Lifeblood Shippers - Receipt and Use by External Institutions

Purpose

This Work Instruction (WI) describes the process to:

- Provide information on the shipper packing configuration used by Lifeblood to transport blood products and actions you should take on receipt of a shipper from Lifeblood.
- Provide instructions to non-Lifeblood institutions that use Lifeblood shippers for their own purpose either internally or externally.

Disclaimer

This document shows the packing configurations used by Lifeblood staff when packing Lifeblood shippers for transporting blood products to customers (Approved Health Providers). While Lifeblood considers that these procedures are appropriate for its own purposes, Lifeblood does not acknowledge, or have control of the particular circumstances of Approved Health Providers

Your attention is drawn to the following;

- Customers must consider the transport requirements of Blood Products, the transport mechanism and environmental aspects in determining the appropriate packing configurations.
- Customers should note that Lifeblood strongly recommends the use of temperature recording data loggers for transportation over long distances and/or where extended transit times may be experienced, as the shippers are only validated for the transport of blood products over distances or timeframes according to Lifeblood specifications contained herein.

Lifeblood cannot accept responsibility for the viability of blood products transported in a Lifeblood shipper that was not packed by Lifeblood staff.

Parent procedure

This WI forms part of the procedure described in Issuing and *Packing components and Products* (SOP-00326).

Before you begin

N/A

1. Receipt of shippers

The Lifeblood National Shipper Configurations ensure that blood and blood products remain within the required temperature specification during transportation. There are several packing options, the use of which will depend on:

- The component or product type
- The ambient temperature
- The number of components or products
- The anticipated transit time

Please ensure all shipments received from Lifeblood meet the criteria stated below.

If…	**then…**
The shipper or bag appears to have been tampered with	• quarantine the units • contact your nearest Lifeblood Customer Service Department as soon as possible.

If…	then…
the shipper configuration does not meet the packing criteria	• take a manual surface temperature of the contents by placing a thermometer between two units and leave for 2 to 5 minutes to allow the temperature to stabilise • quarantine the units • contact your nearest Lifeblood Customer Service Department as soon as possible.

2. Preparation of shippers

Always check that the shippers are clean, inside and out, before use. Where there are any visible signs of damage or contamination with blood residue, the packing material is to be discarded. Deface and/or remove all old labels on the outer carton prior to discard.

2.1 Material required for shipper use

Red cell shipper configurations
• Lifeblood insulated shipper (with foam inserts) • Sancell/Lifeblood chilled ballast packs (conditioned at +2°C to +6°C for 24hrs prior to use) • Sancell/Lifeblood frozen ballast packs (conditioned at approximately -19°C for 48hrs prior to use) • Plastic liner bag • Foil pouch • Cardboard dividers with holes • Data Loggers (data loggers for customer's own use to be supplied by customer)
Platelet shipper configurations
• Lifeblood insulated shipper (with foam inserts) • Sancell/Lifeblood room temperature ballast packs (conditioned at +20°C to +24°C for 24hrs prior to use) • Plastic liner bag • Foil pouch • Data Loggers (data loggers for customer's own use to be supplied by customer)
Clinical Fresh Frozen Plasma (cFFP) Shipper Configurations
• Lifeblood insulated shipper (with foam inserts) • Sancell/Lifeblood frozen ballast packs (conditioned at approximately -40°C for 48hrs prior to use) • Plastic liner bag • Foil pouch • Data Loggers (data loggers for customer's own use to be supplied by customer) • Dry ice

Manufactured Product Shipper Configurations
• GCCS (TPC-15) insulated shipper (with foam inserts) • GCCS (VH-7) insulated shipper (with foam inserts) • GCCS (TPC-15) chilled ballasts (conditioned at +2°C to +6°C for 48hrs prior to use) • GCCS (VH-7) chilled ballasts (conditioned at +2°C to +6°C for 48hrs prior to use) • GCCS (TPC-15) frozen ballasts (conditioned at approximately -19°C for 48hrs prior to use) • GCCS (VH-7) frozen ballasts (conditioned at approximately -19°C for 48hrs prior to use) • Cardboard Collar • Corflute separator • Bubble wrap • Lifeblood insulated shipper (with foam inserts) • Sancell/Lifeblood chilled ballast packs (conditioned at +2°C to +6°C for 24hrs prior to use) • Sancell/Lifeblood frozen ballast packs (conditioned at approximately -19°C for 48hrs prior to use) • Plastic liner bag • Foil pouch • Cardboard dividers with holes • Data Loggers (data loggers for customer's own use to be supplied by customer)

NOTE: Please refer to Appendix A for supplier details

2.2 Storage of ballast material

Store ballast packs under the relevant conditions for the minimum time as described below.

