Beth Israel Deaconess Hospital-Milton
Evidence Based Blood Product Utilization

The Problem

In 2011, The Department of Health and Human Services Advisory Committee on Blood Safety and Availability concluded a study suggesting excessive and sometimes inappropriate use of blood transfusion.

A growing evidence base suggests that patients with hemoglobin levels at 8 g/dL or higher may not benefit from a blood transfusion (JAMA, 2012). A new guideline from the American Association of Blood Banks (AABB) suggests that physicians use a lower transfusion threshold and patient symptomatology to determine when to transfuse blood.

In 2013, Carson et al. (JAMA) proposed: That compared with higher hemoglobin thresholds, a hemoglobin threshold of 7 or 8 g/dL is associated with fewer red blood cell units transfused without adverse association with mortality, cardiac morbidity, functional recovery, or length of hospital stay.

At BIDM, the absence of evidence based order sets, guidance and thresholds for the appropriate administration and utilization of Blood Products resulted in marked variation in product selection and use between care providers.

At the start of FY 2013, clinical justification could not be determined for 57% of packed red blood cell transfusions administered to non-emergency patients with hemoglobin in excess of 7g/dl.

Aim/Goal

Increase the % of clinically justified Packed Red Blood Cell administrations for non-emergent patient with a Hgb > 7 from 43.2% in FY 2012 to 90% by the end of CY 2013.

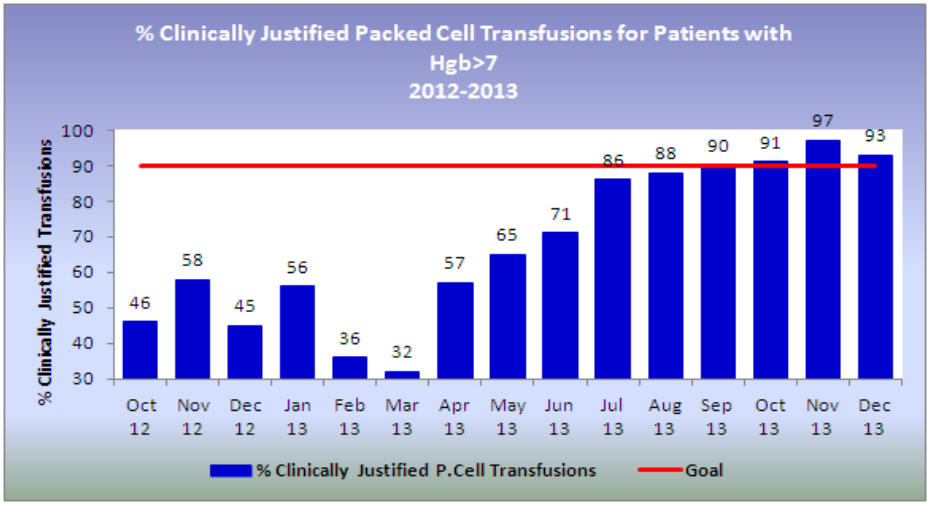
The Team

- Nursing
- Medical Staff
- Transfusion Services Staff
- Healthcare Quality

The Interventions (Select Actions Taken)

- Elimination of the use of autologous blood products
- New evidence-based online electronic ordering process with justification fields for red blood cell transfusion based on select criteria for patients with Hgb > 7g/dl
- Multiple provider education sessions (including presentations provided by representatives of the American Red Cross)
- Ongoing communication between transfusion services and ordering clinicians regarding significant outlier cases

The Results/Progress to Date



Lessons Learned

- Current practice, i.e., transfusion thresholds and elimination of autologous blood is now based in evidence
- Standardization in practice with decreased variation based on physician preference

Next Steps/What Should Happen Next

- Standardize pre-operative blood product ordering processes to consist of T+S rather than T+C, unless clinically indicated (will eliminate unnecessary preparation of blood products)

Beth Israel Deaconess Hospital Milton

For More Information Please Contact: *Alex Campbell, MSN, RN, NE-BC, CPHQ, Director HCQ & PS*
alex_campbell@miltonhospital.org