

**Quality Improvement of Massive Transfusion Protocol Adherence**

Zachary Lensink

Lakeview College of Nursing

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Professor Bosch

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Quality improvement is essential for the continuation of evidenced-based practice; with it, nurses can continue improving the quality of care they can give their clients (Houser, 2023). QSEN connects all nurses in a standardized movement towards improved safety and quality of patient care, including knowledge, attitudes, and skills. QSEN uses informatics and evidence-based practice to provide essential baseline education to nurses (QSEN Institute, 2020). Evidenced-based practice is vital to use throughout all fields of nursing, including the adherence to mass infusion protocols for trauma patients in level-one trauma emergency rooms (Margolin et al., 2023). Regardless of stress and intensity, it is essential to remember that protocols are a natural part of evidence-based nursing, and following them will improve patient outcomes.

### **Article Summary**

The study focused on assessing provider adherence to a Massive Transfusion Protocol (MTP), specifically observing its effect on the outcomes of patients who have experienced massive hemorrhage from trauma injuries (Margolin et al., 2023). Higher adherence to the MTP was associated with improved patient outcomes for trauma victims: a higher 24-hour survival rate and an increased chance of survival to discharge. For those who had initially survived the trauma, higher adherence to the MTP also correlated with less time spent in an ICU or the hospital. Not only that, but it also reduced the amount of time the patients spent on ventilators (Margolin et al., 2023).

## **Introduction**

This article provides a sample of cases where MTP is an effective intervention for experiencing massive hemorrhaging (Margolin et al., 2023). The function of this article is to highlight the importance of following protocols. Protocols allow healthcare workers, such as nurses, to implement evidence-based practice in real-world scenarios, and following them will improve patient outcomes.

## **Overview**

Like following QSEN competencies, protocols make it easier for nurses to apply evidence-based care to their patients. A study like this aims to improve evidence-based practice in a similar way QSEN analyzes current protocols and changes in care: by monitoring outcomes and comparing them to protocols used before (QSEN Institute, 2020). Following standard protocols, nurses can ensure that best-practice approaches occur daily, leading to favorable clinical results. Consistency and accountability in healthcare delivery promote patient safety and quality patient care.

## **Quality Improvement**

The findings from this article ultimately emphasize the significance of health care providers, including nurses, adhering to established protocols and guidelines in acute environments. Promoting increased protocol compliance could be done with flyers, emails, and announcements to staff. By monitoring and promoting protocol compliance, nurses contribute to optimizing patient care, improving survival rates, and minimizing the length and intensity of hospital stays for patients who have experienced traumatic injuries. Monitoring the use of this

protocol involves chart audits done by researchers and nurse managers. Additional resources will be needed to complete these audits. Before focused implementation of this protocol can begin, providers, nurses, and nurse managers must have resources and training on performing the intervention and auditing the charting for the intervention. Resources must be given to all during the intervention, so nurses can effectively follow the protocol without deviating from the components. After implementation, additional resources integrate into assessing the protocol's effectiveness. Nursing quality control plays a crucial role in ensuring adherence to protocols like the MTP, which can lead to better patient outcomes and enhanced total quality of care. If nurses have the resources they need to follow the protocol from the study, then it should be intuitive for nurses to follow. Following a protocol can also make nurses feel safe, knowing they perform evidence-based interventions. Nurses will feel satisfied knowing they have completed the intervention, mentally crossing off the protocol checklist. Financially, adhering to the MTP would save hospitals large amounts of money on shortened patient stays in less critical units and less time for patients on ventilators. The patient stays are expensive; shortening them will lower costs.

### **Application to Nursing**

Adherence to the Mass Transfusion Protocol (MTP) in nursing can have several significant benefits and impacts on patient care, nursing practice, and the healthcare system. Adhering to this protocol can improve patient outcomes by ensuring timely and appropriate administration of blood products, stabilizing the patient's condition, restoring adequate oxygenation, and improving the overall patient status and survival rates (Margolin et al., 2023).

