



Decrease in Accidental Tracheal Decannulations in Chronically Ill Children with Complex Medical Needs in an Inpatient Rehabilitation Facility

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Background

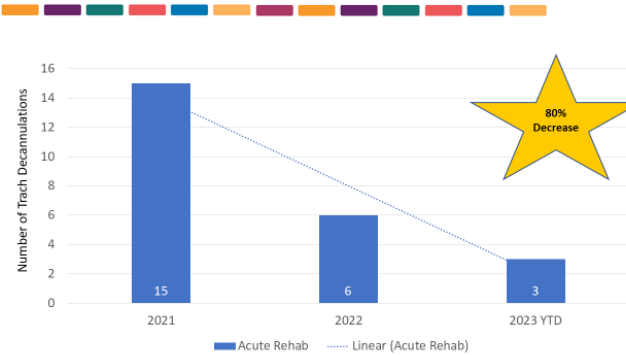
Accidental Decannulation (AD) has serious consequences of morbidity and mortality. Initial work to decrease ADs in our inpatient rehabilitation hospital resulted in a significant decrease in events. However, these results were not sustained and a serious safety event led to the reinvigoration of the Tracheostomy Task Force to identify gaps and make improvements to reduce AD's.

Objective

To collect, analyze data and develop strategies to decrease AD events. We present the tools, data and targeted interventions used to achieve decline in AD events.

Results

Tracheostomy Decannulations Historical (thru Dec 2023)



Overall accidental decannulation events have decreased **by 80%** over the past 3 years (2021 (n=15), 2022 (n=6) and 2023 (n=3). Additional safety measures implemented included development of high-risk reduction strategies. Reduction in AD's was highlighted as an organizational goal with increased focus at unit safety huddles, monthly leadership review of data, and leader rounding as well as presentation to the Board of Trustees.

Conclusion

Although initial efforts proved successful in decreasing accidental decannulations, a recurrence of increased events and a serious safety event led us to reexamine AD. Continuous attention on identifying gaps, hardwiring interventions and building accountability, collecting data, and elevating focus across the organization has enabled us to achieve two years of declining ADs.

Methodology

- Trach Task Force team conducted a literature review
- A post trach decannulation huddle form was implemented to identify gaps and additional interventions to prevent recurrence
- A Trach Decannulation Risk screening tool was developed to identify patients at higher risk of decannulation
- Specific interventions for those identified as high-risk (e.g. trach stabilizer)

High Risk Screening Tool

Risk Screening Tool	
On ventilator for all or part of the day or night	<input type="radio"/> Yes <input type="radio"/> No
Increased activity, tone, seizures or involuntary movement	<input type="radio"/> Yes <input type="radio"/> No
Decreased cognition/alertness	<input type="radio"/> Yes <input type="radio"/> No
History of unplanned decannulation in past	<input type="radio"/> Yes <input type="radio"/> No
History of purposeful self-decannulation in past	<input type="radio"/> Yes <input type="radio"/> No
Trach is NOT tight to the stoma (smaller than opening)	<input type="radio"/> Yes <input type="radio"/> No
Staff have a concern for decannulation (other reason)	<input type="radio"/> Yes <input type="radio"/> No
Total Score: _____	
Risk Level	
Risk Level	Standard of Care (Score of 2 or lower)
Risk Level	High Risk (Score 3 or higher)
Action Taken for further assessment and plan	<input type="checkbox"/> Medical provider notified <input type="checkbox"/> Notify provider for high risk on admission or change in risk level.

Name: _____		DOB: _____		Age: _____		Room/Bed: _____	
Date last decannulation risk assessment: _____		Decannulation risk level (standard): _____		Appropriate risk interventions per risk level: _____		PST score: _____	
Status On use at time of event? (Y/N)		Vent/EC taking present at time of event? (Y/N)		Trach stabilizer present at time of event? (Y/N)		Cuff intact? (Y/N)	
Trach brand: _____		Trach size: _____		Trach length: _____		Cuff size? (Y/N)	
Trach inflated or deflated? (Y/N)		Cuff type: _____		Cuff type: _____		Cuff type: _____	
Appropriate sized spare trach: _____		Are trach tubes large? (Y/N)		Trach tube type (one piece, two piece, etc.): _____		Trach tube type (one piece, two piece, etc.): _____	
Trach secured to neck? (Y/N)		Are trach tubes secured? (Y/N)		Circumference present? (Y/N)		Circumference present? (Y/N)	
Level of agitation or restlessness (Trach): _____		Trach site bleeding? (Y/N)		Trach site or anesthesia marks area for redness? (Y/N)		Trach site or anesthesia marks area for redness? (Y/N)	
Circumference under trach? (Y/N)		Trach site dryness? (Y/N)		Trach site or anesthesia marks area for redness? (Y/N)		Trach site or anesthesia marks area for redness? (Y/N)	
Other for decannulation (Y/N)		Was secure still decannulated? (Y/N)		Was secured to chest? (Y/N)		Was secured to chest? (Y/N)	
Decannulation (Prevention Device) Present (vent tube in place or other device to prevent decannulation): _____		Other patient information (e.g. change in trach brand or size or length post decannulation): _____		List Actions to Prevent Recurrence: _____		List Actions to Prevent Recurrence: _____	
Name of person who completed this form: _____		Signature: _____		Date: _____		Date: _____	

Huddle form

References: Mitchell, R.B, Hussey, H.M., Setzen, G., Jacobs, I.N., Nussenbaum, B., et al (2012). Clinical Consensus Statement: Tracheostomy Care, Otolaryngology-Head and Neck Surgery 148 (1) 6-20. Cincinnati Children's Best (Best Evidence Statement) re: Basic Pediatric Tracheostomy Care, 2011. American Thoracic Society (2000), Care of the child with a chronic tracheostomy: The official statement of the American Thoracic Society, American Journal of Respiratory Critical Care Medicine, vol 161, pp 297-308.