

# Rehab Airway Management Rounds

An Interdisciplinary Collaboration for Improving Trach Patient Outcomes in the COVID Era

Julie Gaven, MS CCC-SLP, Kenneth Stephens, RCP, BSRT & Latasha Williams, MSN, RN, CRRN

Vidant Medical Center-Inpatient Rehabilitation



## BACKGROUND

Historically, patients with artificial airways (i.e., tracheostomy tubes) have been more challenging to manage on the rehab unit, and are often the most medically complex individuals out of the variety of diagnoses we serve in the inpatient rehab setting.

This safety-focused quality improvement initiative was launched to help improve the monitoring, progress and education of these trach patients by providing weekly rounding on initial and any follow-up airway needs, as well as supportive recommendations to facilitate increased opportunities to decannulate our more fragile patients with underlying respiratory conditions prior to discharge.

Individuals with tracheostomy tubes have been an especially important population to monitor during the COVID-19 pandemic, as these patients are generally at a higher risk of acquiring secondary lung infections while recovering from respiratory failure.

## PROJECT AIM

To improve safety, promote optimal care and maximize outcomes for trach patients served in inpatient rehab, support progress towards decannulation/discharge, as well as provide an extra layer of support to interdisciplinary clinical and medical teams caring for rehab patients with artificial airways.



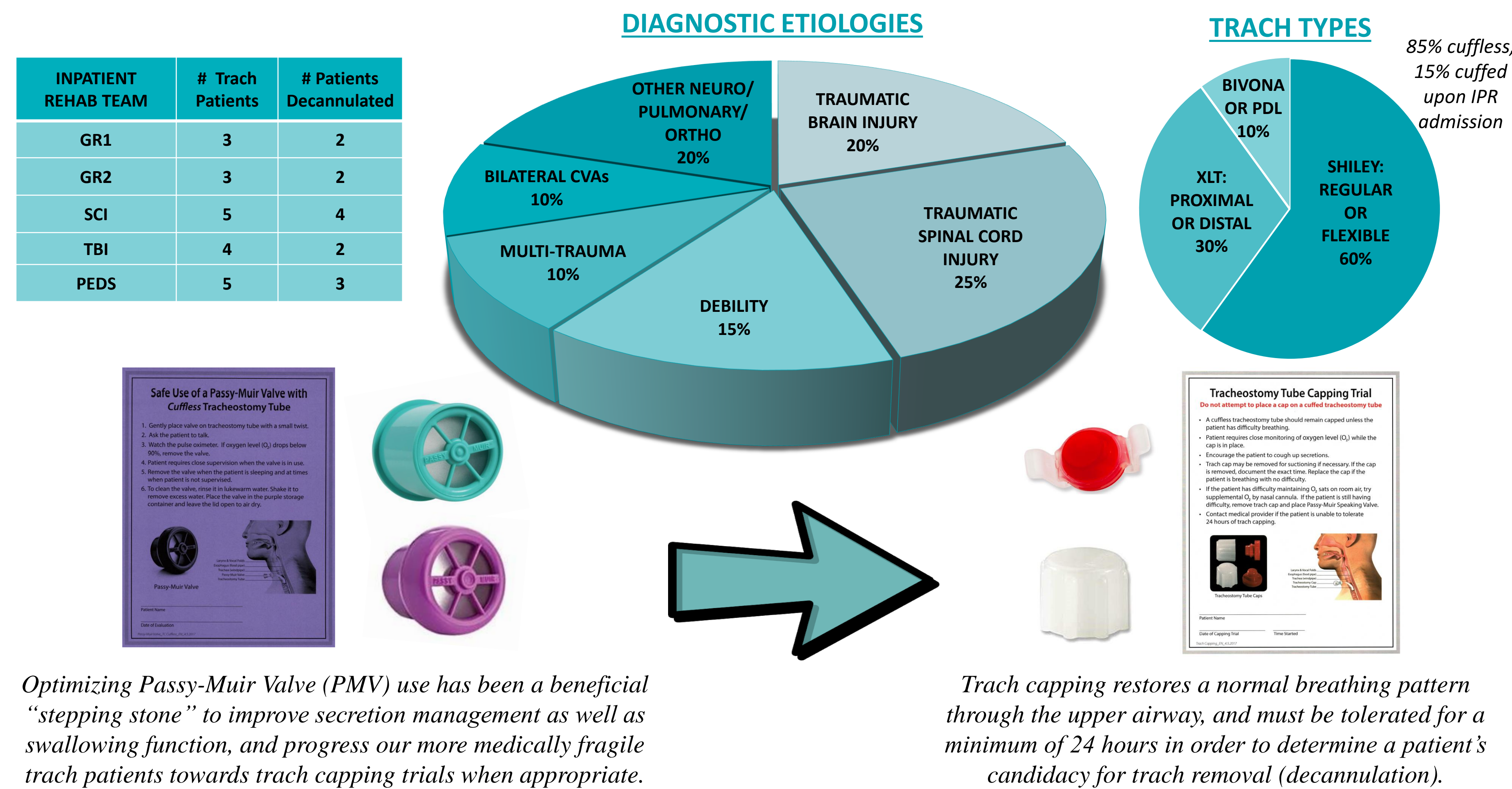
A tracheostomy tube is usually placed emergently to bypass an upper airway obstruction, to clean/remove secretions from the airway, or to more effectively deliver oxygen and humidification to a patient's lungs via mechanical ventilation.

