

Blood Utilization Review and the Hospital Transfusion Committee

Key Words: Transfusion Committee, Blood Utilization Review, BUR, transfusion audit, TSO

Introduction

The role of an optimally functioning Transfusion Committee (TC) in the success of a Transfusion Safety and Blood Management program cannot be overestimated. The Transfusion Committee serves as a key resource to the hospital administration as well as to its physicians, nurses, quality staff, and inevitable to its patients. This multi-disciplinary group functions to meet regulatory mandates regarding blood transfusion by performing oversight over all aspects of transfusion of blood and blood components throughout the hospital. Its role in assuring the safety of transfusion to hospital patients is indisputable. Having said that, though, Transfusion Committees have also historically been frustratingly inefficient in many hospitals.

Objectives of Module

1. Describe background and regulatory setting for the Transfusion Committee
 2. Discuss the role of the Transfusion Committee in the successful implementation of a Transfusion Safety/Blood Management program
 3. Support development and an effective Transfusion Committee within the hospital governance structure
 4. Reinforce the relationship between transfusion appropriateness, quality, safety and cost
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What is Known

Beginning in 1961, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has required the monitoring of blood usage, and as early as 1962 the recommendation for a hospital committee to establish that review was made. Since that time, recommendations from JCAHO, as well as from other organizations including AABB, the College of American Pathologist (CAP) and the Code of Federal Regulations (CFR) have been expanded to include a number of requirements for oversight of the use of blood and blood components.

Blood Utilization Meets National Outcome Measures: With the publication of The Joint Commission's 2009 National Patient Safety Goals and the passing of the 2012 Affordable Care Act, the concept of patient outcomes as a measure of quality both for accreditation and for reimbursement has become a major factor for hospitals and healthcare providers. Within the realm of transfusion safety, these new challenges have called for new approaches uniquely suited to the Hospital Transfusion Committee, including both new and revised roles that encompass the global nature of transfusion throughout the hospital (Clinical service lines, laboratory, nursing, quality, administration, pharmacy, education, etc.)

Best Practices, Guidelines, and Recommendations

The Transfusion Committee is an essential part of the blood management team. Its real role is to oversee, monitor and improve transfusion practice in the facility. Collecting data and distributing reports is not sufficient to accomplish this role. It must be actively and aggressively involved in the hospital's Blood Management Program to ensure optimal transfusion care.

The monitoring of appropriateness of transfusion of blood components is best practice. When the results of this monitoring are used to educate and change practice it will result in enhanced patient safety and care while reducing overall cost.

The Transfusion Committee needs to include key influencers from high-blood using services and needs to have the power to drive (or at least initiate) policy changes across service lines. Ideally they can be viewed as a Clinical Effectiveness Team.

The TC needs to be connected to Risk/Quality, Medical Executive, or similar significant committees in the hospital governance in order to have the backing to drive change.

Discussion Points

The hospital Transfusion Committee provides the infrastructure and global perspective necessary for bringing together the parties charged with enhancing the safety and quality of blood and transfusion services. Ideally, the committee is seen within the hospital as a vital part of their patient safety initiatives. All the following must be represented: Blood center (blood supplier), transfusion service, nursing staff, medical staff from high usage areas, quality service, risk management and administration. Ideally, the TC is predominately a physician's committee of peers which also includes those ancillary staff that are influential and empowered to drive patient care (see below).

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Membership of the committee—this committee provides the global perspective of hospital blood management initiative and should, by its membership, reinforce a multi-disciplinary approach:

- Be chaired by a physician from a high-blood use specialty
- Have representatives from other high-blood use specialties, such as
 - ✓ Orthopedics
 - ✓ Anesthesiology
 - ✓ Obstetrics-gynecology
 - ✓ General surgery
 - ✓ Trauma surgery
 - ✓ Internal medicine
 - ✓ Pediatrics
 - ✓ Hematology-oncology
- Have representative from executive team-Chief Medical Officer or equivalent
- Have representative from Pathology
- Have representative from hospital transfusion service staff
- Have representative from blood provider
- Have **senior** representatives from other stake holders
 - ✓ Pharmacy
 - ✓ Emergency room
 - ✓ Operating room
 - ✓ Nursing
 - ✓ Education
 - ✓ Risk management
 - ✓ Quality
- Include the Transfusion Safety Officer/Blood Management Coordinator (TSO or equivalent)

NOTE: Pathology has a powerful and supportive roll to play in the TC; however, the chair is usually best filled by an ordering physician.

