

## VAP Free in MICU

**Lou Ann McLamb, R.N., BSN**  
**Manager Medical ICU**

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## Objectives :

- Define what a bundle is.
- List the elements in the ventilator bundle.
- Describe the steps involved in the implementation of a ventilator quality improvement initiative.

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## What is a bundle ?

A group of best practices with respect to a disease process that individually improve care, but when applied together result in substantially greater improvement. (2005 Institute for Healthcare Improvement)

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**Elements in MICU VAP Bundle**

- HOB at 30 degrees or greater (Total Care Sport with rotation/percussion/vibration modules)
- DVT Prophylaxis (Heparin 5,000 units subcutaneously every 8 hours or Lovenox 40mg subcutaneously daily or 30mg(recommended for CrCl less than 30ml/min) and Sequential Compression Device to lower extremities)
- PUD Prophylaxis (Pepcid 20mg every 12 hours unless Creatine Clearance is less than 50ml/min then give it every 24 hours)

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**Elements in MICU VAP Bundle**

- Sedation Vacation
- Hi-Lo Endotracheal Tube
- Peridex 0.12% (15ml every 12 hours: swab all oral surfaces)

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**Implementing a VAP Bundle**

- Form an interdisciplinary team to include: nurses, doctors, respiratory therapy, infection prevention and control, case management, dietician, chaplain, speech and physical therapy
- Set a standard meeting date and time
- Literature review
- Develop a VAP Bundle audit tool

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### Implementing a VAP Bundle

- Develop standard admission orders that include the VAP Bundle elements
- Develop daily nursing goal sheets that include the VAP Bundle elements
- Begin interdisciplinary rounds
- Mandatory one on one staff education about the elements of the bundle and the tools that are available

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### Implementing A VAP Bundle

- Monthly audits with the results posted in a highly visible area for the staff to see
- Re-educate staff who are not compliant
- Celebrate the success !

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### History of VAP success in MICU

- June 2004 team initiative began with the implementation of the IHI ventilator bundle
- August 2004 expanded bundle to include Hi-Lo ETT and Peridex
- LOS for MICU: FY04=4.13, FY05 = 3.03, FY06 = 3.45 and FY07 3.10 days

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### History of VAP success in MICU

- Jan-Mar 2005 VAP rate = 6.15 VAPs per 1,000 device days
- April-June 2005 = 6.62 VAPs per 1,000 device days
- July-Sept 2005 = 3.01 VAPs per 1,000 device days
- Oct-Dec = zero
- Jan-Mar 2006 = 2.77 VAPs per 1,000 device days

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### Celebrating VAP Free

- VAP free in MICU since February 2006, 2 years and counting !
- Without exceptional teamwork and the initiative to aggressively improve outcomes, this quality improvement process would not have succeeded. Such incredible success in patient care is the result of an empowered staff that endorses evidence-based practice, is strongly motivated to achieve optimal results, and work together as a team.

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