



Transporting blood products from the SH laboratory to JK W&C Theatre and Birthing via the Pneumatic Tube System (PTS).



Susan McGregor
Transfusion Clinical Nurse Consultant

What blood products can be transported via the PTS?

The following blood products have been validated for safe transport from the SH lab to PTS receiving station 6 Level 2 Periop and PTS receiving station 7 Level 3 Birthing:

- RBC x1 unit
- RBC x2 units
- FFP x1 unit
- Platelets x1 bag

What about cryoprecipitate?

Excessive frothing of cryoprecipitate units transported via the PTS during the validation process resulted in cryoprecipitate not being able to be validated for safe transport via the PTS.

How will cryoprecipitate and other blood products be transported to Theatre and Birthing?

Cryoprecipitate and all other blood products e.g. Albumex etc will be issued on a per patient basis and collected from the SH transfusion laboratory by a WH staff member as per current practice.

How long does it take to transport blood products from the lab to JK W&C Theatre and Birthing?

During validation testing the time from issue in the SH lab to arrival at PTS receiving station 6 and PTS receiving station 7 were within the range of 1 minute 31 seconds and 1 minute 45 seconds.

How do I request blood products for transport via the PTS?

- For fresh blood products (RBCs, FFP and platelets) where time permits a Dorevitch Pathology Blood Product request form with all patient identifiers, blood product(s) requested, contact number and the clinical area that the blood product(s) is to be transported should be completed. The completed request form can be sent to the laboratory via the PTS .
- **Urgent requests and MTP activation must be telephoned** to the transfusion laboratory ext. 51480 and include patient details, blood product(s) requested, a contact number and the clinical area where the blood product(s) are to be transported to e.g. Theatre or Birthing.
- **Note:** If pretransfusion testing has not been completed for the patient then a blood sample and completed Blood Product request form **must** be sent to the SH lab – this can be sent via the PTS. Please ensure that the request form is completed correctly including the signature of the collector and that the tube is accurately labelled with legible patient and collector details to prevent the need for recollection and time delays.

What should I request?

- 2 units of RBC can be transported for the one patient a time per PTS carrier. 2 units should only be requested if the transfusion of the 2 units is going to be immediate.
- If the unit(s) is no longer required or there is expected to be a delay in transfusion, the unit(s) **must** be returned via the PTS to the transfusion laboratory **within 30 minutes** of the dispatch time to prevent wastage.

What if I want units on stand-by in theatre?

- As per current practice the Multi-Unit transporter which can transport and store up to five (5) units of red cells for the one patient for a maximum of three (3) hours from the time units are removed from the hospital transfusion laboratory blood fridge should be requested.
- An additional transporter was recently purchased and this will be dedicated for use by JK W&C Theatre.

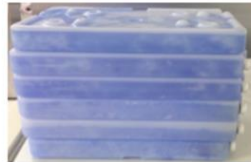
Multi-Unit Blood Transporter for Critical Bleeding Episodes

The Delta T transporter has been validated to store ≤ 5 units of red cells for 3 hours. Any red cell unit(s) not required for transfusion **must be** returned to arrive at the transfusion laboratory within 3 hours of issue to prevent unnecessary wastage.

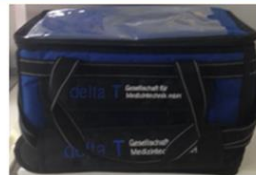
A patient label or documentation that includes the patient full name, UR number and DOB must be presented to the Blood Bank Scientist. Only units for ONE patient will be issued. Note: If unknown – unknown patient protocol must be followed.



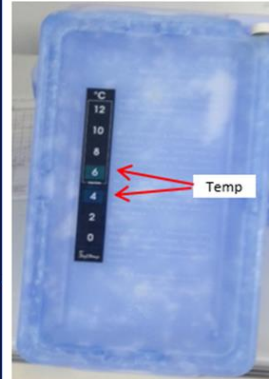
The Blood Bank scientist removes the inner shell from the blood bank fridge and places the units for the intended recipient inside.



The top of the inner shell is replaced ensuring that the inner shell is closed properly, and the inner shell placed in the transporter bag.



The transporter bag **must be left closed** until a unit is required for transfusion. Units may be removed briefly for checking but **must be** returned to the shell and the transporter bag **closed until** the transfusion of the unit is ready to commence.



