

Guidelines for Home Transfusion

May 2014
Version 2.0

PROMOTING EXCELLENCE IN TRANSFUSION MEDICINE

Prepared by the Home Transfusion Working Group (2010)

Principle Compiler (2010): Peggy Wilson, RN, BScN
Transfusion Practice Coordinator (2010)
Nova Scotia Provincial Blood Coordinating Program

Principle Editor (2014): Amber White, RN, BScN
Transfusion Practice Coordinator (2014)
Nova Scotia Provincial Blood Coordinating Program
7th Floor Centennial Building, Room 7002
1278 Tower Road
Halifax, Nova Scotia B3H Y29
Phone: (902) 473-2121

Principle Reviewer (2014): Suzanne d'Etremont, RN, BScN
District Executive Director
Victorian Order of Nurses, Tri County
Phone: (902)742-4512

Approved by the NSPBCP Program Advisory Council, 2010.

Table of Contents

1. Acknowledgements	3
2. Copyright.....	4
3. Summary of Recommendations	5
4. Introduction	7
4.1 Purpose and Scope	7
4.2 Guideline Development Process.....	7
5. Definition of Terms.....	8
6. Background	9
7. Practice Recommendations.....	10
7.1 Admission Guidelines.....	10
7.1.1 Clinical Assessment.....	10
7.1.2 Exclusion Criteria	11
7.1.3 Appropriate Indication.....	11
7.2 Defining Roles and Responsibilities	12
7.2.1 Physician.....	12
7.2.2 Care Coordinator.....	13
7.2.3 Service Provider.....	14
7.2.4 Capable Adult	16
7.2.5 Blood Transfusion Services (BTS)	16
7.3 Home Administration	17
7.3.1 Pre-Transfusion Sample Collection	17
7.3.2 Transfusion	19
8. Document Review.....	23
9. References.....	24
<i>Appendices</i>	24

1. Acknowledgements

The *Home Transfusion Guideline (2010, version 1.1)* was prepared in collaboration with the Victorian Order of Nurses (VON), a service provider of home transfusion. The Nova Scotia Provincial Blood Coordinating Program would like to acknowledge its appreciation for the tremendous and diligent work of the Victorian Order of Nurses, The Nova Scotia Transfusion Medicine Quality Specialist Working Group (*NSTMQSWG*) and The Nova Scotia Nurses Transfusion Practice Working Group (*NSNTPWG*) all of which provided invaluable contributions in the development of the *Home Transfusion Guideline (2010, version 1.1)*.

Victoria Order of Nurses		
Elizabeth MacDonald	VON- Cape Breton Branch	
Dawn MacIsaac	VON- Antigonish Branch	
Joan MacDonald	VON-National Consultant	
Suzanne D'Entremont	VON-Branch Director N.S.	
Continuing Care		
Kim MacLean	Continuing Care	
Health Authority	NSTMQSWG - Member	NSNTPWG -Member
DHA 1	Richard Crouse	Marielle Whynot
DHA 2	Henri Thibodeau	Linda Wilson/Ginette Theriault
DHA 3	Ellen McKnight	Sharlene VanRoessel/ Debora Mander
DHA 4	Jane Kinsman /Valerie Pope	Heather MacGregor/ Kristine Carr
DHA 5	Karen Agnew	Lisa Sangster
DHA 6	Betty Parker /Darlene Higgins	Sherri Langley
DHA 7	Linda Kell / Eileen Grant	Christina Anderson
DHA 8	Beth Lewis /Bev MacLean Gayle Ashe/Brenda Grant	Janice MacInnis
DHA 9	Pegi Wilson	April Lockhart/Patti MacDougall/Colleen Colville
IWK	Kathy Gough	Sheila MacKinley
NSPBCP	Present	Former
Clinical Advisor	Dr. David Anderson	N/A
Program Manager	Marina Hamilton	Carol MacEachern
Transfusion Practice Coordinator	Stephanie Watton	Paula Hammond/ Cindy Hyson
Laboratory Standards Coordinator	Wendy Varrence	Victoria Hurlbut
Supporting Groups		
Transfusion Medicine Advisory Group (TMAG)	Provincial Advisory Committee (PAC)	Nova Scotia Association of Clinical Laboratory Managers (NSACLM)

2. Copyright

Permissions for use

The Nova Scotia Provincial blood Coordinating Program (NSPBCP) encourages the sharing and exchange of these guidelines for clinical and educational purposes. Please include the recommended citation below to indicate the source document.

If you wish to reproduce these in whole or in part for any purposes, written permission must be obtained from the NSPBCP.

Recommended citation:

Nova Scotia Provincial Blood Coordinating Program. (2014). *Guidelines for Home Transfusion*. (Halifax, NS).

Disclaimer

There are no conflicts of interest to disclose.

3. Summary of Recommendations

Practice Recommendations	
1. Admission Guidelines	<p><i>1.1 Clinical Assessment</i> A clinical assessment of the appropriateness of the client for home transfusion should be conducted. This should include an assessment of the client’s transfusion history, current medical status, current indication for home transfusion, and physical safety for the client and practitioner in the home environment (<i>Green, Pirie, 2012</i>).</p>
	<p><i>1.2 Exclusion Criteria</i> The service provider should have an established policy or protocol that identifies exclusion criteria from utilization of the <i>Home Transfusion Guidelines</i>, which compliments but does not conflict with the admission guidelines.</p>
	<p><i>1.3 Appropriate Indication</i> The service provider should have an understanding of appropriate indications for transfusion at home (or hospital) based on current and relevant evidence as available (<i>Green, Pirie, 2012</i>).</p>
2. Defining Roles and Responsibilities	<p><i>2.1 Physician</i> The physician is an essential part of the care circle for patients receiving home transfusions and typically the first contact for the patient. Their role and responsibilities should be well defined (<i>Green, Pirie, 2012</i>). A roles and responsibilities flow chart is included in appendix I.</p>
	<p><i>2.2 Care Coordinator</i> The care coordinator is essential to the organization and management of home transfusion cases in providing administrative and facilitating support. Their role and responsibilities should be well defined (<i>Green, Pirie, 2012</i>).</p>
	<p><i>2.3 Service Provider</i> The service provider is crucial to the successful administration of a home transfusion as the front-line staff who will work with clients in the home environment. Their role and responsibilities should be well defined (<i>Green, Pirie, 2012</i>).</p>
	<p><i>2.4 Capable Adult</i> The capable adult is critical to the safe administration of a home transfusion as the person responsible for the client’s care and well being after the service provider has left the home. Their role and responsibilities should be well defined (<i>Green, Pirie, 2012</i>).</p>
	<p><i>2.5 Blood Transfusion Services</i> The BTS is central to the safe procurement and provision of blood component(s) for home transfusion as they are in the hospital. They will complete the analysis of the pre-transfusion sample, as well as prepare and package the ordered component(s) for safe transport to the client’s home. The BTS’ role and responsibilities should be well defined (<i>Green, Pirie, 2012</i>).</p>

