

## REVIEW PAPER

### Enhancing Transfusion Safety: Nurse's Role

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#### Abstract

**Background:** Despite strict clinical measures, there are distinct steps in transfusion process which require acute attention. The nurse is responsible for insuring that the right unit is administered to the right patient. Knowledge of risks is essential to administer and monitor transfusions safely.

**Aim:** This study summarizes the available data concerning transfusion adverse events and provides theoretical and technical aspects for improving transfusion practice.

**Methodology:** A systematic review in PubMed, MedLine and MDConsult database was conducted. The research limits included English texts, referring to transfusion risks and technological means aiming at transfusion safety.

**Results:** Blood transfusion is a medical intervention that saves lives and improves the quality of life. The regulations for ensuring the availability and assuring the quality of the blood component cannot avoid transfusion errors, placing patients at risk. Most frequent errors are attributed to practitioners involved in the clinical transfusion process. Based on reports to Serious Hazards of Transfusion (SHOT) the risk of transfusion error is estimated at 1:16,500. Over the last years several committees have recommended guidance for enhancing the safety of blood ordering and administration. Moreover, new technology like barcode on patient wristband manages to improve the performance in each step.

**Conclusion:** Safe transfusion process depends on a series of linked processes and nurses should take specific measures referring to pre- and post-transfusion stage. Technological innovations could help patients in need of transfusion therapy.

**Keywords:** Transfusion, errors, safety, nurse, technology