Table 1. Pre-conditioning and storage times for ballast packs.

Ballast type	Pre-conditioned temperature	Minimum time	Packing configurations
Sancell/Lifeblood Room temperature	+20°C to +24°C	24 hours	P1, P2
Sancell/Lifeblood Chilled	Approximately +4°C	24 hours	R1, R2, R3, R4, N2, Lifeblood Transport Shipper for Evogam
GCCS Chilled	Approximately +4°C	48 hours	TPC-15, VH-7
Sancell/Lifeblood Frozen -19°C	Approximately -19°C (Domestic freezer)	48 hours	R1, R4, N2, Lifeblood Transport Shipper for Evogam
GCCS Frozen	Approximately -19°C (Domestic freezer)	48 hours	TPC-15, VH-7
Sancell/Lifeblood Frozen -40°C	Approximately -40°C	24 hours	F1
Note: Where the use of a data logger is necessary, the data logger should be conditioned for the temperature range required in accordance with manufacturer's instructions. Failure to condition ballast packs appropriately may adversely affect internal shipper temperature.			

2.3 Ambient temperature range

All configurations herein were validated using an external ambient temperature range of +4°C to +42°C.

3. Red cells

Red cell components should be transported using Packing Configurations R1, R2, R3 or R4; the choice of which will depend on the anticipated transport time. If the transport time is estimated to approach or exceed the Validated Transport Time (VTT) shown below, or if product is transported by independent courier (e.g. bus or aircraft), a data logger must be included.

Configurations R1, R2, R3 and R4 are designed to maintain the components within a temperature range of 2°C to 10°C as recommended in the Council of Europe “Guide to the Preparation, Use and Quality Assurance of Blood Components”, 14th edition.

Table 2 - Packing configurations and the validated transport time.

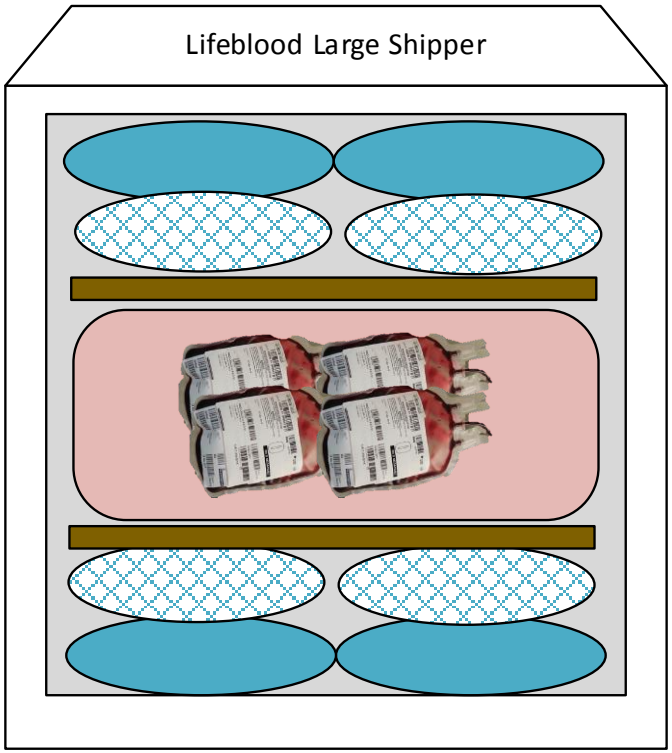
Packing Configuration	No. of components per shipper	Validated Transport time (VTT)
R1	1 to 10 red cells	6 hours** **Do not use for air transit**
R2	1 to 12 red cells	3 hours 25 mins*
R3	1 to 14 red cells	8 hours 25 mins*
R4	1 to 10 red cells	16 hours 18 mins*
* If anticipated transport time exceeds the maximum VTT, a data logger must be placed in the shipper between the components **The R1 shipper configuration cannot be used for anticipated transport times exceeding its VTT of 6 hours.		