<p>3. Transfusion</p>	<p><i>3.1 Pre-Transfusion Sample Collection</i> Pre-transfusion testing is an important step in the delivery of hospital or home transfusions. The testing includes typing for blood group (ABO), and Rh (D). Additionally, an antibody screen detects clinically significant antibodies in the client that may compromise the safety of the transfusion. Finally, a cross match is completed to ensure compatibility between the client and the blood component(s) to be received (<i>Routine Pretransfusion Testing, 2014</i>).</p>
	<p><i>3.2 Transfusion</i> Not only do home transfusions reduce the costs to health care facilities in terms of staff resources, and to the client in terms of time and travel expense, home transfusions also benefit the client in providing treatment in a comfortable and familiar environment, it decreases nosocomial infection risk as well as reduces the risk of clerical errors. This being said, however, transfusions in the home environment require careful consideration and planning to ensure patient safety is maximized, resources are utilized effectively, and liability risks are reduced (<i>Benson, 2006</i>).</p>
	<p><i>3.3 Post-Transfusion</i> For the client with no complications during the transfusion, and no signs or symptoms of a delayed adverse reaction, the post-transfusion interaction with the service provider is an opportunity to ask final questions, and plan for future treatments if applicable. For the service provider it is an opportunity to finalize documentation of the treatment outcomes and if no further treatments are planned, end the therapeutic relationship (<i>Benson, 2006</i>).</p>
	<p><i>3.4 Documentation</i> Documentation encompasses all interactions with, assessments of, and care given to a client. Documentation can be written or electronically generated and is primarily information obtained through the nursing process. Documentation is a fundamental practice for nurses and professional patient care givers and contributes to the quality of patient care. Documentation is not optional (<i>CRNNS, 2012</i>).</p>
	<p><i>3.5 Adverse Transfusion Reaction</i> Adverse reactions are one of the biggest concerns in transfusing blood components both at home and in the hospital environment. Adverse reactions can range from mild allergic reactions (urticaria, pruritis, erythema) as common as 1/100 transfusions, to more severe transfusion related lung injury and even rarer immediate or delayed hemolytic transfusion reactions as rare as 1/40,000 transfusions (<i>CBS, 2013</i>). Having plans in place to deal with the range of potential reactions can protect patient safety and improve clinical outcomes (<i>Green, Pirie, 2012</i>).</p>

4. Introduction

4.1 Purpose and Scope

Home Transfusion has been occurring within Nova Scotia for many years. As an essential part of a quality based cost effective health care system, it is essential that home transfusion programs implement evidence informed practices.

This guideline serves the Service Care Providers, Physicians, Transfusionists, and the Blood Transfusion Service Laboratory personnel in preparing and providing blood and blood components for transfusion in the home environment based on evidence informed practice. It can also be used to support policy and protocol development within broader organizations.

This guideline outlines the roles and responsibilities of each individual, the admission guidelines, exclusion criteria, process for safe handling, storage, and transport, transfusion and post-transfusion care. All of which are in compliance with current standards and evidence.

4.2 Guideline Development Process

The request to develop a provincial guideline for Home Transfusion was brought forward to the NSPBCP by the DHAs/IWK in 2004, in order to support compliance with home transfusion requirements contained in the Z902-04 Blood and Blood Components Standards and to standardize the practice of home transfusion within Nova Scotia.

An environmental scan was performed and completed prior to release of the first version in 2004. From this scan, The *Continuing Care Branch Home Transfusion Therapy Protocol* (March 5, 2002) was identified as being compliant with Z902-04 requirements and would therefore serve as the template for the initial document.

With a template chosen and standards to direct the revision, key teams and individuals provided feedback on content and processes. Feedback was obtained through various mechanisms such as fax, email, teleconference and meetings until a balance of service provider processes (VON, BTS, Transport Canada) and evidence informed practice were achieved.

5. Definition of Terms

Transfusion

Within this document refers to the administration of blood and blood components by a service provider in the home environment.

Home Environment

Refers to the client's own home, care homes, all areas where blood components are administered that are not covered by local hospital protocols (*Green, Pirie 2012*).

Blood Component

A therapeutic component of blood intended for transfusion (e.g. red cells, granulocytes, platelets, plasma) that can be prepared using the equipment and techniques available in a blood centre (*CSA, 2010*).

Blood Product

Any therapeutic product derived from human blood or plasma and produced by a manufacturing process that pools multiple units (usually more than 12) (*CSA, 2010*).

Adverse Reaction

An undesirable and unintended response to the administration of whole blood, blood components, or blood products, that is considered to be definitely, probably, or possibly related to the administration of whole blood, blood components, or blood products (*CSA, 2010*).

Blood Transfusion Service (BTS)

An establishment that performs transfusion-related serological testing and/or is involved in the provision of blood components/products. It may also be referred to as a Blood Bank or Transfusion Laboratory, or Transfusion Service (*CSTM, 2011*).

Capable Adult

An individual, identified by the client, who is at least 19 years of age, mentally aware and physically able to assist the client to access emergency health care services should an emergency arise during or following the transfusion. This person cannot be a Continuing Care paid Caregiver, or paid with funds through the Department of Health such as in Home Support (*CCNS, 2008*).

Care Coordinator

An employee of Continuing Care who coordinates the process for home transfusion (*CCNS, 2008*).

Physician

Diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments and maintain general health in humans through application of the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health care providers. Also known as Medical Doctors (*WHO, 2008*).

Temperature Monitoring Device

A device used to monitor temperature. Devices vary; some display the temperature while others indicate if an acceptable temperature range has been maintained. Examples of devices include but are not limited to thermometers, data loggers, and temperature indicators that attach to blood/blood components (*CCNS, 2008*).

Service Provider

A service provider describes organizations that provide registered nurses (RNs) with demonstrated competency in the administration of blood/blood components and in recognizing and managing adverse events. In the context of this document, this term is used to describe the RN or Transfusionist administering the transfusion (*CCNS, 2008*).

6. Background

While administration of blood components in the home environment has been an established clinical practice since the 1970s (*Benson, 2006*), current rates of home transfusions can be challenging to find. An American nation-wide survey completed in 1995 demonstrated that of the received responses, 16% provided or participated in a home transfusion program (*Benson et al., 1998*). This is believed to be more than quadrupled the rate of home transfusions occurring during the late 1960s (*Benson, 2006*) indicating a potentially still growing trend.

With the need for greater fiscal constraint in our health care systems across Canada, and particularly here in the Maritimes, health care organizations are seeking evidence informed solutions to the current burdens within the health care system. Home transfusion programs have many advantages for the system as well as individual health care centres including the relative low cost (as compared to inpatient treatment), reduction in the use of outpatient resources, and a decreased liability risk due to clerical errors (*Benson, 2006*).

For patients and families, the advantages are often greater. They can include increased patient autonomy, reducing stress by being in a comfortable, familiar environment,

reduce discomfort and conservation of energy, as well as decrease their risk of acquiring a nosocomial infection (*Benson, 2006*).

However, despite the advantages, there are inherent risks to home transfusion that must be carefully considered. The most urgent of which is the lack of immediate medical assistance in the event of an adverse transfusion related reaction (*Frیده, 2013*).

Practitioners and health care organizations must carefully assess each patient's appropriateness for receiving this specialized care in their own home, considering their quality of life, the availability of quality care, and ensuring that the benefits of the treatment outweigh the risks.

With clear procedures in place to prioritize patient safety and foster evidence informed practice, home transfusions can be a positive and vital part of a patient's care plan, which can increase their quality of life and reduce hospital burden.

