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## **Decrease in Accidental Tracheal Decannulation in Chronically Ill Children with Complex Medical Needs in an Inpatient Rehabilitation Facility**

**Evelyn David MSN, CPNP**  
**Pediatric Nurse Practitioner, Inpatient Rehabilitation**  
**Children's Specialized Hospital**  
**New Brunswick, NJ**

**Kelly Keefe Marcoux PhD, APN, CPNP-AC, PPCNP-BC, CCRN**  
**Vice President, Patient Care & Chief Nursing Officer**  
**Children's Specialized Hospital**  
**New Brunswick, NJ**

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### **Background:**

Accidental Decannulation (AD) has serious consequences of morbidity and mortality. The work of a 2016 Trach Task Force led to a significant decrease in the number of AD's. Over time, the number of decannulations began to increase. A serious safety event caused us to reinvigorate our Trach Task Force to identify gaps and make improvements to reduce AD's in our pediatric inpatient rehabilitation that care for children with complex medical needs.

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

### **Methodology:**

The multidisciplinary Trach Task Force conducted a literature review to identify evidence-based practices regarding decannulation prevention initiatives. A post trach decannulation huddle form was developed to identify gaps and possible interventions in order to prevent a future event. A Trach Decannulation Risk screening tool was developed to identify patients at higher risk of experiencing a decannulation event. To complement the screening tool, a process was established to ensure high risk interventions, such as a trach stabilizer, were used with any patient identified as high risk.

### **Results:**

Overall accidental decannulation events 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.

Contact: Evelyn David, MSN, CPNP

Children's Specialized Hospital

200 Somerset Street, New Brunswick, NJ 08901

[edavid@childrens-specialized.org](mailto:edavid@childrens-specialized.org), [evelyndavid76@yahoo.com](mailto:evelyndavid76@yahoo.com)