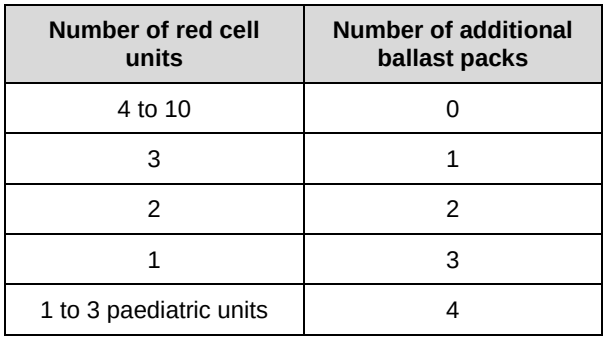
All configurations require a specific number of units to maintain temperature. Where fewer red cell units are to be packed, the specified number of chilled ballast packs (approximately +4°C) must be added. The correct number of ballast packs for each configuration is shown in the packing diagrams below.

The ballast packs should be placed outside the plastic liner to prevent contamination of the red cells, should the ballast packs leak.

R1

Capacity	Validated Transport Time
1 to 10 red cell units	**6 hours**



Legend	Name	Quantity	Note
	**Foil pouch**	**1**	Used to line box and contains all other items
	**Frozen -19°C ballast**	**2**	Place on top inside foil pouch
	**Chilled ballast**	**2**	
	**Cardboard divider**	**1**	Used as a barrier to maintain product temperature
	**Extra chilled ballast (as per table)** **Place ballast outside the plastic liner bag, between the cardboard dividers**		
	**Plastic liner bag**	**1**	Used to contain red cells
	**Cardboard divider**	**1**	Used as a barrier to maintain product temperature
	**Chilled ballast**	**2**	
	**Frozen -19°C ballast**	**2**	Place on bottom inside foil pouch

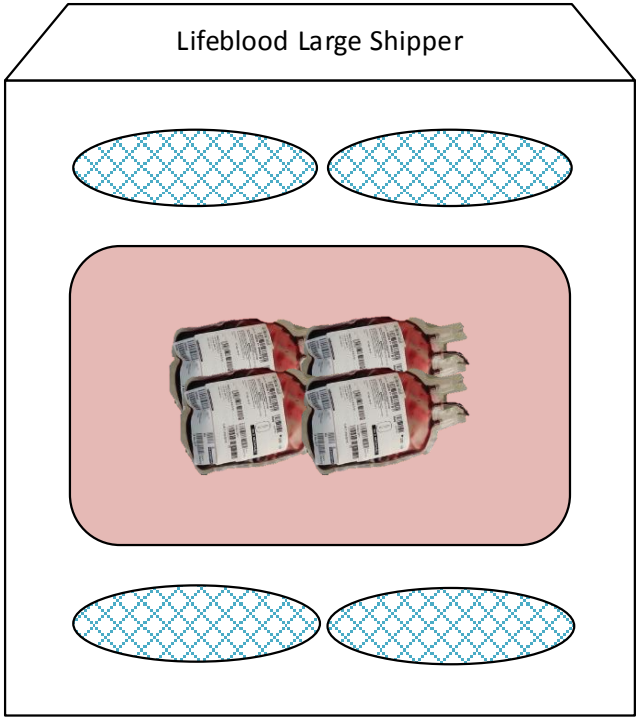
Number of red cell units	Number of additional ballast packs
4 to 10	0
3	1
2	2
1	3
1 to 3 paediatric units	4

Notes

- R1 cannot be transported by air.
- R1 cannot be used where the anticipated transport time exceeds 6 hours.

