Policy for the Insertion of a Percutaneous Tracheostomy

Effective From: September 2017 Review Date: September 2020

1. **Introduction:** This policy and its principles of matching skilled and experienced operators to clinical need for patient safety applies to the non-operative insertion of elective and semi-elective Percutaneous tracheostomies (PCT) within the Intensive Therapy Unit (ITU), Raigmore Hospital. PCT involves the placement of a tube into the trachea without direct surgical visualisation. It is considered a safe and minimally invasive procedure and is widely performed on intensive therapy units. Associated perioperative mortality rates are low. The procedure is performed by intensivists at the bedside, and this eliminates the logistical problems of transferring a ventilated patient to theatre for a surgical procedure. It is also not dependent on the availability of a surgeon or operating theatre time. As such it is considered the procedure of choice for performing elective tracheostomy in critically ill adult patients.
2. **Policy Scope:** This policy is for all medical personnel who have competencies in the insertion of Percutaneous tracheostomies.
3. **Policy Aims:** The aim of this policy is to ensure the safe insertion of Percutaneous tracheostomies
4. **Roles and responsibilities:** Consultants are responsible for ensuring that the policy is implemented with the ITU. It is the individual responsibility of all consultants to ensure that they work in line with this policy

A dataset and audit of all Percutaneous Tracheostomies inserted will be kept within the ITU, Raigmore Hospital. It will be the responsibility of the Clinical lead for ITU to ensure the maintenance of this dataset. Any critical incidents, morbidity or mortality associated with the insertion of a PCT will be recorded, and subsequently presented at a departmental M&M meeting.

5. **Essential criteria prior to insertion of percutaneous tracheostomies**
    - Availability of a competent and qualified operator and bronchoscopist (ideally this will comprise 2 Consultant Intensivists, but may include an experienced Consultant or Specialty doctor from Anaesthesia as bronchoscopist)
    - A core group of operators will be identified by the Service Lead for ITU
    - Operators will ensure all the necessary equipment is available and functional prior to undertaking the procedure
    - Written consent or Adults with Incapacity form where the patient lack the ability to consent
    - Next of Kin must be informed
    - ENT department informed and an individual Consultant Identified to attend in the event of an emergency
    - PCT will not be performed out with the hours of 0900-1700 Mon-Fri, or at weekends
    - The patient will have a current Group and screen (G&S) held by the Blood Transfusion Service (BTS)
    - There will be no absolute contraindications to PCT (see below)
    - Relative contraindications (see below) will necessitate a multidisciplinary discussion between the Consultant Intensivist operating and the duty ENT Consultant
    - An ultrasound scan (USS) of the anterior neck will be performed prior to undertaking the procedure to identify any potential abnormality overlying the trachea e.g. large vessels.

6. Absolute Contraindications to PCT

- Patient age younger than 15 years
- Patient or family refusal
- Infection at site
- Necessity of emergency airway access because of acute airway compromise
- Gross distortion of the neck anatomy
- Previous tracheostomy or surgery to anterior neck

7. Relative Contraindications to PCT

- Known or suspected difficult intubation i.e. possible difficulty in managing the airway during the procedure
- Patient obesity with short neck that obscures neck landmarks
- Prothrombin time or activated partial thromboplastin time more than 1.5 times the reference range
- Platelet count less than 50,000/µL
- Compromised respiratory function : Need for FiO2 > 0.6; or PEEP dependence >10cm water

8. Monitoring and Review

All tracheostomies insertions will be recorded in the insertion booklet kept within the ITU. It will be the responsibility of the Service Lead or nominated lead for tfor ITU to ensure that all data is transferred to an electronic spreadsheet or database to allow adequate anonymised audit and data collection.

All incidents, accidents or near misses related to insertion will be reported through the NHS Highland datix incident reporting system and discussed at a departmental M&M meeting.