



Applicability

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

Definitions

Blood Components	The therapeutic parts of blood used for transfusion, namely, packed red blood cells, plasma, fresh frozen plasma, platelets and cryoprecipitate. Referred to in Epic as blood products.
Blood Products	A category of proteins that may be prepared from large pools of donor plasma or derived from non-human sources. Aka plasma protein products (PPP) or fractionated plasma products. Referred to in Epic as derivatives.
PTS	Pneumatic Tube System
TM	Transfusion Medicine

Procedural Notes

1. Refer to the *AHS Transfusion of Blood Components and Blood Products Policy* for information on obtaining and transfusing blood components and blood products.
2. If a delay in transfusion is expected, the blood component or product should be returned to the issuing Transfusion Medicine location **immediately**.
 - 2.1. If initiation of transfusion is delayed for more than 60 minutes, the transfusion may still be started provided the unit is transfused within **four** hours of issue time.
 - 2.2. Small volume aliquots of red cells (less than 100mL) that are transported via PTS will not be returned to inventory due to significant temperature increases during transport.
3. Emergency Unmatched red blood cells may be issued via the pneumatic tube without patient identifiers.
4. It is at the discretion of the Transfusion Medicine staff to determine if the product may be sent via PTS. Blood components or products which are difficult to replace may not be sent by PTS due to risk of breakage (e.g. patient has multiple antibodies or product is very expensive).
5. Bubbles or foam may be present in albumin and IVIG units received via the PTS. If time permits, allow the unit to sit for the bubbles to settle. Looping or taping up the dependent tubing or back-flushing the line with normal saline has also reduced foaming.



Procedure



Blood components or products may only be sent via PTS if the products have been validated for that site and pneumatic tube station. Please contact your local Transfusion Medicine Department if you are unsure which PTS stations are serviced and what products are available by PTS.

