated Pneumonia Bundle Evidence to the Ventilated Neonate" *Advances in Neonatal Care* 16 (3): 178
2. Gonçalves, et al 2015. "Endotracheal Suctioning in Intubated Newborns: An Integrative Literature Review." *Revista Brasileira de Terapia Intensiva* 27 (3): 284–292.
3. Morrow et al 2008. "A Comprehensive Review of Pediatric Endotracheal Suctioning: Effects, Indications, and Clinical Practice." *Pediatric Critical Care Medicine* 9 (5): 465–477.
4. Gardner et al. 2009. "Evidence-Based Guideline for Suctioning the Intubated Neonate and Infant." *Neonatal Network : NN* 28 (5): 281–302.
5. Owen et al 2016. "A Bedside Decision Tree for Use of Saline With Endotracheal Tube Suctioning in Children." *Critical Care Nurse* 36 (1) (February 1): e1–e10.
6. Follow manufacturer guidelines – clear details are given.
7. Alinejad-Naeini, et al 2014. "The Effect of Facilitated Tucking during Endotracheal Suctioning on Procedural Pain in Preterm Neonates: A Randomized Controlled Crossover Study." *Global Journal of Health Science* 6 (4).
8. Cone et al 2013. "Endotracheal Suctioning in Preterm Infants Using Four-Handed versus Routine Care." *Journal of Obstetric, Gynecologic, & Neonatal Nursing* 42 (1): 92–104

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