

Memorial Hospital Saves More Than \$1.25 Million Through Oral Hygiene Program

Results

Memorial Hospital ventilator associated pneumonia (VAP) rates have dropped dramatically since implementing an oral care protocol. In 2001, the VAP rates were at 11.33 per 1000 device days. In 2002, after implementing a new oral care protocol, rates dropped 43 percent to 4.87. In 2003, rates dropped another nine percent to 3.44, which is lower than the Center's for Disease Control and Epidemiology (CDC), National Nosocomial Infection Surveillance System (NNIS) benchmark. Since January of 2004, the hospital experienced an all time low and had three months in a row with zero VAPs.

Implementing an oral care program has prevented 25 potential VAP cases in two years and realized a savings of approximately \$1.25 million. The CDC cites that a nosocomial infection could cost an additional \$50,000 to care for a patient.

"Undeniably the success of our oral care program is due to the collaborative efforts of our team," said Lynn Baldvins, R.N., M.S.N., CIC, Infection Prevention Program Manager at Memorial. "Using multiple hospital services, departments and personnel to evaluate new protocols and then sharing evidence-based practice to support the protocol is key to capturing buy-in at all levels. Persistence, close monitoring and constant evaluation also helps to build a successful program."

At a Glance

Memorial Hospital in Colorado Springs, Colo., is one of the most respected health care providers in the Rocky Mountain region. The 477-bed hospital offers a designated Level II trauma and a Level III Neonatal Intensive Care Unit. Specialties include rehabilitation and treatment for cancer, heart disease and trauma as well as services for women and children.

Unhappy with a high frequency of ventilator associated pneumonia rates, a team that included the Director of Respiratory Therapy, ICU Medical Director, ICU Clinical Manager, ICU Nurse Educator, ICU Nursing Care Manager, Clinical Products Manager, Materials Management Department and the Infection Prevention Program staff, began in July 2001 to research methods for lowering rates. The group conducted a substantial review of literature and looked for evidence-based processes that proved to reduce VAP rates.

"We wanted to improve patient quality of care and decrease morbidity and mortality rates from ventilator associated pneumonia," said Baldvins.

First efforts to lower VAP rates in 2001 included the use of an endotracheal tube that provided continuous low suction above the cuff, small bowel feeding tubes, heated wire circuits on ventilators and elevating the head of the bed.

"Research has revealed that oral hygiene, when used as part of a comprehensive program, has an impact on lowering VAP rates," said Baldvins. "Once the validity of pursuing an oral hygiene program was established and, with full administrative support, the group began investigating oral care options."

Already familiar with Comfort Bath® and other products developed by Sage Products Inc., Memorial Hospital turned to their oral care products, as they were believed to be "too good to pass up." In February 2002, the hospital began a trial using Sage's Toothette® Oral Care Complete Suction System. The protocol was set for oral care on vented patients every four hours.

"We liked the way Sage packaged their products, including the fact that the Yankauer has a sheath

over it to protect it from environmental debris," said Baldvins.

Demonstrating Value

When oral hygiene was first presented to the nursing staff, there were some concerns regarding time constraints. However, with the support of Unit Care Manager Judi Osbourne, R.N., CCN, and previous efforts that improved patient outcomes, nurses became champions for the protocol.

"Judi's support was instrumental in implementing the protocol and ensuring compliance," said Baldvins. "She regularly shared clinical information with staff that showed that they were really making a positive difference in patient outcomes."

When the trial period ended, the unit stopped following the oral care protocol and soon noticed an increase in VAP rates. The hospital captured complete staff support for the oral hygiene protocol when leadership was able to show a relationship between the increase in VAP incidence and discontinuation of the use of the oral care protocol. Clinician support for oral hygiene and Sage Products continues to be extremely positive.

"When you demonstrate an improved patient outcome, the protocol sells itself," said Baldvins. "Nurses decided that they would make the time for something like this and Respiratory Therapy staff added their support to ensuring oral hygiene was accomplished."

In addition, the ease of use of Sage's oral products also helped nursing staff adopt the protocol. The staff of Memorial Hospital holds Sage products in the utmost regard, noting the high quality of its products and service.