Department of Veterans Affairs **VHA DIRECTIVE 2009-005**
Veterans Health Administration
Washington, DC 20420 **February 9, 2009**

TRANSFUSION UTILIZATION COMMITTEE AND PROGRAM

1. PURPOSE: This Veterans Health Administration (VHA) Directive provides policy for establishing blood utilization committees, polices, and procedures, which promote safe and clinically effective blood utilization thereby reducing the risk of adverse transfusion outcomes.

2. BACKGROUND: Regulatory and professional organizations, including The Joint Commission, the American Association of Blood Banks, and the College of American Pathologists, require ongoing monitoring of blood utilization within institutions. Essential to effective transfusion practices are the implementation of evidence-based transfusion guidelines (see Att. A) to reduce variability in transfusion practice, and the employment of multidisciplinary teams to study, implement, and monitor local blood management strategies.

3. POLICY: It is VHA policy that each facility must have a working Transfusion Utilization Committee and Program adhering to the mandates of this Directive.

4. ACTION: The facility Director, or designee, is responsible for:

a. Designating a Transfusion Utilization Committee (see Attach A).

b. Establishing a written Transfusion Utilization policy (see Attach B).

c. Establishing a formalized comprehensive process to monitor transfusion related activities.

d. Ensuring that clinicians participate in the peer review process. At a minimum, the facility must have a peer review program that monitors and addresses transfusion practices for all categories of blood and components including:

(1) Ordering practices;

(2) Patient identification;

(3) Sample collection;

(4) Infectious and non-infectious adverse events;

(5) Near-miss events;

(6) Usage and discard;

(7) Appropriateness of use;

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(8) Blood administration policies;

(9) Ability of services to meet the patient needs; and

(10) Compliance with peer-review recommendations.

e. Establishing a written process to monitor the ordering practices of each requesting physician, to include a process for defining corrective action for those ordering providers who are not in compliance with established protocols.

d. Ensuring that data needed to evaluate transfusion practices is submitted in a timely manner (see Att. A). Data sources include but are not limited to transfusion services, quality management, nursing, medical services, and surgical services.

5. REFERENCES

a. Title 42 Code of Federal Regulations (CFR) Part 482, Conditions of Participation for Hospitals, and 482.30, Condition of participation: Utilization Review.

b. Standards for Blood Banks and Transfusion Services, 25th edition or latest edition, American Association of Blood Banks (AABB), 8101 Glenbrook Road, Bethesda, MD 20814.

c. Accreditation Standards, Joint Commission, One Renaissance Boulevard, Oakbrook Terrace, IL 60181.

d. Laboratory Accreditation Program, Transfusion Medicine Accreditation Checklist, College of American Pathologists, 325 Waukegan Road, Northfield, IL 60093.

e. VHA Handbook 1106.1.

6. FOLLOW-UP RESPONSIBILITY: The National Director, Pathology and Laboratory Medicine Services (115), is responsible for the content of this Directive. Questions may be addressed at (202) 657-1680.

7. RESCISSIONS: None. This VHA Directive expires February 28, 2014.

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ATTACHMENT A

GUIDELINES FOR ESTABLISHING A TRANSFUSION UTILIZATION COMMITTEE

1. Transfusion utilization review is essential in promoting continual improvement in the ordering, distribution, handling, dispensing, and administration of blood components and in monitoring the effects of transfusion practices. It is also a requirement by The Joint Commission (TJC) for hospital accreditation, by the Code of Federal Regulations for hospitals to qualify for Medicare reimbursement, and by some states for Medicaid reimbursement. Peer review of transfusion practices is required by the American Association of Blood Bank (AABB) and by Department of Veterans Affairs (VA) policy. To meet these requirements, facilities form a Transfusion Utilization Committee (TUC) also sometimes known as a Blood Utilization Committee, a Blood Usage Review Committee, a Transfusion Committee, or a Tissue and Transfusion Committee. This single interdisciplinary group brings multiple clinical services and the multiple steps involved in the transfusion process into compliance with these applicable policies, accreditation standards, and regulatory requirements.

2. The format of the review process and the criteria for appropriate blood utilization must be developed by each institution and must be revised as new information and advances become available. The suggested laboratory values must not be interpreted as defining indications or criteria for transfusion. Each TUC, or its equivalent, is responsible for developing its own institutional blood utilization procedures and audit criteria. Review and approval by the medical staff prior to implementation are essential. The procedures must be reviewed and revised or updated on a regular basis.

