

Central Line-Associated Bloodstream Infection: Quality Improvement

Taylor Lowe

Lakeview College of Nursing

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Professor Travis Whisman

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In a career such as nursing, technology and science are constantly changing. There are different ways of doing things, either because they found a better alternative or chances of infection increase with certain methods and procedures. Quality improvement does exactly what it says. It helps improve the quality. Healthcare may improve the way they do things- surgeries, standard precautions, or medication administration. It helps ensure that quality is moving forward, not shrinking back. QSEN has three qualities that they stand by- knowledge, skills, and attitudes. Regarding their quality improvement, they want nurses to have the knowledge of why there are changes in the process of care (QSEN, 2022). Often times, if there is a lack of understanding as to why, people may not be willing to change their ways or methods. With skills, they want nurses to identify why the best practice is considered the best practice (QSEN, 2022). If nurses can recognize, for example, when they break sterility or why procedures are done a certain way, it will allow them to recognize the correct way that things should be done. Lastly, it is important to have a good attitude in what other healthcare professionals are doing to contribute to the course of care for the patient (QSEN, 2020). If there is respect for both parties, the care of the patient will be a priority. Central Line-Associated Bloodstream Infections, also abbreviated CLABSI's, is exactly what it sounds like, a blood stream infection caused by a central line. If not handled, cleaned, or inserted appropriately, it can lead to a deadly infection. This is not a topic that can be set aside. It is a very real and true issue.

Article Summary

Introduction

In the article, “Nurses’ Knowledge and Behavior in Hospitals Regarding the Prevention of Central Line-Associated Bloodstream Infections: A Systematic Review,” the author described how CLABSIs are a major source of hospital-acquired infections. If infected, it can lead to increased medical expenses or death. Nesreen Alqaissi, the author of this article, reviewed roughly 3,500 peer-reviewed empirical articles from 2018 to 2024. Based on his personal criteria, he was only able to find nine articles that met his research needs. He wanted articles to contain reflections of ICU nurses’ knowledge and understanding of CLABSI preventions. The author was able to find that while most nurses had accurate knowledge regarding prevention, most did not follow the rules and regulations regarding prevention. Essentially, the ICU nurses knew the right things to do but failed to actually do so (Alqaissi, 2025). The main purpose of this article, like any other medical journal, is to provide awareness about these serious medical issues that often can be prevented.

Overview

As previously discussed, CLABSIs, while they serve their purpose and part, put patients at an increased risk of infection. The research article is thoroughly linked to the current nursing practices today. The article discussed some reasons why a CLABSI may happen. First, there has proven to be a serious lack of knowledge regarding central lines. He found through his research that there was no in between in regard to the nurses and their knowledge (Alqaissi, 2025). Either nurses knew everything about central lines, or they knew nothing at all. Every nurse will eventually come across a patient who has a central line. This has a significant impact on the nursing profession. Second, they found that nurses everywhere were inconsistent regarding the care of central lines. Sometimes, it was due to the different hospital rules, and for some, they just

simply did not adhere to the standards (Alqaissi, 2025). Again, this has an impact on the nursing profession because these choices put the patient's life at risk and can also cause the hospital and the patient lots of money.

Both the research article and QSEN want the knowledge, skills, and attitudes to be of utmost quality and importance. They both want healthcare professionals to have the knowledge of what to do regarding the care, insertion, and education for the patient. They both want their skills to be top tier. They want healthcare professionals to know and understand the best practice. Lastly, they both recognize that attitude plays an important role too. If someone thinks that it would never happen to them or cleaning the central line is not important, they already have a bad attitude. Personal attitudes decide actions.

Quality Improvement

With central lines, quality improvement efforts can be put into place everywhere. While majority of the people will have central lines in some form of the critical care units, there are definitely ones who will be on a medical surgical floor. Some may be discharged home and have follow up appointments at their primary care providers office. Everyone, regardless of department, needs to understand central lines.

For pre-implementation stage, there would be a couple things needed. First, there will need to be a survey, test, or discussion based on the nurse's knowledge regarding central line insertion, how to maintain it, and how to keep it clean. This will help establish what they know. Then, they can help correct any potential wrong information and help build to what they do not know.

For the intra-implementation stage, some needed resources would be extra people and hands to watch and do. This way, there can always be someone watching it get inserted. If they see something, such as breaking sterility, they can say something. Additionally, cleaning the ports is just as important and should also be considered being done with another nurse. This way, both can ensure they are getting thoroughly clean.

For the post-implementation phase, there needs to be continuous education. Some hospitals will have a specific team that will only insert central lines. Forming such a group after it has been implemented can help make sure there are certified and trained professionals who are in control. There are also classes to attend for further education. This helps keep the health care professionals up to date with the newest practices.

Application to Nursing

Here add in a summary of the information learned to the application to practice. Follow the MEAL paragraph formatting and use Grammarly.com. Be sure to cover all aspects within the rubric. Be sure to use double space and to tab over for your first line of a new paragraph.

Practice

Paragraph goes here discussing the application to practice. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Education

Paragraph goes here discussing the application to education. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Research

Paragraph goes here discussing the application of research. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

Conclusion

Write a conclusion here in your overall paper. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

References

- Alqaissi, N. (17 May 2025). Nurses' Knowledge and Behavior in Hospitals Regarding the Prevention of Central Line-Associated Bloodstream Infections: A Systematic Review. *SAGE Journals*, 11(0), 1-10. <https://doi.org/10.1177/23779608251347119>.
- QSEN Institute. (2022). *QSEN Competencies*. QSEN Institute. <https://www.qsen.org/competencies-pre-licensure-ksas>.