PPG-00188

Transfusion Medicine

Area	Medicine			
Section	Vascular			
Subsection	N/A			
Document Type	Policy			
Scope	Applies to all staff working in Acute Care settings.			
Approved By		**Original Effective Date**	**Revised Effective Date**	**Reviewed Date**
Glenda Short, Director of Clinical Programs and Services		2016-Apr-27	N/A	N/A

DEFINITIONS

Alternate: Is a person who has decision-making capacity and is willing to make decisions on behalf of a client who does not have the capacity to make a decision. An alternate may be legally authorized (e.g. health care proxy or committee) or may be a person designated (e.g. family member) in the absence of a legally authorized individual. Refer to Alternate Decision Maker Policy, R.ADM.LE.045.

Best Blood Manitoba (BBM): Manitoba's provincial transfusion medicine resource website endorsed as the region's comprehensive clinical resource on the subject of Transfusion Medicine Best Practices and available to all Prairie Mountain Health (PMH) staff at http://bestbloodmanitoba.ca

Client: An individual and/or their family/care provider who accesses and/or receives health care related services from a PMH facility or program. Clients may be patients in an acute care setting, residents in a personal care home or clients in a community program or facility.

Consent: Consent must be obtained prior to the intervention occurring. The consent is valid for the period of time the client is within an acute care facility and/or the course of the planned intervention period however shall not exceed 12 months. Refer to Informed Consent for Health Care Intervention Policy, PPG-00172.

Informed Consent: A process which involves dialogue, understanding and trust between the client or alternate decision-maker and the treating practitioner. Clients have a right to accept or refuse a proposed intervention.

Written Consent: The signature obtained from the client or alternate and treating practitioner to validate that an informed consent discussion occurred and the client or alternate agreed to accept and proceed with the proposed procedure, treatment or intervention.

Consent Form: The Prairie Mountain Health Consent Form (PMH513) shall be utilized as the consent form for the transfusion/infusion of blood, blood components and/or derivatives within PMH. The signed consent form for transfusion medicine shall be valid for a period not to exceed 12 months.

Crossmatch Site: A PMH facility which may or may not have 24/7 laboratory services which is able to perform the ABO blood typing and receives blood and/or distributes to non-crossmatch sites within the region.

Cumulative Blood Product Record (CBPR): Standardized designated document utilized to record blood, blood components and/or derivatives inclusive of the product description, clinical transfusion/infusion occurrences and verification of the component.

Health Care Provider (HCP): An employee (including contracted individuals, students, and volunteers) of Prairie Mountain Health who provides direct care or indirect non-contact care as a result of their duties/tasks of their position. A health care provider spans the continuum of services/care that a client may receive from a PMH facility or program.

High Risk Blood Recipient: Refers to a client who may require precaution in the ordering of or additional caution and monitoring in the transfusion or infusion of blood, blood components and/or derivatives. The client may have attained this status as a result of:

- Multiple previous transfusions; or
- Previous transfusion reactions; or
- Confirmed development of antibodies; or
- IgA deficiency.

If the high risk blood recipient is given emergency uncross-matched blood, the risk of reaction or potential incompatibility with the transfusion is significantly high.

Job Aid: Diagnostic Services of Manitoba (DSM) has developed forms for nursing staff to follow in the monitoring, issuing and inspection of blood, blood components and/or derivatives. The Job Aid is obtained from the Blood Bank/lab and training to nursing staff regarding the Job Aid is the responsibility of the DSM staff.

Medical Emergency: In an emergency situation when a delay in treatment would endanger the client's life, limb, or vital organ, administration of blood, blood components and/or derivatives may proceed without consent if a client:

- Is unable to give consent and
- An alternate is unavailable (including contact by telephone) to provide consent and
- There is not a Health Care Directive which prohibits such treatment.

Non-crossmatch Site: PMH facility with laboratory services that sends blood samples out for crossmatching of ABO blood typing and receives blood, blood components and/or derivatives from a crossmatch site.

Nurse: A Registered Nurse (RN), Registered Psychiatric Nurse (RPN), Graduate Nurse (GN), Licensed Practical Nurse (LPN), Agency Nurse and/or Nurse Practitioner (NP) from an accredited, licensing college involved in the transfusion medicine process.

Transfusion Medicine: Administration of and/or processes related to the transfusion or infusion of blood, blood components and/or derivatives inclusive of required education, competency, standards, transportation and clinical best practices to be followed by health care providers involved in the process.

Transfusion Reaction: Any adverse reaction and/or negative change in the client's baseline medical status within a twenty-four (24) hour to ten (10) day period of time which is a direct result of the transfusion and/or infusion of blood, blood components and/or derivatives.

