

PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA

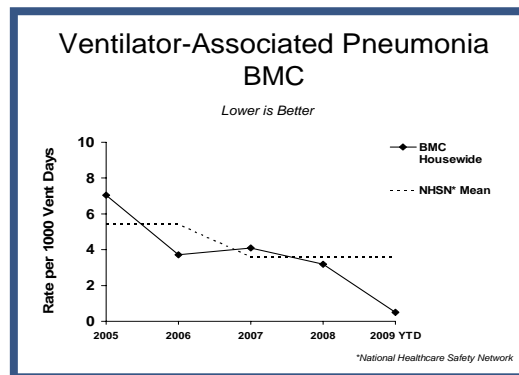
Where we've been...

Preventing Ventilator-Associated Pneumonia (VAP) Ensure that every patient on a ventilator, both adult and pediatric, receives all evidence-based recommendations that have been shown to reduce the risk of developing a VAP: elevating the head of the bed to at least 30 degrees, sedation vacation/daily assessment of readiness to wean, peptic ulcer disease (PUD) prophylaxis, oral care, and venous thromboembolic (VTE) disease prevention. These recommendations, collectively known as the ventilator care bundle, were agreed upon across BH facilities, under the direction of the BH VAP Prevention Collaborative started in 2005. After system-wide review and adoption, the ventilator care bundle was added to our Clinical Information System (CIS) as a nested care set for patients on ventilators. This serves as a reminder for clinicians to ensure that they reliably prescribe best practice interventions. The bundle was recently revised to include the addition of chlorhexidine oral rinse.

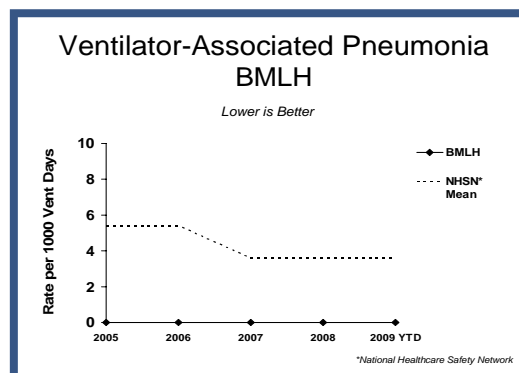
Where we are now...

BAYSTATE HEALTH AMBULANCE Focus has been placed on improved hand hygiene and use of barrier precautions before and during patient transport. BHA has adopted preemptive suctioning prior to position change, using a closed suction system as appropriate, and elevating the head-of-bed as tolerated by the patient's condition to prevent aspiration during transport.

BAYSTATE MEDICAL CENTER As part of performance improvement, we have implemented VAP prevention recommendations across all areas where patients receive mechanical ventilation, and have observed hospital-wide reductions in VAP. Most notably, the NICU has not had a VAP in over 3 years, and the Adult ICU and CICU rates for Q1 2009 are 0%. Additionally, the use of the ventilator care bundle remains high in 2009.

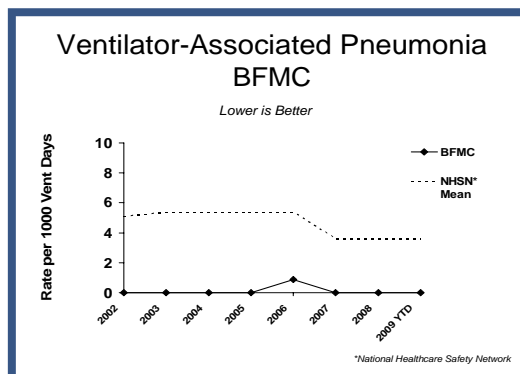


BAYSTATE MARY LANE HOSPITAL A multidisciplinary team reconvened in the fall of 2007. All critical care staff and respiratory therapists were offered continuing education in VAP prevention. The ventilator care bundle documentation materials were reviewed and modified. BMLH continues to have a 0% VAP rate for 2009, YTD.

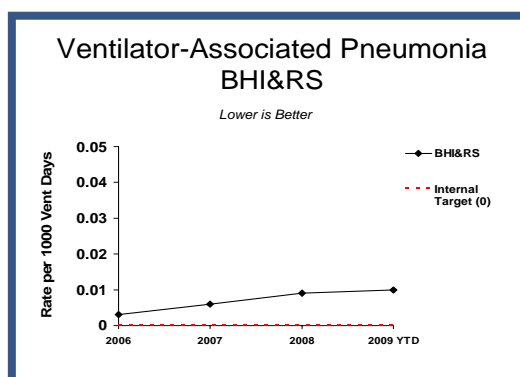


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BAYSTATE FRANKLIN MEDICAL CENTER A multidisciplinary team integrated the ventilator care bundle and mechanical ventilation orders into the Critical Care Unit admission order sets. VAP prevention reminder posters were distributed for placement on the head-of-bed wall in each room. Education regarding VAP prevention was provided before the start of the QI project to all healthcare providers involved in the care of mechanically ventilated patients. BFMC began to measure our compliance with the ventilator care bundle on January 1, 2007; prior to that, there had been one case of VAP in Q3, 2006. Since adoption of the bundle in January 2007 there have been no occurrences of VAP, and our compliance with the ventilator care bundle has been at 100% for the past year.



BAYSTATE HOME INFUSION & RESPIRATORY SERVICES A multidisciplinary group developed best practice care sets for the prevention of VAP and adapted the CDC's guidelines for VAP reduction for homecare use. Focus was placed on improved hand hygiene before patient care. We teach caregivers to provide oral care at set time intervals, to elevate the head-of-bed to prevent aspiration, to suction prior to position change, to use a closed suction system, and appropriate use of metered dose inhalers vs. wet nebulized medication within the ventilator circuit. Our VAP rate for FY'08 was 0.2 and for FY'09 YTD, it is 0.3. There were 3 re-hospitalizations, all for the same patient who continues to be a complex and challenging case.



Where we are going...

Continued national and state focus on prevention of ventilator-associated pneumonia and new requirements for public reporting of VAP rates, such as the Massachusetts Department of Public Health, will continue to drive Baystate Health's commitment to preventing this serious hospital-acquired infection. Promoting adherence to the ventilator care bundle will continue to help eliminate ventilator-associated pneumonia at BH.