

Early Ambulation in the Intensive Care Unit

College of Health & Human Services
School of Nursing

Brittany Higdon, Alicia Seibert, Andrew Vigil Faculty Sponsor: Elisabeth Mancha

Introduction Purpose of the Project

- Medical and Surgical ICU patients are a population that faces numerous medical complications as a result of immobility.
- This project is intended to examine the practice of early mobilization in the ICU as a means to prevent the need for rehabilitation following discharge and encourage ICUs to adopt similar practices.

Clinical Question PICO(T)

> In patients in the intensive care unit, how does early ambulation compared to delayed ambulation influence the need for rehabilitation post discharge?

Patient Population

> Patients in the Intensive Care Unit

Current Policy/Procedure Intervention

- Currently, mobilization in the ICU is not prevalent, some barriers to the adoption of this practice are often related to a reluctance to wean patients off sedatives.
- Though the sample size is relatively small, current studies on the practice of early mobilization in the ICU have shown that PT and OT are not only feasible but safe. One study by Engel et al. has found a 20 percent decrease in patients requiring rehab following stays at an ICU with mobilization programs integrated into their care.

Review of the Literature Acquire/Appraise the Evidence

- A study conducted by Engel, Needham, Morris, & Groper reported randomized control trials showing a scarce amount of evidence on the perception of this practice being thought of as "unsafe".
- This study resulted in the findings of a 20% decrease in the length of time patients were required to stay in hospitalized (Engel, Needham, Morris, & Groper, 2013).
- A study by Zang, Hu, Cai, Liu, Wu, Deng,
 Qin showed results of a decrease in mortality rates
 over a 28-day period in patients who practiced early
 mobilization.
- This study was conducted over a total of 1781 patients improving the mortality rate from 82% to 95% (Zang, Hu, Cai, Liu, Wu, Deng, Qin, 2019).

Comparison Synthesize the Evidence

- Mobilization programs in the ICU are relatively uncommon worldwide. The current research being conducted is specific to physical and occupational therapy within the ICU. Although the results are shown to be promising, not all facilities incorporate this intervention.
- Because these results have proven favorable patient outcomes it is imperative that this intervention is utilized amongst more facilities, aiding in data obtained for evidenced based practice.



Proposed Best Practice Recommendations Apply the Evidence

- ➤ The recommendation is that patients ambulate early on in the ICU to better facilitate recovery time but should exclude those patients who are either sedated or intubated.
- > In order to make this common practice, more research must be done highlighting the benefits of the practice in not only reducing the need for rehabilitation following stays in the ICU, but also the secondary benefits of reducing the levels of sedation patients are subjected to during their treatment.
- > The entire nursing team will help implement safety measures to ensure patients will safely ambulate during their stay in the ICU.

Conclusion Assess the Outcomes

- Patients will downgrade from the ICU in a timely manner without complications when early ambulation occurs.
- > These recommendations will reduce the need for rehabilitation post discharge.

References

- Adler, J., & Malone, D. (2012, March 1). Early Mobilization in the Intensive Care Unit: A Systematic Review. Retrieved February 16, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3286494/
- Boltey, E., Yakusheva, O., & Costa, D. K. (2017, June). 5 Nursing strategies to prevent ventilator-associated pneumonia.

 Retrieved February 7, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5706660/
- Clark, D. E., Lowman, J. D., Griffin, R. L., Matthews, H. M., & Reiff, D. A. (2013). Effectiveness of an early mobilization protocol in a trauma and burns intensive care unit: a retrospective cohort study. *Physical therapy*, *93*(2), 186–196. https://doi.org/10.2522/ptj.20110417
- Engel, H. J., Needham, D. M., Morris, P. E., & Gropper, M. A. (2013). ICU Early Mobilization. *Critical Care Medicine*, 41, S69–S80. https://doi.org/10.1097/ccm.0b013e3182a240d5
- The TEAM Study Investigators. (2015). Early mobilization and recovery in mechanically ventilated patients in the ICU: a binational, multi-centre, prospective cohort study. *Critical Care*, *19*(1), 81. https://doi.org/10.1186/s13054-015-0765-4
- Ventilator-Associated Event (VAE). (2020, January). Retrieved February 7, 2020, from https://www.cdc.gov/nhsn/pdfs/pscmanual/10-vae_final.pdf
- Zhang, L., Hu, W., Cai, Z., Liu, J., Wu, J., Deng, Y., Qin, Y. (2019). Early mobilization of critically ill patients in the intensive care unit: A systematic review and meta-analysis. Retrieved February 8, 2020, from https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0223185#pone.0223185.ref026