R2

Capacity	Validated Transport Time#
1 to 12 red cell units	**3 hours 25 minutes**

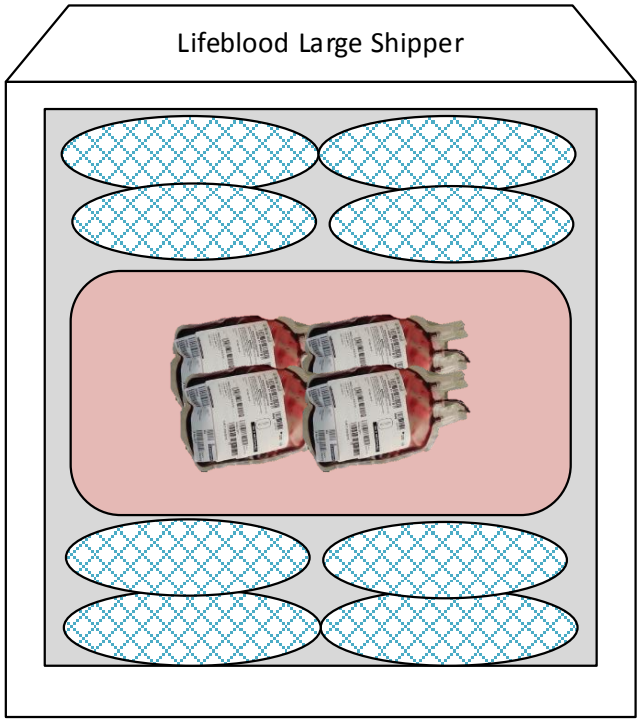


Legend	Name	Quantity	Note
	**Chilled ballast**	**2**	
	**Extra chilled ballast (as per table)** **Place ballast outside the plastic liner bag**		
	**Plastic liner bag and product**	**1**	Used to contain red cells and logger if added
	**Chilled ballast**	**2**	

Number of red cell units	Number of additional ballast packs
1 to 12	0
1 to 3 paediatric units	4

Notes # If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment

R3	Capacity	Validated Transport Time#
	1 to 14 red cell units	**8 hours 25 minutes**

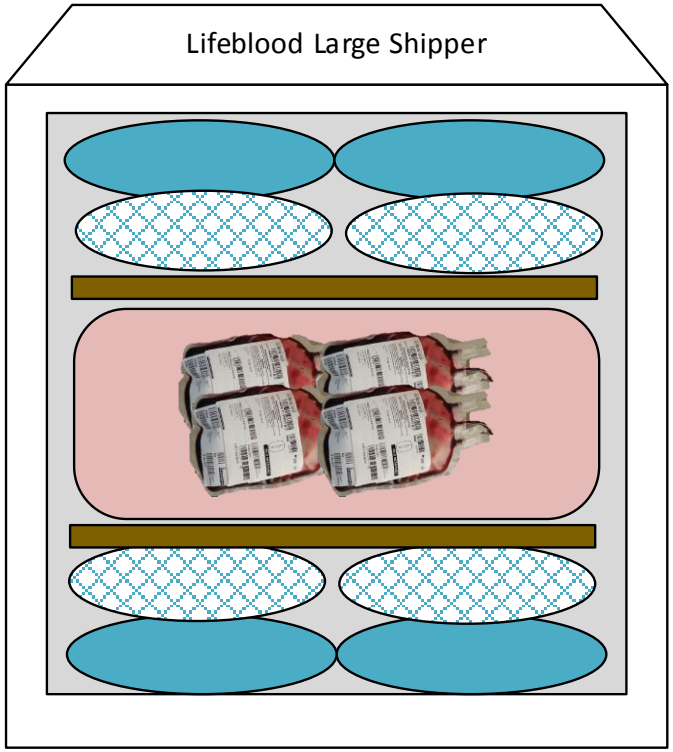


Legend	Name	Quantity	Note
	**Foil pouch**	**1**	Used to line box and contains all other items
	**Chilled ballast**	**4**	Inside foil pouch, 2 layers of 2
	**Extra chilled ballast (as per table)** **Place ballast outside the plastic liner bag**	See table below	
	**Plastic liner bag and product**	**1**	Used to contain red cells and logger if added
	**Chilled ballast**	**4**	Inside foil pouch, 2 layers of 2

Number of red cell units	Number of additional ballast packs
12 to 14	0
11	1
9 or 10	2
7 or 8	3
5 or 6	4
3 or 4	5
2	6
1	7
1 to 3 paediatric units	7

Notes	# If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment

R4	Capacity	Validated Transport Time#
	1 to 10 red cell units	**16 hours 18 minutes**



Legend	Name	Quantity	Note
	Foil pouch	**1**	Used to line box and contains all other items
	Frozen -19°C ballast	**2**	Place on top inside foil pouch
	Chilled ballast	**2**	
	Cardboard divider	**1**	Used as a barrier to maintain product temperature
	Extra chilled ballast (as per table) **Place ballast outside the plastic liner bag, between the cardboard dividers**	See table below	
	Plastic liner bag and product	**1**	Used to contain red cells and logger if added
	Cardboard divider	**1**	Used as a barrier to maintain product temperature
	Chilled ballast	**2**	
	Frozen -19°C ballast	**2**	Place on bottom inside foil pouch

Number of red cell units	Number of additional ballast packs
10	0
9	1
7 or 8	2
5 or 6	3
3 o 4	4
2	5
1	6
1 to 3 paediatric units	6

Notes	# If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment

4. Platelets

Platelet components should be transported using either Packing Configuration P1 or P2, the choice of which will depend on the anticipated transport time. If the transport time is estimated to approach or exceed the validated time shown below, or if product is transported by independent couriers (e.g. bus or aircraft) a data logger must be included.

