

Infection Prevention and Control

Current Awareness Bulletin

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1. The Effect of Catheter-Related Infection Control Education on Surgical Nurses' Knowledge Levels and Attitudes: A Randomized Controlled Trial

Authors: Akdemir, Habibe Filiz and Gezginci, Elif

Publication Date: 2024

Journal: Journal of Continuing Education in Nursing 55(10), pp. 479–486

Abstract: Background: Catheters are commonly used in health care. As nurses play an active role in the prevention of catheter-related infections, their knowledge and attitudes on this subject are important. The goal of this study was to determine the effect of an educational intervention about catheter-related infection control precautions on nurses' knowledge levels and attitudes. Method: This study was a single-center randomized controlled trial. The intervention group (n = 35) received evidence-based face-to-face education. The control group (n = 35) received routine in-service training. The nurses' knowledge and attitudes were assessed before, immediately after, and 3 months after the education. Results: After the training, the intervention group had statistically higher total scores than the control group on both scales immediately after the training ($p < .001$ and $p = .008$, respectively) and 3 months after the training ($p = .001$ and $p < .001$, respectively). Conclusion: The evidence-based structured educational intervention about catheter-related infection prevention practices positively affected the knowledge and attitudes of surgical nurses. J Contin Educ Nurs. 2024;55(10):479–486.]

2. Infection prevention and control: critical strategies for nursing practice

Authors: Hill, Barry; Lamichhane, Geeta and Wamburu, Amsale

Publication Date: 2024

Journal: British Journal of Nursing 33(17), pp. 804–811

Abstract: Infection prevention and control (IPC) is essential in nursing practice to safeguard patient health and reduce healthcare-associated infections. This article explores IPC strategies, including hand hygiene, the use of personal protective equipment, environmental cleaning, safe injection practices, and antimicrobial stewardship. It discusses the implementation challenges and solutions, such as ensuring compliance through education, monitoring and strong leadership. IPC measures are crucial in preventing infections such as catheter-associated urinary tract infections, central line-associated bloodstream infections, surgical site infections, and ventilator-associated pneumonia. By integrating personalised IPC strategies into nursing practice, healthcare providers can significantly improve infection control outcomes and enhance overall patient safety and quality of care.

3. Risk assessment and the use of personal protective equipment in an emergency department: Differing perspectives of emergency and infection control clinicians. A video-vignette survey

Authors: Hor, Su-Yin; Wyer, Mary; Barratt, Ruth; Turnbull, Margo; Rogers, Kris; Murphy,

Margaret;Urwin, Rachel;Jorm, Christine and Gilbert, Gwendolyn L.

Publication Date: 2024

Journal: American Journal of Infection Control 52(10), pp. 1114–1121

Abstract: Background: The use of personal protective equipment (PPE) in emergency departments (EDs) is an important defense during infectious disease emergencies. However, what counts as appropriate PPE in EDs is contentious and inconsistently implemented in practice.; Methods: An online scenario-based video survey was distributed through purposive sampling, and completed by 270 ED and infection prevention and control clinicians in Australia. A descriptive content analysis was performed on the data, and differences between groups were tested using Fisher exact test.; Results: Participants agreed that most items were required in both scenarios. Eye protection, mask use, and hand hygiene frequency were more contentious. Physicians were more likely than nurses, and ED clinicians more likely than infection prevention and control clinicians, to regard items or actions as optional rather than essential. Many ED clinicians, particularly physicians, regarded sequences as too time-consuming to be practical in a busy ED.; Discussion: Our findings likely reflect differences in professional roles, competing priorities, and risks, and highlight important contextual characteristics of EDs, such as diagnostic uncertainty, equipment inaccessibility, and resource constraints.; Conclusions: To be feasible, practicable, and thereby effective, PPE guidance in the ED must be designed collaboratively with frontline ED staff, and reflects the complexities of their practice. (Copyright © 2024 The Authors. Published by Elsevier Inc. All rights reserved.)

