Medication Errors in the Neonatal Intensive Care Units: Quality Improvement

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Quality improvement is a fundamental aspect of nursing and is essential in healthcare. According to the Quality and Safety Education for Nurses (QSEN), quality improvement is vital in the nursing and healthcare community as it addresses skills, attitudes, and knowledge in clinical practice (2020). Healthcare personnel must follow these guidelines to ensure the well-being and potential impacts on client outcomes. Team members are responsible and have a significant effect on the performance of the workplace and are held accountable for quality improvement. Regarding skills, quality improvement comes into effect to ensure healthcare personnel are following the current standard to ensure the best practice. Quality improvement aligns with attitude, as team members must contribute and value outcomes in the care setting to ensure best practices (QSEN, 2020). Appreciating the value and maintaining appropriate attitudes improves the quality of care a client may receive (QSEN, 2020). Knowledge is essential as healthcare team members have the impact of suggesting different methods to improve current practices (QSEN, 2020).

Quality improvement affects everyone in healthcare and affects positive client outcomes. The article discussed in this paper is a qualitative article regarding medication errors in the neonatal intensive care unit (NICU) and how nurses can improve and recognize medication safety in neonates (Rishoej et al., 2018). The study looks at the discussion of physicians and nurses on how practices currently prevent medication errors in the NICU and how to become better at preventing medication errors. This article seeks to define the knowledge gap and attitudes of healthcare workers to improve the safety of medication errors in neonates.

Article Summary

The article by Rishoej et al. (2018) discusses preventing medication errors in the NICU. This study uses focused interviews to ask doctors and nurses questions regarding the current and future practices to prevent medication errors in the NICU (Rishoej et al., 2018). Through the participant interviews, researchers found that medication errors still occur in the NICU, and current practices to reduce medication errors are in effect (Rishoej et al., 2018). It also outlines how to improve and change current practices to facilitate a better reduction of medication errors in the NICU setting. The occurrence of medication errors in the NICU and prevention can be amended through quality improvement to improve medication safety in neonates.

Introduction

This study uses a qualitative approach to gather data from participants on gathering knowledge on how to prevent medication errors in neonates better. The study found that current medication safety practices should be enhanced and the need for new interventions to have a better outcome of reduced medical errors in the NICU (Rishoej et al., 2018). The findings from the article can be associated with quality improvement as this can reduce medication errors and improve results in neonates.

Overview

This article has great potential to affect hospitals and improve NICUs as this research can help improve outcomes in reducing medication errors. Rishoej et al. (2018) use the qualitative approach by interviewing the participants who can fulfill the QSEN competencies outlook of attitude as it values and acknowledges that quality improvement is essential in the NICU as it can improve the outcomes of reducing medical errors amongst neonates. The article highlights

existing practices and discusses future prevention ideas based on the data gathered from the participants' structured interviews. Asking participants questions on practices utilized in the NICU and future recommendations to reduce medical errors in neonates aligns with the QSE (2020) competency of quality improvement regarding knowledge. Having the participants give input and describe ways to reduce medication error aligns with approaches to changing processes in care in the NICU (QSEN, 2020). This article evaluates the effectiveness of current practices and involvement in reducing medication errors by utilizing a table to see, on average, the total of medication errors made in three different NICUs at different hospitals (Rishoej et al., 2018). This information falls in the QSEN (2020) competency of quality improvement regarding skill, as this method can seek information about care outcomes with these strategies in place to help reduce medical errors. The data from participants helped the researchers of this article to conclude that utilizing quality improvement can address the complex challenges of improving medication safety in the NICU (Rishoej et al., 2018).

Quality Improvement

The article focuses on prevention and methods to reduce medication errors in neonates. Rishoej et al. (2018) took participants' responses from structured interviews to correlate ideas to improve current practices and suggestions for improving medication safety in neonates. In the pre-implementation stage of identifying barriers, this article identifies incompetency in nursing skills, ineffective communication, hospital pharmacy services, and not checking medication as barriers to improving medication errors (Rishoej et al., 2018). As quality improvement progresses onto the intra-implementation stage, nurses can improve on double-checking medication, effective communication with the provider, and continuous education and training provided by hospitals as an effective way to improve medication safety in neonates (Rishoej et