7. Practice Recommendations

7.1 Admission Guidelines

7.1.1 Clinical Assessment

A clinical assessment of the appropriateness of the client for home transfusion should be conducted. This should include an assessment of the client's transfusion history, current medical status, current indication for home transfusion, and physical safety for the client and practitioner in the home environment (*Green, Pirie, 2012*).

The client may be appropriate for home transfusion if (*CCNS, 2008*):

- i. There is at least one previous history of transfusion in hospital, without a serious adverse reaction. Clients who have never had a transfusion may be considered when the physician determines the benefits of home transfusion outweigh the risks.
- ii. There is a history of adverse transfusion reactions that are of a controllable nature (i.e. fever controlled with medication).
- iii. There are physical limitations that would require ambulance transport to hospital for transfusion, or hospital admission for transfusion.
- iv. The client is alert, cooperative, and able to respond appropriately to body symptoms unless otherwise determined appropriate by the physician (particularly nursing home patients and pediatrics).
- v. The client has a predictable stable medical condition, without significant cardiovascular compromise (unstable angina, CHF).
- vi. The client has adequate venous access.

- vii. There is a history of clinically significant red cell antibodies (reactive or not) provided antibody specificities are clearly identified. There should be no unresolved serological findings; meaning the BTS is able to provide fully compatible units. The discovery of new clinically significant antibodies must be reported to the attending physician who may consult with a hematopathologist/pathologist to determine if continuation with the *Home Transfusion Guidelines* is reasonable. The Transfusionist or other appropriate practitioner must call BTS to check if client has antibodies and document all communications.

7.1.2 Exclusion Criteria

The service provider should have an established policy or protocol that identifies exclusion criteria from utilization of the *Home Transfusion Guidelines*, which compliments but does not conflict with the admission guidelines.

The client may not be appropriate for home transfusion if (*CCNS, 2008*):

- i. They require rapid transfusion for emergency purposes.
- ii. They have had a previous serious, adverse transfusion reaction (i.e. anaphylaxis and respiratory distress).
- iii. They are experiencing acute GI bleeding.
- iv. They have an elevated temperature with consideration of the client's disease process (i.e. febrile neutropenia). Palliative care cases may be considered in exception to this criterion upon discussion with the attending physician and service provider.
- v. They require granulocyte transfusions.
- vi. They require weekend transfusions which may be unavailable due to staffing limitations.
- vii. They have a history of clinically significant antibodies with unresolved serologic findings.
- viii. They are not able to access an Emergency Care Centre/hospital within 30 minutes of the transfusion.
- ix. They do not have access to a working phone.

7.1.3 Appropriate Indication

The service provider should have an understanding of appropriate indications for transfusion at home (or hospital) based on current and relevant evidence as available (*Green, Pirie, 2012*).

The client may be appropriate for home transfusion if they fit into one of the following criteria (but not limited to) (CCNS, 2008):

- i. The client is in a non-emergent situation and can wait up to 48 hours for a transfusion.
- ii. The client has symptomatic anemia due to malignancy, AIDS, or chronic disease.
- iii. The client is not bleeding but has thrombocytopenia with a platelet count of $<10 \times 10^9/L$ or where there is a risk of spontaneous hemorrhage despite a platelet amount of $>10 \times 10^9/L$.

7.2 Defining Roles and Responsibilities

7.2.1 Physician

The physician is an essential part of the care circle for patients receiving home transfusions and typically the first contact for the patient. Their role and responsibilities should be well defined (Green, Pirie, 2012). A roles and responsibilities flow chart is included in appendix I.

The physician referring the client for home transfusion should be responsible for the following processes (CCNS, 2008):

- i. Ensuring they understand the admission guidelines including exclusion criteria.
- ii. Informing the client/substitute decision maker of the need for the transfusion, the benefits, risks, and alternatives to home transfusion. The physician should communicate the increased risk of receiving a transfusion in the home (vs. hospital) and explain why the benefits outweigh the associated risks in respect to the individual client's condition. A patient information handout is included in appendix II.
- iii. Informing the client/substitute decision maker of the need to have a capable adult identified at the time the home transfusion is ordered. This person must be present during the service provider's assessment, pre-transfusion sample collection, and transfusion and for a minimum of 6 hours post transfusion.
- iv. Obtaining a patient consent form signed by the client/substitute decision maker (included in appendix III), as well as the patient checklist (included in appendix IV), and medical orders (included in appendix V). These 3 forms must be faxed to the care coordinator authorizing the service, followed by a mailed copy of the original consent. Palliative care clients who are under the care of a palliative care program may become candidates for home transfusion by telephone consent as determined by the referring physician on a case

by case basis. This is only applicable to patients whose course of treatment has not changed. If course of treatment changes occur, formal written (informed) consent signed by the client is required.

- v. The physician must be immediately available on the day of the transfusion, or must arrange to have an alternate physician (designate) available. They must communicate any changes to the care coordinator.
- vi. The physician must be aware that the pre-transfusion sample is required 48 hours prior to the anticipated date of transfusion, unless otherwise indicated by BTS. Samples are acceptable for a maximum of 96 hours.
- vii. The physician must be aware that the registered nurse (RN) assigned to administer the transfusion will contact the physician to confirm the planned date and time for the transfusion.
- viii. Ensure processes are in place for traceability and notification (including care coordinator and/or service provider and client) in the event of a quarantine or recall of units already issued for client.
- ix. The physician must be in compliance with CSA Z902-10 section 14.3 and also include:
 - Blood component amount, rate and date of transfusion
 - Special requirements (i.e. CMV negative and/or irradiated)
 - Pre-medications (as required)
 - Adverse reaction medication orders
 - Pre and post transfusion laboratory tests (as required)

7.2.2 Care Coordinator

The care coordinator is essential to the organization and management of home transfusion cases in providing administrative and facilitating support. Their role and responsibilities should be well defined (*Green, Pirie, 2012*).

The care coordinator assigned to the client for home transfusion should be responsible for the following processes(*CCNS, 2008*):

- i. Forward the *Home Transfusion Guidelines* and attached appendices to physicians.
- ii. Follow up on any consent form, referral form, or medical order form not yet received from the ordering physician. The forms must be received before the transfusion can be authorized.
- iii. Confirm with the physician that the client is medically appropriate and requires the service due to severe debility, risk/benefit ration, or other factors based on the *Home Transfusion Guidelines*.
- iv. Confirm with the physician that the client has a capable adult identified at the time the transfusion was ordered.

If a capable adult cannot be found, the transfusion must be cancelled.

