Use of Targeted Solutions Tool (TST) and Electronic Monitoring to Improve Hand Hygiene Compliance

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Introduction
- Improving hand hygiene (HH) among healthcare workers is one of the top priorities of Infection Prevention and Control Programs.
- The Joint Commission Targeted Solutions Tool (TST) is one method that has had some success in improving hand hygiene compliance (HHC) by providing consistent feedback on performance has been difficult.
- Present method of direct observation does not provide ongoing feedback in a timely manner. Electronic monitoring provides accurate real time data improve result of TST process.
- The purpose of this study was to demonstrate improved HHC rates by use of a modified version of the TST combined with an electronic HH monitoring system based on the WHO 5 Moments for Hand Hygiene (DebMed GMS).

Method
- Four units of differing characteristics were selected for the study: MSICU (MedSurg ICU), PICU (Pediatric ICU), Chest Pain ED, and Adult Renal Unit.
- Two full time direct observers collected a total of 30 missed HH opportunities per unit based on the WHO 5 Moments.
- After missed opportunities were noted, the direct observers approached staff for verbal feedback regarding missed opportunities.
- A focus group was held with each unit to review data, obstacles to HH, and ways to implement unit-based change and increase HHC rates on unit.
- Managers used electronic monitoring data to provide ongoing feedback to frontline staff on HHC progress.
- Electronic HHC rates were collected during a 6 month baseline period, a 4 month intervention period, and a 6 month post-intervention period; study effectiveness was assessed using 95% confidence intervals to compare the baseline and intervention HHC rates.

Conclusion
- All of the units had an increase in HHC, with 3 of 4 the showing a statistically significant increase. The overall (i.e. 4 units combined) improved from a baseline rate of 46.3% to 57.2% (absolute increase of 10.9%, relative increase 23.5%); this difference was also statistically significant.
- A modified version of the TST methodology, along with real-time data from electronic surveillance of HHC, resulted in consistent, sustained improvement in HHC rates across a spectrum of hospital units.

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