**Practice**

The best or preferred nursing practices for following mass transfusion protocols as a nurse involve familiarity with protocols. Nurses should be well-versed in implementing this protocol for the intervention to be successful (Margolin et al., 2023). Familiarity allows the nurse to act promptly to adverse events when a situation requiring the protocol should arise. Following the MTP, Nurses perform established safety precautions for blood product administration, such as patient identification, verifying blood compatibility, using appropriate infusion rates, and monitoring for signs of transfusion reactions in patients receiving blood products.

**Education**

Strictly following MTP also provides consistent education to all nurses administering mass transfusions. Protocol adherence provides continuity of education, eliminating confusion between nursing in a stressful trauma situation. Current guidelines for educating staff about patient care and nursing practice related to blood transfusions include mandatory cross-checks for all healthcare team members involved with the MTP. Patient education is crucial, providing information about potential adverse reactions. Immediate action in the case of adverse reactions is necessary, and nurses are cautious throughout the transfusion process. Massive blood transfusions are associated with high complication rates and are limited to the number of units transfused, avoiding adverse events whenever possible (Jennings & Watson, 2022).

**Research**

From a nursing perspective, researching innovative strategies and interventions to improve patient safety during mass transfusion protocols is essential for improved patient outcomes. Often, errors made with patient identification during transfusion of blood products

result in injury; researching new and improved ways to ensure accurate patient identification will lead to improved outcomes effectively. Another vital aspect of MTP research is the long-term outcomes and impact on patient survival, quality of life, and healthcare costs. Exploring the role of nursing leadership, management, and interprofessional collaboration in optimizing transfusion practices and promoting a culture of safety is crucial. Doing so will improve education and adherence techniques. Studying effective educational interventions to enhance nurse's knowledge, skills, and adherence to transfusion protocols will solidify nursing practice and evidence-based care.

### **Conclusion**

The purpose of Quality Improvement within the QSEN Competency of Quality Improvement is to enhance healthcare effectiveness and safety. In the context of the Mass Transfusion Protocol, applying quality improvement principles involves nurses knowing evidence-based guidelines, skills in data analysis and improvement techniques, and attitudes toward continuous learning and collaboration. Integrating quality improvement into mass transfusion protocols pushes nurses to contribute to improving patient care through evidence-based practices, effective communication, and a culture of continuous improvement with education. Ultimately, MTP adherence is essential not only to align with evidence-based practice but to improve patient outcomes as well. It is up to the nurses to have the education and the willingness to follow through with adherence for the intervention to be successful. According to the American National Red Cross(n.d.), "Nearly 16 million blood components are transfused each year in the U.S." Blood products administration occurs frequently, and every nurse giving blood products must be competent and adhere to protocol.

## References

- The American National Red Cross. (n.d.). *Importance of the blood supply*. Facts About Blood Supply in the U.S. <https://www.redcrossblood.org/donate-blood/how-to-donate/how-blood-donations-help/blood-needs-blood-supply.html#:~:text=Facts%20About%20Blood%20Needs&text=Nearly%2016%20million%20blood%20components%20are%20transfused%20each%20year%20in%20the%20U.S.>
- Houser, J. (2023). *Nursing research: Reading, using, and creating evidence* (5<sup>th</sup> ed.). Jones & Bartlett Learning.
- Jennings, L., & Watson, S. (2022, August 29). *Massive transfusion*. National Library of Medicine. <https://www.ncbi.nlm.nih.gov/books/NBK499929/>
- Margolin, A. M., Silva, S. G., McLaughlin, K. E., Pereira, K. C., Flowe, A. M., & Poisson, J. L. (2023). Massive transfusion protocol adherence: Relationship to trauma patient outcomes. *Journal of Trauma Nursing*, *30*(3), 164–170. <https://doi.org/10.1097/jtn.0000000000000722>
- QSEN Institute. (2020). *QSEN competencies*. [https://qsen.org/competencies/pre-licensure-ksas/#quality\\_improvement](https://qsen.org/competencies/pre-licensure-ksas/#quality_improvement)