- v. Confirm that the physician or designate will be immediately available (by phone) for the day of the transfusion.
- vi. Inform the physician that the service provider will be contacting them to discuss the transfusion date and time.
- vii. Ensure the pre-transfusion sample collection occurs early in the week to ensure the blood component(s) are available by Thursday or Friday of the same week. The cross match sample is required 48 hours prior to the anticipated date of transfusion, unless otherwise indicated by BTS. The pre-transfusion sample is acceptable for a maximum of 96 hours.
- viii. Review client's clinical history to determine infectiousness. If the client's clinical history indicates infectiousness; the sample must be transported in compliance with *Transport of Dangerous Goods Regulations section 1.39 Class 6.2, Infectious Substances, Category B Exemption SOR/2008-34*. Have the client present to a local blood sample collection centre for sample collection; unless a courier with Transport of Hazardous Goods certification is available to transport the sample to the BTS. If the client's clinical history indicates a pre-transfusion blood sample should be non infectious and thus non hazardous for transport, ensure client's family is able to transport the blood sample to the BTS according to *Transport Canada section 1.42 Human or Animal Specimens Believed Not to Contain Infectious Substances Exemption SOR/2008-34*. The family may choose to have the sample transported by a courier if available.
- ix. Notify the service provider of the referral and forwards the completed paperwork.
- x. Determine the availability of the service provider.
- xi. Ensure processes are in place for traceability and notification (including physician, service provider, and client) in the event of a quarantine or recall of units already issued for client.
- xii. Continue ongoing case management:
 - Contact the physician to identify if additional transfusions are anticipated.
 - Follow up with physician if the original consent is not received and filed in client's file.
 - Keep client's case open in the even another transfusion or other services are required.

7.2.3 Service Provider

The service provider is crucial to the successful administration of a home transfusion as the front-line staff who will work with clients in the home environment. Their role and responsibilities should be well defined (*Green, Pirie, 2012*).

The service provider assigned to the client for home transfusion should be responsible for the following processes (CCNS, 2008):

- i. Contacting the hospital BTS to inform them of the home transfusion request.
- ii. Communicating the expected date of transfusion and confirm the availability of the blood component(s) requested. The expected date of transfusion may require adjustment depending on patient history and/or blood component availability.
- iii. Confirm with the client/substitute decision maker that the capable adult will be present during the assessment, pre-transfusion sample collection, transfusion, and for a minimum of 6 hours after the transfusion. Document the name of the capable adult in the client's file.
- iv. Review the consent for treatment.
- v. Discuss the treatment ordered and answer any questions.
- vi. Clearly identify "home transfusion" on the BTS testing requisition. Bring the requisition to the client's home on the date of the pre-transfusion sample collection.
- vii. Advise the client/substitute decision maker that the client/family is responsible to transport the blood sample to the BTS. They may choose to have it couriered if available and appropriate. It must be transported to the BTS within 1 hour of collection.
- viii. Ensure the pre-transfusion sample is at the BTS within the required 48 hours prior to the anticipated date of transfusion, unless otherwise indicated by the BTS.
- ix. Notify BTS if patient has pre-transfusion sample collected at an outpatient clinic to ensure awareness and timely testing of the sample. Document and communicate clearly it is for home transfusion.
- x. Check that medical orders are complete and include:
 - The component to be transfused including special requirements (CMV negative and/or irradiated).
 - The number of units (maximum of 2 units of packed cells/24\hours).
 - The date of the transfusion.
 - Pre and post-transfusion laboratory tests to be performed (as required).
 - Any pre-medication (if needed).
 - Adverse reaction medication orders.
 - Rate of transfusion.
 - Discontinue IV 30 minutes after infusion, if appropriate.
- xi. Order all required supplies and obtain the required paperwork.
- xii. Complete the patient identification confirmation form (appendix VI).

- xiii. Collect the blood component(s) from BTS and transport to client's home in a blood transport container.

Do not open the transport container until ready to transfuse the blood or blood component(s).

- xiv. Return empty blood bags, tubing, sharps, blood transport container, and completed transfusion/compatibility tag (as applicable) to BTS.

7.2.4 Capable Adult

The capable adult is critical to the safe administration of a home transfusion as the person responsible for the client's care and well being after the service provider has left the home. Their role and responsibilities should be well defined (*Green, Pirie, 2012*).

The capable adult identified by the client for home transfusion should be able to fulfill and agree to the following responsibilities(*CCNS, 2008*):

- i. Be present and able to offer emotional support to the client and assistance to the service provider as needed during the nursing assessment, pre-transfusion sample collection, transfusion, and for a minimum of 6 hours post transfusion.
- ii. Understand and follow the service provider's instructions during all steps in the home transfusion process (assessment to post transfusion).
- iii. Assist the service provider in verifying the information on all blood component units packaged in the transport container matches the BTS requisition, the transfusion/compatibility tag, and the patient identification confirmation form (appendix VII) prior to client transfusion.
- iv. Recognize the signs and symptoms of a serious adverse reaction and be able to access emergency care for the client.
- v. Contact the physician after accessing emergency care in the event of a serious adverse reaction.
- vi. The attending physician's contact name and number is provided to the capable adult

7.2.5 Blood Transfusion Services (BTS)

The BTS is central to the safe procurement and provision of blood component(s) for home transfusion as they are in the hospital. They will complete the analysis of the pre-transfusion sample, as well as prepare and package the ordered component(s) for safe transport to the client's home.

The BTS' role and responsibilities should be well defined(*Green, Pirie, 2012*).

The BTS should be responsible for the following processes(*CCNS, 2008*):

- i. Process the pre-transfusion sample requisition and collection sample as requested. Alert the service provider and physician of any concerns.
- ii. Package, and sign out the blood components to the service provider according to region or hospital policy.
- iii. Ensure processes are in place for traceability and notification to physician, care coordinator, and/or service provider in the event of a quarantine or recall of units already issued outside of the hospital setting.

7.3 Home Administration

7.3.1 Pre-Transfusion Sample Collection

Pre-transfusion testing is an important step in the delivery of hospital or home transfusions. The testing includes typing for blood group (ABO), and Rh (D). Additionally, an antibody screen detects clinically significant antibodies in the client that may compromise the safety of the transfusion. Finally, a cross match is completed to ensure compatibility between the client and the blood component(s) to be received (*Routine Pretransfusion Testing, 2014*).

The service provider is responsible for ensuring completion of the successful collection of the pre-transfusion sample. These steps include (*CCNS, 2008*):

- i. Assembling the supplies and equipment to perform the pre-transfusion blood sample collection.
- ii. Following the local policies and procedures associated with the coordinating BTS.
- iii. Completing the BTS requisition form, the client identification sheet, a general consent form (if required), and a patient identification confirmation form.
- iv. Review the transfusion information with the client/substitute decision maker and encourage questions. Refer to Blood/Blood Component and Plasma Derivative Transfusion: The Benefits and Risks pamphlet.
- v. Obtain an informed/signed consent from the client/substitute decision maker.

- vi. Confirm with and/or obtain from the client/substitute decision maker any information regarding antibodies or previous reactions that they are aware of.
- vii. Inform the client/substitute decision maker that the patient identification confirmation form will be reviewed and signed with the service provider transfusing the blood component(s) prior to the transfusion.
- viii. Verify the same client's name, date of birth, and health card number/medical record number is recorded on the client information sheet, the informed consent form, the BTS/laboratory requisition, sample tubes, and patient identification confirmation form.

Pre-transfusion blood sample label must include client's name, health card number/medical record number, date of birth, RN, and capable adult/client's initials, date and time blood was drawn.

