Twenty-Four Months and Running VAP Free

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PROBLEM:

Inconsistent care with the ventilated patient resulting in a higher than expected VAP rate.

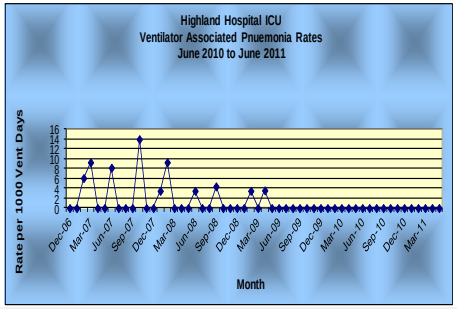
PURPOSE:

Create a multidisciplinary team approach to delivering consistent, safe practice when caring for a ventilator patient population utilizing the IHI VAP Bundle including identification of key barriers and development of creative solutions

SIGNIFICANCE:

Approximately 8–28% of critical care patients develop VAP[2] . Healthcare–associated pneumonia patients have a mortality rate of 20% to 33%[1] . VAP increases patient time in the ICU by 4 to 6 days[1]. Each incidence of VAP is estimated to generate an increased cost of $20,000 to $40,000[1]

By addressing VAP rates, patients on ventilators patient outcomes are improved. A resulting decrease in mortality, length of stay, ventilator days, and VAP rates is significant and also associated with safe patient care and cost avoidance.

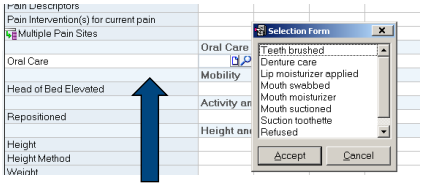


STRATEGY:

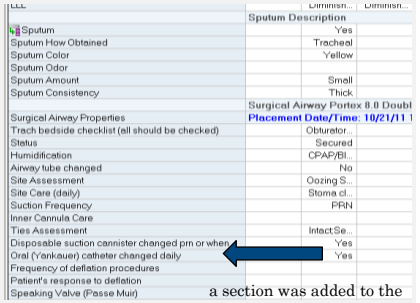
In addition to multidisciplinary vent bundle education it was found that more strategies where required to impact outcomes. Auditing and root cause analysis of VAP occurrences lead to identification of recurrent contributors to infection. Despite implementation of the VAP bundle, root cause analysis allowed for identification of a number of contributing factors to infections. For each recurrent contributor, a separate strategy was introduced as a countermeasure. Each countermeasure was introduced one at a time to allow for analysis of impact.

IMPLEMENTATION:

Several innovative strategies where then implemented including: documentation of oral assessment on the flowsheets (including teeth brushing) q12 hours; documentation of q2 hour oral swabbing on nursing flowsheets; separate dedicated suction canisters for oral care and tracheal suctioning with corresponding re-education; standardized provider daily progress notes to ensure all elements of the VAP bundle where addressed; and Respiratory Therapists included in daily provider rounds to improve collaborative communication. Additionally a multidisciplinary auditing process was structured to encompass care delivery by individual discipline therefore ensuring and improving accountability.



Oral care and HOB were added to our assessment and documented on every 2 hours



a section was added to the assessment to include the changing of suction containers

EVALUATION:

Sequential implementation of strategies was deliberate and therefore improved outcomes could be directly correlated to specific interventions. This was evidenced by the unit's declining VAP rate following each successive practice change.

IMPLICATIONS FOR PRACTICE:

Enculturation of proposed changes resulted in a decreased LOS, decreased mortality rate and a zero VAP rate since May of 2009. These changes have become standard practice and require little if any reinforcement with the multidisciplinary team.