Transporter: Any HCP that, as part of their job duties, has received the necessary transfusion medicine training to effectively and safely transport blood, blood components and/or derivatives. Transporters can only transport when there is DSM staff available to issue and verify the blood products with them in the blood bank.

Treating Practitioner:

- A physician, who is authorized, trained, qualified and competent to provide the procedures, treatments, or interventions.
- A regulated health care provider who has a documented delegated transfer of function to obtain consent on behalf of the physician.
- A regulated health care provider who is authorized within the professional scope of practice, trained, qualified and competent to provide the procedures, treatments, or interventions.

Verification: An established, standardized two (2) person check that is required to complete the transfusion medicine process for the receiving, retrieving and administering of blood, blood components and/or derivatives in which at least two (2) unique client identifiers are utilized.

POLICY STATEMENT

Prairie Mountain Health (PMH) adopts and endorses the Best Blood Manitoba (BBM) website, Manitoba Transfusion Quality Manual for Blood Banks, and the Manitoba Transfusion Medicine Best Practices Resource Manual for Nursing as the comprehensive clinical resources for transfusion medicine practices within the region. PMH works collaboratively with Diagnostic Services of Manitoba (DSM) in the development, updating and implementation of all transfusion medicine related practices to meet legislated standards.

Standard Operating Procedures (SOPs) within the above resource manuals will be the established practicing policies/procedures for health care providers to comply with and follow within PMH. Any PMH specific supplemental policies shall supersede the SOPs outlined in the resources.

Required (provincial and/or regional) educational competencies (demonstrated or written) will be audited for completion by the applicable staff on a regular basis with follow up to staff not meeting the required education competencies.

Clients who have not previously had a blood sample submitted for blood typing and screening and are not on the Canadian Blood Services (CBS) database will receive type O Rh specific blood until a second sample can be confirmed as per CBS requirements.

All clients receiving blood, blood components and/or derivatives will have them administered in accordance of this policy and will remain for one (1) hour following the completion of the administration of the product as per clinical best practice guidelines.

RESPONSIBILITIES

Diagnostic Services of Manitoba:
DSM staff will collaborate and share with PMH management and nursing staff any practice changes and information as it relates to transfusion medicine. As per DSM direction; DSM staff will develop and educate nursing and HCPs on any facility specific job aids or protocols related to transfusion medicine.

Nursing:
All nurses assigned to or working in an acute care facility, department, program or unit that has been approved by PMH and DSM to administer blood, blood components and/or derivatives shall complete all established training and educational requirements as outlined below:

- Upon hire, complete designated learning modules/requirements as established by PMH prior to the administration of blood, blood components and/or derivatives.

- Maintain annual competency in transfusion medicine by completing designated learning modules and demonstrated practice competencies.
- In non-crossmatch sites, review and follow facility specific Job Aids developed by DSM for such tasks as Issuing Blood Units and Plasma and/or Issuing Platelets and/or Issuing Derivatives.

Nursing staff will be responsible for verification, administration, monitoring and documentation of blood, blood components and/or derivatives as outlined in the PMH policy, the Manitoba Transfusion Medicine Best Practices Resource Manual for Nursing and the relevant product monograph(s).
Nursing staff may be responsible for monitoring, issuing and transporting blood, blood components and/or derivatives in non-crossmatch sites when DSM staff is not on site.

Transfusion Medicine Auditors:
Designated auditors will perform auditing related to completeness, accuracy and compliance of processes inclusive of but not limited to chart audits, form completion audits, and documentation audits, utilizing the Administration of Blood Products Audit Form (PMH736) as per the designated auditing time periods. Auditors may be nurses, managers or laboratory/diagnostic staff.

Transporters:
In all sites across the region, transporters can transport blood, blood components and/or derivatives providing they have received the necessary training, a nurse has verified the Request for Release of Blood/Blood Component/Derivative Form, and there is DSM staff present to issue and verify the blood products for them.

Treating Practitioners:
All Treating Practitioners are responsible for obtaining consent and ensuring that the client has received information regarding the administration of blood, blood components and/or derivatives
In an emergency situation requiring transfusion, the treating practitioner:

- Limits the interventions to those that are necessary to deal with immediate threats to life, limb or health and excludes those where it is known that the client would have objected to the intervention.
- Obtains a second medical opinion if possible before proceeding with the procedure, treatment or intervention if possible. The consultants' opinion is documented in the client's health record.
- Completes the Emergency section of the Consent to Procedures, Treatments or Interventions (PMH513) and places in the client's health record.
- Informs the client and/or alternate of the completed procedure, treatment or intervention as soon as possible.

