Non-Ventilator Hospital-Acquired Pneumonia Prevention through Oral Care

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**Background:** Non-ventilator hospital-acquired pneumonia (NV-HAP) is a commonly identified classification of hospital-acquired pneumonia associated with high mortality, increased hospital length of stay, increased hospitalization costs, and high readmission rates within 30 days. Despite the lack of prevention strategies, surveillance, and reporting standards to track the incidents of NV-HAP, the literature supports the effectiveness of oral care in preventing NV-HAP. **Purpose:** The purpose of this quality improvement (QI) project was to educate the nursing staff on a standardized, evidence-based oral care protocol to decrease the occurrence of NV-HAP. The project occurred in two months among acute stroke non-ventilated patients in a Neuro Intensive Care Unit.

**Framework:** The Iowa Model guided the planning and implementation of this QI project.

**Methods:** Participants were a convenience sample of 44 registered nurses. Nurses’ knowledge was assessed by providing a 12-item validated survey pre-and post-implementation of the oral care protocol. Aggregate data on NV-HAP occurrences were collected post-implementation.

**Results:** Chi-square test results showed an 18.8% increase in nurses’ knowledge of the NV-HAP diagnosis post-implementation (78.8%) from pre-implementation (60%) of an oral care protocol. There was an increase in nurses’ understanding of the importance of using an oral care protocol to prevent NV-HAP pre-implementation (42.5%) and post-implementation (46.9%). No NV-HAPs occurred post-implementation, with two incidents pre-implementation. Implementing a nurse-driven oral care protocol can decrease the occurrence of NV-HAP, leading to improved clinical outcomes.

**Conclusion:** The findings in this pilot project suggest that implementing a nurse-driven oral care protocol can decrease the occurrence of non-ventilator hospital-acquired pneumonia, leading to improved clinical outcomes. Nurses are in the best position to provide high-quality, safe, and cost-effective care to prevent a largely preventable hospital-acquired infection in all adult inpatient hospital units.

**Recommendations:** A larger sample size of nurses representing all hospital units in an acute care setting over a longer duration may provide the reliability of findings and clinical outcomes. Furthermore, develop surveillance and tracking systems to assess the impact of prevention initiatives.

**Implications for Practice:** Nurses in the acute care setting must be educated on the importance of implementing an oral care protocol to decrease the incidences of NV-HAP. Nursing teams, including certified nursing aides, can positively influence patient care and outcomes by incorporating evidence-based oral care protocols into their clinical practice. Nursing leadership is needed to provide adequate clinical resources and supplies to the hospital units. Implementing nurse champion models supported by leadership is necessary to promote adherence to the oral care protocol and sustain practice change throughout the hospital.