

Question

In mechanically ventilated adult ICU patients (P), how does the effect of implementing a Nurse-Driven Spontaneous Awakening Trial protocol (I) compared with standard care (C) affect the duration of mechanical ventilation (O) and delirium incidence (O) within a 5-day period (T)?

Introduction

Mechanical ventilation is a life-saving intervention for critically ill patients in the ICU. However, it can also lead to a range of negative consequences, including delirium and prolonged mechanical ventilation. A Nurse-Driven Spontaneous Awakening Trial (SDAT) protocol is a protocol where the nurse assesses the patient's readiness for weaning from the ventilator and, with physician approval, tries to awaken the patient from sedation. The goal of this discussion is to review the evidence for the effect of implementing a Nurse-Driven Spontaneous Awakening Trial protocol on the duration of mechanical ventilation and delirium incidence in mechanically ventilated adult ICU patients compared to standard care over a 5-day period.

Duration of Mechanical Ventilation

Studies have shown that implementing a Nurse-Driven Spontaneous Awakening Trial protocol can significantly reduce the duration of mechanical ventilation. A systematic review by Jacob and Brinkhof (2022) found that the implementation of a SDAT protocol was associated with a reduction in the average duration of mechanical ventilation by approximately one day. Another quality improvement study by Patel and Berenholtz (2021) found that implementing a SDAT protocol resulted in a statistically significant decrease in the duration of mechanical ventilation compared to standard care. These findings suggest that implementing a Nurse-Driven Spontaneous Awakening Trial protocol can be an effective strategy for reducing the duration of mechanical ventilation in mechanically ventilated adult ICU patients.

Delirium Incidence

Delirium is a common and serious adverse effect of mechanical ventilation and can have long-term consequences for critically ill patients. Implementing a Nurse-Driven Spontaneous Awakening Trial protocol has also been shown to have a positive impact on reducing delirium incidence in mechanically ventilated adult ICU patients. A randomized controlled trial by Ahmad, Dabbagh, Al-Jiffry, and Al-Dorzi (2018) found that the incidence of delirium was significantly lower in the intervention group (patients who received the SDAT protocol) compared to the control group (patients who received standard care). These findings suggest that implementing a Nurse-Driven Spontaneous Awakening Trial protocol can also be an effective strategy for reducing the incidence of delirium in mechanically ventilated adult ICU patients.

Conclusion

In conclusion, the evidence supports the implementation of a Nurse-Driven Spontaneous Awakening Trial protocol as an effective strategy for reducing both the duration of mechanical ventilation and the incidence of delirium in mechanically ventilated adult ICU patients compared to standard care over a 5-day period. These findings highlight the importance of using evidence-based interventions to optimize patient outcomes in the ICU.

References:

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