PROCEDURE

1. Upon admission to a PMH facility (I.e. acute, transition or PCH) clients will be interviewed regarding their history of transfusions/infusions of blood, blood components and/or derivatives and asked to provide a copy of their PMH Blood Product Record Card (PMH735). If the client identifies that their medical history indicates they are a high risk blood recipient or that they carry a card identifying antibodies this information will be noted in the client's health information record and/or Allergy and Alerts Record in the Admission, Discharge and Transfer (ADT) system, as applicable.

2. The PMH Transfusion Medicine Checklist (PMH913) can be utilized as a resource and completed for the transfusion and/or infusion process. The Transfusion Medicine Checklist will not be part of the permanent health record.

3. Ensure and confirm that the order for blood, blood components and/or derivatives has been written by the treating practitioner in the client's health information record. The order will include:

a. Date;
b. Time;
c. Amount and type of blood, blood components and/or derivatives which are to be transfused/infused;
d. Duration of the transfusion/infusion;
e. Any special transfusion/infusion requirements;
f. Pre and/or post transfusion/infusion medication orders if required.

4. The nurse may provide (if the treating practitioner has not) the initial client education/resources regarding transfusion/infusion of blood, blood components and/or derivatives; however, the treating practitioner will obtain the consent. The client (and/or alternate if client is unable) will receive the following education/information resources:
   a. Blood Transfusion Information Sheet (Appendix A) (Clinical Skills/Patient Education/Blood Transfusion Information) and/or
   b. Blood Transfusions- What you Should Know (PMH738)

5. The nurse confirms that informed consent has been completed and the PMH Consent Form (PMH513) is signed by the client and by/with the treating practitioner.

6. In a Medical Emergency where the client and/or family cannot provide informed consent and there are no indicated (clinical or religious) contraindications to the administration of blood, blood components and/or derivatives the product shall be transfused with documentation indicating inability to provide informed consent as per the Informed Consent for Health Care Intervention Policy, PPG00172.

7. An identification wrist band will be applied to the client. If no identification wrist band is on the client, the client will not receive the blood, blood components and/or derivatives.

8. Obtain intravenous access (adults with a 20- 24 gauge or as per the product monograph to confirm gauge required for transfusion). Clients with a central venous access device (CVAD) will have blood, blood components and/or derivatives administered by the CVAD.

9. Review the specific monograph and administration requirements for the ordered blood, blood components and/or derivative on Best Blood Manitoba (www.bestbloodmanitoba.ca).

10. The Cumulative Blood Product Record (PMH737) is initiated with baseline Vital Signs (VS) [Temperature (T), Pulse (P), Respiratory rate (R), Blood Pressure (BP), and Oxygen Saturation level (O2 Sat)] completed within 30 minutes prior to the initiation of transfusion/infusion and documented on the form.

11. **In facilities with Laboratory and/or DSM staff on-site:** The blood, blood components and/or derivatives are obtained by a transporter or nurse using the Obtaining Blood Products from Blood Bank Algorithm (PMH740 or PMH741) and the Request for Release of Blood/Blood Components/Derivatives Form
    In facilities without Laboratory and/or DSM staff on-site:, Only trained nursing staff can obtain blood, blood components and/or derivatives using PMH741 and the Request for Release of Blood/Blood Component/Derivatives Form and any relevant Job Aid (as applicable).
    NOTE: Clients will receive O Rh specific red blood cells (as per the ABO 2 Sample Protocol) if their ABO classification is not in the CBS database and/or a second sample has not been obtained to confirm their ABO classification.

NOTE: After a second sample has confirmed the clients ABO classification and the "Group O Red Cell Protocol" is removed from Trace Line, the blood product issued may then be from the same ABO (blood group) classification as the client or an alternate compatible ABO blood group. This is acceptable as long as the blood group and Rh is compatible with the client's ABO blood group.

12. A visual inspection (utilizing the Canadian Blood Services (CBS) Visual Assessment Guide http://www.transfusionmedicine.ca/sites/transfusionmedicine/files/PDF/VAG_en.pdf) of the product must be performed prior to initiating administration (refer to product monograph located on the BBM website (www.bestbloodmanitoba.ca). Nursing staff may utilize (where available) any DSM approved Visual Inspection checklists.

13. Prior to the initiation of the transfusion/infusion of the blood, blood components and/or derivatives the verification process (two nurses together or treating practitioner may be one) **must** occur. Refer to the Transfusion Medicine Checklist (PMH913) for all components of the verification process which include:
    a. General verification,
    b. Client verification;
    c. Component verification; and
    d. Final identification and verification at client bedside.

    Ensure verification has been documented on the CBPR (PMH737).

    NOTE: Clients will receive O Rh specific red blood cells (as per the ABO 2 Sample Protocol) if their ABO classification is not in the CBS database and/or a second sample has not been obtained to confirm their ABO classification.