3. Composition of the Transfusion Utilization Committee

a. Based on Department recommendations, the committee members and Chair are appointed by the hospital's Clinical Executives (Chief of Staff or Nurse Executive). Members need to be knowledgeable and experienced in one or more aspects of transfusion therapy and blood banking. The tenure on the committee should be of sufficient duration so that skills acquired can be used and shared.

b. The Committee must be chartered according to the institutional bylaws as a standing professional committee of the Medical Board. The Blood Bank Director or Transfusion Services Director (if different) is required to be a member of the TUC. ***NOTE:*** *It is recommended that the Committee include members from all the major departments or services that transfuse blood.* Subspecialties with high blood usage need to be represented (Cardiovascular surgery, Orthopedics, Hemodialysis, Oncology, Hematology etc.). In addition to the Blood Bank or Transfusion Center Director, members to be included are:

(1) Surgery;

(2) Medicine;

(3) Anesthesia;

(4) Pathology;

(5) Quality Assurance, Quality Management, or Risk Management;

(6) Emergency Medicine;

(7) Blood Bank;

(8) Nursing;

(9) Hospital administration;

(10) Patient Safety Officer;

(11) Education and Training; and

(12) Others, as appropriate, i.e., Biomedical Engineering, Blood Supplier, and representative of nursing home transfusion services, if any.

4. Responsibilities of a TUC. The functions of the committee overseeing blood usage need to be clarified by the committee itself. To focus the committee's activities, specific objectives or charges need to incorporate TJC requirements. Sample objectives are:

a. Follow national guidelines and develop local guidelines for clinical use of blood.

b. Develop policies and procedures for blood transfusion in the facility.

c. Monitor and clinically review (concurrently or retrospectively) all blood transfusions to ensure appropriate and correct usage of blood thereby reducing unnecessary transfusion and avoiding wastage.

d. Recommend corrective actions in transfusion practice.

e. Make arrangements for training of house and clinical staff based on policies and procedures.

f. Establish criteria for review of utilization of blood and blood products in individual cases.

g. Make periodic reports to the Medical Board.

h. Develop audit criteria for transfusion practice.

i. Assess blood and blood component use for ways to improve patient care.

j. Review and analyze statistical reports of the transfusion service.

k. Assist the blood supplier(s) in blood procurement efforts.

l. Assess adequacy and safety of the blood supply.

m. Promote continuing education in transfusion practices for the hospital staff.

5. Meetings. Minimally, the TUC needs to meet on a quarterly basis. Ad hoc meetings can be conducted if warranted. Minutes are required to document the items discussed and any corrective or preventative actions which were to be taken.

6. Reporting. The following data needs to be submitted to the TUC Chair quarterly by the responsible office. In turn the TUC reports all such data to the Medical Board on a quarterly basis. **NOTE:** The following information needs to be transmitted to Pathology and Laboratory Medicine Services (115) the first of June and the first of January each year.

Reportable Data	**Responsible Office**
General statistics including, but not limited to the number of transfusions, including the number and type of components transfused.	Transfusion Services
Number of units, by component type, outdated or otherwise discarded. *Goals are: Red Blood Cell (RBC) unit expiration rates below 1.0 percent, and RBC unit wastage rates below 0.5 percent.*	Transfusion Services
Crossmatch or transfusion ratio. *Current crossmatch transfusion (CT) threshold goal is 2.0 or less.*	Transfusion Services
Number of autologous procedures	Transfusion Services
Number of transfusions audited or reviewed for appropriateness and the results of investigation of transfusions deemed inappropriate. Corrective and preventative actions resulting form the reviews should also be reported.	a. Initial screen – Transfusion Services b. Peer review for transfusions that fail to meet transfusion criteria – Clinical Services
Intra-operative and post-operative blood salvage statistics, including, but not limited to the number of procedures performed and the method(s) or equipment used.	Surgery

Reportable Data	Responsible Office
Other data and statistics as specified by the Department of Health, Center for Disease Control and Prevention (CDC), and other agencies, as required.	Transfusion Services
All patient adverse reactions attributed to transfusion of blood, blood components, or blood derivatives including suspected disease transmission with all incidents to be discussed in detail, including the results of all investigations.	Transfusion Medicine Director
Results of proficiency testing, peer review, and inspections by governmental or private (peer) entities.	Transfusion Services
Change in supervisory personnel or other significant staffing changes.	Transfusion Services
Issues that may affect quality or supply.	All Departments

7. Conducting the Peer Review or Audit

a. One hundred percent of transfusions are reviewed for appropriateness. The review of transfusions can be done prospectively (before blood is issued) or retrospectively (after blood is issued). Most consider the prospective review as preferable because interventions can intercept unnecessary transfusions and correct inaccurate transfusion orders in the real time.

b. For each transfusion the following information is to be documented in the veterans' health record:

(1) Physician order;

(2) Indication;

(3) Applicable laboratory or clinical results before and after the transfusion; and

(4) Assessment of outcome.

c. Trained clerical staff, using established guidelines, can do chart or electronic record reviews.

(1) Practitioners with transfusions failing Quality Assurance (QA) review are sent a Letter of Findings. No response is necessary, and the letter is not noted in the providers credentialing file.

