

Survivorship in ICU patients undergoing tracheostomy for respiratory failure: from triggers to interprofessional team-based care

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To cite: Brenner MJ, Morrison M, Pandian V. Survivorship in ICU patients undergoing tracheostomy for respiratory failure: from triggers to interprofessional team-based care. *Trauma Surg Acute Care Open* 2024;**9**:e001335. doi:10.1136/tsaco-2023-001335

In their retrospective analysis, Colbert *et al*¹ propose tracheostomy insertion as a trigger for reconsidering care goals in critically ill patients with respiratory failure. The study of short-term outcomes and decision-making processes surrounding tracheostomies highlights the significant mortality rate in this population and the high likelihood of discharge to care facilities, rather than home. The data, consistent with Pandian *et al*'s² study, serve as a reminder of the uncertain prognosis of critically ill patients and emphasize the need for early discussions about goals of care; however, managing critically ill patient populations is multifaceted. Patient mortality and discharge status are just two of several factors that inform decisions around tracheostomy and subsequent care. Because goals and clinical course are fluid, ongoing patient or family engagement is needed throughout care.

Single-institution retrospective cohort analyses of patients receiving critical care can afford valuable insights but are susceptible to bias, creating caveats in generalizing findings. In Colbert *et al*'s¹ study, the limited sample size restricts the statistical power and the ability to adjust for confounders, and to differentiate among subgroups within a heterogeneous population. These considerations, along with lack of long-term outcome data on either the study population or patients who did not receive tracheostomy, prompt caution when interpreting enduring effects of tracheostomy. Antecedents of tracheostomy, such as days on ventilator, fractional inspired oxygen and positive end-expiratory pressure requirements, composite risk scores, or machine learning algorithms, may also hold predictive value. Such data can provide context for a more holistic approach that aligns clinical decision-making with patients' and families' values, preferences, and goals.

Although survival and disposition are key outcomes, quality of life, patient comfort, and survivorship also matter. Prolonged translaryngeal intubation predisposes to laryngotracheal stenosis, and associated speech, swallowing, or breathing impairments.³ Tracheostomy, although an invasive procedure with inherent risks of bleeding, occlusion, or dislodgment, can expedite weaning and improve patient comfort, communication, and intensive care unit (ICU) course.⁴ Tracheostomy correlates with reduced sedation requirements and lower risk of ventilator-associated pneumonia, muscle atrophy,

and pressure injuries.^{5,6} Thus, tracheostomy-related decision-making in the ICU requires a tailored, data-driven approach that engages patients, families, and interprofessional team members in assessing goals and values concerning not only survival but also survivorship.⁷ The investigation represents a significant step forward in understanding and improving the care of critically ill patients undergoing tracheostomy.

Contributors MJB was responsible for the conception, initial drafting, and critical revision of the article, ensuring its significant intellectual content. He provided final approval for submission and agreed to be accountable for the entirety of the work. MM undertook the analysis and interpretation of the data presented and critically revised the article, ultimately granting approval for its final submission and accepting accountability for all its facets. VP contributed to the conception of the work, played a pivotal role in its critical revision to ensure important intellectual content, and approved the final submission, committing to accountability for all aspects of the project.

Competing interests VP receives support from NIH (R01NR017433-01A1) for the study exploring symptoms of laryngeal injury postextubation in the intensive care units.

Patient consent for publication Not required.

Provenance and peer review Commissioned; internally peer reviewed.

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► <http://dx.doi.org/10.1136/tsaco-2023-001105>

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