COVID-19 PERCUTANEOUS TRACHEOSTOMY GUIDELINE

Authors: G Fleming, G McNeill, R Baruah, J Service

Review date :

Percutaneous tracheostomy is a **HIGH RISK AEROSOL GENERATING PROCEDURE. All participating staff must be in enhanced PPE throughout.**

⚠ **PPE MAKES COMMUNICATION CHALLENGING. We would recommend completion of this checklist twice, once prior to donning PPE, then again immediately prior to the procedure.**

Indications : - Respiratory weaning from ventilation
- Prior failed extubation
- Consultant decision to proceed directly to tracheostomy due to anticipated prolonged respiratory wean

Suggested tracheostomy timings : Day 10 – 14 of ICU stay (if patient factors appropriate).

Patient factors prior to percutaneous tracheostomy : FIO2 < 0.6 & PEEP < 10 for 24 hours prior to procedure, appropriate BMI, not known difficult airway, Platelets > 100, INR < 1.5, Fibrinogen > 1.5

Preparation

- **AWI completed?**
- **Family discussion regarding tracheostomy documented ?**
- **Valid BTS sample ?**
- **Fasted? NG aspirated ?**
- **> 12 hours since last LMWH or > 6 hours since last unfractionated heparin ?**
- **Patient meets criteria to proceed :**
  - FIO2 < 0.6 for 24 hours
  - PEEP < 10 for 24 hours
  - Plts > 100
  - INR < 1.5
  - Fibrinogen > 1.5
- **Team assembled ?**
  - **Operator – Consider need for second experienced operator in full PPE in case of difficulty**
  - **Bronchoscopist**
  - **Experienced airway assistant**
  - **Bedside nurse**
  - **Consider need for additional team leader who co-ordinates events**

Equipment

- **Team in full PPE ?**
  - FFP3 mask
  - Full visor
  - Gown
  - Double gloved
- **Bronchoscope and display**
- **Percutaneous tracheostomy kit**
  - **Appropriate size for patient**
  - **? Need for adjustable flange**
- **Sedation/analgesia**
- **Neuromuscular blockers**
- **Vasopressors/ emergency drugs**
- **Lidocaine with adrenaline**
- **Routine monitoring including capnography**

Procedure

- **Pre-oxygenate patient**

STOP

Surgical pause :
- Check wristband
- Team allocations
- **Plan for failed tracheostomy - COVID specific**
- **Verbalise A-D plan to whole team**

STOP **Do NOT routinely change ETT prior to procedure due to risk of aerosolisation**

- **Mandatory mode on ventilator**
- **Sedate and give NMB**

STOP **Allocate staff member to pause ventilator during single stage dilation**

- **PROCEED, ensuring :**
  - **Ventilator paused during single stage dilation and tracheostomy insertion**
  - **Cuff up prior to ventilation**

Post procedure

- **Confirm sedation and ventilator weaning plan**
- **Document procedure on TRAK and on invasive devices chart**
- **CXR**
- **Bedhead sign and tracheostomy emergency box**
- **Ongoing care of the COVID patient with a tracheostomy**
  - In-line closed suction as required
  - Inner tube change **once per shift** to minimse disconnections
  - HME filter on ventilator circuit
  - Stoma care once **every 24 hours**
  - Aspiration of subglottic port **every 4 hours**