

Infection Control Current Awareness Bulletin

March 2019

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Title: Observation of stethoscope sanitation practices in an emergency department setting.

Citation: American Journal of Infection Control; Mar 2019; vol. 47 (no. 3); p. 234-237

Author(s): Vasudevan, Rajiv S.; Mojaver, Sean; Chang, Kay-Won; Maisel, Alan S.; Frank Peacock, W.; Chowdhury, Punam

Objective: Stethoscopes harbor pathogens that can be transferred to patients when proper sanitary measures are not taken. Our aim was to assess medical provider stethoscope cleaning and hand hygiene in an emergency department setting.

Methods: The frequency and methods of stethoscope cleaning during and after provider-patient encounters were observed anonymously in an emergency department of the VA San Diego Healthcare System.

Results: Among the total of 426 encounters, 115 (26.9%) involved the use of a personal stethoscope. In 15 of these 115 encounters (13.0%), the provider placed a glove over the stethoscope before patient contact. In 13 of these 115 encounters (11.3%), the provider cleaned the stethoscope with an alcohol swab after patient interaction. Stethoscope hygiene with water and a hand towel before patient interaction was observed in 5 of these 115 encounters (4.3%). Hand sanitizer use or handwashing was observed in 213 of the 426 encounters (50.0%) before patient interaction. Gloves were used before patient interaction in 206 of these 426 encounters (48.4%). Hand sanitizer or handwashing was used in 332 of the 426 encounters (77.9%) after patient interaction.

Conclusions: Rates of stethoscope and hand hygiene performance were lower than expected. Further investigation of stethoscope contamination and the associated risk of nosocomial infection are needed. Perhaps clearer guidelines on proper stethoscope cleaning would reduce this risk.

Title: Interventions to increase hand hygiene compliance in a tertiary university hospital over a period of 5 years: An iterative process of information, training and feedback.

Citation: Journal of Clinical Nursing; Mar 2019; vol. 28 (no. 5/6); p. 912-919

Author(s): Hoffmann, Magdalena; Sendlhofer, Gerald; Pregartner, Gudrun; Gombotz, Veronika; Tax, Christa; Zierler, Renate; Brunner, Gernot

Objective: To explore whether an iterative process of information and training paired with a feedback system to observed healthcare professionals and the respective management improves hand hygiene (HH) compliance.

Background: Healthcare-associated infections are a major risk for patient safety, and adherence to the "My five moments" (M5M) for HH varies significantly within organisations as well as within healthcare professional groups. Identified barriers in a baseline survey revealed the need of more information, training, repetitive compliance measurements and feedback to all healthcare professionals.

Design: A quality improvement project using the method of direct observation of healthcare professionals in nonsurgical and surgical wards.

Methods: Between 2013 and 2017, 6,009 healthcare professionals were informed and trained, and HH compliance measurements were performed by hygiene experts. Compliance measurement results were documented in an online tool to give an immediate feedback to

observed healthcare professionals. Additionally, a report was forwarded to the management of the respective department to raise awareness. Compliance rates per year were descriptively summarised. The research and reporting methodology followed SQUIRE 2.0.

Results: In total, 84 compliance measurements with 19,295 "M5M for HH" were observed in 49 wards. Overall, mean HH compliance increased from $81.9 \pm 5.2\%$ in 2013 to $94.0 \pm 3.6\%$ in 2017. Physicians' HH compliance rate improved from $69.0 \pm 16.6\%$ to $89.3 \pm 6.6\%$, that of nurses from $86.0 \pm 6.9\%$ to $96.4 \pm 3.1\%$, and that of others from $60.5 \pm 27.9\%$ to $83.8 \pm 20.2\%$. All M5M for HH (#1–#5) increased over the study period (#1: +16.9%; #2: +20.5%; #3: +7.6%; #4: +5.9%; #5: +12.7%).

Conclusions: Results demonstrated that an iterative process of information, training, observation and feedback over a period of 5 years can be successful in increasing HH compliance. Positive trends were observed for HH compliance rates across all healthcare professional groups as well as for all M5M for HH.

Title: The role of the maternity support worker in infection control in maternity care.

Citation: British Journal of Healthcare Assistants; Feb 2019; vol. 13 (no. 2); p. 72-77

Author(s): Lindsay, Pat

Abstract: Childbearing women and newborn babies are susceptible to infections. These can be a serious risk to their health and wellbeing, by altering the course of pregnancy, delaying recovery from childbirth, leading to longstanding morbidity or even causing death. Sepsis is a severe complication of infection that can rapidly lead to death of an infant or woman. Maternity support workers are well placed to recognise the signs of infection and help improve outcomes and prevent this serious complication.

