Guideline for secretion clearance in the intubated child

This guideline is for the recently intubated child where a high secretion load is causing ineffective ventilation where other key pathologies (i.e. pneumothorax, endobronchial intubation) have been excluded.

For the recently intubated child where ventilation is effective, routine secretion clearance is unnecessary

This guideline should be used alongside ‘Initiation of ventilation during stabilisation’

**Ineffective ventilation**
Unable to establish on ventilator
Low/Falling SpO₂
High/Rising ETCO₂
High Airway pressures
Ventilator asynchrony

**Ensure adequate monitoring, sedation and muscle relaxation of child**

**Wearing appropriate PPE at all times**
Disconnect from ventilator and hand ventilate

**Confirm depth of ETT and bilateral chest ventilation**

**Manual Techniques**
These should be timed within the respiratory cycle requiring clear communication in the team

Instil 0.9% Sodium Chloride down ETT
Position hands either side of sternum on midclavicular lines
Ventilate to see chest rise twice Followed by one large tidal volume breath, with a quick release
During this expiratory phase Vibrate the chest for duration of expiration

Disconnect breathing circuit Pass suction catheter down ETT. Set suction to 15-20kPA Only applying suction once in position Slowly withdraw catheter
Reassess ease of ventilation Can be repeated as 3 cycles [maximum 6 in a set]

If repeated cycles required, allow period of recovery and stabilisation with tidal volumes breaths

**Suction Catheter Size**
= ETT ID x 2
i.e. 4.0 ETT = 8 FG

**Suction Catheter Distance**
1cm beyond ETT end
[Remember to include length of ETT connector]

**Personnel and Roles**
Minimum TWO person (ideally THREE)
Secure ETT Manual Bagging Manual Techniques

**Failure to improve?**
Reconsider diagnosis Rule out pneumothorax CXR/POCUS Chest Ensure NG aspirated

If the above steps fail to improve ventilation re-discuss with SORT Consultant

Ensuring continued oxygenation as a first priority