- ix. Collect the blood sample. It is required 48 hours prior to the anticipated date of transfusion, unless otherwise indicated by BTS.
- x. Ensure two legible signatures are included on the requisition and corresponding initials on the sample. Signatures/initials must be of the RN and the capable adult or client. The sample is also labeled as directed above. The RN must indicate on the requisition that this is **for home transfusion**, and include the date and time of transfusion if available. Samples must be returned to the BTS for testing **within one hour**. The sample is acceptable for a maximum of 96 hours.
- xi. Pack the sample tubes in an absorbent material, put into a Ziploc bag, and place in a padded and sealed container as per local policy or procedure for transportation of bio-hazardous materials.
- xii. When deemed safe for transport as per section 2.2.a.viii of this document, inform the client/substitute decision maker that the sample is available for transport to BTS. The family may choose to have the sample transported by courier if available. The sample must be transported to the BTS within 1 hour of collection.
- xiii. If the sample was collected in the hospital, a summary note of transfusion and outcome must be sent to that hospital for continuity and medical records.
- xiv. Clarify with BTS what other required paperwork based on local policy and complete it if applicable.

The pre-transfusion visit is NOT required if the pre-transfusion sample was collected in the hospital or at an out-patient

7.3.2 Transfusion

Not only do home transfusions reduce the costs to health care facilities in terms of staff resources, and to the client in terms of time and travel expense, home transfusions also benefit the client in providing treatment in a comfortable and familiar environment, it decreases nosocomial infection risk as well as reduces the risk of clerical errors. This being said, however, transfusions in the home environment require careful consideration and planning to ensure patient safety is maximized, resources are utilized effectively, and liability risks are reduced (*Benson, 2006*).

Home transfusion protocols should include the following processes(*CCNS, 2008*):

- i. Confirmation of consent from the client/substitute decision maker at the directly prior to transfusion.

If the client refuses the blood component(s) when taken to the home, the BTS may be able to accept certain blood component(s) back into inventory if the transport container has not been opened, the security seal has not been broken, the temperature is

- ii. Reviewal of patient identification confirmation form with the client/substitute decision maker and capable adult for accuracy. Complete the bottom half of the form indicating the client has been unequivocally identified as the recipient of the impending transfusion.
- iii. The service provider and capable adult compare and verify the client's identification on the BTS/laboratory requisition, transfusion/compatibility tag, and the blood component(s) label to ensure the information is identical.

If any discrepancy exists, contact the BTS immediately. DO NOT TRANSFUSE THE BLOOD COMPONENT(S).

- iv. Assemble supplies required for giving the blood component(s) and treating an adverse transfusion reaction.
- v. Ensure the client is in a comfortable position. Take and record baseline vitals. Complete a respiratory assessment.
- vi. Pre-medicate the client as ordered by the physician if applicable. If more than one unit is contained in the transport container, remove one unit quickly and reclose the transport container tightly. Do not remove the second unit until ready to transfuse. In some cases, if 2 units are required, each unit will be packed in separate boxes. Open only one box at a time as required.
- vii. Set up and start the infusion of the blood component(s). Run the blood

component slowly for the first 15 minutes and monitor vital signs, IV site, general condition and look for signs or symptoms of an adverse reaction. If there is no adverse reaction, increase the flow rate to desired rate and monitor vitals. Blood component(s) must be given within 4 hours of removal from the blood transport container.

- viii. Document vital signs on the transfusion flow sheet (appendix VII)
When the transfusion is complete, keep the vein open with normal saline for 30 minutes. Continue observing the client and take a final set of vital signs 30 minutes post transfusion, then document on the transfusion flow sheet.
- ix. Observe client for a delayed adverse reaction to the transfusion.
- x. Complete all documentation.
- xi. If no adverse reaction to the transfusion is noted 30 minutes after completion of the transfusion, remove the IV cannula as appropriate.
- xii. Collect all transfusion supplies in a plastic bag, including the infusion tubing, and return to BTS for proper disposal. Complete the transfusion/ compatibility tag (as applicable).
- xiii. Return transport container and any required documentation to the BTS including adverse reaction flow chart (if applicable).
- xiv. Dispose of all needles and sharps into an appropriate sharps container. Provide the client/substitute decision maker and capable adult with post transfusion instructions including what to do in the event of an adverse transfusion reaction.
Give the client/substitute decision maker the notification of transfusion form. Keep a copy for the chart and send a copy to the requesting physician.
- xv. Return equipment and supplies including empty blood bags, tubing, sharps, and completed transfusion/compatibility tag to the hospital.
- xvi. Notify physician of completion of transfusion and client's response to therapy.

7.3.3 Post-Transfusion

For the client with no complications during the transfusion, and no signs or symptoms of a delayed adverse reaction, the post-transfusion interaction with the service provider is an opportunity to ask final questions, and plan for future treatments if applicable. For the service provider it is an opportunity to finalize documentation of the treatment outcomes and if no further treatments are planned, end the therapeutic relationship (*Benson,2006*).

Home transfusion protocols should include the following processes for completion of the treatment(*CCNS, 2008*):

- i. The service provider must assess the client by a telephone call or home visit depending on the client's condition.
- ii. The service provider must contact the physician with the assessment information.
- iii. The service provider should complete all documentation and return file to the care coordinator.
- iv. The service provider should end the therapeutic relationship with the client in a positive and supportive manner.
- v. If the treatment is ongoing, the service provider should connect with the care coordinator to plan for the next ordered transfusion.
- vi. Provide patient with a completed notification of transfusion form (appendix VIII).

7.3.4 Documentation

Documentation encompasses all interactions with, assessments of, and care given to a client. Documentation can be written or electronically generated and is primarily information obtained through the nursing process. Documentation is a fundamental practice for nurses and professional patient care givers and contributes to the quality of patient care. Documentation is not optional (*CRNNS, 2012*).

Home transfusion protocols should include processes for documentation of the following verifications(*CCNS, 2008*): **Blood component(s) requisition**

- i. Client's name, date of birth, health card number/medical record number, ABO/Rh type.
- ii. Blood component(s) donation number and ABO/Rh and expiry.

Home transfusion protocols should include processes for documentation of the following verification(*CCNS, 2008*): **Blood component(s) unit tag**

- iii. Client's name, date of birth, health card number/medical record number, ABO/Rh type.
- iv. Blood component(s) donation number and ABO/Rh and expiry
- v. Expiry date of the blood component(s)

Home transfusion protocols should include processes for documentation of the following verifications(*CCNS, 2008*): **Blood component(s)**

- vi. Visual check for leakage, discolouration, or abnormalities such as clots or hemolysis.
- vii. Temperature; blood and plasma must be between 1-10°C. Record the temperature from the temperature monitoring device when available. Do not use the packed cells or plasma if the temperature monitoring

device reads less than 1°C or greater than 10°C. Platelets should be maintained between 20-24°C. If any blood component is outside the acceptable temperature parameters, return to BTS immediately.

- viii. Temperature monitoring devices will vary between facilities. When available, document the temperature on the monitoring device when each blood component is removed from the transport package.
- ix. Provide client/substitute decision maker the notification of transfusion form. Keep a copy for the chart and forward a copy to the ordering physician.

7.3.5 Adverse Transfusion Reaction

Adverse reactions are one of the biggest concerns in transfusing blood components both at home and in the hospital environment. Adverse reactions can range from mild allergic reactions (urticaria, pruritis, erythema) as common as 1/100 transfusions, to more severe transfusion related lung injury and even rarer immediate or delayed hemolytic transfusion reactions as rare as 1/40,000 transfusions (*CBS, 2013*). Having plans in place to deal with the range of potential reactions can protect patient safety and improve clinical outcomes (*Green, Pirie, 2012*).