4. Infection prevention and control: understanding the fundamentals

Authors: McCloy, Oonagh;McGuinness, Ashley and Craig, Stephanie

Publication Date: 2024

Journal: Nursing Standard (Royal College of Nursing (Great Britain) : 1987) 39(10), pp. 39–44

Abstract: Infection prevention and control is crucial to prevent patients and healthcare staff from being harmed by avoidable infections, including healthcare-associated infections. This article outlines the main elements of standard precautions for infection prevention and control, as set out by the World Health Organization. Nurses and other healthcare professionals can use this information to refresh their knowledge of infection prevention and control, understand the appropriate practices that should be adopted to reduce the risk of infection transmission, and increase their awareness of the importance of sustainability and education.; Competing Interests: None declared (© 2024 RCN Publishing Company Ltd. All rights reserved. Not to be copied, transmitted or recorded in any way, in whole or part, without prior permission of the publishers.)

5. Development and Implementation of Learning Collaboratives for Infection Prevention and Control Education in Long-Term Care Facilities

Authors: Prins, Cindy;Khan, Mishal;Marlow, Nicole M.;Bollinger, Avery;Johnson, Cassandra L.;Pomeranz, Jamie L.;Bethart, Sally M.;Cherabuddi, Kartikeya;Horgas, Ann L.;Venugopalan,

Veena;Agdas, Duzgun;Wu, Chang-Yu;Jutla, Antarpreet Singh;Charles, Argentina and Lee Revere, F.

Publication Date: 2024

Journal: American Journal of Infection Control

Abstract: Infections in long-term care facilities (LTCFs) pose a critical challenge, with one to three million serious infections annually and up to 380,000 associated deaths. The vulnerability of aging populations and inadequate infection prevention and control (IPC) programs underscore the need for intervention. This initiative provided tailored continuing education through eight virtual learning collaboratives serving 541 infection preventionists. The project also developed nine IPC toolkits and a manual to further support LTCFs' infection prevention efforts. (Copyright © 2024. Published by Elsevier Inc.)

6. Implementation and barriers to waterless care: a questionnaire study of infection prevention and control practitioners, clinicians, and engineers

Authors: Pybus, S. and Inkster, T.

Publication Date: 2024

Journal: The Journal of Hospital Infection 152, pp. 122–125

Abstract: Background: Water and wastewater in healthcare settings are recognized to represent a risk to patients. However, waterless care has not been widely implemented in UK healthcare settings.; Aim: To identify barriers to implementation of waterless care.; Methods: A questionnaire study of infection prevention and control (IPC) practitioners, non-IPC clinicians, and estates managers and engineers was undertaken.; Findings: Alternatives to water present challenges in perceived acceptability to patients, particularly cleansing wipes for bathing and dry shampoo. There are concerns about cleansing wipes in terms of storage, disposal, sustainability and contamination during manufacture. Estates and engineering concerns include relative water tank size for water turnover and clinical disruption due to works.; Conclusion: Further work is required on acceptability of reduced water scenarios and patient views but the results of this questionnaire provide a grounding for sentiment from healthcare workers on waterless care. (Copyright © 2024 The Healthcare Infection Society. Published by Elsevier Ltd. All rights reserved.)

7. The experience of infection prevention and control nurse (IPCN) in conducting post-discharge surveillance (PDS) of surgical site infections (SSI): A qualitative study

Authors: Rahmawati, Siti;Setyawati, Andina and Tahir, Takdir

Publication Date: 2024

Journal: Infection, Disease & Health 29(4), pp. 218–226

Abstract: Background: Surgical Site infections (SSI) are healthcare-associated infections (HAI) resulting from surgical procedures, which can increase morbidity, mortality, and

