

# What the experts say

## Cetylpyridinium Chloride as an oral antiseptic

Leading healthcare institutions and organizations have adopted protocols for oral care as part of their strategies to address hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP). These oral care protocols follow a comprehensive approach aimed at key reservoirs for bacteria on the teeth as well as within the oral cavity and oropharynx. One common and consistent element of these protocols is the use of an oral antiseptic, such as Cetylpyridinium Chloride (CPC). The following institutions recommend the use of 0.05% CPC as part of a comprehensive oral care protocol to address key risk factors that are known to lead to HAP and VAP.

### Recommendations & guidelines

#### Centers for Disease Control and Prevention (CDC) 2003<sup>1</sup>

- “Oropharyngeal cleaning and decontamination with an antiseptic agent: develop and implement a comprehensive oral-hygiene program (that might include the use of an antiseptic agent) for patients in acute-care settings or residents in long-term care facilities who are at high risk for health-care associated pneumonia.”

#### American Association of Critical-Care Nurses (AACN) 2016<sup>2</sup>

- The application of an oral antiseptic rinse, such as Chlorhexidine and Cetylpyridinium Chloride, paired with brushing (in a comprehensive oral care system) may aid in the reduction of VAP.
- Cetylpyridinium Chloride has been shown to be an effective solution in the removal of plaque and prevention of gingivitis.

#### Association for Professionals in Infection Control and Epidemiology (APIC) 2009<sup>3</sup>

- “Key prevention strategies: Perform routine antiseptic mouth care.” [An] example of mouth care and documentation form includes the following: Brush teeth q12<sup>o</sup>, provide oral care every 2 to 4 hours with antiseptic, apply mouth moisturizer to oral mucosa and lip, and suction orally as necessary.

### Published outcomes

#### Ventilator-associated pneumonia and oral care: a successful quality improvement project.<sup>5</sup>

- Intervention led to 89.7% reduction in VAPs from 2004-2007.

#### Reducing ventilator-associated pneumonia through advanced oral-dental care: a 48-month study.<sup>6</sup>

- Outcome: 33% reduction in VAP, less time on the ventilator, and less time in the ICU.

#### Decreasing ventilator-associated pneumonia in the intensive care unit: a sustainable comprehensive quality improvement program.<sup>7</sup>

- A statistically significant reduction in the incidence of VAP. Post-intervention the hospital obtained 1 VAP in 2 years, which was attributed to poor hand hygiene.

#### References

1. Tablan OC, Anderson LJ, Besser R, Bridges C, Hajjeh R. Guidelines for Preventing Health-Care Associated Pneumonia, 2003. Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5303a1.htm>. Published March 26, 2004. Accessed July 31, 2017. 2. Vollman K, Sole ML, Quinn B. Procedure 4 - Endotracheal Tube Care and Oral Care Practices for Ventilated and Non-ventilated Patients. In: AACN Procedure Manual for High Acuity, Progressive, and Critical Care. 7th Edition. Vol 37. 2nd ed. ELSEVIER. 3. Greene LR, Sposato K. Guide to the Elimination of Ventilator-Associated Pneumonia. Association for Professionals in Infection Control and Epidemiology. 2009. 4. Food and Drug Administration, HHS. Oral health care drug products for over-the-counter human use antigingivitis/antiplaque drug products; establishment of a monograph; proposed rules. Fed Regist. 2003 May 29;68(103):32232-87. Accessed October 6, 2015. 5. Hutchins K, Karras G, Erwin J, Sullivan KL. Ventilator-Associated Pneumonia and Oral Care: A Successful Quality Improvement Project. American Journal of Infection Control. 2009;37(7):590-597. 6. Garcia R, Jendresky L, Colbert L, Bailey A, Zaman M, Majumder M. Reducing Ventilator-Associated Pneumonia Through Advanced Oral-Dental Care: A 48-Month Study. American Journal of Critical Care. 2009;18(6):523-532. 7. Heck K. Decreasing Ventilator-Associated Pneumonia in the Intensive Care Unit: A Sustainable Comprehensive Quality Improvement Program. American Journal of Infection Control. 2012;40(9):877-879.