## PROJECT DESIGN/STRATEGY

- ✓ Weekly interdisciplinary rounding and chart reviews facilitated by SLP, RCP and RN team members.
- ✓ Discussions captured in corresponding progress notes with specific interdisciplinary recommendations entered and updated in trach patients' charts each week.
- ✓ Regular check-ins with primary SLPs and rehab RCPs to ensure follow-through on recommendations and help facilitate any follow-up or trach-related troubleshooting needed for optimal secretion management and O2/FiO2 weaning.
- ✓ Discharge planning checklist of best practices created and implemented to help guide nursing and case managers through necessary preparations and ensure receipt of appropriate DME orders to facilitate safe discharges.
- ✓ Quarterly updates sent to rehab leadership and MDs to inform them of our decannulation successes and learning opportunities for growth in serving our trach population in rehab.

## CHANGES/IMPACT MADE

Thus far, we have had the opportunity to serve 20 trach patients in our rehab center (including 1 with a diaphragmatic pacer and 1 on vent support) since this quality initiative was launched in September of 2019. Our weekly huddles, chart reviews and discussions in conjunction with RCP, SLP, and RN team members have been attempting to provide clear "snapshots" of each individual's trach/airway, respiratory, secretion, and swallowing statuses with holistic interdisciplinary recommendations in order to actively progress patients to & through smooth decannulations whenever possible, as well as provide early discharge planning support and guidance for our medical teams and case managers. The content of our weekly rounding notes and collaboration with primary rehab therapists/nurses/MDs continues to evolve. See below for a breakdown of recent trach patient demographics:

