

Patient Safety Collaborative: Implementation of the Ventilator Bundle
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Problem: Mechanical ventilation creates the risk of numerous complications to the critical care patient that increases morbidity and mortality.

Evidence: Vent bundle is a group evidence based interventions when implemented together improve patient outcomes.

Strategies: Establish a collaborative practice committee to evaluate the care and management of mechanically ventilated patients in critical care. Critical Care became involved in a statewide patient safety collaborative focusing on improving care and identifying issues in the delivery of care to the critical ill patient. Revision of the Critical Care Admission Orders was done to include the components of the vent bundle.

Practice Change: Consistency in weaning practices between physicians, respiratory therapy managed weaning program and implementation of all components of vent bundle interventions based upon patient status. Ensuring that the head of bed of all hemodynamically stable patients remains at 30 degree elevation, peptic ulcer and deep vein thrombus prophylaxis is initiated, incorporation of a daily sedation vacation and that blood glucose levels are controlled has involved all member of the multidisciplinary critical care team.

Evaluation: Evaluation of the effectiveness of the ventilator bundle occurs through monitoring of length of ventilator days, implementation of daily sedation vacation on all ventilator patients, daily multidisciplinary rounds identifying lack of components of the vent bundle, and performance improvement data collection on progress of implementation of vent bundle.

Results: Since the introduction the respiratory managed weaning protocol, ventilator days have decreased from 5.58 days in November, 2003 to 2.96 days in October 2005. Monitoring of ventilator weaning success will be continued and adjustments made as necessary.

Recommendations: Continued monitoring of ventilator length of stay, refine definitions and data collection for performance improvement, and continued staff education regarding the vent bundle. Perform further data analysis to determine if hospital length of stay has decreased since the vent bundle implementation.

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