

Oral Care Program Helps Eisenhower Medical Center Cut VAP Rates in Half

At a Glance

The staff at Eisenhower Medical Center, a not-for-profit, comprehensive healthcare institution located in Rancho Mirage, Calif., continually search for ways to improve patient care. In the fall of 2004, clinicians were researching options for reducing the rates of ventilator-associated pneumonia (VAP) in their hospital. The hospital's VAP rates had risen above the Centers for Disease Control and Prevention's National Nosocomial Infection Surveillance (NNIS) System VAP benchmark. The facility was experiencing VAP rates as high as 20 percent (four cases per 194 ventilator days) in a given month and wanted to reduce VAP rates to 12 percent or less. A VAP task force was created and driven by nursing staff to address the issue and improve VAP rates.

Hospital staff conducted a literature review and found that oral care is an important intervention for preventing VAP. In December, Eisenhower implemented Sage Products' Q-Care® Oral Cleansing and Suctioning System q4°. In one month, the VAP rates dropped 6.4 percent (approximately three cases). Excited with the results, hospital staff decided to raise the bar and reduce two additional VAP cases per month. Within the next three months, Eisenhower Medical Center averaged a VAP rate of 10.8 percent and in April 2005, surpassed its goal with a VAP rate of 4.9 percent (two cases per 406 ventilator days). Within four months of the program's implementation, the hospital reduced its VAP rate by 55 percent and saved an estimated \$200,000 in VAP-related costs.

"Our success was a result of the VAP task force, which took ownership of this critical care issue," said Marty Chesworth, Clinical Nurse Specialist for the Intensive Care Unit (ICU) at Eisenhower Medical Center. "The task force implemented several evidence-based clinical interventions, including oral care, and we exceeded our goal!"

The Story

Eisenhower Medical Center includes the 253-bed Eisenhower Hospital, the Betty Ford Center, the Barbara Sinatra Children's Center at Eisenhower and the Annenberg Center for Health Sciences at Eisenhower. The medical center is also renowned for its Centers of Excellence in cardiovascular, orthopedics and oncology. For more than 30 years, the medical center has provided a full range of quality medical and educational services for residents and visitors to the greater Coachella Valley.

Wanting to reduce VAP rates, a task force, led by Nancy Wolf, RN, was formed. The group conducted an in-depth, evidence-based literature review, outlined strategies to reduce VAP rates and researched oral care products. The task force includes representatives from nursing, ICU leadership, respiratory therapy and infection control.

After reviewing oral care options, the task force decided to implement Sage's Q-Care® Oral Cleansing and Suctioning System q4° product in its three critical care units. They chose the product because of its convenience and ease of use. The product's packaging keeps all necessary tools together and eliminates the need to chase after various components. Because the kit is designed to hang on the wall in a patient's room, it is easy for staff to monitor protocol compliance with a quick visual scan of the package contents. The task force also favored Sage's Y-connector, which allows one suction line to be completely dedicated to closed suction while the other line is dedicated to oral care. The oral care protocol was presented to the hospital's Value Analysis Committee, which approved the purchase of the oral care system.

With the new product selected, the task force reviewed other commonly used clinical interventions aimed to reduce VAP incidence. The group selected the measures to implement and by using the Plan, Do, Check, Act (PDCA) methodology, developed and implemented an evidence-based action

plan to change clinical practices. The task force promoted effective use of the new oral care product and the clinical interventions.

Implementing Success

With an action plan in place, the task force created a training and education program. The program included posters and bulletin boards developed by Wolf that listed the oral care protocol, tips for using Sage's oral care products and audit summary results. The Sage representative worked with two to three nurses at a time, hanging up the oral care products and demonstrating step-by-step usage of the product. The hands-on training helped nurses to successfully perform oral care. In addition, the VAP Team created a system of monthly audits that were presented and reviewed at staff meetings. These audits allow staff to see how practice changes and oral care efforts improved the medical center's VAP rates.

The VAP Team also established VAP standards of care that are monitored daily, as well as included in the monthly audits and reported at staff meetings. Criteria include:

- Charting ET tube day
- Documenting cuff pressure
- Documenting if patients are turned every two hours
- Frequency of tooth brushing
- Placement of gastric tube
- Feeding tube residuals
- Monitoring patients head-of-bed position (or noting contraindication, if applicable)
- Labeling each oral care kit with the date, time and nurse's initials.

"Oral care is a part of each nurse's daily routine. It is a clinical intervention that impacts outcome, contributes to patient comfort and is nursing driven," said Chesworth.

Finally, Sage arranged for Kathleen Vollman, MSN, RN, CCNS, CCRN, FCCM, a leading critical care expert, to visit Eisenhower Medical Center and talk to staff about oral care and effective methods for reducing VAP risk.

"There was initially a learning curve, but as soon as VAP numbers started to drop, the nursing staff was completely behind the new oral care program and care changes," adds Chesworth. "The results we achieved highlighted the importance and value of our oral care efforts, which spurred hospital-wide recognition."

A special report covering the VAP Team's success was published in the Five Star Outlook (the medical center's internal newsletter). The report featured the results from the VAP Team's efforts, including creating a model for success and using it to decrease VAP rates by 55 percent.

Chesworth believes the convenience of Sage's oral care products has helped create a consistent and effective oral care program. The products are practical, easy-to-use and patient-friendly. In particular, the user-friendly aspect makes following the protocol easier for nurses.

Situated for Success

Eisenhower Medical Center supports its oral care program and each clinician's efforts to promote the program's success. Administration, physicians and nurses alike have embraced the positive changes brought by oral care.

"The nurses have really taken ownership of the oral care program and everyone in the hospital sees the great results. A real change in practice, based on evidence, has been realized," Chesworth said.