Once a transfusion is **ready to commence** the transporter bag should be opened and the top of the inner shell removed.

The temperature should be checked to ensure that is within the required $4 - 6^{\circ}\text{C}$ and the unit for transfusion removed.

Note: If out of temperature the units must be returned to the transfusion lab.

The top of the inner shell **must be** replaced ensuring that it is closed properly, and the transporter bag closed.

This process must be repeated on removal of each unit.

Return of the transporter with unused units: any red cell unit(s) not required for transfusion must be returned within 3 hours of issue to prevent unnecessary wastage. If all units have been transfused the transporter should be returned the transfusion laboratory ASAP so it can be returned to the blood fridge.

The PTS basics

- The PTS carriers for general use e.g. transporting specimens to pathology are red topped.



- The PTS carriers for transporting blood products via the PTS are blue topped and lined with bubble wrap. Note: red topped carriers can be used if needed.



- The PTS stations in JK W&C are programmed to send all PTS carriers to SH Pathology. Priority is given to blue topped carriers transporting urgent blood products to Theatre and Birthing.





- Swipe access using an authorised individual's staff ID is required to unlock the PTS receiving cupboard door and retrieve PTS carriers.

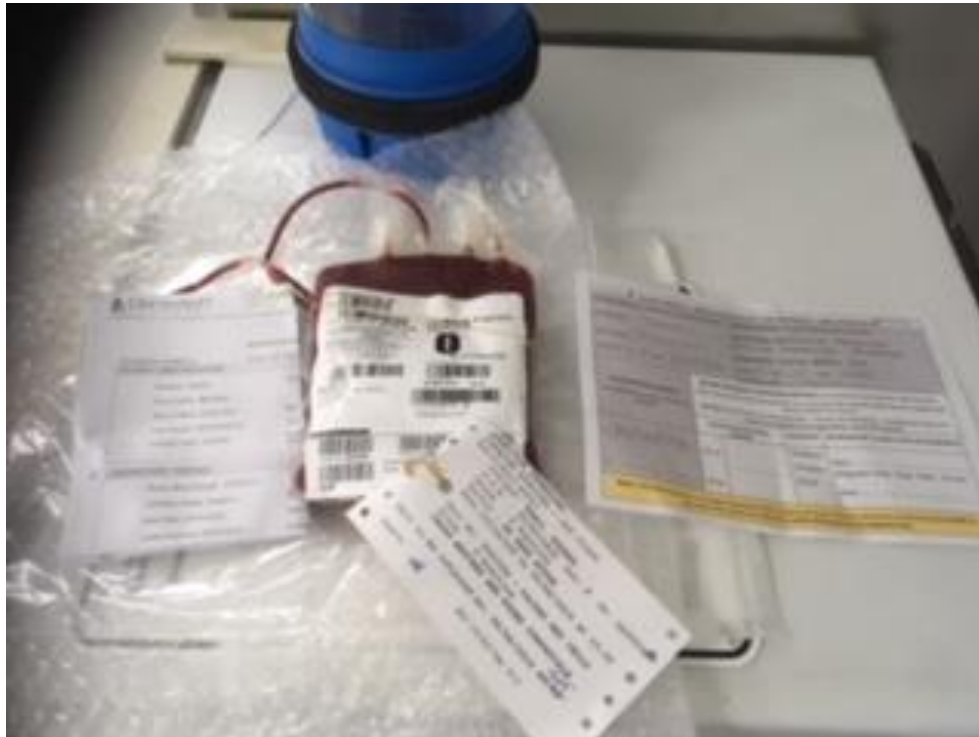


Issue, transport and receiving blood products transported via the PTS

- A completed request form is sent to the lab or a phone call is received by the blood bank scientist for blood products.
- The scientist will issue the blood products and compatibility form as per current practice.
- The scientist will complete a BLOOD PRODUCT VERIFICATION RECEIPT FOR PNEUMATIC TUBE SYSTEM (PTS) form that will accompany the blood product(s). This is a National Pathology Accreditation Advisory Council (NPACC) requirement.