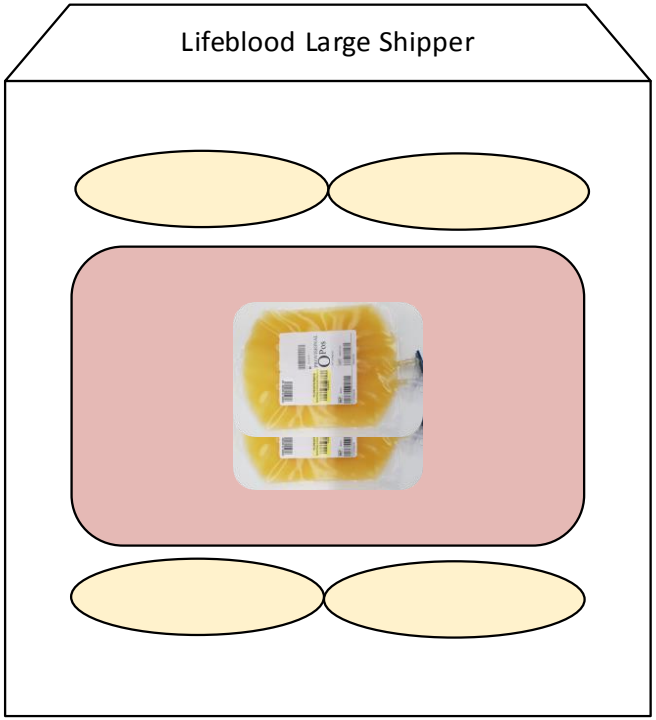
Configuration P1 and P2 are designed to maintain the components within a temperature range of 20ºC to 24ºC as recommended in the Council of Europe "Guide to the Preparation, Use and Quality Assurance of Blood Components" 14th edition.

Table 3 - Packing configurations and the validated transport time.

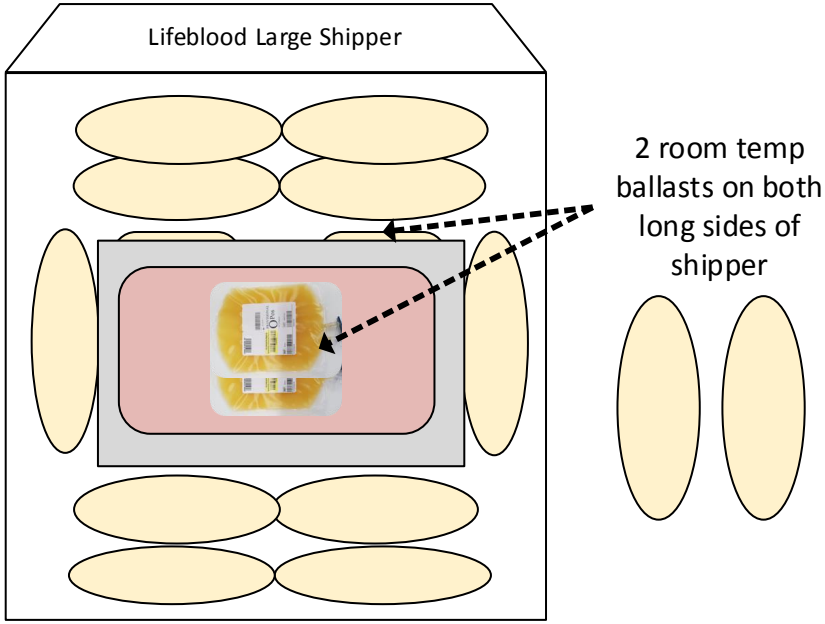
Packing Configuration	No. of components per shipper	Validated Transport time (VTT)
P1	1 to 7 pooled platelets 1 to 8 apheresis platelets 1 to 16 paediatric platelets	4 hours 43 mins*
P2	1 to 7 pooled platelets 1 to 8 apheresis platelets 1 to 16 paediatric platelets	7 hours 38 mins*
* If anticipated transport time exceeds the maximum VTT, a data logger must be placed in the shipper between the components		