Step	Action																								
Receiving Blood Component or Product																									
1.	<p>Blood component or product is sent.</p> <table border="1"> <thead> <tr> <th>If blood component/product...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>Is ready at time of request</td> <td>It will be sent via PTS.</td> </tr> <tr> <td>Is not ready at time of request</td> <td>Transfusion Medicine staff will notify the patient care unit there will be a delay. When ready, TM staff will notify the patient care to alert them to check the PTS.</td> </tr> <tr> <td>Does not arrive</td> <td>Notify Transfusion Medicine.</td> </tr> </tbody> </table>	If blood component/product...	Then...	Is ready at time of request	It will be sent via PTS.	Is not ready at time of request	Transfusion Medicine staff will notify the patient care unit there will be a delay. When ready, TM staff will notify the patient care to alert them to check the PTS.	Does not arrive	Notify Transfusion Medicine.																
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2.	<p>Upon arrival, retrieve the carrier from the PTS.</p> <p>Note: Some sites use Secure Send and will require a code to retrieve carrier. If the code is not entered within a preset time limit, the tube will return to TM. If unsure of the code, please contact your local TM department (see contact information section)</p>																								
3.	Remove the blood component or product from the plastic bag and TransLogic/Adanac bag, if present.																								
4.	<p>Inspect the blood component or product.</p> <table border="1"> <thead> <tr> <th>If ...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>Leaks, tears, or cracks</td> <td>See <i>TM40-05.017 Pneumatic Tube Decontamination</i>.</td> </tr> <tr> <td>Clots, excessive foaming, or bubbles</td> <td>Proceed to step 11.</td> </tr> </tbody> </table>	If ...	Then...	Leaks, tears, or cracks	See <i>TM40-05.017 Pneumatic Tube Decontamination</i> .	Clots, excessive foaming, or bubbles	Proceed to step 11.																		
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5.	<p>If your site utilizes the <i>PTS Blood Product Receipt Notice</i> slip, check that the patient and blood component/product information matches the information on the slip.</p> <table border="1"> <thead> <tr> <th>If information...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>Matches</td> <td>Complete the slip by printing your name and recording the time of receipt.</td> </tr> <tr> <td>Discrepant</td> <td>Proceed to step 11.</td> </tr> </tbody> </table>	If information...	Then...	Matches	Complete the slip by printing your name and recording the time of receipt.	Discrepant	Proceed to step 11.																		
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Returning Pneumatic Tube and Materials																									
6.	Return all packaging material to the plastic bag and seal. If sent in a TransLogic/Adanac bag, place the sealed plastic bag within the TransLogic/Adanac bag.																								
7.	<p>Place completed <i>PTS Blood Product Receipt Notice</i> slip in outside pouch of the plastic bag or TransLogic/Adanac bag (whichever is outermost).</p> <p>Note: Not all sites utilize the slip to track blood components/products issued via PTS.</p>																								
8.	Place bag in pneumatic tube canister.																								
9.	<p>Send pneumatic tube back to Transfusion Medicine.</p> <table border="1"> <thead> <tr> <th>Site</th> <th>PTS Station #</th> <th>Site</th> <th>PTS Station #</th> </tr> </thead> <tbody> <tr> <td>ACH</td> <td>130</td> <td>SCH</td> <td>6</td> </tr> <tr> <td>FMC</td> <td>70</td> <td>SHC</td> <td>62</td> </tr> <tr> <td>GPRH</td> <td>100</td> <td>SMHC</td> <td>3</td> </tr> <tr> <td>MHRH</td> <td>131 or 232</td> <td>UAH</td> <td>14 or 25</td> </tr> <tr> <td>RAH</td> <td>56</td> <td></td> <td></td> </tr> </tbody> </table>	Site	PTS Station #	Site	PTS Station #	ACH	130	SCH	6	FMC	70	SHC	62	GPRH	100	SMHC	3	MHRH	131 or 232	UAH	14 or 25	RAH	56		
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Step	Action						
10.	If used, <i>PTS Blood Product Receipt Notice</i> slip must be received back in Transfusion Medicine within 30 minutes of issue time. If not received within 30 minutes, TM staff will call the patient care unit to follow-up.						
Returning Blood Component or Product in Case of Discrepancy or Issue (as required)							
11.	<p>Contact Transfusion Medicine staff and inform them of the specific issue and that the blood component/product will be sent back via PTS.</p> <p>Do not send broken, opened, or spiked units via PTS. This includes empty blood bags being returned for transfusion reaction investigation. These must be hand delivered to Transfusion Medicine.</p> <p>See the <i>Contact Information</i> section below for site-specific phone numbers.</p>						
12.	Complete the <i>PTS Blood Product Receipt Notice</i> slip, if used, by printing your name and recording the time of receipt.						
13.	<table border="1"> <thead> <tr> <th>If ...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>You have received training regarding repacking blood components/products in the PTS</td> <td>Proceed to step 14.</td> </tr> <tr> <td>You have not received training regarding repacking blood components/products in the PTS</td> <td> Either: <ul style="list-style-type: none"> • Have someone trained to do so proceed to step 14. OR <ul style="list-style-type: none"> • Return the blood component/product immediately to Transfusion Medicine by hand. </td> </tr> </tbody> </table> <p>Note: Training on how to repack blood components/products for transport in the PTS can be arranged, dependent on zone availability, by contacting the Transfusion Safety Team (see contact information below).</p>	If ...	Then...	You have received training regarding repacking blood components/products in the PTS	Proceed to step 14.	You have not received training regarding repacking blood components/products in the PTS	Either: <ul style="list-style-type: none"> • Have someone trained to do so proceed to step 14. OR <ul style="list-style-type: none"> • Return the blood component/product immediately to Transfusion Medicine by hand.
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14.	<p>Repack the blood component or product into the plastic bag.</p> <table border="1"> <thead> <tr> <th>If blood component or product received...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>Wrapped in a towel or absorbent material</td> <td>Rewrap the blood component/product in the material prior to placing in the plastic bag.</td> </tr> <tr> <td>In a TransLogic/Adanac bag</td> <td>Place the plastic bag into the TransLogic/Adanac bag and seal.</td> </tr> </tbody> </table>	If blood component or product received...	Then...	Wrapped in a towel or absorbent material	Rewrap the blood component/product in the material prior to placing in the plastic bag.	In a TransLogic/Adanac bag	Place the plastic bag into the TransLogic/Adanac bag and seal.
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Wrapped in a towel or absorbent material	Rewrap the blood component/product in the material prior to placing in the plastic bag.						
In a TransLogic/Adanac bag	Place the plastic bag into the TransLogic/Adanac bag and seal.						
15.	See steps 7-9 for instructions on returning the repacked bag in the PTS.						



Contact Information

APL Transfusion Medicine

Site		Phone Number
ACH	Alberta Children’s Hospital	403-955-2332
FMC	Foothills Medical Centre	403-944-1367
GPRH	Grande Prairie Regional Hospital	825-412-4331
MHRH	Medicine Hat Regional Hospital	403-502-8648 ext 1549
RAH	Royal Alexandra Hospital	780-735-4382
SMCHC	Sheldon M Chumir Health Centre	403-955-6178
SHC	South Health Campus	403-956-1344
SCH	Sturgeon Community Hospital	780-418-8257
UAH	University of Alberta Hospital	780-407-8802
APL Transfusion Safety Team		Transfusion.SafetyTeam@albertaprecisionlabs.ca

Sample PTS Blood Product Receipt Notice

APL Transfusion Medicine	
Blood product and derivative receipt notice for pneumatic tube	
If received in error – contact Transfusion Medicine ASAP	
Patient name _____	pMRN _____
Unit # / Lot # and Sublot # _____	
Patient Care Unit _____	Tubed to # _____
Tech # _____	Date / Time _____
TO BE COMPLETED BY WARD UPON RECEIPT OF BLOOD PRODUCTS	
Received by _____	<ul style="list-style-type: none"> • Return all packing materials • Receipt notice MUST be returned to TRANSFUSION MEDICINE immediately.
Time received _____	
CH-0358 Feb 2022	

References

PS-59 Transfusion of Blood Components and Blood Products Policy. AHS. 15 February 2022.