

The Utilization of a Sub-Glottic Endotracheal Tube to Reduce Ventilator Associated Pneumonia Rate

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Introduction

- VAP is the 2nd most common nosocomial infection.
 - 15% of all hospital acquired infections
- Incidence:
 - 9% to 70% occurrence in patients on ventilators
- Increased ICU stay by several days.
- Increased avg. hospital stay 1 to 3 weeks.
- Mortality:
 - 13% to 55%
- Added costs of \$40,000–\$50,000 per stay.

Centers for Disease Control and Prevention, 2003. Rumbak, M. J. (2002). Strategies for prevention and treatment Journal of Respiratory Disease, 21 (5), p. 321;

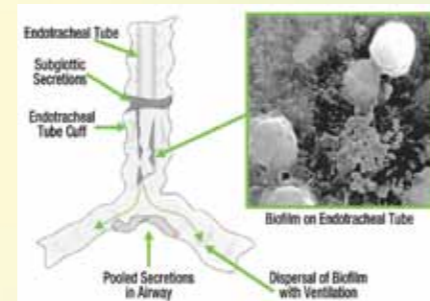
Changing Views of Ventilator Associated Pneumonia

- No longer just an “unfortunate” occurrence.
- Viewed as medical error:
 - Institute of Medicine
 - Leapfrog Group
- TJC – hospitals required to show VAP prevention/reduction measures:
 - Act 52 requires family notification!

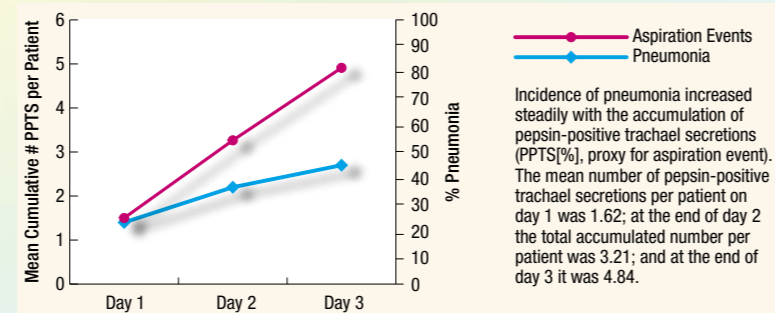
Methods: Steps to Reduce VAPS

- Implementation of Ventilator Bundles.
- Diligent ventilator management.
- Utilization of non-invasive ventilation.
- Early tracheostomy?
- Hi/Lo Evac endotracheal tube.
- Need to monitor, strong arm approach!

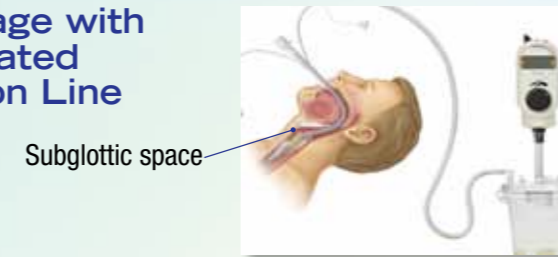
BioFilm



Correlation of Aspiration to Pneumonia



Subglottic Secretion Drainage with Integrated Suction Line

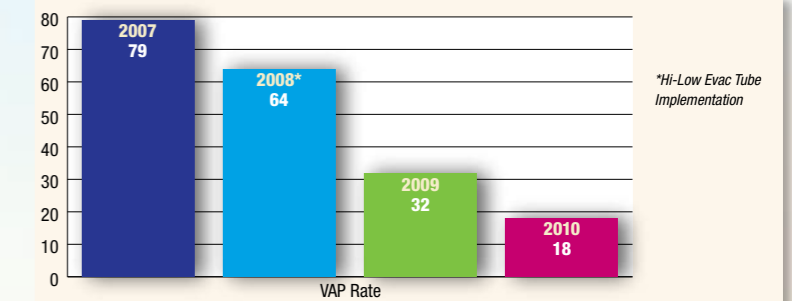


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Results: LVHN VAP History



Conclusion

- VAP rate reduced from 78 from 64 from 2007-2008.
- Potentially 6.44 lives saved.
- Potentially \$560,000 saved.
- VAP rate now 18!
- VAP rate below national standard!
- **STILL ROOM for IMPROVEMENT!**