Hand Hygiene Compliance

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Introduction

Infection prevention and control are essential for maintaining a safe environment for clients admitted to the hospital. To prevent the spread of microorganisms within the hospital, healthcare workers should perform hand hygiene. Healthcare workers can use alcohol-based hand sanitizer after encountering the client or performing minor duties. Nurses must use soap and warm water at the beginning and end of each shift, when hands are visibly soiled, or when they encounter certain organisms, such as clostridium difficile (Perkins, 2017). The QSEN competency of quality improvement relates to hand hygiene compliance to the healthcare worker. Before the 1980s, hand hygiene did not occur in the healthcare environment like it does today, and the CDC did not start recommending the use of soap and water and alcohol-based hand sanitizer until 1996. Often, healthcare workers wash their hands less than half what they should do (Centers for Disease Control and Prevention, 2021). Proper hand hygiene is an essential intervention in healthcare settings because it prevents hospital-acquired infection among clients and healthcare workers. It is crucial to improve compliance among healthcare workers.

Literature Review

Determinants of hand hygiene compliance among nurses in US hospitals: A formative research study

Hand hygiene is the most effective and most straightforward way for preventing the spread of infections in the hospital. According to Sands & Aungers (2020), although handwashing is the most uncomplicated procedure in infection control, healthcare workers' compliance with hand hygiene is low. From November to December 2015, they conducted an anonymous internet-based cross-sectional survey on nurses across the US regarding factors

influencing hand hygiene compliance. Among 540 surveys, 85% of the participants said they are familiar with hand hygiene practices. The survey also asked questions about hand hygiene compliance before entering the client, exiting the client room, and doing procedures. 90.4% of participants report doing hand hygiene upon exiting the room, and only 81.7% of participants do hand hygiene before entering the room. When doing a high-risk procedure such as cleaning wounds, 90.74% of the participants do hand hygiene after exiting the room. Only 65% of the participants do hand hygiene before entering the room. The result shows that nurses conducted more self-protection than protecting the client because they are more likely to practice hand hygiene when exiting a client's room and after the high-risk procedure (Sands & Aungers, 2020).

This article is related to increasing hand hygiene compliance in the areas of our clinical rotation. From our observation, nurses mostly like to do hand hygiene when exiting the client room and after doing some procedure such as cleaning up the client. This article is also related to the QSEN competency of quality improvement because knowing what influences the nurse hand hygiene compliance; we can formulate better plans on how to improve compliance.

Exploring determinants of hand hygiene among hospital nurses: A qualitative study

Examination of knowledge, awareness, and performance of nurses about hand hygiene can increase their compliance. Ghaffari et al. (2020) conducted a qualitative study to identify factors affecting hand hygiene behavior with the 16-nursing staff in Tehran, Iran. The result shows that when high-rank health workers such as head nurses and physicians participate in regular hand hygiene, other nurses follow this because they see it as setting an example for them. If head nurses do not practice regular hand hygiene, they feel this discourages them from doing it. The article also emphasized that educating nurses about hand hygiene will increase their awareness about unclean hands and the significance of handwashing (Ghaffari et al., 2020)

This article relates to the concern of increasing hand hygiene compliance in the areas of our clinical rotation. In the hospital we do our clinical, we often observe the charge nurse do audits for hand hygiene compliance. These nurses need to set an example for their team; however, since they often do not direct client care, neglect of hand hygiene happens. This article is also related to the QSEN competency of quality improvement because high-rank nurses should set an example for other nurses. They should formulate an improvement plan including these high-rank nurses for the implementation of increased hand hygiene compliance.

Hand hygiene compliance in intensive care units: An observational study

Hospital-acquired infection is one of the leading risks for client safety in the hospital. According to Hoffman et al. (2020), hospital-acquired infection led to a tremendous cost of $96 to 147 billion annually in hospitals in the United States in 2013. Also, in the article, they conducted an observational single-center study between 2013 and 2017. They implemented the "German Clean Hands Campaign" to increase hand hygiene compliance and prevent HAIs in 12 ICUs at Austrian hospitals. In the study, hygiene experts started training 506 health care professionals by doing lectures and demonstrations. Two hygiene experts monitored participants by following the "my five moments," which includes handwashing before clients encounter, before aseptic task, after bodily fluids exposure, after contact with clients, and the client's surroundings. If participants scored lower than 80%, they conducted appropriate follow-up training. The result shows that hand hygiene compliance increased from 75.1 % to 88.6% between 2013 and 2017. Nurses had a compliance of 80.2% - 90.9%, which is better than physicians and other healthcare workers, ranging from 61-2%- 77.1% (Hoffman et al., 2020).

This article relates to the concern of increasing hand hygiene compliance in the areas of our clinical rotation. There is a lack of yearly lectures and expert observation in the hospital

where we do our clinical rotation. Doing at least a yearly lecture and observation by hygiene experts might help increase compliance. This article is also related to the QSEN competency of quality improvement. By implementing the German Clean Hand Champaign in the study, they conducted improved hand hygiene compliance of the ICU facilities of Austrian Hospitals.

