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The Effects of Oral Care in Reducing the Incidence of Ventilator-Associated Pneumonia in Mechanically Ventilated Patients in the ICU

Alexandra Waugh

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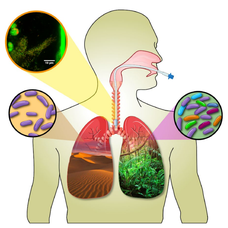
BACKGROUND

- VAP is defined as a pneumonia that develops within 48 hours of initiating ventilator support (Zhao et al., 2020)
- The prevalence of VAP in patients being mechanically ventilated is 9%-68% with a resulting mortality rate of 30%-70% (Atashi et al., 2018)
    - This makes VAP the number one healthcare acquired infection (HAI) to cause death (Liu et al., 2020)
- Evidence has shown that the implementation of routine oral care may reduce VAP by nearly 60%
- Minimal studies have identified the impact of oral care specifically
    - This left a gap of knowledge on the influence of oral care



PURPOSE

- The purpose of this study is to evaluate the effectiveness of oral care in reducing the number of patients in the ICU who develop VAP

LITERATURE REVIEW

- Despite chlorhexidine's gold standard status, recent studies question the safety and effectiveness of chlorhexidine in reducing VAP
- It is recommended to use both an antiseptic and toothbrushing when providing oral care to reduce the incidence of VAP (Zhao et al., 2020)
- Coordinating subglottic suctioning when conducting oral care is a great way to prevent the aspiration of contaminated secretions into the lungs (Boltey et al., 2017)

METHODS

- The participants include mechanically ventilated patients in St. Rita's ICU and their assigned nurses

PHASE 1

- Education will be given via brochures about VAP and the criteria needed to diagnose it
- A sputum culture, CBC, chest x-ray, and core temperature will be necessary for each patient prior to the intervention to ensure the absence of VAP

PHASE 2

- Nurses will be taught how to do oral care and how often
    - Oral care will be done 3 times a shift: 0800, 1200, 1600, 2000, 0000, 0400
- Oral care is preformed per study protocol

PHASE 3

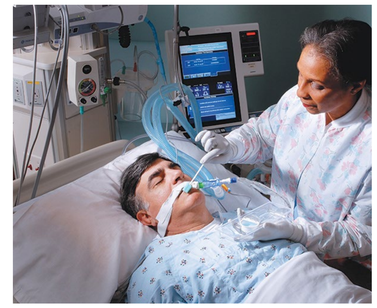
- The nurses will repeat the sputum cultures, CBC, chest x-ray, and core temperature on each patient
- The incidence of VAP on the unit will be compared pre-implementation and post-implementation

ETHICAL STANDARDS

- All participant's names will be removed from data and will instead be assigned letters to keep participants anonymous
- Data will be locked securely in a cabinet with only the researcher having access
- Once the data is no longer needed, it will be shredded

IMPLICATIONS FOR NURSING

- With this study, the effectiveness of oral care on reducing the incidence of VAP may be revealed
- To obtain more reliable and valid data on the effectiveness of oral care, hospitals may need to prioritize oral care education and compliance
- Further evidence on the risk and benefits of chlorhexidine is needed to ensure the act of nonmaleficence is being maintained



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