Title: Administering intravenous therapy in patients' homes.

Citation: British Journal of Community Nursing; Feb 2019; vol. 24 (no. 2); p. 67-71

Author(s): Payne, Drew

Abstract: Intravenous therapy in patients' homes is a relatively new procedure in the community nursing practice. This article looks at the practicalities of administering home IV therapy from the following aspects: hand hygiene; how to adjust IV therapy practices to the home environment; care of the IV access site including appropriate dressings; identifying and reacting to problems; maintaining a safe environment when performing IV therapy in a patient's home; anaphylaxis and how to identify and manage it; and the need for training to perform home IV therapy.

Title: A multimodal regional intervention strategy framed as friendly competition to improve hand hygiene compliance.

Citation: Infection Control & Hospital Epidemiology; Feb 2019; vol. 40 (no. 2); p. 187-193

Author(s): van Dijk, Manon D.; Mulder, Sanne A.; Erasmus, Vicki; van Beeck, A. H. Elise; Vermeeren, Joke M. J. J.; Liu, Xiaona; Beeck, Ed F. van; Vos, Margreet C.

Objective: To investigate the effects of friendly competition on hand hygiene compliance as part of a multimodal intervention program.

Design: Prospective observational study in which the primary outcome was hand hygiene compliance. Differences were analyzed using the Pearson χ^2 test. Odds ratios (ORs) with 95% confidence interval were calculated using multilevel logistic regression.

Setting: Observations were performed in 9 public hospitals and 1 rehabilitation center in Rotterdam, Netherlands.

Participants: From 2014 to 2016, at 5 time points (at 6-month intervals) in 120 hospital wards, 20,286 hand hygiene opportunities were observed among physicians, nurses, and other healthcare workers (HCWs).

Intervention: The multimodal, friendly competition intervention consisted of mandatory interventions: monitoring and feedback of hand hygiene compliance and optional interventions (ie, e-learning, kick-off workshop, observer training, and team training). Hand hygiene opportunities, as formulated by the World Health Organization (WHO), were unobtrusively observed at 5 time points by trained observers. Compliance data were presented to the healthcare organizations as a ranking.

Results: The overall mean hand hygiene compliance at time point 1 was 42.9% (95% confidence interval [CI], 41.4–44.4), which increased to 51.4% (95% CI, 49.8–53.0) at time point 5 ($P < .001$). Nurses showed a significant improvement between time points 1 and 5 ($P < .001$), whereas the compliance of physicians and other HCWs remained unchanged. In the multilevel logistic regressions, time points, type of ward, and type of HCW showed a significant association with compliance.

Conclusion: Between the start and the end of the multimodal intervention program in a friendly competition setting, overall hand hygiene compliance increased significantly.

Title: Patient isolation for infection control and patient experience.

Citation: Infection Control & Hospital Epidemiology; Feb 2019; vol. 40 (no. 2); p. 194-199

Author(s): Siddiqui, Zishan K.; Conway, Sarah Johnson; Abusamaan, Mohammed; Bertram, Amanda; Berry, Stephen A.; Allen, Lisa; Apfel, Ariella; Farley, Holley; Zhu, Junya; Wu, Albert W.; Brotman, Daniel J.

Objective: Hospitalized patients placed in isolation due to a carrier state or infection with resistant or highly communicable organisms report higher rates of anxiety and loneliness and have fewer physician encounters, room entries, and vital sign records. We hypothesized that isolation status might adversely impact patient experience as reported through Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys, particularly regarding communication.

Design: Retrospective analysis of HCAHPS survey results over 5 years. Setting: A 1,165-bed, tertiary-care, academic medical center.

Patients: Patients on any type of isolation for at least 50% of their stay were the exposure group. Those never in isolation served as controls.

Methods: Multivariable logistic regression, adjusting for age, race, gender, payer, severity of illness, length of stay and clinical service were used to examine associations between isolation status and "top-box" experience scores. Dose response to increasing percentage of days in isolation was also analyzed.

Results: Patients in isolation reported worse experience, primarily with staff responsiveness (help toileting 63% vs 51%; adjusted odds ratio [aOR], 0.77; P =.0009) and overall care (rate hospital 80% vs 73%; aOR, 0.78; P <.0001), but they reported similar experience in other domains. No dose-response effect was observed.

Conclusion: Isolated patients do not report adverse experience for most aspects of provider communication regarded to be among the most important elements for safety and quality of care. However, patients in isolation had worse experiences with staff responsiveness for time-sensitive needs. The absence of a dose-response effect suggests that isolation status may be a marker for other factors, such as illness severity. Regardless, hospitals should emphasize timely staff response for this population.

Sources Used

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