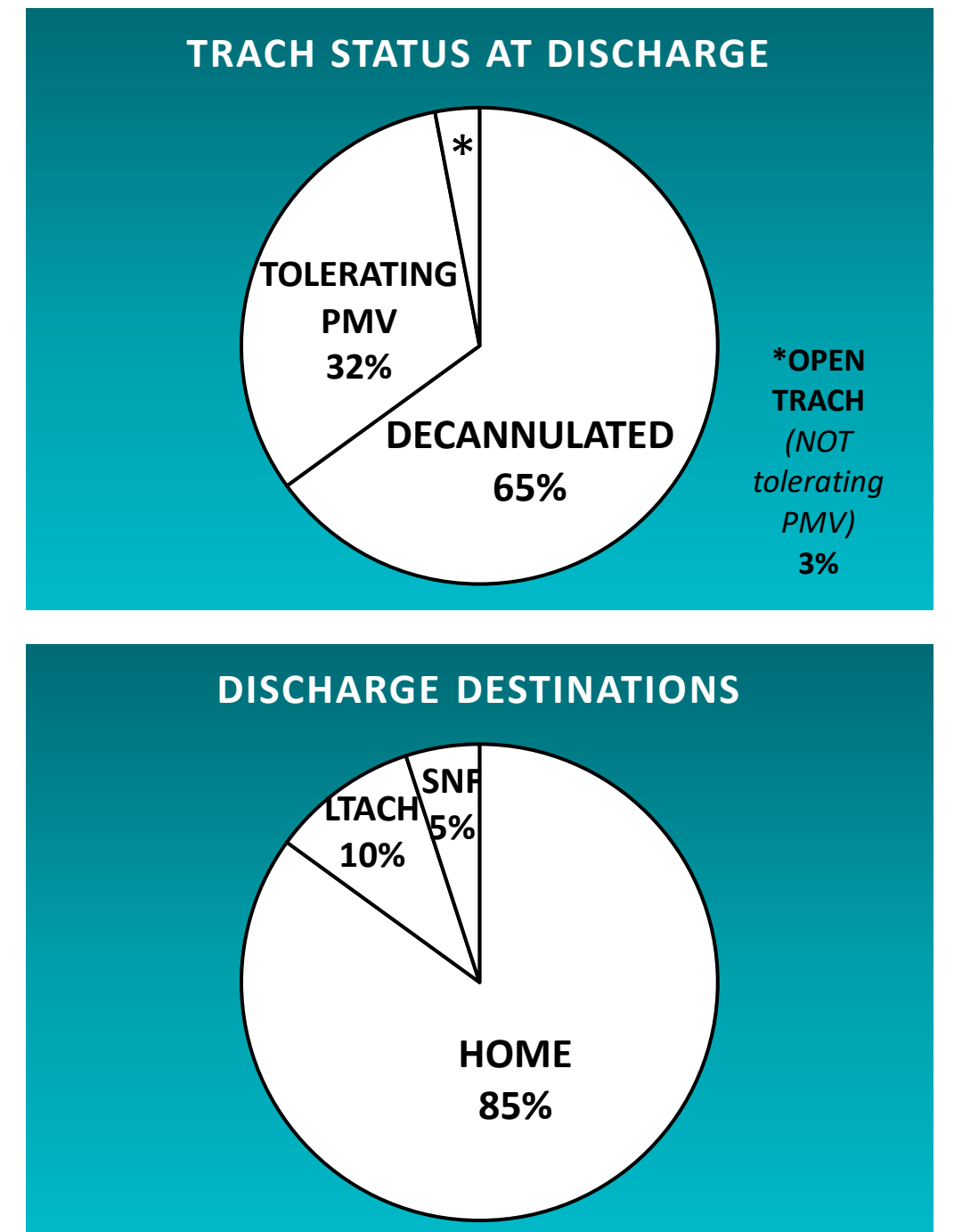


## RESULTS/OUTCOMES

Our interdisciplinary rehab teams have expressed appreciation of trach management clarifications and proactive discharge planning recommendations. We have also seen improved consistency with scheduling hands-on family education & anticipating DME needs to help prepare patients for smooth transitions to the next level of care.

**65% of our trach patients were successfully decannulated, and 85% were discharged home.**

- Of the patients that were NOT ready to be decannulated prior to discharge, some of the reasons they required continued airway maintenance after leaving rehab were as follows:
- Persistent/recurrent mucous plugging issues following complex COVID recovery
  - Trach required for future GI interventions or head & neck cancer-related procedures
  - Significant developmental delay + copious secretions (ultimately transferred to LTACH)
  - Awaiting ENT follow-up for persistent back pressure following trach downsizes x2
  - Complex facial fractures requiring plastic surgery follow-up procedures in the future
  - Long-term ventilator dependency, progressed to short trach collar trials during the day
- We are pleased to note that several individuals who went home with their trachs were tolerating continuous (24/7) PMV use when they left our facility, which should set them up for optimal swallowing safety, independence with secretion management, and success with eventually transitioning to trach capping trials/progressing towards decannulation when medically appropriate in the future.*



19/20 (95%) of our trach patients tolerated **daytime PMV use**, and 9/20 (45%) wore their **PMV continuously** (including nocturnally) before capping.

13/20 (65%) were able to be **successfully decannulated** prior to discharge from rehab.

*We have 3 patients currently making steady progress in that direction.*

Despite the ongoing challenges associated with navigating the COVID-19 pandemic, the majority of our trach patients (17/20=85%) have **discharged home**.

## LESSONS LEARNED

- ✓ Many team members have given us positive feedback on the utility and proactive discharge planning guidance our weekly rounding updates and progress notes/recommendations provide.
- ✓ Optimizing PMV tolerance allows for improved patient-provider communication, progress of safe PO intake, improved secretion management and readiness for initiating trach capping trials.
- ✓ Continuous (24/7) PMV use has been a beneficial method to improve nocturnal secretions and gradually progress our more medically fragile trach patients towards trach capping.
- ✓ Close collaboration with RCP and ENT/Pulmonary consults are valuable for troubleshooting complex trach situations.
- ✓ Early introduction of RMST (Respiratory Muscle Strength Training) exercises can expedite weaning of breathing treatments and support long-term bronchial hygiene.
- ✓ 24 hour trach capping minimums may be extended to 48+ hours to monitor a patient's hemodynamic stability, and ensure their ability to maintain/protect their airway independently.
- ✓ Some patients with limited therapy tolerance, numerous medical comorbidities and/or long-term trach care needs may be better served in the LTACH or SNF settings vs inpatient rehab.
- ✓ Interdisciplinary teamwork, vigilance and advocacy makes earlier decannulation and safer discharges possible for our medically complex trach patient population in the inpatient rehab setting. Clear interdisciplinary communication and follow-through on comprehensive patient-centered recommendations facilitates smooth and safe transitions to the next level of care.

## NEXT STEPS

- Continue weekly rounding and proactive airway advocacy
- Track trends re: rehab trach patient outcomes moving forward
- Collaborate with the RCP department to provide staff inservices
- Continue sending quarterly updates to rehab leadership and MDs
- Consider benefits of HME use for patients stable on room air
- Explore further research opportunities to promote excellence in serving our trach patient population in inpatient rehab

## ACKNOWLEDGEMENTS

We would like to express our sincere appreciation and gratitude to our amazing patients, teams, PM&R physicians and inpatient rehab leadership for their support of this ongoing quality endeavor. Thanks to the REACH Project Team & Vidant Health Quality Office for organizing this innovative symposium opportunity, as well as Glenda Williams and the CRG team for helping create this poster.

**Julie Gaven**  
Vidant Medical Center  
Inpatient Rehabilitation  
Greenville, North Carolina  
Office #: 252.847.0670  
Julie.Gaven@VidantHealth.com