Home transfusion protocols should include the following processes for preparing for and managing an adverse transfusion related reaction(*CCNS, 2008*):

- i. Patients should meet the criteria described in section 1.1a.i.ii. of this document.
- ii. Patients should be able to access an Emergency Care centre/hospital within 30 minutes of the transfusion.
- iii. Patients should have access to a working phone.
- iv. The service provider should provide the client and capable adult with post transfusion instructions including what to do in the event of an adverse transfusion reaction.
- v. If the service provider is still present when the adverse reaction occurs, they should follow the following steps for nursing management of the reaction:
 - Stop the transfusion and infuse normal saline.
 - Follow instructions at bottom of the medical orders: home transfusion document (appendix III).
 - Phone ordering physician and document any verbal orders. This may include collection of blood samples for reaction investigations.
 - Do not remove the IV cannula.
 - Call 911 (if required due to serious reactions) and prepare client for transport to the hospital. If client is

experiencing a mild reaction such as mild fever, or mild allergic response, continue to monitor for signs and symptoms and consult with ordering physician before calling 911.

- Return all transfusion supplies, including remaining blood not transfused to BTS.
- Report the reaction to the blood bank.

8. Document Review

Access

The guideline and printable versions of the appendices are available on the NSPBCP website <http://www.gov.ns.ca/health/nspbcip/>.

Reviewal Process

The guideline will be reviewed every three years or in response to a request from stakeholders, which may occur due to but not limited to, the following items: updates to governing standards occur, changes in provincial practice occur (service providers), deemed necessary due to results of quality system reviews or in response to Accreditation Canada inspection.

Facility specific SOPs created to support the guideline require annual review and review intermittently based on the above criteria as well as modifications to the guideline.

9. References

Anderson, K.C., Benson, K., Glassman, A.B., Hume, H., Oberman, H.A., Pisciotto, P., ... Thurer, R.L. Transfusion Practices Committee. (1997) *Guidelines for Home Transfusion*. AABB Press, Bethesda, MD.

Benson, K. (2006). Home is where the heart is: do blood transfusions belong there too? *Transfusion Medical Reviews*, 20, 218-229. [10.1016/j.mrv.2006.03.006](https://doi.org/10.1016/j.mrv.2006.03.006).

Canadian Blood Services. (2013). *Circular of Information For the Use of Human Blood Components*. (Ottawa, ON).

Canadian Standards Association. (2010). *Z902-10 Blood and blood components*. (Mississauga, ON).

Canadian Standards for Transfusion Medicine. (2011). *Standards for Hospital Transfusion Services*. (Ottawa, ON).

Canadian Task Force on Preventative Health. (n.d.). *Definitions of levels of evidence and grades of recommendations of the Canadian Task Force on Preventive Health Care*. Retrieved from <http://www.cmaj.ca/content/suppl/2004/03/15/170.6.976.DC1>.

College of Registered Nurses of Nova Scotia. (2012). *Documentation Guidelines for Registered Nurses*. (Halifax, NS).

Continuing Care Nova Scotia. (2008). *Home Blood/Blood Components Therapy Protocol*. (Halifax, NS).

Frیده, J., Silvergleid, A. (Eds.), Tirnauer, J. (Eds.), The path to safer home transfusion: Standardized procedures [Abstract], 2013. Retrieved from <http://www.uptodate.com/contents/the-path-to-safer-home-transfusion-standardized-procedures#H12>.

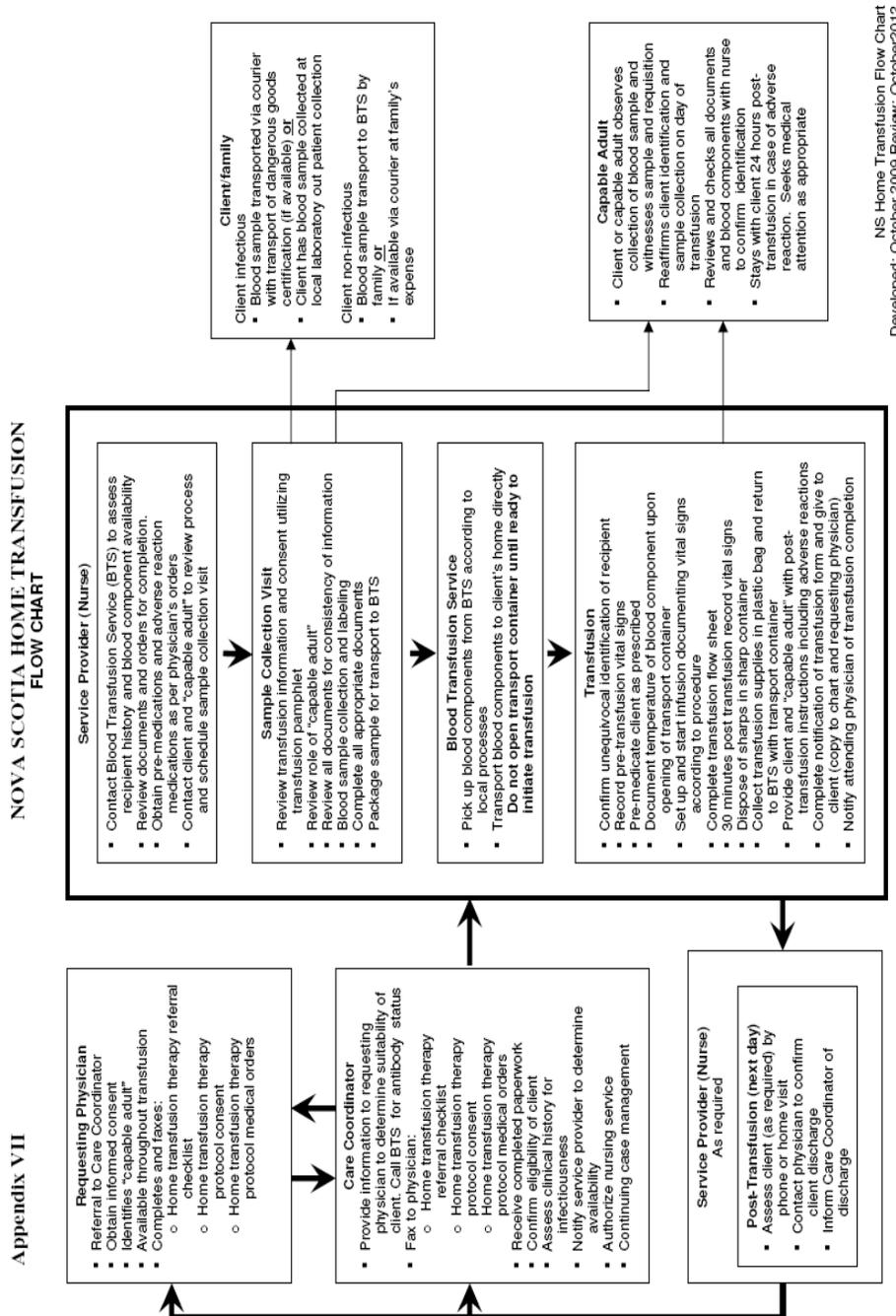
Green, J., Pirie, L. (2012). *Framework for the Provision of Blood Transfusion Out of the Acute Hospital Setting*.

