Unlocking Strategies for VAP Prevention: Nursing is Key
Tracey Robilotto, RN
VAMC Cleveland

Problem
Ventilator-associated pneumonia (VAP) affects approximately 47% of mechanically ventilated patients. This diagnosis carries a 50% mortality rate and costs upwards of $40,000 to treat. Although VAP is a mostly preventable disorder our ICU’s VAP rate was found to be higher than the NNIS (National Nosocomial Infection Surveillance) benchmark.

Evidence
The American Thoracic Society and CDC focus prevention on minimizing intubation and reducing airway contamination. Most of the recommended prevention tools are readily available for nursing and do not incur any cost. Hand washing, patient positioning at a 30-45° incline, oral care every 2-4 hours, and suctioning without instilling saline are all evidence-based recommendations for prevention.

Strategies
A multidisciplinary education on VAP prevention was presented to the MICU staff on all shifts. Reminders were posted at each bedside for proper patient positioning. All MICU patient beds were equipped with an internal level eliminating guess work for accurate patient positioning.

Practice Change
The mechanically ventilated patients were positioning at 30° or more for the duration of ventilation treatment.

Evaluation
Data was collected from previous NNIS reporting. Patient positioning was monitored daily, on all three shifts, in the MICU. A multi-disciplinary education on VAP prevention was provided and patient positioning was again measured.

Results
Compliance with patient positioning increased from 36% to 87% and the VAP rate dropped below the NNIS benchmark. This decrease in VAP rate had a potential savings of nearly 3 million dollars. Currently, our unit has not had a case of VAP diagnosed for more than one year.

Recommendations
1. Early identification of patients at risk.
2. Position at 30° as early as possible
3. Ongoing staff education & reminders of EBP

Lessons Learned
A huge impact on patient outcomes was made with a very small change in practice and no monetary investment. This single change saved the hospital nearly 3 million dollars.