

LMBP™

Call for Unpublished Quality Improvement Project Data Submissions

Red Blood Cell (RBC) Transfusion Utilization

Currently we are accepting data on practices for reducing unnecessary RBC transfusion in surgical and nonsurgical adult patients based on recently published medical and technical guidelines.

Do you have any data from projects that quantitatively assess the effectiveness of interventions for improving RBC transfusion-utilization in surgical and nonsurgical adult patients? If yes, this is an opportunity to share your data. More information on the practices and outcomes is provided below. Please contact Bereneice Madison (MADISONB@battelle.org) with questions or for additional information.

We are looking for evidence comparing the effectiveness of any of the below practices with an earlier or alternative practice (pretest-posttest evidence in the same setting, case-control, randomized designs, etc.). If you have data or have done a quality improvement study and have effectiveness evidence (positive, negative, or no change) we are interested in your results.

Practices of interest are:

- Multidisciplinary patient blood committee
- Computerized and administrative restrictions
- Audits/feedback
- Autologous and non-transfusion medical practices
- Anemia Management

LMBP™ Quality Issue/Gap	
Red Blood Cell Transfusion Utilization	
Transfusing patients with allogeneic or even autologous RBC's incurs risk and cost to the patient as well as the healthcare system. Red blood cells are the most commonly transfused blood component and there is a high potential for inappropriate utilization. Transfusion patterns in adult patients undergoing various surgical and non-surgical procedures have been reviewed in a number of studies and results have shown RBC transfusions to be unnecessary or over utilized.	
Review Question	
What are effective practices for utilization of red blood cell transfusions in surgical patients and non-surgical adult patients with anemia?	
Practices	Descriptions
Multidisciplinary patient blood management committee	A multidisciplinary patient blood management committee to develop and monitor adherence to an institutional guideline for RBC utilization based on a restrictive red blood cell transfusion strategy and initiation of training as needed.

Computerized and administrative restrictions	Adoption of any computer-based administrative restrictions intended to reduce unnecessary transfusions including the following: <ul style="list-style-type: none"> • Computerized Physician Order Entry (CPOE)/specific product order form using RBC transfusion triggers or hemoglobin thresholds; decision support systems; efficacy documentation based on threshold requirements • Coagulation algorithm for cardiovascular and other surgeries such as liver transplants
Audits/feedback of RBC transfusions	Any transfusion audit practice that involves a feedback mechanism for physicians (e.g., of RBC transfusions per physician and clinical practice followed by feedback and education as needed)
Autologous and non-transfusion medical practices	Medical practices used to reduce the likelihood of unnecessary transfusions when appropriate including <ul style="list-style-type: none"> • Autologous vs. allogeneic transfusions • Use of medical, pharmaceutical therapy and technical practices as applicable for various surgery procedures and patients • Techniques such as perfusion-induced hemodilution and blood salvage
Anemia management	Reflective of sub-practices for medication avoidance which may cause anemia and provision of iron and vitamin supplements for intervention management
Associated Outcome Measures	Outcome Definitions
Ratio of RBC units transfused per patient discharged	Number of units of RBC 's transfused and total number of discharges for new and old practice
Ratio of patients transfused/ total patients	Number of patient transfusions and total number of patients for new and old practice
Rate of appropriate or inappropriate RBC transfusions	Number of inappropriate RBC transfusions based on your institutional or national guidelines for surgical procedure(s) or patients' medical condition and total number of discharges for new and old practice

If you have questions about data submissions or problems during data submission, please contact us at 404-460-1446 or at LMBPinfo@cdc.gov.