Routine Pretransfusion Testing. (n.d.). University of Alberta. Retrieved from <http://www.ualberta.ca/~pletendr/tm-modules/pttesting/11-routine.html> on March 3rd, 2014.

The World Health Organization, 2008. Retrieved from http://www.who.int/hrh/statistics/Health_workers_classification.pdf.

Transport Canada. *Transport of Dangerous Good (TDG)-Clear Language Regulations-Part 2*. Retrieved from www.tc.gc.ca

Appendix 1: Roles and Responsibilities Flow Chart



Appendix 2: Patient Information Handout

What are the risks of transfusion?

As a result of the careful screening of donor blood, the risk of getting an infectious disease from a transfusion is extremely low.

There is a risk of having an adverse transfusion reaction. The more common of these reactions include mild fever or hives while the more serious and less common may lead to difficulty breathing. Ask your doctor to explain the risks in more detail to you. Any questions you have should be answered before you get the blood transfusion.

Signs and symptoms of an adverse transfusion reaction:

Because blood comes from another person there can be reactions during your transfusion so you will be monitored while getting blood. These signs may mean you are having a reaction to the blood transfusion:

- 🔥 Headache, fever, chills, shaking.
- 🔥 Feeling flushed or hot.
- 🔥 Hives, itchiness, pain.
- 🔥 Upset stomach or throwing up.
- 🔥 You may have trouble catching your breath.

Many reactions happen within the first fifteen minutes of the transfusion therefore *it is very important to let your nurse know if you are feeling any different from usual, or begin to feel unwell.* If you had a transfusion outside of the hospital (like in a clinic), and you have any of these symptoms call your doctor or get medical help immediately. You can also speak to a nurse directly by contacting Nova Scotia Health-Link at 811. Be sure to mention that you have had a transfusion.

Delayed reactions can also happen long after the transfusion. If you feel unwell, have a fever, notice blood or tea-colored urine or have a yellow look to your skin, call your doctor.

How can I avoid a transfusion?

Being anemic (e.g. low red blood cell count) at the time of surgery greatly increases your risk of needing a transfusion. Ask your doctor to check your blood for anemia long before your planned surgery (at least 3 months) so that anemia can be diagnosed and treated.

The Perioperative Blood Management Program (PBMP), housed at the Halifax Infirmity site of the QEII HSC, was established to decrease and/or eliminate the need for blood transfusion during scheduled surgery. For further information call the PBMP at (902) 473-3117 or email the coordinator at heather.mingo@cdha.nshealth.ca



The Nova Scotia Provincial Blood Coordinating Program (NSPBCP) promotes excellence in transfusion medicine in Nova Scotia. For more information about the program and our initiatives, call (902) 473-8207 or visit our website at www.gov.ns.ca/health/nspbcp/



Nova Scotia Provincial Blood Coordinating Program

Blood and Blood Product Transfusion: *A patient guide.*



What is a blood transfusion?

A blood transfusion is when blood or a blood product is given to you through a needle into one of your veins.

Why do I need a blood transfusion?

- 🔴 It may be needed if your blood cells are not working properly or you do not have enough of them.
- 🔴 You may have a health problem that causes you to need red blood cells, platelets, plasma, or blood products such as clotting factors.

How is blood donated and screened?

In Canada, blood is donated by healthy volunteers at Canadian Blood Services or Hema-Quebec. Donors are asked a series of questions to find out if they are healthy enough to give their blood. After they give their blood it is tested for diseases such as Hepatitis, HIV (the virus that causes AIDS), syphilis, HTLV (Human T Cell Lymphotropic Virus) and West Nile Virus. Each donation will make red blood cells, plasma, platelets or blood products. Your doctor will order one of these based on what you need.

Other types of Blood Donations:

If you are having surgery that is scheduled, "Autologous Donation" may be available through CBS. This involves donating your own blood so it is available if you need it, however necessary arrangements must be made by your surgeon to ensure the criteria are met. Family members sometimes ask if they can donate blood for a loved one. This is known as "Directed Donation" and is provided by CBS in very limited and special circumstances. Please talk to your surgeon to determine if this is available for you and have him or her explain the alternatives to transfusion. People interested in becoming a blood donor can call Canadian Blood Services (CBS) at 1-888-2 Donate (1-888-236-6283).

What is blood made up of?

Everyone's blood is made up of several parts, including:

- 🔴 Red blood cells that carry oxygen around in your body
- 🔴 White blood cells that help fight infection
- 🔴 Platelets that help your blood to clot
- 🔴 Plasma that contains hormones and proteins that fight infection or help your blood clot

While healthcare providers work hard to keep patients safe in Nova Scotia hospitals, it is still a good idea to ask the following questions before you receive a blood transfusion:

Why am I getting a blood transfusion?

Your doctor will talk with you about why you need a transfusion, how it will help you and what risks may be involved. The doctor will ask you to sign a consent form (give permission).

Please ask questions if there is any part of your treatment you do not understand.

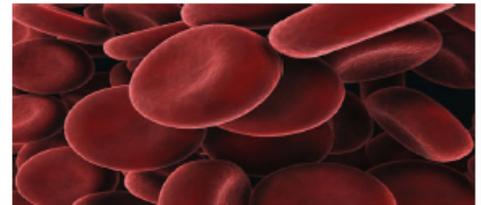
What is my blood type?

Your blood will be tested with donated blood to make sure the match is okay. This is called cross-matching. It is important to know your own blood type so be sure to ask your doctor about this.

Am I getting the right blood?

Although we have a very safe blood supply in Canada, mistakes can happen when getting blood. The most serious mistakes result from identifying the wrong patient¹. It is very important to make sure that your identification is checked before you have any blood tests or get your transfusion. Make sure you have your armband on and it is checked by the person who is drawing the blood and again when giving you the transfusion.

1. Kicklighter EJ and Klein HG. Hemolytic transfusion reactions. In: Linden JV and Bianco C, editors. Blood Safety and Surveillance. New York: Marcel Dekker, Inc. (2001:47-70)



NSPBPCP July 26, 2010

Appendix 3: Patient Consent Form



NOVA SCOTIA PROVINCIAL BLOOD
COORDINATING PROGRAM



Consent for Transfusion of Blood, Blood Components and/or Plasma Derivatives.

I _____ have been informed by my physician

_____, that in the course of my medical/ surgical treatment I may need a transfusion of blood, blood components or plasma derivatives (i.e. red blood cells, plasma, platelets, factor concentrate or cryoprecipitate). Autologous blood and other appropriate alternatives to the use of human blood have also been discussed.

I have been informed of and understand the benefits and risks associated with this therapy. I understand that risks exist even though the blood and/or blood components or plasma derivatives have been tested. I understand that all blood donors are volunteers and are carefully screened by medical history and sensitive laboratory tests in order to minimize the risk of infectious disease transmission, however these measures cannot completely eliminate these risks or the risks of other adverse reactions including serious injury and/or death.

I have been given information, including a pamphlet (“Benefits and Risks of a Transfusion”) on blood, blood components and plasma derivatives and the chance to ask questions about the benefits and risks. My physician has answered all my questions to my satisfaction.

I have read (or has been read to me) and understand all the above. I consent to the transfusion of blood, blood components and/or plasma derivatives if it becomes necessary during the course of treatment.

