

INPATIENT ORAL CARE



Olivia Fragoso, Chaleah Waters
Sophie Butigan, Jessica Newton
Linfield-Good Samaritan School of Nursing

SITUATION

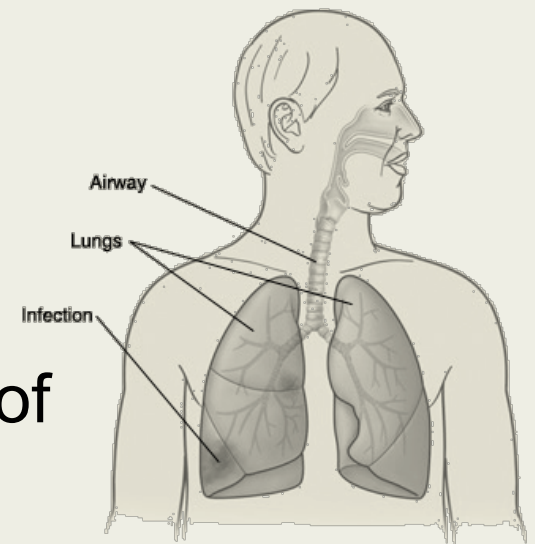
- ❑ Specialty intensive care units (ICUs) at a local hospital have a discrepancy in their oral care protocols.
- ❑ Oral care kits designed for use every two hours (Q2H) or every four hours (Q4H) are available.
- ❑ It would be more cost-effective to purchase one kit or the other.



BACKGROUND

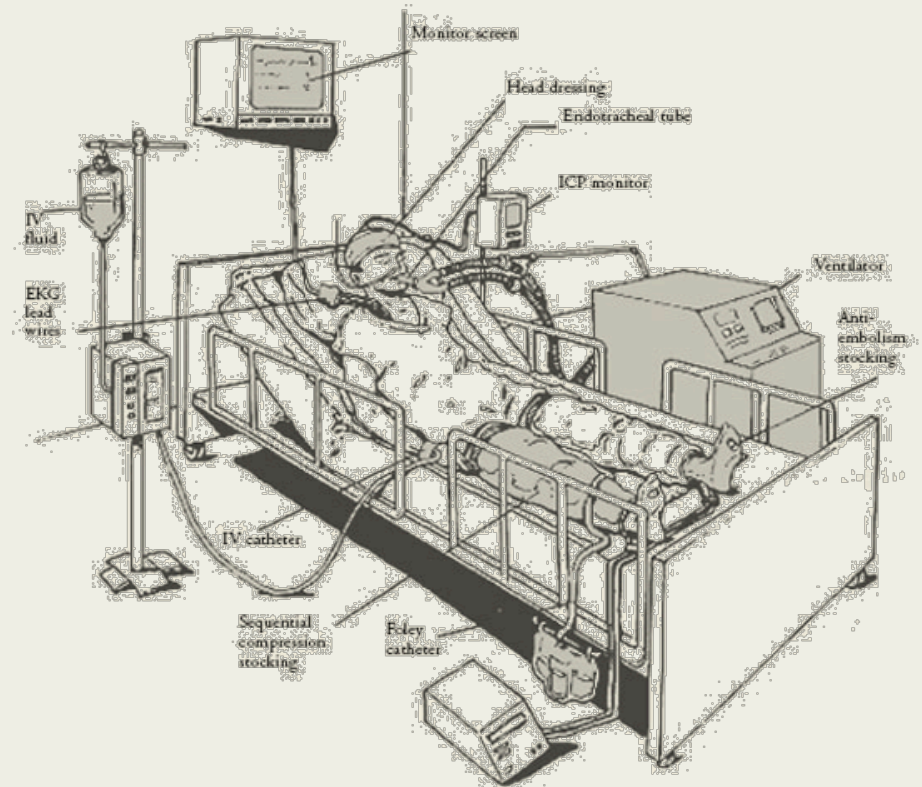
- Ventilator-associated pneumonia (VAP) is often caused by colonization of dental plaque by gram-negative bacteria.
- Failure to clean the oral cavity and brush teeth results in:
 - biofilm
 - dental plaque formation
 - increased colonization and growth of pathogenic organisms

(Hillier, Wilson, Chamberlain, & King, 2013)



OBJECTIVE

- Determine best practice for oral care in the ICU.