economic burden. SSI surveillance is useful for detecting the magnitude of SSI cases and evaluating the impact of SSI prevention implementation. Post-discharge surveillance (PDS) of SSIs may identify more significant cases. To the best of our knowledge, there is no research exploring the experiences of Infection Prevention and Control Nurse (IPC�) in conducting PDS of SSI.; Methods: To explore the experience of IPC� in conducting PDS of SSI. A qualitative transcendent phenomenological (descriptive) research, using a purposive sampling technique with 15 informants from 9 hospitals in Indonesia. Data were collected through in-depth direct and semi-structured interviews and analyzed using thematic analysis through Nvivo 12 plus software.; Results: Five themes were generated, including the stages of PDS of SSI, the collaborative role of PDS of SSI officers, inhibiting factors of PDS of SSI, supporting factors of PDS of SSI, and optimization of PDS of SSI.; Conclusion: This study provides a deep understanding of the implementation PDS of SSI through an exploration of IPC� experiences, offering insights into the execution and various challenges faced by hospitals in conducting PDS of SSI. (Copyright © 2024 Australasian College for Infection Prevention and Control. Published by Elsevier B.V. All rights reserved.)

8. Infection prevention and control among paramedics: A scoping review

Authors: Taylor, Nicholas;Simpson, Maree;Cox, Jennifer;Ebbs, Phillip and Vanniasinkam, Thiru

Publication Date: 2024

Journal: American Journal of Infection Control 52(10), pp. 1128–1134

Abstract: Background: Paramedics are exposed to many infectious diseases in their professional activities, leading to a high risk of transmitting infectious diseases to patients in out-of-hospital settings, possibly leading to health care associated infections in hospitals and the community. The COVID-19 pandemic highlighted the importance of infection prevention and control in health care and the role of paramedics in infection control is considered even more critical. Despite this, in many countries such as Australia, research into infection prevention and control research has mainly been focused on in-hospital health care professionals with limited out-of-hospital studies.; Methods: This scoping review was based upon Preferred Reporting Items for Systematic Reviews and Meta-Analysis guidelines. Literature on knowledge and awareness of infection prevention and control in paramedics in Australia and other countries was evaluated.; Results: Based upon selection criteria applied, six papers were identified for inclusion in this review. In many studies, infection prevention and control was identified as being important, however compliance with hand hygiene practices was low and most studies highlighted the need for more education and training on infectious disease for paramedics.; Conclusion: Current evidence suggests that paramedics have poor compliance with recommended IPC practices. The profession needs to improve IPC education, training, and culture. (Copyright © 2024 Association for Professionals in Infection Control and Epidemiology, Inc. Published by Elsevier Inc. All rights reserved.)

9. To see, or not to see... pathogens in virtual reality hand hygiene training

Authors: Wolfensberger, Aline;Désiron, Juliette,C.;Domenech-Jakob, Beatrice;Petko, Dominik and Zingg, Walter

Publication Date: 2024

Journal: Infection Control and Hospital Epidemiology , pp. 1–6

Abstract: Background: ViRTUE, a virtual reality (VR) hand hygiene trainer, offers users the option of visualizing pathogen transfers during virtual patient care either in "real-time" or at the end of a level as a "summary" visualization. In this study, we aimed to evaluate the effect of different timings of pathogen visualization ("real-time" vs "summary") on in-trainer performance and user's immersion.; Methods: The study included first-year medical students undergoing hand hygiene training with ViRTUE, randomized to one of three visualization set-ups: set-up 1 ("on-off-off", with "real-time" visualization at the first level only, and "summary" visualization at level 2 and 3), set-up 2 ("off-on-off"), and set-up 3 ("off-off-off"). In-trainer performance was defined by number of pathogen transmission events (=contaminations) in level 3. The virtual experience of user's (among others: immersion) was assessed with a questionnaire.; Results: 173 medical students participated in the study, with 58, 54, and 61 assigned to set-up 1, set-up 2, and set-up 3, respectively. Users assigned to set-up 3 with "summary" visualization at all levels, performed best with 1.02 (standard deviation (SD) +/- 1.86) contaminations, compared to 2.34 (SD +/- 3.09) and 2.07 (SD +/- 2.52) contaminations of users assigned to the other set-ups. "Summary" visualization at all levels also resulted in higher immersion of users.; Conclusions: "Real-time" visualization of pathogen transmission during VR hand hygiene training with ViRTUE may negatively affect in-trainer performance and user immersion. This emphasizes the importance of pilot testing the effect of VR-based trainings in order to understand their impact on users.

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