Implementing Standardized Education in Post-Operative Adult Tracheostomy Patients

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Introduction

Significance

- Length of hospital stay, ICU time, and post-discharge tracheostomy complications are decreased with patient/caregiver involvement and a multidisciplinary and standardized approach to patient education
- Tracheostomy complications, readmission rates, and unplanned hospital stays are affected by inpatient education
- In a six-month period among adult patients discharged home with newly placed tracheostomies, 75% did not have tracheostomy education documented while inpatient and 28% had tracheostomy related complications within 30 days of discharge to home.

Inquiry, Purpose

Problem: Tracheostomy patients discharged to home or home health care facility rates affected by inpatient family and patient education.

Inquiry: In tracheostomy patients discharged to home or hospital, how does standardized education from the health care team impact patient complications, readmission rates, and unplanned provider visits?

Literature Search

Databases searched: CINHAL, and PubMed databases were searched. Additional articles referenced in database literature were included.

Summary & Methods

Recommendations

Recommendations for Patient Education:
- Multidisciplinary approach
- Standardization of education, roles and responsibilities, documentation, and care pathway
- Centralized EMR documentation
- Patient and caregiver involvement
- Multiple avenues available for optimal patient learning
- Nursing staff education

Other Recommendations:
- Trach Super User for each unit and shift
- Collaboration between professionals regarding optimal patient education and teach back
- Staff education in identification of family and/or patient ability to be discharged home versus need for long-term care facility
- Evaluation of staff comfortability and competence regarding patient education pre and post intervention

Facility Approval and IRB

This quality improvement project was approved by the Office of Professional Practice, the Office of Clinical Effectiveness, and the University of Missouri IRB confirmed approval (project number 2098816) as a quality improvement project.

Instruments and Outcomes

- Adult tracheostomy patients discharged to home:
  - Trach complication(s) related visit to facility clinic, urgent care or emergency department
  - Facility 30-day readmission rate
  - Inpatient education documentation
  - Provider PowerPlan utilization
  - All data points are extracted from PowerChart documentation

Analysis

- Pre and post interventions will be directly compared
- Standards of statistical significance, when calculated is set at p < 0.05

Limitations

- Non-standardized care pathways for adult tracheostomy patients
- Secondary intervention includes ENT Service patients only, and project to be piloted on two units (CICU and Oncology)
- Limited time allotted for bedside staff education

Implementations

Stakeholders

- Staff RNs, RN Unit Leaders
- Respiratory Therapy, Respiratory Therapy Leaders
- Skin Team, Speech Therapy, Case Management, Informatics specialists
- ENT Physician, ENT Nurse Practitioner and nurse, Acute Care Surgery Physician
- Coordinators for Policies, Procedures and Protocols, Patient Education, and Evidence-Based Practice

Setting, Participants and Time

Patients at the University of Missouri Health Care who fit the following qualifications: Adult (18 years and older), post-tracheostomy placement this admission, discharged to home or to home health care. The primary intervention was implemented May 2023, and the secondary intervention will be implemented in Spring 2024.

Preliminary Outcomes

Primary Intervention Data

Six-month post-implementation data revealed underutilization of the EMR Trach Education section as well as unchanged tracheostomy complication rates. Follow up staff interviews indicated barriers of knowledge gaps and responsibility confusion.

Secondary Intervention

Cheeney et al. (2020) noted similar interventions and outcomes but discussed positive results after implementing both a staff-facing and patient-facing patient education schedule in addition to centralized EMR documentation. The secondary interventions engage the patient/caregiver in the education necessary to be discharged home or to home health care successfully. Nursing and RT are guided through patient education expectations and timeline to help ensure the patient is successful post discharge. Data evaluation will begin Fall 2024.

Perceived Healthcare Implications

- Decreased adult tracheostomy patient length of stay, complications, and readmission/unplanned provider visits
- Increased nurse comfortability in performing tracheostomy care and providing patient education
- Standardized care pathway for adult tracheostomy patients

References

[References are included in the document.]

Keywords: tracheostomy AND (effectiveness OR outcomes OR quality improvement OR readmission) AND ((patient education) OR (patient discharge education) OR (patient education) OR (discharge education) OR (tracheostomy/ED))