Role of the committee: While the hospital Transfusion Committee’s responsibilities vary from hospital to hospital, common roles/functions usually include:

Transfusion Safety tasks:

- The development, or approval, of policies and procedures relating to
 - the receipt, distribution, handling, use, and administration of blood and blood components
 - clinical services within the hospital (Therapeutic apheresis, massive blood loss, blood conservation, intraoperative blood management programs, iatrogenic blood loss, pre-surgical anemia management, HLA and other transfusion related testing, etc.)
- The evaluation and monitoring of infectious and non-infectious adverse transfusion events (Hemovigilance)
- The review of the adequacy of blood supplier and transfusion services to meet patient needs (such as

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- reasonable TAT)
- Nurse and physician education—provide education to nursing and medical staff on current information regarding transfusion-related risks, transfusion reaction identification and safe transfusion practices (THIS CANNOT be understated in its importance).

Blood Management tasks:

- Development/drive acceptance of appropriate transfusion guidelines, guided by evidence-based medicine and local practice
- The evaluation of the appropriateness of all transfusions (such as developing CPOE templates, trigger algorithms, and auditing reports).
- Review of the informed consent process
- Foster blood management culture based on objective evidence
- Provide nurse and physician education—provide education to nursing and medical staff on blood management topics
- Monitoring of usage and wastage of blood and blood components

Performance Improvement Function

- Fostering of quality improvement in blood transfusion and usage
- Possible Performance Indicators (PI)
 - ✓ C/T ratio—while the C/T ratio does NOT reflect appropriateness of ordering, it does reflect over-ordering of blood compared with use and suggests wastage of staff resources and reagents. C/T ratio can be effectively reduced by the implementation and use of a MSBOS and Type and Screen process.
 - ✓ Turn-around-times (TAT)—TAT reflect customer service to physicians and patients by measuring timely communication, filling and delivery of blood to the patient. TAT can help suggest areas of improvement and can be enhanced by electronic blood ordering.
 - ✓ Transfusion reaction rate and etiology with rapid feedback to clinical staff: tracking the **rate** of transfusion reactions can identify issues of under-recognition and under-reporting of transfusion adverse events
 - ✓ Audit of two unit transfusions—two unit transfusions can suggest “routine” blood ordering rather than ordering based on clinical condition of the patient. Tracking enables staff to educate physicians regarding the appropriate determination of transfusion endpoints and encourage evidence based ordering
 - ✓ Audit of wastage—audit of wastage pinpoints opportunities for improvement in the order-release-transfuse process chain
 - ✓ Audit of documentation of critical workflow steps (informed consent, blood order form, transfusion document, etc)

Reporting Function - Recommendations for improved care and safety should be included in the reports.

- Report as appropriate or function as a blood management specific working subcommittee to various applicable hospital committees, for example
 - ✓ Medical Executive Committee
 - ✓ Patient safety council
 - ✓ Education Council
 - ✓ Critical care committee
 - ✓ Quality management committee
 - ✓ Trauma care committee
- Review statistics to measure progress and effectiveness of blood management program
 - ✓ Appropriateness of transfusion orders
 - ✓ Appropriate pre- and post- transfusion data collection (CBC, PT, etc)
 - ✓ Physician-level blood use statistics
 - ✓ DRG-related blood use statistics

Steps to take

- Determine if your hospital has a Transfusion Committee or equivalent
 - If no Transfusion Committee or equivalent is in place, perform a needs assessment to determine if/how applicable regulations are met
 - If a committee exists, determine if improvements in the functions of the committee can be achieved
 - Determine the reporting structure of the Transfusion Committee within the hospital infrastructure – make sure it's work product and output goes to the correct committee that can effect the needed changes
 - Perform an audit to assess effectiveness of Transfusion Committee (or equivalent) in performing its key roles/functions
 - Perform a needs assessment to determine key gaps in the hospital Blood Management Program and identify how the Transfusion Committee can assist in filling those gaps
 - Review current Blood Transfusion Guideline/Audit criteria and update with evidence-based recommendations as applicable
 - Review current Quality Indicators and revise as needed
 - Consider use of Transfusion Committee tools (see references) for development of checklists, agendas, conflict of interest, attestations, etc.
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Additional Resources

If you have questions, or if you need additional guidance, please contact your Blood System's team.

Several Optimum TX modules might interest the reader;

- TSO Reading Materials
- Project Management
- Multidisciplinary teams
- Single Unit transfusions
- Initial Blood Management Rollout
- MSBOS

References

Becker J and B Shaz (2011). Guidelines for Patient Blood Management and Blood Utilization, AABB.

Wagner et. Al (2006). Guidelines for the Quality Assessment of Transfusion AABB.

Saxema S and Shulman I (2006). The Transfusion Committee: Putting Patient Safety First, AABB.

Mohandas et al. Role of quality improvement in prevention of inappropriate transfusion. *Q Manage Health Care*; 2011;20(4):298-310.

<http://www.transfusionontario.org/index.php/en/toolkits/transfusion-committee>