Accelerating Change through Patient Blood Management at Wheaton Franciscan Healthcare: 20% Reductions in 2 Unit Red Blood Cell Transfusions

In 2012, BloodCenter of Wisconsin collaborated with Wheaton Franciscan Healthcare – All Saints in Racine, Wisconsin to develop a Patient Blood Management Program to implement the most current, evidence-based blood utilization practices. An unrelated prior effort by the hospital to promote responsible stewardship of the blood supply had required manual review of all blood requisitions to identify orders that were likely to be inappropriate based on quantitative criteria. This manual process frequently resulted in delays in gathering data, in a backlog of cases for review, and in potentially missed outlier orders. Through the TxMD™ collaboration with BloodCenter of Wisconsin, All Saints was able to streamline their data gathering approach and was able to reduce 2 unit Red Blood Cell (RBC) transfusions by 20% among the hospitalists.

The Problem

Blood transfusions represent the single most common medical procedure in the US\(^1\). Therefore, the estimated 59% of transfusions that occur outside evidence based guidelines, based on a systematic review of 494 studies, represent a significant opportunity to improve patient care while decreasing costs\(^2\). Appropriate transfusions are critical to the delivery of effective care, but inappropriate, non evidence-based, transfusions increase risks and costs, without any offsetting patient benefit.

Increased awareness around opportunities associated with Patient Blood Management (PBM) has led several organizations to pursue efforts in the management and optimization of their transfusion decisions. Structural, cultural and resource barriers, however, can prevent successful adoption and sustainable change around evidence-based PBM.

Identifying the Solution

In 2012, BloodCenter of Wisconsin began working with the hospital to address these needs and barriers by identifying and promoting best practices related to transfusion. The objectives of the team formed were to:

- Educate staff about the risks of transfusion, patient outcomes associated with transfusion, and blood management principles: providing the right product for the right reason, to the right patient, at the right time
- Increase provider awareness of individual transfusion practices and best practice guidelines for blood component therapy, utilizing a streamlined data gathering approach

Implementing the Solution

Working with the TxMD™ data analytics team and Transfusion Safety Officer (TSO), Julie DeLisle, RN, All Saints implemented the TxMD™ blood

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management software application to gather baseline hospital data to measure physicians’ blood utilization practices. The hospital was able to remove the burden of the prior manual review process and was able to present the medical director with automated, routine reports.

On-site education with the TSO furthered the hospital’s ability to promote sustainable changes based upon the data. One area of focus to improve patient outcomes and to avoid unnecessary transfusions was education recommending changes to an outmoded practice of ordering 2 units of RBCs when the patient is not actively bleeding.

The Results

Measurable changes have occurred based upon these initiatives:

- 20% shift from 2 unit RBC orders to 1 unit RBC orders among the hospitalists (Q2 FY 2013 through Q2 FY 2014)
- 36% reduction in total number of transfused RBC units among the hospitalists (Q2 FY 2013 vs. Q2 FY 2014)

- Streamlined data gathering approach - allows the medical director to focus exclusively and regularly on blood utilization outliers based on set and consistent criteria, and to focus her energies on driving the right behavior: decreasing utilization to reduce risk, improve outcomes, and conserve resources