Neonatal intensive care unit hand hygiene: Exploring current practice and adherence barriers in a Canadian hospital

Neonates are at an increased risk of developing a nosocomial infection due to their lacking immune systems. The use of handwashing and other hand hygiene measures can prevent neonates from developing life-threatening infections that older children and adults may not have trouble fighting. Pasricha et al. (2021) conducted a study to evaluate hand hygiene practices in the Kingston Health Sciences Centre NICU located in Kingston, Ontario, Canada, through direct observation and questionnaires. Researchers found that nurses practice better hygiene practices than other healthcare providers. Researchers also found that nurses in the NICU are more likely to follow hand hygiene practice guidelines during daytime shifts than nurses who work at night. When reviewing the audits of the Kingston Health Sciences Centre NICU, they said that approximately 80-90% followed the hand hygiene guidelines. However, the research observer found that approximately 60% followed hand hygiene practices, causing a large discrepancy between the formal observations and real-life practice (Pasricha et al., 2021). This discrepancy in how healthcare providers follow hand hygiene guidelines allows the hospital to educate the staff regarding the importance of following hand hygiene protocols for at-risk populations.

Identifying the strengths and weaknesses of how nurses follow hand hygiene protocols provides the hospital with quality improvement according to QSEN competencies. Administrators can identify the clients' outcomes within the neonatal intensive care unit and

compare those findings to the data recorded in this research. Suppose hospital administrators identify those clients in their neonatal intensive care unit are more likely to develop infections than those in other NICUs. In that case, this is an identifying factor that can show where to plan for quality improvement.

Handwashing Knowledge, Attitudes, and Practices among Students in Eastern Province Schools, Saudi Arabia

Hand washing is an integral part of infection prevention and is essential in stopping the spread of disease. While most children and adults know the importance of handwashing, many do not follow through regularly after using the restroom, after handling raw meat, or after sneezing or coughing. According to Almoslem et al. (2021), while adolescents and young adults know they should wash their hands, approximately 91% of those included in the study do not know that handwashing decreases the risk of infection and disease. Only 31% of those included in the study know that proper hand hygiene can remove germs from the skin. They conducted a study to evaluate students' knowledge regarding handwashing techniques, practices, and occurrences throughout their daily lives. The researchers also evaluate the education levels of both parents and how the children learn about handwashing. Students who can identify the purpose of proper hand hygiene and the significance in preventing communicable diseases are more likely to perform adequate and appropriate handwashing than those who do not understand the implications of sub-par hand hygiene.

This article relates to hand hygiene compliance because while healthcare facilities strenuously promote education regarding hand hygiene to healthcare providers, it is also essential to provide education to a client. Providing education to clients present in the hospital can promote QSEN competency quality improvement and prevent further infections. It also

decreases hospital admissions for those who previously had insufficient knowledge about the importance of hand hygiene.

Case Study

The client is an 87-year-old male admitted to CCU due to a cerebrovascular accident. The client is also on contact precaution because of diagnoses of Vancomycin-resistant enterococci before. A day and night shift nurse went to the client's room to do the NIH stroke scale during the shift change. They did not perform any hand hygiene before entering the client's room. While assessing the client, they noticed that he urinated and passed some bowel movements in his diaper. The nurses gather supplies to clean the client. After the nurses finish cleaning the client, the night shift nurse removes her gloves and gets ready to leave the facility. At the same time, the day shift nurse removes her gloves, uses alcohol-based sanitizer, and moves on to her next client. Situations like these provide ample opportunity for quality improvement within the hospital setting. The healthcare facility should provide education and awareness about the importance of hand hygiene compliance. They could provide devices that will remind the nurses to perform hand hygiene before and after entering the client room. They can also put some reminders on the clients' door about doing hand hygiene. If nurses become more aware and reminded about hand hygiene, compliance may improve.

Synthesis

The best practice regarding hand hygiene is to wash hands or use alcohol-based sanitizer before and after coming into contact with any client, reducing or eliminating cross-contamination between clients. Nurses should use warm water and soap when dealing with clients who have infections resistant to alcohol-based sanitizers or when their hands are visibly soiled (Centers for Disease Control and Prevention, 2021).

Appropriate education strategies regarding hand hygiene include the use of role-playing and audio-visual presentations. These modes of education provide the best outcomes for adherence to hand hygiene protocols. The use of role-playing allows the educator to evaluate the progress and completion of the skills while allowing the students to ask direct questions to the educator and have quick and detailed responses. Audio-visual presentations provide a clear visualization of the expectations while also providing detailed explanations on the steps of performing hand hygiene (Martos-Cabrera et al., 2019).

As researchers further conduct studies, they should focus on how to observe adherence to hand hygiene. Researchers explained how there could be discrepancies between audits done within the hospital and research on hand hygiene compliance within the research. Researchers should identify ways to limit their presence in hospitals evaluating hand hygiene compliance and conducting research. When presence is limited, outcomes of the research will reflect the practice of nurses when researchers or auditors are not present, which will show unbiased results.

Conclusion

Healthcare workers must be compliant with hand hygiene guidelines in their facility. Hand hygiene helps control and prevent the spread of germs and microorganisms, allowing clients to heal or recover in a clean environment while preventing the spread of diseases to nurses and other healthcare providers. Healthcare facilities should focus on how to improve hand hygiene compliance by doing a quality improvement plan. Further research, making more awareness, and education can help improve hand hygiene compliance.

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