Improving the rapid assessment and management of tracheostomy related critical incidents within a District General Intensive Care Unit – an MDT educational approach.

Wessex Anaesthetists In Training 2020 Meeting

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Respect Integrity Teamwork Excellence

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Background

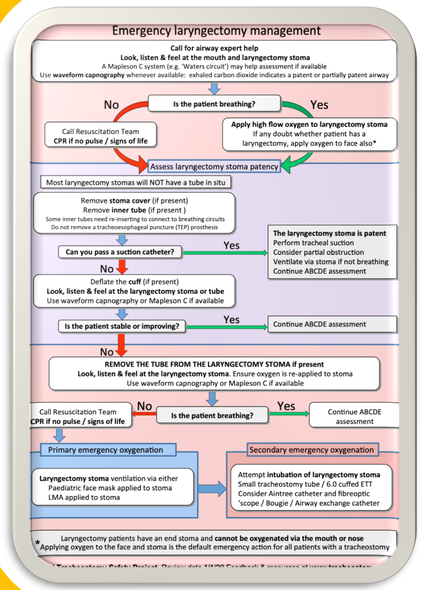
Within our District General hospital, we have a variety of clinical experience and skill mix throughout our nursing and medical staff including rotational trainees. With the advent of the COVID-19 pandemic and greater numbers of patients with respiratory failure, understanding the care of tracheostomies is ever more important particularly with non-trained staff supporting the unit. With the recent publication of the 'Improving Tracheostomy Care' project [1] we felt it imperative that our critical care team's approach to emergencies involving tracheostomies required standardisation and ongoing education to improve patient outcomes.

Aims

To implement a reproducible half-day education and simulation session surrounding tracheostomy care and associated emergencies:

1) Utilise the current emergency National Tracheostomy Safety Project (NTSP) algorithms [2].
2) Ensure the use of NTSP bedhead signs with associated algorithms for all tracheostomy patients within our unit.

NTSP Algorithms – Emergency tracheostomy management [2]



Feedback

Teaching was well received by all. Response to the inclusion of the MDT in both educator role and participation aspects of the session was very positive. The varied team-working through scenarios allowed dynamic discussion in the debriefs and highlighted the limitations and dependency on each other's clinical roles.

Progress & Considerations

Since the initial educational session we have seen an increase in tracheostomy weaning patients within our unit due to COVID-19. We are currently utilising the NTSP bed head signs with associated algorithms consistently.

We have further dates scheduled for simulation sessions with the view to pass over the format and teaching material to rotational anaesthetic registrars to maintain implementation.

We should consider the use of previous attendees as faculty to teach peers (both nursing and medical staff) to aid consolidation of learning.

Method

Overview of 3-hour teaching session.

Learner group Core Anaesthetic Trainees x 2, ICU nursing staff x 2, ODP/Resus Officer x 1

Teacher Group Anaesthetist/ICU Consultant & trainees, ICU physiotherapist & nurse

Introduction

Lecture with introduction to types of tracheostomy + overview of NTSP emergency algorithms

Workstations

Physiotherapist led tracheostomy session (types, caps, weaning & de-cannulation)

Trainee/nurse led sim lab – hands on walk through with NTSP algorithms

Simulations

Scenario 1 – tracheostomy patient with laryngectomy

Scenario 2 – tracheostomy patient with patent upper airway

Conclusions

By improving the understanding of common tracheostomies used, their routine care and standardising approaches to emergencies we aim to reduce the incidence and severity of critical incidents relating to tracheostomy patients. By utilising the critical care MDT during training sessions there is the opportunity to share knowledge, appreciate each other's roles and limitations while approaching critical incidents as a team. These simulation sessions could easily be implemented by other critical care teams to align with the NTSP suggestions.

References

1) Tracheostomy.org [Internet]. National Tracheostomy Safety Project; Improving Tracheostomy Care. Available from: http://www.tracheostomy.org.uk/healthcare-staff/improving-tracheostomy-care.
2) Tracheostomy.org [Internet]. National Tracheostomy Safety Project, Emergency Care (Adults); Emergency Algorithm – Tracheostomy. Available from: http://www.tracheostomy.org.uk/storage/files/Patent%20Airway%20Algorithm.pdf.

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