(2) Repetitive or unusually serious violations are examined by medical staff service committee (i.e., a Peer Review**)**.

(3) The attending physician is to be asked to explain or justify transfusions questioned by QA and Peer review. After a final review of all available material, the TUC submits repetitive or unusually serious incidents to clinical department chairs or to appropriate committees concerned with medical practices, credentials, etc. Conclusions may be placed in privileging file.

8. Assessment

a. After a review of all the data (statistical and peer review), the TUC assesses the facility's performance and effectiveness in:

(1) Blood ordering practices for all categories of blood and blood components;

(2) Minimizing wastage of blood components;

(3) Distribution, handling, use and administration of blood components;

(4) Evaluation of all confirmed transfusion reactions;

(5) Meeting patient's transfusion needs;

(6) Informing patients and physicians in a timely manner and confidential manner of possible infectious disease transmission;

(7) Other assessments, as applicable;

(a) Review of policies for informed consent;

(b) Release of directed donor unit;

(c) Outpatient and home transfusion;

(d) Therapeutic aphaeresis;

(e) Use of cell-saver devices;

(f) Procurement and storage of hematopoietic progenitor cells;

(g) Perioperative autologous blood collection;

(h) Controversy; and

(i) Evaluation of evolving technologies and products.

b. Corrective or preventative actions for identified issues need to be formulated and instituted. Follow-up to assess effectiveness of actions taken is critical. All actions are to be communicated to the Medical Board.

9. Strategies to Improve Blood Utilization

a. Educational programs for medical staff are crucial to the success of the TUC.

b. Implement computer-assisted prospective audit measures by expanding guideline, algorithms, triggers and alerts regarding appropriate ordering practices in the Ordering package. ***NOTE:*** *If interested, contact the P&LMS Program Office mailgroup at VHACO P&LMS PMO for a PowerPoint presentation that describes a field developed process that uses a series of CPRS Quick Orders to document the justification for blood transfusion during the blood transfusion request process.*

c. On a regular basis, review and refine "Type and Screen" guideline (T/S), Maximum Surgical Blood Order Schedule (MSBOS), and Standard Blood Order (SBO) to ensure that they reflect local practices and accepted standards of care.

d. Research and implement best practices; example benchmark data on component outdating published by the National Blood Data Resource Center (NBDRC).

10. References

a. Guidelines for Blood Utilization Review. Bethesda, MD; 2001. AABB, 8101 Glennbrook Road, Bethesda, MD 20814.

b. Practice Guidelines for Blood Transfusion: A Compilation from Recent Peer-Reviewed Literature. American Red Cross Biomedical Headquarters. May 2002. 2025 E Street NW, Washington, DC 20006.

c. Resurgence of the Blood Utilization Committee. Presented at 2005 AABB Annual Meeting. October 17, 2005.

d. Novis, D et all, "Quality Indicators of Blood Utilization," Archives of Pathology Laboratory Medicine. Vol. 126:150-156; February 2002.

ATTACHMENT B

SAMPLE TRANFUSION UTILIZATION COMMITTEE POLICY

Department: Medical Staff Effective Date:
Subject: Transfusion Utilization Review Committee Policy No.

1. POLICY: It is the policy of the ___(insert facility name)___ and its Medical Staff that appropriate review of utilization of blood and blood components takes place at least on a quarterly basis.

2. PURPOSE: The Transfusion Utilization Review Committee is responsible for:

a. Assigning oversight of the transfusion utilization review processes.

b. Developing the policies and practices related to inventory management and blood usage review.

c. Ensuring safe and effective blood usage based on measurable, predetermined performance criteria.

3. PROCEDURE: The Transfusion Utilization Review Committee, a peer review committee, ensures the appropriate review of utilization of blood and blood components, which must take place at least quarterly. This Committee must include a Chairperson, secretary, blood bank representative, physician membership representative of the Hospitals Clinical Services with high blood component usage (Anesthesiology, Surgery, Medicine and Emergency Medicine), the physician director of transfusion services, a nursing services representative, a quality management representative, and a hospital administration representative.

a. This review must be documented; and may be performed, as is appropriate, through a retrospective patient care evaluation mechanism, medical record review, or any other patient specific reviews.

b. The Committee must review the blood bank summary on their investigation of actual or suspected transfusion reactions.

c. The Committee must review the monthly and quarterly statistics on blood component usage, wastage and ordering practices. These data are systematically aggregated and analyzed on an ongoing basis with the focus on identifying opportunities for performance or process improvement.