al., 2018). In the post-implementation stage, hospitals should follow up with competency checks among providers and nurses. Hospitals should evaluate staff to ensure nurses meet the standards to provide neonates with the best care and safe medication administration (Rishoej et al., 2018). Throughout the pre-, intra, and post-implementation stages, hospitals would need resources like clinical modules, skill check-offs, and in-service training and simulation to ensure that nurses understand and are competent in implementing new strategies. These follow-ups would aid in the QSEN competency of quality improvement in attitudes and skills as they demonstrate how hospitals would effectively evaluate the changes made among nurses (QSEN, 2020). Having hospitals take part in this ensures they are meeting the standards and valuing the staff's contribution in changes to improving medication errors (QSEN, 2020). Reducing medical errors in the NICU would save hospitals money by placing effective measures to reduce medication errors. Patient satisfaction and safety would improve significantly as more complex precautions would be in place to reduce medication errors. Nursing satisfaction and safety would be improved as nurses have the proper education and guidelines to help prevent these errors and reduce the risk of lawsuits against the hospital and nurses for medication errors.

Application to Nursing

The application to nursing is vital for improving client outcomes. The research from the article discussed throughout this paper contributes to nursing by highlighting the importance of educating nurses and providers on strategies to prevent medication errors. The article’s findings included that experience, training, stimulation, and educational opportunities help improve client outcomes and reduce medication errors (Rishoej et al., 2018). Utilizing some of these strategies can effectively create a safer environment for neonates and provide a sense of security for nurses

to follow to reduce medication errors. Furthermore, this research supports using technical and nontechnical elements like computerized physician order entry systems (CPOE) and utilizing hospital pharmacy services to be used and tested to prevent medication errors (Rishoej et al., 2018).

Practice

The article discussed in this paper found many possible strategies to prevent medication errors in the NICU. The best practice for this concern is utilizing CPOE systems and barcode-assisted medication administration systems (Rishoej et al., 2018). Using these systems is vital for nurses as it prevents nurses from making medication errors in neonates. Due to the CPOE systems and barcode medication administration systems, nurses can scan the medication and verify the correct dose and route of medication administration in neonates (Rishoej et al., 2018). The reduction of medication errors in the NICU setting improved with the CPOE systems because it provided medication instructions and information and alerted the physician if double prescriptions occurred, ensuring safe prescribing and medication handling between nurses and providers (Rishoej et al., 2018).

Education

In this article, researchers discuss some guidelines nurses follow in the NICU to prevent medication errors. Nurses are frequently tested on medication calculation practice problems, which aids in improving medication safety (Rishoej et al., 2018). New nurses are required to take an intravenous medication course to understand and adequately know how to administer and calculate the infusion rate given to the neonate (Rishoej et al., 2018). Nurses are also educated and tested on the knowledge of commonly used medications, medication preparation, the

performance of complex calculations, and the assessment of the medication dosage and how it is based on the weight of the neonate (Rishoej et al., 2018). These educational measures and assessments of nurse's skills and knowledge have been found to prevent medication errors, promote patient safety, and improve patient outcomes in the NICU.

Research

To better prevent medication errors in the NICU, more research and evidence must be found and written to improve medication safety. Additional research is needed to improve CPOE systems to improve medication safety. By allotting additional research and updating CPOE systems can account for the system to implement alerts for drug interactions, alerts for medication allergies, and dose-range checking to ensure the neonate is getting the correct dosage of medication (Rishoej et al., 2018). This research would yield into best practices, medication safety, positive patient outcomes, and further reduction in medication errors.

Conclusion

Overall, quality improvement is a continuous and ongoing process to provide and implement the best practices in the healthcare field and nursing. Nurses should be aware and understand the significance of adopting a positive attitude towards quality improvement as nursing practice ensures the best possible care for all patients. The three quality improvement focuses are attitudes, skills, and knowledge (QSEN, 2020). In attitudes, nurses should improve quality by improving and valuing effective communication to foster a positive work environment in the care team to collaborate and become well-oriented in providing efficient patient care. In skills, nurses utilize quality improvement to ensure facility, local, and personal practices align

with up-to-date nursing practices. In knowledge, nurses use quality improvement to suggest and learn new ideas to change and improve current practices. These changes are implemented in Rishoej et al.'s (2018) research article on preventing medication errors in the NICU setting. Researchers found and acknowledged through interviewing NICU nurses the need for change in CPOE systems, effective and clear communication between providers and nurses, educational training for nurses, and utilizing technology to its advantage to help reduce medication errors. These changes must happen in the NICU setting as it will reduce adverse patient outcomes, improve medication safety, and reduce the risk of medication errors in neonates.

References

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