Date: _____
Signature of patient

Or

Date: _____

Signature of Substitute Decision Maker

Substitute Decision Maker (Print Name): _____

STATEMENT OF TREATING PHYSICIAN

I confirm that I have explained the nature, associated benefits, potential risks, and likely consequences of consenting to or refusing the transfusion of blood, blood components or plasma derivatives and alternative therapies and provided an opportunity to ask questions and answered all questions that were asked.

Signature of Physician _____ **CPSNS#** _____

PRINT NAME

Date:

Appendix 4: Patient Checklist

Name:				
Health Card Number:				
Date of Birth:	Is this patient infectious?	Yes		No
Care Coordinator:				
Transfusion Order:				
Blood Component:		Number of Units:		
Special Requirements:	CMV negative	Yes		No
	Irradiated	Yes		No
Client/parent/guardian informed and agreeable:		Yes		No
Client lives within 30 minutes of an Emergency Care Centre/Hospital		Yes		No
Date of last transfusion:				
Date of last pregnancy:				
Name of antibodies, if known:				
Reaction to previous transfusion		Yes		No
If Yes, describe:				
Civic address in which client will receive transfusion:				
Known allergies:				
When is physician available:				
SERVICE PROVIDER:				
Client Specific order for anaphylaxis		Yes		No
Pre-medication required		Yes		No
If yes, describe:				
Any additional medications required for stand-by?		Yes		No
If yes, describe:				
Remove saline lock 30 minutes after transfusion		Yes		No
Any required blood work, before or after transfusion		Yes		No
If yes, describe:				

Appendix 5: Medical Orders

Name:		Health Card Number:	
Date of Birth:		Informed consent obtained	
Diagnosis:		Date of Transfusion:	
Blood Component Requested:		# of units requested:	
Special requirements:	CMV negative	Irradiated	
Blood work:	Pre transfusion (specify)		
	Post transfusion (specify)		
Transfuse _____ units of _____ over _____ hours.			

Pre-transfusion medication (complete as appropriate):		
Acetaminophen (Tylenol)	Dose/Route:	Frequency:
Diphenhydramine (Benadryl)	Dose/Route:	Frequency:
Furosamide (Lasix)	Dose/Route:	Frequency:
Hydrocortisone Sodium Succinate (Solucortef)	Dose/Route:	Frequency:
Other (specify):	Dose/Route:	Frequency:

Adverse Reaction Medications:

Adverse reaction medications will be obtained and kept on-hand throughout transfusion **only** with a physician's order. Complete the following table fully to ensure adverse reaction medications are available for the recipient in case of an adverse reaction associated with blood and blood component transfusion.

Complete fully		
Acetaminophen (Tylenol)	Dose/Route:	Frequency:
Diphenhydramine (Benadryl)	Dose/Route:	Frequency:
Furosamide (Lasix)	Dose/Route:	Frequency:
Hydrocortisone Sodium Succinate (Solucortef)	Dose/Route:	Frequency:
Epinephrine (Adrenaline 1:1000)	Dose/Route:	Frequency:
Other (specify):	Dose/Route:	Frequency:

NOTE: Blood components will be administered with normal saline. If no reaction, the IV catheter will be removed 30 minutes post transfusion.

If an adverse reaction is detected the nurse will:

- Stop the transfusion immediately.
- Provide medication(s) for adverse reaction as per orders above.
- Notify the referring physician immediately and request further orders/directions.
- Medicate further if directed and/or arrange for hospital transfer as directed by the physician.
- Continue monitoring patient and document their blood pressure, pulse and respiration every 5-10 minutes until stable or while awaiting transfer.
- Notify the Blood Bank that a reaction has occurred.
- Proceed with the transfusion **ONLY** when directed by the physician.

Date:	Physician's Signature:
	Please Print Name:
Contact information:	

Appendix 6: Identification Confirmation Form

Client Name:
Health Card Number:
Date of Birth:
Address:
Attending Physician:
Nurse:

A. The following blood samples were collected from the above named client

Date:		
Collector (print & sign name):		
Capable Adult (print & sign name):		
# of tubes collected	Types of tubes collected	Tests ordered

B. and submitted for testing to the following laboratory _____.

FACILITY NAME

NOTE: The person named as the Capable Adult is to be the same person present for both the blood collection and for the transfusion.

C. Complete this section on the day of transfusion.

I hereby declare that the recipient of this/these blood component(s) is the aforementioned client whose pre-transfusion blood samples were submitted for testing:	
Date of Transfusion:	
Transfusionist (print & sign name):	
Client (print & sign name):	
Capable Adult (print & sign name):	

Form to be attached to client's chart as permanent record.

Appendix 7: Transfusion Flow Sheet

Client's Name:	
Health Card Number/Medical Record Number:	Date of Birth:
Client's Blood Type: ABO: Rh:	
Physician's Name:	
IV Solution:	
Site of infusion:	
Device (type and gauge):	
Premedication(s):	
Date:	Transfusionist:

Supply copy to BTS, original to stay with chart.

Blood Component	ABO/Rh type	Donor unit #/lot #	Temp. of Unit (°C)			
Time infusion started	Volume infused	Time infusion discontinued				
	Time	BP	T	P	R	Nurse Initials
Before Transfusion						
After Starting the Transfusion						
post 5 min. check						
15 min. check						
30 min. check						
60 min. check						
90 min. check						
2 hour check						
2.5 hour check						
3 hour check						
3.5 hour check						
4 hour check						
30 min. post Transfusion						

Adverse Transfusion Reaction: clinical signs and symptoms (✓ all applicable)			
<input type="checkbox"/> Fever	<input type="checkbox"/> Urticaria	<input type="checkbox"/> Shortness of breath	<input type="checkbox"/> Shock
<input type="checkbox"/> Hypotension	<input type="checkbox"/> Nausea/vomiting	<input type="checkbox"/> Other skin rash	<input type="checkbox"/> Pain, specify:
<input type="checkbox"/> Hypertension	<input type="checkbox"/> Jaundice	<input type="checkbox"/> No clinical symptoms	<input type="checkbox"/> Other, specify:
<input type="checkbox"/> Oliguria	<input type="checkbox"/> Tachycardia		
<input type="checkbox"/> Diffuse hemorrhage	<input type="checkbox"/> Chills/rigors		
<input type="checkbox"/> Hemoglobinuria	<input type="checkbox"/> Hypoxemia		

Other Comments/ Outcomes :

Appendix 8: Notification of Transfusion

Notification of Transfusion

DATE _____

HOSPITAL NAME
HOSPITAL ADDRESS

HOSPITAL # HEALTH CARD # DISCHARGE DATE	PATIENT NAME (SUBSTITUTE DECISION MAKER) ADDRESS PERSONAL AND CONFIDENTIAL
---	---

Dear Madam, Sir or Substitute Decision maker,

Hospitals in the province of Nova Scotia routinely tell all patients about blood, blood products, or protein based clotting factors that were given.

This letter is to inform you that you have received blood, a blood product, or a protein based clotting factor.

Please call your doctor if you have any questions.

Best Regards,

HOSPITAL NAME

Signature of Patient, Parent/Guardian

Relationship to Patient and Printed name

Signature and Printed Name of Witness

Day Month Year