

**Medication Errors: Quality Improvement**

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Quality Improvement uses "data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems" (QSEN Institute, 2020, Table 4). Quality Improvement is a vital component of the nursing profession and is a continuous process. Quality improvement directly connects to QSEN by using three primary components of knowledge, skills, and attitudes to improve the care of patients in a healthcare setting by using evidenced-based information to assess patient outcomes and to design, experiment, and execute changes to the healthcare system (QSEN Institute, 2020). The topic selected is preventing medication errors in healthcare. This topic examines medication errors and future practices to prevent them in the NICU. This topic plays a significant role in providing quality improvement to the healthcare system as it works to prevent medication errors that will help patient outcomes in future scenarios.

### **Article Summary**

The article's qualitative study focuses on three groups of Danish NICUs. These groups included physicians and nurses. In the study, the groups answer questions about preventing medication errors and ways to prevent them. The unit managers approved the study of each NICU, and three coders performed the analysis of the results (Rishoej et al., 2018). This article connects to the nursing topic selected by focusing on medication errors in a specific nursing area and running a study on how to prevent them.

### **Introduction**

. In the article, a qualitative study is performed on three groups of Danish NICUs. These groups included physicians and nurses. In the study, the groups are questioned about preventing medication errors and ways to prevent them. The unit managers approved the study of each NICU, and the analysis of the results was performed by three coders (Rishoej et al., 2018). This article connects to the nursing topic selected by focusing on medication errors in a specific nursing area and running a study on how to prevent them.

### **Overview**

The article focuses on medication errors in a neonatal intensive care unit. The selected topic was preventing medication errors in healthcare. The article uses quality improvement by showing how nurses and health professionals are part of a system of care that affects the outcomes of patient care. In the article, a group of physicians criticized the current procedures because management focused more on efficiency than on preventing medication errors (Rishoej et al., 2018).

### **Quality Improvement**

Most of the groups in the article specified the importance of technology, such as computerized physician order entry and systems with clinical decision support. Groups felt that bringing these would help prevent medication errors (Rishoej et al., 2018). Nurses suggested that a BCMA system that could perform a technical double-check of medications and patient identification instead of two nurses performing double checks would help decrease medication errors (Rishoej et al., 2018). Resources for the hospitals to afford this system would cost a significant amount of money and time; the hospital would have to provide education during implementation and post-completion to educate nurses and healthcare professionals on how to

use the system. This system would help patients feel more secure in getting the correct medications. The nurses can confidently select medications, knowing there is a system checking with them and other nurses. Patients will be safer, especially neonates, who are more prone to fatal outcomes. This system also increases nurses' safety by protecting their licenses and job by not making colossal errors (Rishoej et al., 2018).

### **Application to Nursing**

Applying the information to help reduce medication errors involves having a double-check process to catch medication errors before they happen. Educating the neonatal intensive care unit nurses on the guidelines for preventing medication errors. Further focusing on the study of medication errors by prioritizing clinical decision support systems that could help nurses in the future.

### **Practice**

Implementing a computerized physician order entry system in the past has been shown to reduce the number of potentially harmful medication errors but was yet to be demonstrated (Rishoej et al., 2018). The Double-check process is one of the most cost-effective safety tools in a neonatal intensive care setting. Nurses suggested having a fixed nurse situated in the medication room to assist in the double-checking process to enhance timely medication administration, eliminate omissions, and avoid interruptions making it the most preferred option in the NICUs (Rishoej et al., 2018).

### **Education**

Current guidelines for educating staff about preventing medication errors use a double-checking technique. Two of the NICUs used this technique when handling medications for the patient. Two nurses independently check the medication, and both nurses identify the correct patient with the correct medication, time, route, and administration (Rishoej et al., 2018). NICU 3 also used the double-check technique, but instead of the nurses randomly selecting, a specific nurse is used to double-check the medication due to the nurse being familiar with the patient's clinical problem (Rishoej et al., 2018).

### **Research**

Future research should focus on implementing clinical decision support systems researchers suggest the systems seem advantageous (Rishoej et al., 2018). Since the majority of the NICUs studied already installed CPOE systems. Further study of one of the NICUs with an electronic training program as other NICUs could also adopt this program for training frontline staff (Rishoej et al., 2018).

### **Conclusion**

Quality improvement seeks information about care outcomes for populations served in a care setting as a skill. Quality improvement values own and others' contributions to the outcome of care in different settings (QSEN Institute, 2020, Table 4). Quality improvement as a knowledge recognizes that nursing and other healthcare professionals affect outcomes for patients and families (QSEN Institute, 2020, Table 4). Quality Improvement displays the overall goal of the QSEN in each aspect by continuously improving the quality and safety of the health care system (QSEN Institute, 2020, Table 4). Medication errors in neonates are associated with increased potential for damage compared to adults. Lack of underreporting and feedback led

researchers to explore how to improve medication safety in neonates by exploring current and possible future practices to prevent medication errors in the neonatal intensive care units (Rishoej et al., 2018). Medication errors are significant in every area of healthcare. Preventing medication errors from happening is essential in the neonatal intensive care unit. Neonates are at high risk of fatal results, especially if a neonate is preterm or critically ill (Rishoej et al., 2018). Neonates are at such a high risk for death from medication errors due to their immature organ system and the complexity of medications (Rishoej et al., 2018).

## References

QSEN Institute (2020). *QSEN competencies*.

[https://qsen.org/competencies/pre-licensure-ksas/#quality\\_improvement](https://qsen.org/competencies/pre-licensure-ksas/#quality_improvement)

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