METHODS

- Reviewed oral care policies at local facilities with ICUs.
- Researched clinical practice guidelines and peer-reviewed studies.

OTHER HOSPITALS SURVEYED

- Local hospital ICUs varied widely in their oral care policies.
- Several included a brief description of recommended practices in the ICU standards of care.
- Others had a detailed oral care protocol with different standards dependent on patient condition.



LITERATURE REVIEW

- ❑ ICU patients are five times more likely to develop nosocomial infections than the general hospital patient population (Yildiz, Durna, & Akin, 2013).
- ❑ Frequency of oral care for intubated patients in several studies ranged from 2-4 hours.
- ❑ No consensus about concentration of cleaning agent, or frequency of oral care, but chlorhexidine is the most common product used in US hospitals (Hillier, Wilson, Chamberlain, & King, 2013).

LITERATURE REVIEW, CONT.

- ❑ Establishing oral care protocols and nurse education is essential in preventing VAP infections in the ICU (Lin, Chang, Chang, & Lou, 2011).
- ❑ Lack of standardization in oral care is an international issue: in Brazil, all hospitals surveyed had an oral care policy in place, but there was no consistency between hospitals (Silva, Resende, Abreu, Dayrell, Valle, & De Castilho, 2015).
- ❑ Creating and consistently following a policy reduced infection rates in many studies.

DISCUSSION

- There is no evidence to prove Q2H oral care is more effective in preventing VAP than Q4H.
- Increased education and support for nurses may lead to improved oral care implementation and thus decreased VAP infections.

AACN GUIDELINE

The American Association of Critical-Care Nurses (AACN) recommends “...brushing patients’ teeth, gums, and tongue at least twice a day, using a soft pediatric or adult toothbrush, moisturizing oral mucosa and lips every 2–4 hours, and in pre-cardiac surgery patients—using oral chlorhexidine gluconate (0.12%) rinse twice a day.” (Martin, 2013)

RECOMMENDATION

- Since there is no indication that Q2H oral care is more effective at reducing VAP infections than Q4H oral care, we recommend that Q4H oral care be performed on the basis of cost-saving.
- We also recommend increasing oral care education for critical care nurses to emphasize the importance of these procedures.

REFERENCES

- Hillier, B., Wilson, C., Chamberlain, D., & King, L. (2013). Preventing ventilator-associated pneumonia through oral care, product selection, and application method. *AACN Journal of Advanced Critical Care*, 24(1), 38-58.
- Lin, Y.-S., Chang, J.-C., Chang, T.-H. & Lou, M.-F. (2011). Critical care nurses' knowledge, attitudes and practices of oral care for patients with oral endotracheal intubation: a questionnaire survey. *Journal of Clinical Nursing*, 20, 3204–3214. doi:10.1111/j.1365-2702.2011.03819.x
- Martin, B. (2010). “Oral care for patients at risk of ventilator-associated pneumonia.” American Association of Critical-Care Nurses. Retrieved from <http://www.aacn.org/wd/practice/docs/practicealerts/oral-care-patients-at-risk-vap.pdf>

REFERENCES, CONT.

- Silva, M., Resende, V., Abreu, M., Dayrell, A., Valle, D., De Castilho, L. (2015). Oral hygiene protocols in intensive care units in a large Brazilian city. *American Journal of Infection Control*, 43(3), 303-304. doi:10.1016/j.ajic.2014.11.027
- Yildiz, M., Durna, Z., & Akin, S. (2013). Assessment of oral care needs of patients treated at the intensive care unit. *Journal of Clinical Nursing*, 22, 2734-2747. doi:10.1111/jocn.12035