Annual Educational Conference & International Meeting
Improving Hand Hygiene Compliance through Automatic Reporting with RTLS

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Versus Technology — Research & Development
Objective: Improve HHC

• Todays HHC standard:
  – Secret shopper observation

• Challenges:
  – Staff identify observers quickly
  – Hawthorne Effect

• Average data sample size:
  – 1 observation / bed / month
  – Questionable statistical validity
Objective: Improve HHC

RTLS HHC system design goals:

– Require no overt action by staff to use
– Measure all staff to same standard
– Record compliance 24/7
– Provide management method to:
  • Assess, improve and maintain improvement of staff HHC
Objective: Improve HHC

RTLS HHC system design:
- Staff wear fast response RTLS “tags”
- HHC business rules evaluate HHC “opportunities” (staff entering and leaving patient care areas)

Soap and sanitizer dispensers:
- No-touch design sees and reports staff tag when activated
- Records compliance 24/7

• Average data sample size:
  - 2,000 observations / bed / month
  - Statically valid data set
Stage 1: Normalization

- Existing soap and sanitizer dispensers removed
- Replaced with RTLS-enabled dispensers
- Staff not told why
- No HHC monitoring
Stage 2: Establish Baseline

- Staff told HHC program would focus on their unit
- Soap and sanitizer baseline usage data collected without staff knowledge

Example of automated dispense activity reporting
Stage 3: Real-time Monitoring

- Staff given RTLS badges and told their purpose
- Compliance for individual staff members determined and recorded
Stage 4: RTLS Feedback - Staff

“Peer Comparison”

- Daily
- HHC % not listed
- Relative data only
Stage 4: RTLS Feedback - Managers

- Real-time and Historical
- By individual staff member or type (Doctor, Nurse)
• More than 40,000 HHC opportunities recorded
• Improvement from 20\textsuperscript{th} percentile to 70\textsuperscript{th} percentile
Thank You!