

## A SNAPSHOT AUDIT OF TRACHEOSTOMY CARE IN A TERTIARY CANCER CENTRE

Berkeley RC & Gruber PC

Critical Care Unit, The Royal Marsden Hospital, London

### Background

Safe insertion and reliable monitoring of tracheostomy tubes are important in caring for patients with altered airways. We performed a snapshot audit of care delivered to patients with tracheostomies in a tertiary cancer centre caring for patients with head & neck tumours and compared it with the recommendations outlined in the National Enquiry into Patient Outcomes and Deaths (NCEPOD) report, 'On the right trach'<sup>1</sup>.

### Method

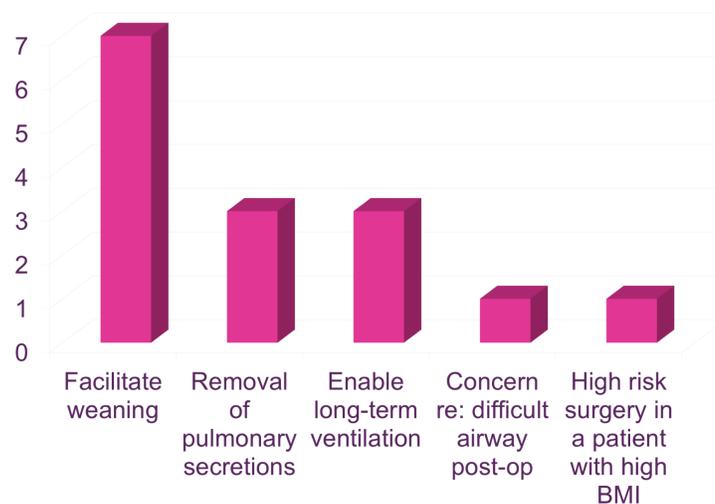
Data was collected using hospital notes and the electronic patient record system for all patients undergoing a tracheostomy during the period 25.02.2014 to 12.05.2014. We used the 3 questionnaires developed by the NCEPOD report to collate data on the patients identified. The following elements of tracheostomy care were audited: tracheostomy insertion, post-tracheostomy care, decannulation, complications and outcome.

### Results

9 tracheostomies were performed during the data collection period, for a variety of indications shown in Figure 1. All tubes were cuffed, non-fenestrated and of standard length with sub-glottic aspiration ports.

- 6 were performed in ITU
- 3 were performed in theatres
- 6 were classified as 'emergency'
- 3 were classified as 'elective'
- 6 were inserted percutaneously
- 3 were inserted surgically

Fig. 1: Indications for tracheostomy



### Percutaeneous tracheostomies:

All procedures were performed on the ITU by Consultant Intensivists. Consent forms were completed for 4 out of 6 patients. The surgical safety checklist was not used in any of the cases. 100% of cases used USS to image the neck vessels, bronchoscopy to confirm tracheal puncture & confirm placement and capnography to measure end tidal CO<sub>2</sub>. Post-procedure chest radiographs were reviewed in all cases. One patient had a false track created during insertion which was recognised early and did not result in an adverse outcome.

### Surgical tracheostomies:

Consent forms and a surgical safety checklist was completed in all cases. All patients were sent to ITU from theatres. There were no failed intubation attempts. One case was performed by a Consultant UGI surgeon; 2 by Consultant Maxillo-Facial surgeons. In all cases a Consultant Anaesthetist was present.

### Post-tracheostomy care:

All tracheostomies were humidified with hot water humidification. In 89% of cases a daily assessment was made for cuff deflation according to Trust protocol. Inner cannulae were used in all cases, with frequency of inner tube inspection shown in Figure 2. Attempts to facilitate communication occurred in 56% of cases: 4 patients used a speaking-valve; 2 used pen, paper or whiteboard; 1 patient made use of an electronic device. In only 22% of cases was advice sought from SALT. The most common complication post procedure was minor bleeding (33%). One patient had an accidental tracheostomy dislodgement resulting in early decannulation. All decannulations were successful on first attempt and without documented complication. There were no deaths attributed to tracheostomy.

Fig. 2: Frequency of inner tube inspection

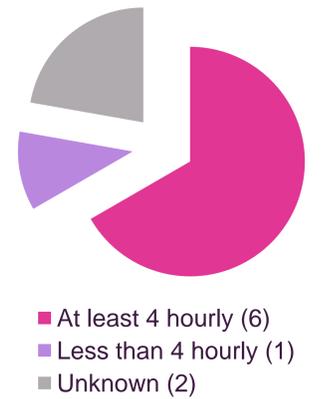
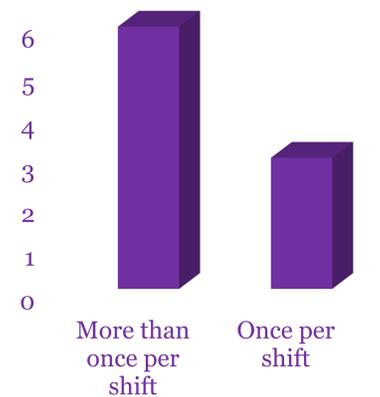


Fig. 3: Frequency of cuff pressure monitoring



### Conclusions & Recommendations

We demonstrated good compliance with NCEPOD recommendations in relation to tracheostomy insertion, post insertion care and decannulation. No identified complications led to adverse outcomes. Areas for improvement identified were: need for completion of the **WHO checklist** for tracheostomies performed in ITU; need for regular **multidisciplinary tracheostomy ward rounds**; creation of a **tracheostomy 'passport'** for patients with tracheostomies, and regular **re-audit** of tracheostomy data.

