

Mobility Plan of a Teenager in the Intensive Care Unit: A Case Study

Background/Purpose

Research indicates that early mobilization helps prevent long-term weakness and disability, reduces the duration of mechanical ventilation, shortens hospital stays, and improves muscle strength¹. However, implementing an early mobilization program has its challenges for providers². Therefore, this case study will explore the vital role of physical therapy and discuss the challenges and strategies of implementing an early mobilization program for a young boy with Leigh Syndrome who required prolonged mechanical ventilation.

Methods

Key interventions included:

- PROM program
- Progressing upright positioning using adaptive seating devices such as a Tumbleform
- Implementation of individualized mobility plan for safe transfers, positioning in a Tumbleform chair, and supported tailor sitting in bed with parent (Figure 1)
- Parent and staff training to ensure implementation of the mobility program safely and consistently using visual aids and step-by-step instructions

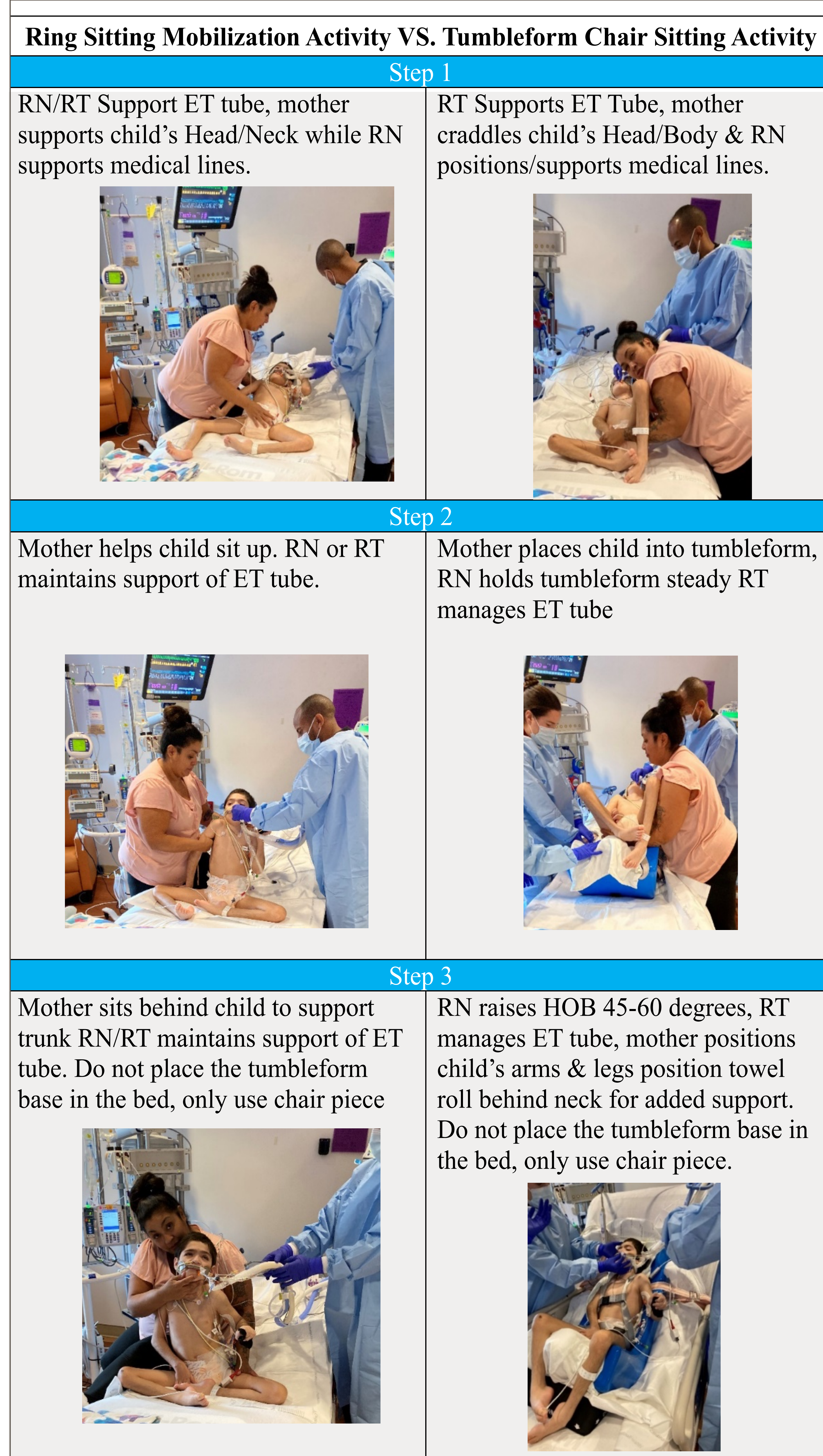
Results

Despite the patient's hypertonia, lack of head and trunk control, and complex medical history, the collaborative approach successfully increased the patient's daily activity and upright sitting tolerance.

Outcomes include:

- Reduced respiratory distress
- Maintained hemodynamic stability
- Improved alertness during therapy sessions.
- Discharged to home without supplemental oxygen or increased care needs, underscoring the effectiveness of early mobilization in preventing long-term disability

Figure 1



Conclusion

This case demonstrates the critical role of rehabilitation specialists in mitigating the physical and psychological impacts of prolonged PICU stays through an early mobilization program.

It also highlights the importance of caregiver involvement and education to ensure continuity of care beyond therapy sessions. These findings contribute to the growing body of evidence supporting early mobilization as a safe, feasible, and impactful intervention in pediatric critical care settings, particularly for patients with complex medical and developmental challenges

References

1. LaRosa, J. M., Nelliott, A., Zaidi, M., Vaidya, D., Awojodu, R., & Kudchadkar, S. R. (2022). Mobilization Safety of Critically Ill Children. *Pediatrics*, 149(4).
<https://doi.org/10.1542/peds.2021-053432>
2. Choong K, Fraser DD, Al-Farsi A, et al. Early Rehabilitation in Critically ill Children: A Two Center Implementation Study. *Pediatr Crit Care Med*. 2024;25(2):92-105.
<https://doi.org/10.1097/PCC.00000000000003343>