Can't Touch This!
A Nurse Led Trach Dislodgement Risk Assessment

Aileen Antich MSN, RN, CPN, Ana Bandin MSN, RN, CPN,
Juliette Gresham BSN, RN, Ketia Pierre BSN, RN,
Wendy Salazar ASN, RN

Nicklaus Children's Hospital, Miami, FL

Background

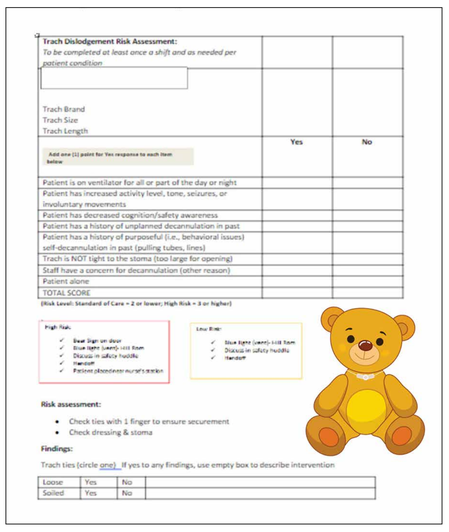
- Nurse-patient ratio on a pediatric medical floor is higher than that of an ICU (Intensive Care Unit), therefore making it difficult to have close monitoring on all patients, especially those with tracheostomies.
- Trach tube dislodgments lead preventable cause of harm in the ICU where close monitoring is in place. Implementation of a trach dislodgment risk assessment in the medical surgical unit ensures identification of those patients that are potential risk for dislodgments due to different reasons.
- This risk assessment brings awareness to the care team and puts in place interventions to avoid an airway event.
- Literature supports identification of potential tube dislodgements for quick intervention and decrease risk of patient harm.
- Lack of evidence in literature outside the ICU makes this project unique for the implementation of an identification process in the med surge areas to eliminate airway emergencies and mortality.

Purpose

The purpose of this nurse led quality improvement project was to enhance the safety and practice taken upon pediatric patients with tracheostomies in a medical surgical unit thus proactively eliminating the potential incidences of mortality led by an unsecured airway.

Methods

- Incident reports were reviewed for Q4-22 and 2023 to assess for incidences.
- Questions within the risk assessment were adapted to inpatient pediatric setting from an outpatient rehabilitation facility.
- Assessment is done on every shift. Scores of 3 and above indicate high risk. Interventions were created to address high and low risk scores including signage, safety huddle and handoff in place.
- Assessment form includes trach size, brand, length, as well as 8 questions addressing patient's cognitive and environmental status.
- Education on the risk assessment tool and interventions were communicated with all unit staff to work as a team in preventing dislodgement. Nursing staff completes screening and passes on the information to the oncoming nurse and all relevant staff.



Trach Dislodgement Risk Assessment:
To be completed at least once a shift and as needed per patient condition

Trach Brand Trach Size Trach Length		
Add one (1) point for Yes response to each item below	Yes	No
Patient is on ventilator for all or part of the day or night		
Patient has increased activity level, tone, seizures, or involuntary movements		
Patient has decreased cognition/safety awareness		
Patient has a history of unplanned decannulation in past		
Patient has a history of purposeful (i.e., behavioral issues) self-decannulation in past (pulling tubes, lines)		
Trach is NOT tight to the stoma (too large for opening)		
Staff have a concern for decannulation (other reason)		
Patient alone		
TOTAL SCORE		

(Risk Level: Standard of Care = 2 or lower; High Risk = 3 or higher)

High Risk:
- ✓ Bed Sign on door
- ✓ Blue light (vent)- Unit Rom
- ✓ Discuss in safety huddle
- ✓ Handoff
- ✓ Patient placed near nurse's station

Low Risk:
- ✓ Blue light (vent)- Unit Rom
- ✓ Discuss in safety huddle
- ✓ Handoff

Risk assessment:
- Check ties with 1 finger to ensure securement
- Check dressing & stoma

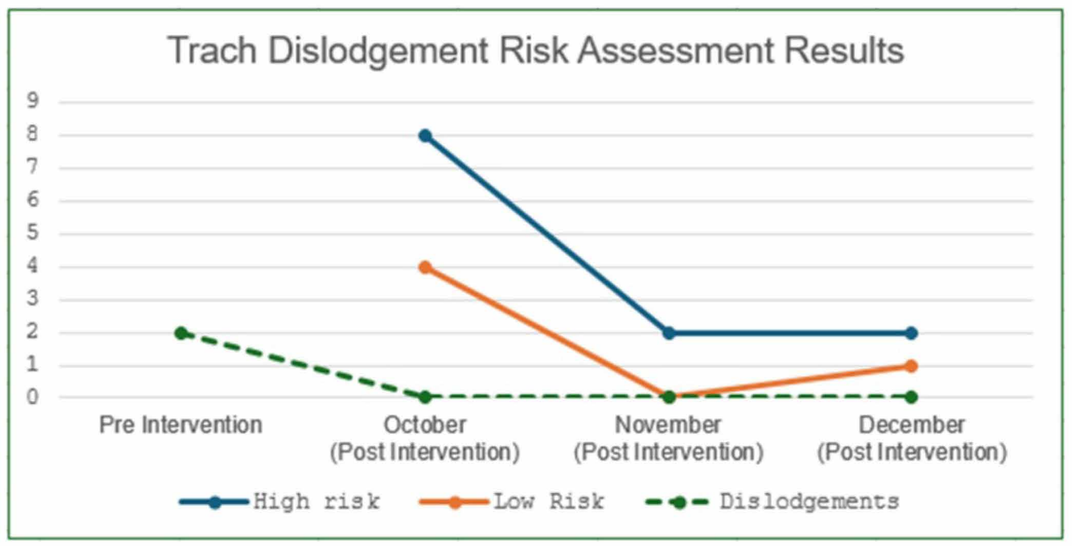
Findings:

Trach ties (circle one) If yes to any findings, use empty box to describe intervention

Loose	Yes	No	
Soiled	Yes	No	

Outcomes

- There were 2 dislodgements pre implementation.
- Total of 12 patients during implementation.
- 8 of those were high risk.
- No dislodgements post implementation.
- Zero events.



Conclusion

- This risk assessment brings awareness to the care team and puts in place interventions to avoid an airway event by increasing surveillance. Its implementation proved to be effective in proactively eliminating potential incidences of mortality led by an unsecured airway as evidence by zero events for 8 patients at high risk.

Implications for Practice

- The education provided and awareness of the risk assessments is key to ensuring the safety of these patients and avoidance of airway emergencies or mortality.
- The trach dislodgement risk assessment would change how patients with a tracheostomy are assessed upon each shift on a medical surgical unit where close monitoring is a barrier being outside of an ICU setting.
- Future plans to place screening on EMR for hospital-wide use.

References

- Chia AZH, Ng ZM, Pang YX, et al. Epidemiology of Pediatric Tracheostomy and Risk Factors for Poor Outcomes: An 11-Year Single-Center Experience. Otolaryngology–Head and Neck Surgery. 2020;162(1):121-128. doi:10.1177/0194599819887096.
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