ATTACHMENT C

TRANSFUSIONS NOT MEETING THE FOLLOWING CRITERIA MUST BE REVIEWED BY A MEDICAL STAFF MEMBER OR THE APPROPRIATE PEER REVIEW COMMITTEE

NOTE: *These criteria are extracted from the American Association of Blood Banks (AABB) "Guidelines for Blood Utilization Review" published 2001. The criteria are for auditing blood component administration and must not be misinterpreted as standards of care. These criteria reflect a consensus as to the generally accepted rationale for the use of blood components based published clinical trials, consensus statements, and guidelines produced by national organizations. Review criteria do not necessarily constitute indications, or triggers, for transfusion. Clinical situations may dictate transfusion practices that differ from the review criteria.*

1. Red Blood Cells (RBCs). RBCs are transfused to improve oxygen-carrying capacity.	a. Symptomatic anemia in a normovolemic patient, regardless of hemoglobin concentration. b. Evidence of inadequate oxygen delivery or ongoing hemorrhage (e.g., more than (>)15 percent of blood volume). c. Hemoglobin less than (<)8 gram per deciliter (g per dL). d. Preoperative hemoglobin <9 g per dL and operative procedures or clinical situations associated with major, predictable blood loss. e. Hemoglobin <8 g per dL in a patient on a chronic transfusion regime.

2. Platelets. Platelet transfusion is appropriate to prevent or control bleeding associated with deficiencies in platelet number and function.	a. Platelet count <10,000 per microliter (µL) in a non-bleeding patient with failure of platelet production. b. Platelet count <50,000/µl and impending surgery or invasive procedure or in a patient experiencing hemorrhage. c. Diffuse microvascular bleeding following cardiopulmonary bypass, or during use of an intra-aortic balloon pump with no significantly abnormal coagulation parameters. d. Diffuse microvascular bleeding in a patient who has lost more than one volume in whom platelet count results are not yet available. e. Bleeding in a patient with a qualitative platelet defect, regardless of platelet count.
3. Plasma. Fresh Frozen Plasma (FFP) is administered to correct bleeding due to single or, much more commonly, multiple coagulation factor abnormalities when specific therapy is unavailable.	a. Prothrombin time (PT) or partial prothrombin time (PTT) >1.5 times the mean of the reference range in a non-bleeding patient scheduled for or undergoing surgery or an invasive procedure. b. Diffuse microvascular bleeding in a patient given more than one blood volume and coagulation test results not yet available. c. Microangiopathic hemolytic anemia (e.g., thrombotic thrombocytopenic purpura) being treated with plasma exchange. d. Emergency reversal of coumadin anticoagulation. e. Deficiency of specific factors of the coagulation system when virus-inactivated concentrates are not available.

4. Cryoprecipitated Antihemophilic Factor (AHF). Cryoprecipitated AHF is administered for prevention or treatment of bleeding due to hypofibrinogenia (most commonly), dysfibrinogenemia, Von Willebrand disease (in some circumstances), and (very rarely) Factor VIII deficiency.	a. Fibrinogen <80 to 100 minigram per deciliter (mg/dL). b. Diffuse microvascular bleeding and fibrinogen <100 to 120 mg/dL. c. Von Willebrand disease or hemophilia unresponsive to 1-deamino-8-D-arginine vasopressin (DDAVP) and no appropriate factor concentrate available. d. Uremic bleeding (if DDAVP is ineffective or after tachyphylaxis). e. Factor XIII deficiency.
5. Special Components. Modified components that provide benefit for selected patient populations	a. Leukocyte-Reduced Components. (1) Prevention of recurrent febrile nonhemolytic transfusion reactions. (2) Prevention of Human Leukocyte Antigen (HLA) alloantibody formation in select patients. (3) Prevention of cyt0megalovirus (CMV) transmission in selected patients. b. Cytomegalovirus Risk Reduction. (1) CMV-seronegative recipients of allogenic progenitor cell transplants. (2) Intrauterine transfusions. (3) CMV-seronegative pregnant women. (4) Low birth weight infants (<1200). (5) Exchange transfusions in newborns. (6) Patients with congenital immunodeficiencies. (7) CMV-seronegative patients with

.	HIV infection. (8) CMV-seronegative recipients of a solid organ transplant from a seronegative donor. (9) CMV-seronegative patients undergoing chemotherapy that results in a severe neutropenia. c. Irradiated Blood Components (1) Intrauterine transfusion. (2) Infants who received intrauterine transfusions. (3) Patients with congenital immunodeficiencies. (4) Patients undergoing progenitor cell transplantation, either autologous or allogenic. (5) Patients receiving HLA-matched cellular components. (6) Patients receiving directed units from blood relatives. (7) Patients with Hodgkin's disease. d. Washed Blood Components (1) History of anaphylactic reaction to blood components. (2) Immunoglobulin A (IgA) deficiency with documented IgA antibodies. (3) Neonatal alloimmune thrombocytopenia or hemolytic disease of the newborn when the mother is the donor for the fetus or newborn infant.