    NOTE: After a second sample has confirmed the clients ABO classification and the "Group O Red Cell Protocol" is removed from Trace Line, the blood product issued may then be from the same ABO (blood group) classification as the client or an alternate compatible ABO blood group. This is acceptable as long as the blood group and Rh is compatible with the client's ABO blood group.

14. Once the transfusion/infusion of each blood, blood components and/or derivatives has been initiated the nurse shall:
    a. Closely monitor the client for the first 15 minutes of the transfusion; i.e. ideally recommended that the nurse remain with the client for this period of time.
    b. Observe for any adverse reaction or transfusion reaction;
    c. Complete VS (T, P, R, BP, O2 Sat) at the 15 minute mark of the transfusion/infusion and document on the CBPR (Appendix E);
    d. Advise the client to report any untoward clinical reactions or experiences during the transfusion/infusion;
    e. Repeat VS 15 minutes after the initial 15 minute interval (30 minutes after initiation);
    f. VS may be repeated more frequently if required by product monographs, if clinically indicated, or if the client reports any untoward clinical reactions;
    g. All documentation of VS shall occur on the CBPR. Should additional information be required and/or there is not sufficient room on the CBPR, documentation may occur on the Critical Care Record or Integrated/Interdisciplinary Progress Notes.

15. During the course of the transfusion/infusion should the client experience a transfusion/adverse reaction to the blood, blood components and/or derivatives:
    a. Refer to the Identification and Management of Transfusion Reaction Guidelines (http://bestbloodmanitoba.ca/wp-content/uploads/2014/06/guideline.mb10.pdf)
    b. Stop the transfusion/infusion;
    c. Initiate 0.9% Normal Saline (NS);
    d. Notify the treating practitioner;

e. Assess and document VS (T, P, R, BP, O2 Sat) every 15 minutes for 1 hour then every 30 minutes until stable;
f. Perform nursing clerical check by re-checking client and product information;
g. Implement therapeutic interventions as per treating practitioner order; and
h. Initiate and complete the Transfusion Reaction Investigation Form (CM105) as well as any applicable DSM and Trace Line ™ forms (I.e. forms are obtained from lab/blood bank).

16. Upon conclusion of the transfusion/infusion:
    a. Complete VS (T, P, R, BP, O2 Sat) and record on the CBPR;
    b. Repeat VS up to one (1) hour post transfusion (client should remain for one (1) hour post transfusion) and record on the CBPR;
    c. Ensure volume of infusion is recorded on applicable Fluid Balance Record;
    d. Teach, review and provide the client (and/or decision maker/representative if client unable) with the Blood Transfusion Information sheets (Appendix A Clinical Skills/Patient Education/Blood Transfusion Information) or Blood Transfusions - What you Should Know (PMH738);
    e. Complete and/or update the client's Blood Product Record Card (PMH735) and provide to the client;
    f. Advise the client to report to their treating practitioner or Emergency Room (ER) any untoward/adverse reaction that they may have within the next ten (10) days.
    g. Complete the applicable Record of Transfusion (ROT) form and return to the blood blank.

RELATED MATERIALS

Blood Transfusion Information Sheet (Elsevier Clinical Skills/ Patient Education/Blood Transfusion Information)
PMH735, Blood Product Record Card
PMH736, Administration of Blood Products Audit Form
PMH737, Cumulative Blood Product Record
PMH738, Blood Transfusions- What you Should Know
PMH740, Obtaining Blood Products from Blood Bank Algorithm- Crossmatch Sites
PMH741, Obtaining Blood Products from Blood Bank Algorithm- Non-Crossmatch Sites
PMH913, Transfusion Medicine Checklist
PMH1214, Blood Product Administration Table Reference Guide
Request for Release of Blood/Blood Component/Derivatives Form

REFERENCES

Manitoba Health- MB Transfusion Medicine Best Practices Resource Manual for Nursing- http://bestbloodmanitoba.ca/for-clinicians/transfusion-nursing

Canadian Blood Services- www.blood.ca

Elsevier Clinical Skills/Patient Education/Blood Transfusion Information
http://mns.elsevierperformancemanager.com/NursingSkills/Home.aspx?VirtualName=prairiemountainhealth-canada

Transfusion Medicine Policy former Assiniboine Regional Health Authority ADM- VII – 750

MB Transfusion Medicine Best Practices Resource Manual for Nursing- Brandon Regional Health Center Supplement

Parkland Checklist for Transfusion/Infusion of all Blood, Blood Components, Derivatives

Best Blood Manitoba www.bestbloodmanitoba.ca

Canadian Blood Services Visual Assessment Guide
http://www.transfusionmedicine.ca/sites/transfusionmedicine/files/PDF/VAG_en.pdf

Identification and Management of Transfusion Reaction Guidelines
http://bestbloodmanitoba.ca/wp-content/uploads/2014/06/guideline.mb10.pdf