

# Oral care of the mechanically ventilated patient: You can make a difference in five minutes.

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## 1 problem

- Lack of oral care protocol for ventilator and unconscious patients
- Inadequate tools for oral care in the ICU



## 2 importance

- Oral and dental care decrease the risk of acquiring VAP by addressing VAP risk factors\*
- Second most common nosocomial infection in the U.S., and mechanically ventilated patients are at the highest risk
- Patients who develop VAP can spend 7 times as long on mechanical ventilation, 2 to 5 times as long in the ICU, and twice as long overall in the hospital
- Oral care can play a major role in reducing costs. Since the average cost of care for a patient who acquires VAP is \$29,369, any reduction in the VAP rate could significantly impact financial outcomes
- Oral care also improves patient comfort and nurse satisfaction

\* Note: Other contributing risk factors exist, but are not addressed in this study.

## 3 action

- Literature search
- Developed new oral care protocol



- Partnered with Sage to develop new products



- Staff education  
New protocol was implemented with staff education.  
Orientation now includes new oral care procedure.

## 4 results

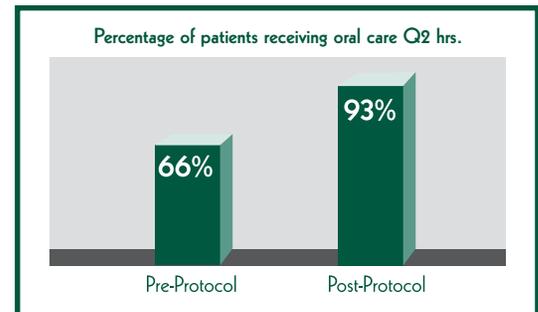
- Implementation of oral care protocol
- Noted trend reduction in VAP's

### VAP Rates Compared:

Advocate Good Shepherd Hospital (G. Shep.) vs. comparative reference mean rate from the National Nosocomial Infections Surveillance (NNIS) System

	1998-1999 (Pre-Protocol)	2000-2001 (Post-Protocol)
G. Shep.	5.6	2.2
NNIS	9.9**	8.7**

\*\* Nationally published pooled mean or "calculated average number" of VAP's per 1000 ventilator days, January 1992 - June 2001.



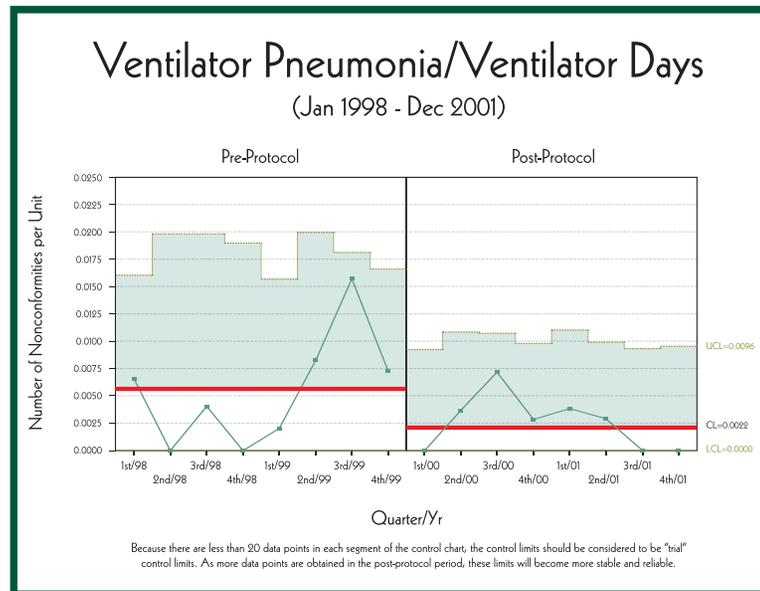
SURVEY ITEM	Strongly Agree	Agree	Disagree	Disagree Strongly
The products are easy to use.	44%	50%		6%
The dedicated suction line makes oral suctioning easier and more efficient.	50%	44%	6%	
The system allows me to deliver complete oral cleansing.	44%	50%	6%	

# The effect of a comprehensive oral care protocol on patients at risk for ventilator-associated pneumonia

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## Abstract

Mechanically ventilated patients are at the highest risk for the second most common nosocomial infection, pneumonia. This retrospective study evaluates the impact of a comprehensive oral care protocol on the ventilator-associated pneumonia (VAP) rate in adult ICU patients. The oral care procedure addresses three recognized VAP risk factors: (1) oropharyngeal colonization, (2) oral secretions that migrate to the subglottal area and (3) dental plaque. Included are revisions to the policy and procedure, as well as the rationale for procedural components and product selection. Finally, statistical process control methods (SPC) are used to document a decrease in the VAP rate.



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## Advocate Good Shepherd Hospital Oral Care Policy and Procedure

### Policy

1. The oral cavity is assessed initially and daily by the Registered Nurse.
2. Unconscious or intubated patients are provided oral care every 2-4 hours and prn.
3. Intubated patients will be assessed to determine the need for removal of oropharyngeal secretions every 8 hours as well as prior to repositioning the tube or deflation of the cuff.

### Procedure

1. Set up suction equipment.
2. Position patient's head to the side or place in semi-fowlers.
3. Provide suction, as needed, in intubated patients to remove oropharyngeal secretions that can migrate down the tube and settle on top of the cuff.
4. Brush teeth using suction toothbrush and small amounts of water and alcohol free antiseptic oral rinse.
  - 4.1 Brush for approximately one to two minutes.
  - 4.2 Exert gentle pressure while moving in short horizontal or circular strokes.
5. Gently brush the surface of the tongue.
6. Use suction swab to clean the teeth and tongue if brushing causes discomfort or bleeding.
  - 6.1 Place swab perpendicular to gum line, applying gentle mechanical action for one to two minutes.
  - 6.2 Turn swab in clockwise rotation to remove mucous and debris.
7. Apply mouth moisturizer inside mouth.
8. Apply lip balm if needed.