

Targeting the Competitive Spirit to Diminish Nosocomial Infection Markers

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Our 500-Medical Center decided to implement an automated hand hygiene monitoring technology from Proventix Systems. Though the initial implementation and application of technology yielded improvements in aggregate and individual hand hygiene rates, the Medical Center worked to attain a higher level of improvement. We combined the technology with a communication and leadership initiative that included house-wide competition, posting of individual compliance results in prominent areas and use of electronic point-of-care performance reporting. The objective was to measure the impact of a performance feedback program on hand hygiene solution dispensing, hand hygiene compliance, and healthcare associated infection (HAI) rates.

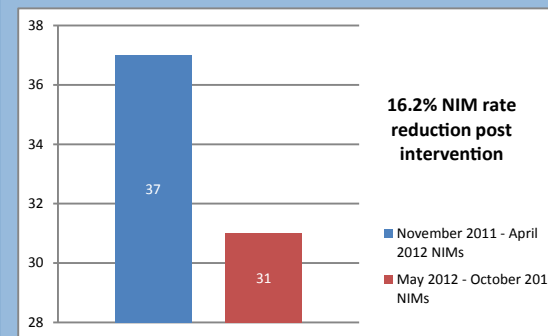
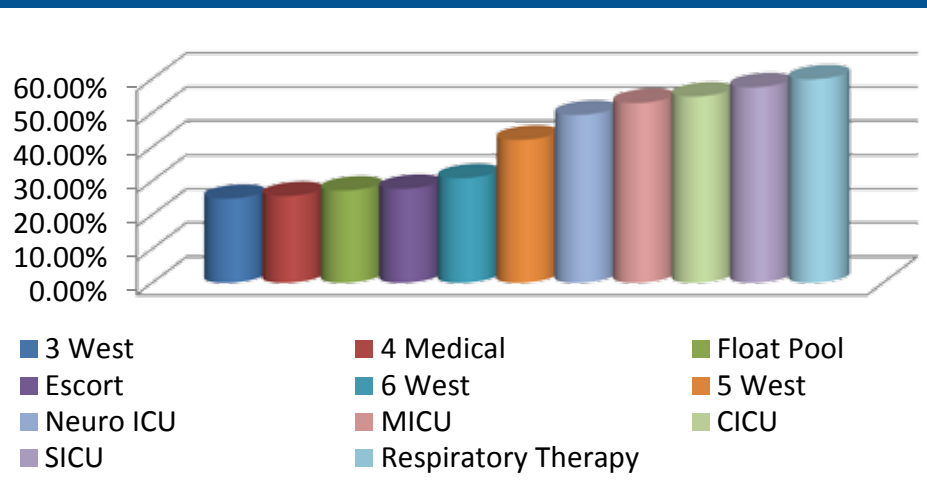
Project

In May 2012, the Medical Center's nursing leaders focused on two basic elements of hand hygiene performance feedback. These included the generation of team competition through:

- Weekly posting of graphs depicting each intensive care unit's overall hand washing compliance provided in the technology reporting
- Individual performance feedback by encouraging staff to check their personal compliance rate at point-of-care communication units and on prominently posted individual hand hygiene compliance rate reports.



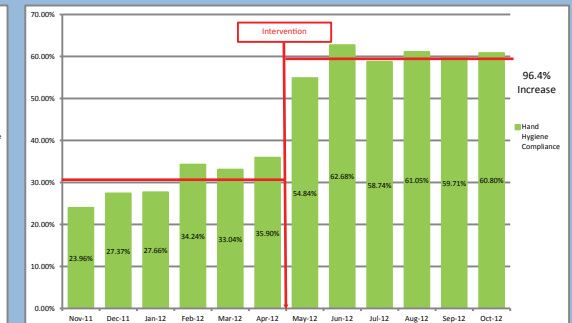
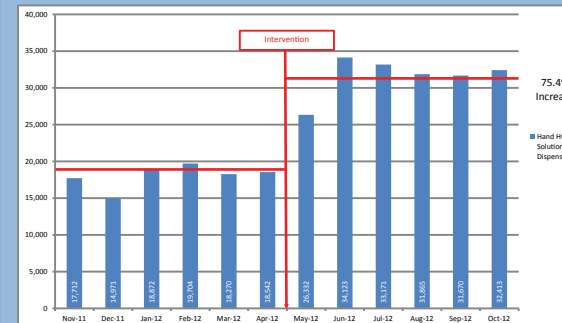
The results describe the experience of a 12-bed surgical intensive care unit (SICU) and 60 monitored caregivers including nurses, patient care technicians, and radiology, environmental services and medical staff. Hand hygiene solution dispensing, hand hygiene compliance and HAI rates were measured and reported from November 2011 through October 2012.



Results

When comparing pre-communication campaign averages, this Medical Center's SICU reported a 75.4% increase in total hand hygiene solution dispensing (18,012 average dispenses per month, November 2011-April 2012 vs. 31,596 average dispenses per month, May 2012-October 2012). We also noted an additional 96.4% improvement in monthly hand hygiene

compliance during the same time periods (30.36% November 2011-April 2012 vs. 59.64% May 2012-October 2012). In October 2012, the SICU ranked second when benchmarked against 18 other intensive care units measured with the same automated hand hygiene technology system. The SICU noted an 16.2% reduction in HAIs as measured by an electronic proxy called the Nosocomial Infection Marker® (NIM-Carefusion) equating to a direct cost savings of \$36,216, a bottom line impact of \$30,516, and 43.5 days length of stay avoided.



Lesson Learned

This Medical Center's SICU improvements after implementation of an electronic hand hygiene monitoring system were increased with the initiation of a performance feedback program that included team competition, posting of individual compliance rates and the use of electronic point-of-care performance feedback. The combination of these elements enhanced caregiver hand-hygiene performance and resulted in improved clinical and financial outcomes.

