



Infection Control Current Awareness: October 2014

CE: Champions for central line care.

Reed SM1, Brock AJ, Anderson TJ.
Am J Nurs. 2014 Sep, vol 114, no 9, p40-8.

Abstract

OVERVIEW:

In 2012, acute care hospitals in the United States reported 30,100 central line-associated bloodstream infections (CLABSIs) to the National Healthcare Safety Network of the Centers for Disease Control and Prevention. Known to substantially increase morbidity, length of stay, and cost of care, CLABSIs are associated with a mortality rate of 12% to 25% and an additional cost of \$22,885 to \$29,330 per incident. Following five months with a sustained CLABSI rate of zero per 1,000 catheter days, the acuity adaptable critical care unit at Geisinger Medical Center in Danville, Pennsylvania, saw the CLABSI rate spike to 3.97 per 1,000 catheter days in March 2011, prompting a quality improvement project and, ultimately, the implementation within the unit of a champion team program to guide central line care.

Clinical, patient experience and cost impacts of performing active surveillance on known methicillin-resistant *Staphylococcus aureus* positive patients admitted to medical-surgical units.

Goldsack JC, DeRitter C, Power M, Spencer A, Taylor CL, Kim SF, Kirk R, Drees M.
Am J Infect Control. 2014 Oct, vol 42, no 10, p1039-43.

Abstract

BACKGROUND:

There is a large and growing body of evidence that methicillin-resistant *Staphylococcus aureus* (MRSA) screening programs are cost effective, but such screening represents a significant cost burden for hospitals. This study investigates the clinical, patient experience and cost impacts of performing active surveillance on known methicillin-resistant *S aureus* positive (MRSA+) patients admitted to 7 medical-surgical units of a large regional hospital, specifically to allow discontinuation of contact isolation.



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METHODS:

We conducted mixed-methods retrospective evaluation of a process improvement project that screened admitted patients with known MRSA+ status for continued MRSA colonization.

RESULTS:

Of those eligible patients on our institution's MRSA+ list who did complete testing, 80.2% (130/162) were found to be no longer colonized, and only 19.8% (32/162) were still colonized. Forty-one percent (13/32) of interviewed patients in contact isolation for MRSA reported that isolation had affected their hospital stay, and 28% (9/32) of patients reported emotional distress resulting from their isolation. Total cost savings of the program are estimated at \$101,230 per year across the 7 study units.

CONCLUSION:

Our findings provide supporting evidence that a screening program targeting patients with a history of MRSA who would otherwise be placed in isolation has the potential to improve outcomes and patient experience and reduce costs.

Healthcare-associated infections: the value of patient isolation.

Nicholson L.

Nurs Stand. 2014 Oct 8, vol 29, no 6, p35-44.

Abstract

This article focuses on information about reducing or preventing the transmission of infection from patients with known, suspected or high risk of developing a multidrug-resistant organism infection such as meticillin-resistant *Staphylococcus aureus*. Since the literature addresses infection prevention and control measures in relation to isolation practices, the literature is evaluated for its effectiveness in supporting patient safety and informing practice that enhances the quality of inpatient care. A

review of articles retrieved from several databases is conducted to identify research findings regarding some of the evidence for the effectiveness of isolation in reducing the risk of healthcare-associated infections. The cost, advantages and disadvantages of isolation practices and cohort nursing are also explored, with emphasis on patient wellbeing and safety.



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Human patient simulation education in the nursing management of patients requiring mechanical ventilation: a randomized, controlled trial.

Jansson MM, Ala-Kokko TI, Ohtonen PP, Meriläinen MH, Syrjälä HP, Kyngäs HA
Am J Infect Control. 2014 Mar, vol 42, no 3, p271-6.

Abstract

BACKGROUND:

Knowledge among critical care nurses and their adherence to evidence-based guidelines for preventing ventilator-associated pneumonia is reported to be low. The aim of our study was to evaluate the effectiveness of human patient simulation (HPS) education in the nursing management of patients requiring mechanical ventilation.

METHODS:

A prospective, parallel, randomized controlled trial with repeated measurements was conducted in a 22-bed adult mixed medical-surgical intensive care unit in Finland from February-October 2012. Thirty critical care nurses were allocated evenly to intervention and control groups (n = 15 each). The effectiveness of HPS education was evaluated through the validated Ventilator Bundle Questionnaire and Ventilator Bundle Observation Schedule at baseline and repeated twice-after the clinical and simulation settings, respectively.

RESULTS:

After HPS education, the average skill scores (Ventilator Bundle Observation Schedule) in the intervention group increased significantly (46.8%-60.0% of the total score) in the final postintervention observation. In the average skill scores, a linear mixed model identified significant time ($P(t) < .001$) and group ($P(g) = .03$) differences and time-group interactions ($P(t * g) = .02$) between the study groups after the HPS education. In contrast, the model did not identify any significant change over time ($P(t) = .29$) or time-group interactions ($P(t) = .69$) between groups in average knowledge scores (Ventilator Bundle Questionnaire).

CONCLUSIONS:

Our study identified significant transfer of learned skills to clinical practice following HPS education but no influence on the level of participants' factual knowledge.

Nurses compliance to hand hygiene practice and knowledge at Klang Valley hospital.

Ho SE, Ho CC, Hng SH, Liu CY, Jaafar MZ, Lim B.
Clin Ter. 2013, vol 164, no 5, p407-11.

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Abstract

BACKGROUND AND AIMS:

Hand hygiene is the most important measure in the prevention of healthcare-associated infections (HCAI). Adherence to hand hygiene protocols in hospital by nurses enables in prevention and control the HCAI. The main aim of the present study was to assess nurses' compliance to hand hygiene practice and knowledge in a hospital.

MATERIALS AND METHODS:

A descriptive cross-sectional study was conducted in the intensive care units of a hospital in Kuala Lumpur. A total of 84 registered nurses from the intensive care were recruited for this study. A self-administered questionnaire was deployed to measure knowledge and compliance about hand hygiene.

RESULTS:

The findings showed the total mean and standard deviation of knowledge (60.65 ± 4.213) and compliance (84.65 ± 7.024) to be high among the respondents. There were no significant differences with the knowledge and compliance to hand hygiene with respondents' age groups with a p value >0.05 . However, there were significant differences between respondents' years of service with the knowledge and compliance with p values <0.05 . The results showed significant differences between respondents' with post basic course with compliance to hand hygiene with a p value <0.05 actual p value added ($p = 0.001$). There were no significant differences between the respondents' post basic course with knowledge to hand hygiene with p values >0.05 actual p value added ($p=0.072$).

CONCLUSION:

Nurses compliance to hand hygiene practice and knowledge was good. Nurses' years of service have great implications on compliance to hand hygiene practice. The study opines that constant reinforcement and motivation are required by the hospital infection control team to impart hand hygiene practice.

Preexposure prophylaxis: An emerging clinical approach to preventing HIV in high-risk adults.

Blackwell CW.

Nurse Pract. 2014 Sep 18, vol 39, no 9, p50-3

Abstract

The HIV antiretroviral drug emtricitabine/tenofovir disoproxil fumarate (Truvada) was recently approved as preexposure prophylaxis (PrEP) therapy for adults at high risk for sexually acquired

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HIV infection. This article reviews the data supporting the efficacy of PrEP, and provides other relevant data regarding the implementation of PrEP.

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