Western Health  BLOOD PRODUCT VERIFICATION RECEIPT FOR PNEUMATIC TUBE SYSTEM (PTS) 				
PATIENT DETAILS (completed by Dorevitch Scientist)		DISPATCH DETAILS (completed by Dorevitch Scientist)		
Family name:		Blood Product: <input type="checkbox"/> Red cells x 1 unit <input type="checkbox"/> Red cells x 2 units <input type="checkbox"/> FFP x 1 unit <input type="checkbox"/> Platelets x 1 bag <input type="checkbox"/> FC (Theatre only)		
Given Name:		Dispatched to: <input type="checkbox"/> Birthing <input type="checkbox"/> Theatre <input type="checkbox"/> SCN		
DOB: / / UR:		Date: / / Time: Scientist name:		
Donation/Unit number: (Completed by issuing Dorevitch scientist)	BLOOD PRODUCT RECEIVED DETAILS (completed by receiving WH staff member). Upon receiving the blood product(s), the receiving staff member must check the patient and product details are correct. DO NOT commence if any discrepancies – contact the laboratory. Complete this form and return immediately to the laboratory via the PTS canister.			
		Correct unit (s) & time received	Ward/Unit	Receiving staff member name and designation
1.	<input type="checkbox"/> Yes	<input type="checkbox"/> Birthing <input type="checkbox"/> Theatre <input type="checkbox"/> SCN	Name:..... Designation: <input type="checkbox"/> RN <input type="checkbox"/> RM <input type="checkbox"/> MO <input type="checkbox"/> TTech
2.	<input type="checkbox"/> Yes			Other:
Note: If the blood product is no longer required or there is expected to be a delay in transfusion the blood product MUST be returned to the transfusion laboratory within 30 minutes of the dispatch time.				

- The scientist will place the blood product in a zip lock bag and place the bag and forms inside the PTS carrier lined with bubble wrap.
- The scientist will then call the number provided with the request to advise that the PTS carrier is being sent to the nominated PTS receiving station. This is why it is vital a contact number is provided with any written or verbal request.
- On arrival at the PTS receiving station the receiving staff member (any designation) retrieves the carrier from the PTS receiving cupboard (swipe card access).
- The receiving staff member must remove the blood product(s) from the carrier and perform a quick check to ensure the right blood product has been sent for the right patient and document the time received on the BLOOD PRODUCT VERIFICATION RECEIPT FOR PNEUMATIC TUBE SYSTEM (PTS) form.



REQUEST DETAILS (completed by donor/collector)		RECEIVING STATION (completed by receiving staff member)	
Recd. name: <u>David</u>	Issue name: <u>Prankie</u>	Recd. name: <u>David</u>	Issue name: <u>Prankie</u>
UIC: <u>3121</u>	UIC: <u>23576</u>	UIC: <u>1100</u>	UIC: <u>1100</u>
Donation/Unit number: (Completed by issuing Donor/Collect station)		BLOOD PRODUCT RECEIVED DETAILS (completed by receiving staff member). Upon receiving the blood product(s), the receiving staff member must check the patient and product details are correct. DO NOT commence if any discrepancies - contact the laboratory. Complete this form and return immediately to the laboratory, via the PTS carrier.	
Donation/Unit number: <u>3557354</u>	Correct unit (U) & time received	Work/Unit	Receiving staff member name and designation
	<input checked="" type="checkbox"/> Yes <u>1105</u>	<input checked="" type="checkbox"/> Whole <input type="checkbox"/> Platelets <input type="checkbox"/> Cryo	Name: <u>Susan</u> Designation: <input type="checkbox"/> RN <input type="checkbox"/> SW <input type="checkbox"/> SH <input type="checkbox"/> TH <input type="checkbox"/> Other
<p>Note: If the blood product is no longer required or there is expected to be a delay in transfusion the blood product MUST be returned to the transfusion laboratory within 30 minutes of the dispatch time.</p>			

- In a time critical episode the receiving staff member may deliver the blood product(s) to the area for immediate transfusion but **must** immediately return to the PTS receiving station place the bubble wrap and completed verification receipt form in the PTS carrier and return it to the laboratory.
- To return the PTS carrier to the lab - check both carrier ends are firmly clicked and locked and place the carrier in the loading port of the receiving station
- Press [E] Enter. The green light on the panel will indicate the transaction has been accepted - check on the screen that the transaction has been accepted before walking away from the station.

