RUA: Topic Search Strategy

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Hand Hygiene Compliance in the Prevention of Hospital-Acquired Infections

Clinical Question:

Describing the problem:

The problem that is identified in the healthcare delivery is Hospital-acquired infections (HAIs). These infections can cause patient mortality, resulting in prolonged stays in the healthcare settings. This is the reasoning for considering it a significant and costly complication of a healthcare setting. The problem defines the challenges occurring among healthcare employees in managing optimal hand hygiene compliance in healthcare settings.

Focus of group's work:

The focus of this group's work is to examine evidence-based and structured interventions for improving hand hygiene compliance rates. It also focuses on reducing the incidence of HAIs in hospital settings.

Significance of the problem in terms of patient outcomes:

The significance of the failure to maintain high rates of hand hygiene compliance is that it directly impacts patient outcomes in healthcare settings. It directly leads to prolonged hospital stays and an immense financial burden to the patient and their family. The infections induce patient morbidity and mortality due to the lack of hand hygiene compliance in healthcare settings. It also affects the patients' stays in the hospital and increases the cost of stay by prolonging it. The importance of hand hygiene compliance is in controlling and preventing healthcare-associated illnesses from spreading (Soboksa et al., 2021). The resources that I have used highlight the requirement of implementing it in healthcare to improve patient outcomes and reduce mortality rates. It can be improved by implementing prevention and control measures for

infections in the hospitals (Brinkwirth et al., 2021). The pandemic and the spread of COVID-19 can be included as a health-acquired infection that spread worldwide.

PICOT question:

In the healthcare settings, the hospitalized patients (P), how does the hand hygiene intervention program implementation (I), compared to standard hand hygiene protocols (C), affect the rate of infections(O) acquired by the hospital over six months (T)?

Purpose of the paper:

The main purpose of this paper is to deliver the most recent and relevant evidence on the topic of the implementation of hand hygiene intervention programs. I have used two relevant scholarly articles to identify effective strategies in reducing the hospital-acquired infection rate in healthcare settings with a focus on patient outcomes.

Level of Evidence:

Type of question:

The PICOT question focuses on determining the intervention program of the hand hygiene compliance to reduce the hospital-acquired infections. It proves that the type of question is a Therapy/Intervention question. The intervention program is considered the clinical action required in the healthcare setting to reduce the infection rate. The reduction of the rate of infection can be categorized as the outcome that is planned to achieve compared to the implemented healthcare practices.

Type of evidence to answer the question:

Systematic reviews are considered the best type of evidence that can answer this type of PICOT question. As the type of question is an intervention question that focuses on providing

information on the mechanism of controlling the infection in the hospitals, the systematic review can be the best choice. The systematic reviews and observational studies from the provided articles can be the most relevant resources used to answer the clinical question. For instance, initiating alcohol-based hand rub dispensers can be a useful intervention to reduce infections (Elbahr et al., 2025). It suggests that both of the articles appropriately fulfill the requirement of the clinical question and provide better interventions to apply in the healthcare settings.

Search Strategy:

I have followed the following search strategy to find the relevant and appropriate resource for the PICOT question. I searched through Google, library, and Google Scholar to identify the right systematic review or article that is directly related to the intervention of the clinical question.

Search terms & results:

By following the search strategy, I have acknowledged the following results from the specific search terms.

Search terms	Results
Hand hygiene compliance	Over hundreds
Hand Hygiene Compliance and Associated	Few
Hand hygiene intervention and compliance rates	Few

Used Databases:

The search used the CU library to access the established health science databases. It helped me ensure the peer-reviewed and authoritative sources. The resources found by following the search strategy and using the CU library ensured that the provided resources are linked with the clinical question.

Refinements:

The refinements that have been considered in the search strategy mainly focus on limiting the volume of the results and providing data and articles relevant to the topic. I have limited the date of the publication to the last 5 years to gain an updated form of evidence for the paper. The type of evidence is also limited to scholarly articles and authorized organizations to provide relevant and authorized information. For instance, filtering it to the systematic reviews. I have also examined the source to ensure the availability of the data provided in the article.

Identifying two relevant articles:

The two articles that I found most relevant to the topic are as follows:

Soboksa, N. E., Negassa, B., Kanno, G., Ashuro, Z., & Gudeta, D. (2021). Hand Hygiene Compliance and Associated Factors among Healthcare Workers in Ethiopia: A Systematic Review and Meta‐Analysis. *Advances in Preventive Medicine*, *2021*(1), 7235248. DOI: https://doi.org/10.1155/2021/7235248

I find this article relevant to the paper; it represents the complications of the hospital of Ethiopia to justify the factors that are increasing the infection in the healthcare setting. It also includes effective interventions to address the factors and reduce the infection. It was the top suggestion after following the search strategy to determine the relevant article.

Elbahr, H., Alwazzan, N., Reyes, C. S. D., Pastrana, J., Vineeth, C., Sipahi, H., Fadel, E., Rashed, A., Perumal, S., Yetişyiğit, T., & Sipahi, O. R. (2025). Hand Hygiene Compliance Rates and Interventions to Increase Hand Hygiene Compliance Among Healthcare Workers in a Tertiary-Care Educational Hemato-Oncology Hospital: A Prospective Observational Study. DOI: https://doi.org/10.4274/mjima.galenos.2025.25435.14

This study is an ideal source of evidence for evaluating the "Intervention" (I) component of the PICOT question and observing the resulting change in compliance, which is a proxy for the Outcome (O) of reduced HAIs.

Conclusion:

The paper involved the two relevant articles to appropriately suggest the interventions that can be included in the healthcare settings. It determined the issues occurring in the healthcare setting due to the hospital-acquired infections. The main focus of the paper was to suggest relevant interventions with the help of authorized and relevant resources to improve the issue of hand hygiene compliance. It also involved the questions that can be raised by searching for hand hygiene compliance. The research and articles helped in justifying the information with the help of the use of an authorized platform and an appropriate search strategy.

Reference:

Brinkwirth, S., Ayobami, O., Eckmanns, T., & Markwart, R. (2021). Hospital-acquired infections caused by enterococci: a systematic review and meta-analysis, WHO European Region, 1 January 2010 to 4 February 2020. *Eurosurveillance*, *26*(45), 2001628. DOI: https://doi.org/10.2807/1560-7917.ES.2021.26.45.2001628

Elbahr, H., Alwazzan, N., Reyes, C. S. D., Pastrana, J., Vineeth, C., Sipahi, H., Fadel, E., Rashed, A., Perumal, S., Yetişyiğit, T., & Sipahi, O. R. (2025). Hand Hygiene Compliance Rates and Interventions to Increase Hand Hygiene Compliance Among Healthcare Workers in a Tertiary-Care Educational Hemato-Oncology Hospital: A Prospective Observational Study. DOI: https://doi.org/10.4274/mjima.galenos.2025.25435.14

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