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Chet McCauley

Ahlam Jadalla

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# NV-HAP? Not on My Map!

## A Quality Improvement Project in a Community Hospital

Chet McCauley, DNP, RN, ACNS-BC; Ahlam Jadalla, RN, PhD



### BACKGROUND

- Pathogenesis of nonventilator hospital-acquired pneumonia (NV-HAP) is related to a disruption in mechanical pathways between the lungs and oral cavity along with the build up of pathogenic bacteria in the subgingival biofilm.<sup>1,2</sup>
- NV-HAP is a common but underreported hospital-acquired infection (HAI)<sup>2</sup>. It is associated with increased:
  - Hospital length of stay (LOS)
  - Readmissions to hospital within 30 days )<sup>3,4</sup>
  - Discharges to skilled nursing facilities (SNF)<sup>3,4</sup>
- NV-HAP incurs mortality rates up to 50%, and adds \$40,000-\$65,000 to cost of treating affected patients.<sup>3,4</sup>
- Evidence suggests that a standardized oral care protocol (SOCP) can decrease NV-HAP occurrence in hospitalized patients.<sup>2,3</sup>

### PURPOSE

- To assess the impact of implementing a standardized oral care protocol (SOCP) on the rate of NV-HAP in a Magnet-designated community hospital.

### METHODS

**Design:** Quality Improvement Project with pre-post data.  
**Sample:** Adult patients admitted to all medical-surgical, telemetry, critical care units, and all inpatient/outpatient pre-operative areas. Patients in the mother-baby units and outpatient areas were excluded.



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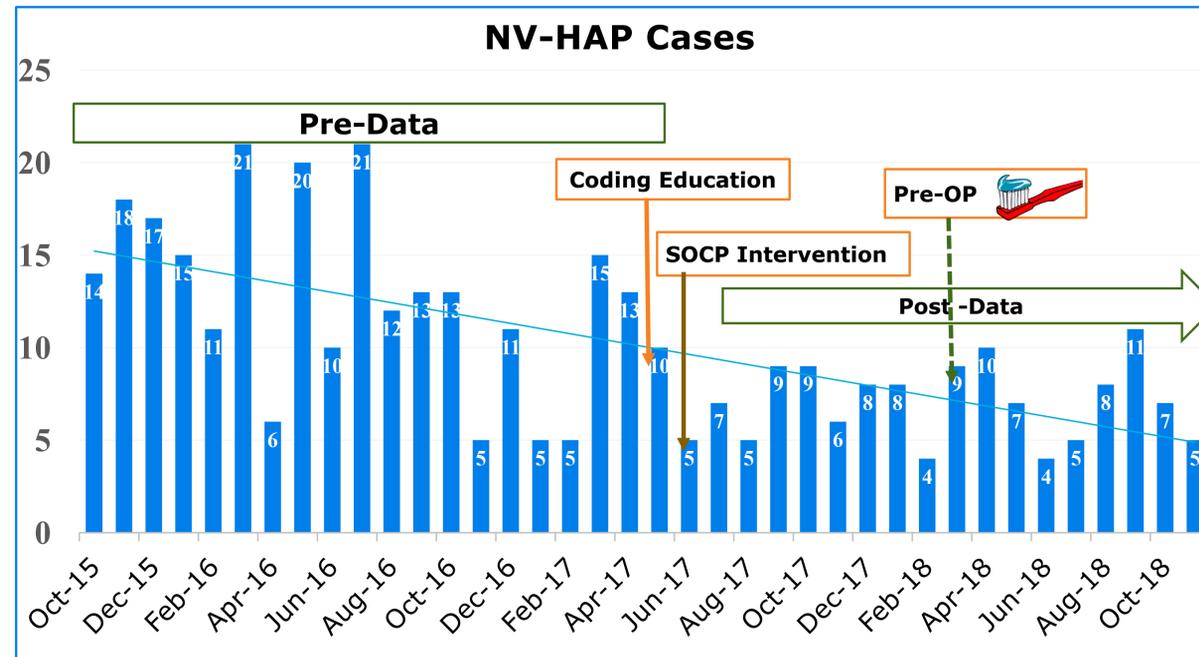


### METHODS

**Setting:** A Magnet community hospital in Southern California.

**Procedure:** A team of a clinical nurse specialist (CNS), a nurse researcher, and two registered nurses (RNs) piloted a SOCP in the Pulmonary Care Unit (PCU). During the pilot, the RNs identified quality supplies for oral care, coordinated with purchasing and supplies, and secured leadership support for the practice change. The RNs held in-service education for the nursing staff about the new protocol, including supplies, frequency, and documentation. After 3 months, the practice change was implemented hospital-wide. The CNS educated staff in the medical coding department to ensure correct identification of NV-HAP cases and eliminate cases acquired prior to hospitalization. Finally, the oral care protocol was extended to the pre-operative (Pre-Op) areas. Pre-Op nurses ensured that patients brushed their teeth per the SOCP prior to surgery and that oral care was documented.

**Measurements:** Pre-SOCP and post-SOCP NV-HAP rates were compared.



### RESULTS

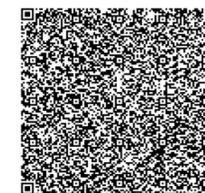
- 92% of Nursing staff completed NV-HAP and SOCP education.
  - 100% Increase in documentation compliance of oral care.
  - 41% Drop in the overall rate of NV-HAP cases following the SOCP implementation.
- A significant decrease in NV-HAP rate was observed between the pre- and post-implementation periods ( $\chi^2=17.6 (1), p < .05$ ).

### CONCLUSIONS

Implementing a standardized oral care protocol is an inexpensive and feasible nursing intervention that reduces the burden of NV-HAP in hospitalized patients.

### REFERENCES

Scan for References



Contact the Authors



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