

POSTOPERATIVE PNEUMONIA PREVENTION PROGRAM FOR THE INPATIENT SURGICAL WARD

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Postoperative pneumonia can lead to increased morbidity, hospital stay, and costs. Prevention programs have been successfully implemented in ICU settings, but no program has existed for surgical ward patients.

Surgical and nursing service collaborated to pilot a program at PAVAHCS. An evidence based review of the prevention literature was used as the basis of the intervention. The program consisted of initial and ongoing education of residents and nursing staff. An electronic order set was placed in the postoperative order menu for; incentive spirometer, BID chlorhexidine oral hygiene, TID ambulation, and head of bed elevation greater than 30 degrees. Quarterly staff meetings discussed the results of the program and compliance with the steps. Nursing service created a pneumonia bundle within the nursing notes for documentation.

The program commenced in April 2007. Baseline incidence of inpatient ward pneumonia was calculated from the NSQIP database for FY2006 and FY 2007 (October 2006 – March 2007). Post intervention incidence was calculated in the same manner from FY 2007 (April 2007 – September 2007) through FY 2008. Any patient who contracted pneumonia in the ICU was excluded from analysis.

	Pre Intervention	Post Intervention
PNA	13	3
Inpatients	1668	1651
PNA Incidence	0.8%	0.18%

p=0.006

This pneumonia prevention program was very successfully in diminishing postoperative pneumonias on the surgical ward. There was a highly statistically significant four-fold decrease in pneumonia incidence after program implementation. The interventions were not costly but did require ongoing communication and cooperation between physician and nursing leadership to achieve compliance with the measures. This program if implemented across all VA surgical services and could decrease inpatient postoperative pneumonias throughout the VA system.