Impact of Electronic Compliance Monitoring in an Ambulatory Pediatric Orthopedic Clinic

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Abstract

Background: Hand hygiene is one of the most crucial steps for preventing the transmission of illness; however rates of hand hygiene are persistently low. While most care occurs in inpatient settings, there is little data on hand hygiene compliance rates in this environment. This study used an electronic hand hygiene compliance monitoring system to evaluate the impact of a comprehensive hand hygiene program on compliance rates in an ambulatory care clinic.

Methods: A compliance activity monitoring system was installed to monitor all exam room entries and exits in the clinic and all hand hygiene events from soap or sanitizer dispensers. Compliance was measured as the number of events / number of entries and exits. Baseline measurements were taken without HCW knowledge from 2/9/13-2/24/13. The intervention, which included implementation of a comprehensive hand hygiene program, ran from 3/1/13-5/23/13. A post-study assessment from 5/24/13-8/15/13 determined whether the intervention resulted in a significant, sustained improvement in hand hygiene compliance rates. However, rates of hand hygiene are persistently low. While most care occurs in ambulatory settings, there is little data on hand hygiene compliance rates in this environment. This study used an electronic hand hygiene compliance monitoring system to evaluate the impact of a comprehensive hand hygiene program on compliance rates in an ambulatory care clinic.

Results: Compliance rates were calculated at the # of HH events / # HH opportunities x 100. Compliance data was made visible in high traffic HCW area and use a poster in ambulatory to document compliance. The implementation of an electronic system in a clinic is much different than an inpatient area:

- Need to consider work flow patterns and patient flow in the clinic
- Should work with individual physicians to look at the patient flow in their areas as it will likely vary for different physician work groups.
- Should give consideration to staff/visitors who enter the room to talk to the patient/family who have no direct contact with patient or environment.
- Changing hand washing behavior is difficult: It takes months to years to really effect change.
- Lessons Learned
- In order to obtain improvements, data must be shared with the staff as soon as possible after the event and with as many groups and committees even if it seems redundant.
- Competition can assist but also hinder the process. Staff will find ways to “game the system” to win.
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Conclusions

- This data supports previous studies showing the difficulty of increasing hand hygiene compliance.
- There is a need for studies in the ambulatory area to:
  - Look at impact of hand hygiene on transmission of the infections
  - Develop benchmarks for outpatient clinics

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