



NR584 Week 7: Applying Quality Improvement (QI) to Clinical Practice

Assigned Topic: Central Line-Associated Bloodstream Infections (CLABSI).

General Instructions

Carefully read the assignment guidelines and rubric and complete each section of the assignment below using your assigned topic. Assume the role of a member of a QI team in charge of reviewing facility policies and procedures related to your assigned topic. Using the topic assigned to you, answer the following questions to explore and apply the QI process to improve client safety and care outcomes.

Section 1: Identify

- Describe your assigned topic and why it is a concern in healthcare.

The assigned topic is central line-associated bloodstream infections (CLABSI). CLABSIs occur when germs enter a patient's bloodstream through a central venous catheter. This condition is one of the most serious hospital-acquired infections because it increases a patient's risk of sepsis, lengthens hospital stays, and raises healthcare costs. Although CLABSIs are preventable, they continue to be a problem in many intensive care units. Current studies indicate that infection rates remain higher in developing and middle-income countries compared to developed nations. Rajandra et al. (2025) found that the CLABSI rate in intensive care units was 4.16 per 1000 catheter days, which is above the rates seen in most high-income countries. Therefore, these findings emphasize the need for strong control measures, consistent monitoring, and full compliance with care bundles to improve patient safety and reduce preventable harm.

- Summarize a current policy or procedure at your facility related to this issue. How is this issue currently addressed?

At the facility, the policy for central line care requires sterile insertion, daily inspection of the insertion site, and prompt removal of unnecessary catheters. Nurses must perform hand hygiene before and after every line contact, use chlorhexidine for skin cleaning, and maintain a sterile field during insertion and dressing changes. Dressings are replaced every seven days or sooner if they are damp, loose, and visibly soiled. Besides, the infection control team conducts regular audits to ensure staff comply with the policy. Therefore, the procedure aims to prevent



infection by maintaining sterility and minimizing the time a line remains in place. This policy follows national recommendations and aligns with best practices for infection prevention in hospitalized patients.

- What inconsistencies exist between your facility's current policies, actual nursing practice, and best evidence related to your assigned topic? What evidence (data, observation, incident reports) suggests a need for improvement?

Even though a policy exists within the facility, there are some gaps between expected procedures and daily nursing procedures. Some nurses fail to record daily line checks, and others delay dressing changes due to limited staffing. During audits, it was noted that aseptic technique was not always maintained, especially when accessing the catheter hub. Besides, incident reports show four CLABSI cases in the past three months, which is above the target benchmark of one case per 1000 catheter days. According to Rajandra et al. (2025), poor compliance with the central venous catheter care bundle increases the risks of infection. In this case, the study found that only 65% adherence among ICU staff (Rajandra et al., 2025). Therefore, this inconsistency between policy and practice supports the need for additional staff training, regular audits, and feedback to maintain full compliance with infection prevention standards.

Section 2: Analyze

- Review national safety resources related to your topic. Name at least two national organizations or initiatives (e.g., Centers for Medicare & Medicaid Services (CMS), Agency for Healthcare Research and Quality (AHRQ), Centers for Disease Control and Prevention (CDC), Institute for Health (IHI), National Patient Safety Goals (NPSG)) and summarize the guidance they provide related to your topic.

There are two national safety resources related to the topic, including the Centers for Disease Control and Prevention (CDC) and the Agency for Healthcare Research and Quality (AHRQ). The CDC provides detailed recommendations for preventing CLABSIs. Among its recommendations are the use of chlorhexidine for skin antisepsis and removing central lines as soon as they are no longer needed. The CDC advises using alcohol-based chlorhexidine for skin cleaning before insertion to lower the risk of infections. It also recommends limiting the number of catheter lumens to the patient's clinical needs. The AHRQ also emphasizes adherence to insertion and maintenance bundles, use of standardized checklists, and continuous staff training to sustain compliance. Both organizations indicate that consistent use of techniques and early line