Both configurations require a specific number of units to maintain temperature. Where fewer platelet units are to be packed, the specified number of room temperature **(+20 ºC to +24 ºC)** ballast packs must be added. The correct number of ballast packs for each configuration is shown in the packing diagrams below. The ballast packs should be placed outside the plastic liner to prevent contamination of the platelet units, should the ballast packs leak.

Lifeblood Shippers - Receipt and Use by External Institutions

<table>
<tr><th rowspan="2">P1</th><th>Capacity</th><th>Validated Transport Time#</th><th>Legend</th><th>Name</th><th>Quantity</th><th>Note</th></tr>
<tr><td>1 to 7 pooled platelets
1 to 8 apheresis platelets
1 to 16 paediatric platelets</td><td>4 hours 43 minutes</td><td></td><td>Room temperature ballast 20°C to 24°C</td><td>2</td><td></td></tr>
<tr><td colspan="3" rowspan="3"> 
</td><td></td><td>Extra room temperature ballast (as per table)

Place ballast outside the plastic liner bag</td><td colspan="2"><table>
<tr><th colspan="2">Number of platelet units</th><th>Number of additional ballast packs</th></tr>
<tr><td>4 to 8 apheresis
4 to 7 pooled</td><td>Mixed total of 7</td><td>0</td></tr>
<tr><td colspan="2">3</td><td>1</td></tr>
<tr><td colspan="2">2</td><td>2</td></tr>
<tr><td colspan="2">1</td><td>3</td></tr>
<tr><td colspan="2">1 to 16 paediatric units</td><td>4</td></tr>
</table></td></tr>
<tr><td></td><td>Plastic liner bag and product</td><td>1</td><td>Used to contain platelets and logger if added</td></tr>
<tr><td></td><td>Room temperature ballast 20°C to 24°C</td><td>2</td><td></td></tr>
<tr><td>Notes</td><td colspan="6"># If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment</td></tr>
</table>

<table>
<tr><th></th><th>Capacity</th><th>Validated Transport Time#</th><th>Legend</th><th>Name</th><th>Quantity</th><th>Note</th></tr>
<tr><td rowspan="2">P2</td><td>1 to 6 pooled platelets
1 to 8 apheresis platelets
1 to 16 paediatric platelets</td><td>7 hours 38 minutes</td><td></td><td>Room temperature ballasts 20°C to 24°C</td><td>4</td><td></td></tr>
<tr><td colspan="3" rowspan="6"> 
</td><td></td><td>Foil Pouch</td><td>1</td><td>Contains platelets, data logger and additional ballast packs (if required).</td></tr>
<tr><td></td><td>Room temperature ballasts 20°C to 24°C</td><td>6</td><td>Place 2 along each of the long sides and 1 at each short side of box</td></tr>
<tr><td></td><td>Extra room temperature ballast (as per table)

Place ballast outside the plastic liner bag</td><td colspan="2"><table>
<tr><th colspan="2">Number of platelet units</th><th>Number of additional ballast packs</th></tr>
<tr><td>2 to 8 apheresis
2 to 6 pooled</td><td>Mixed total of 7</td><td>0</td></tr>
<tr><td colspan="2">1</td><td>1</td></tr>
<tr><td colspan="2">1 to 16 paediatric units</td><td>4</td></tr>
</table></td></tr>
<tr><td></td><td>Plastic liner bag and product</td><td>1</td><td>Used to contain platelets and logger if added</td></tr>
<tr><td></td><td>Room temperature ballasts 20°C to 24°C</td><td>4</td><td></td></tr>
<tr><td>Notes</td><td colspan="6"># If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment</td></tr>
</table>

5. Frozen components (plasma and cryoprecipitate)

The F2 Shipper configuration is used by Lifeblood for routine transport of frozen components. There are specific steps that must be taken when transporting shippers containing dry ice by road. Please refer to Appendix B for further information.

The F1 shipper configuration is available to use in the event that no dry ice is available, however it is not recommended for routine transport. If the use of this configuration is required, a data logger must be included in the shipment.

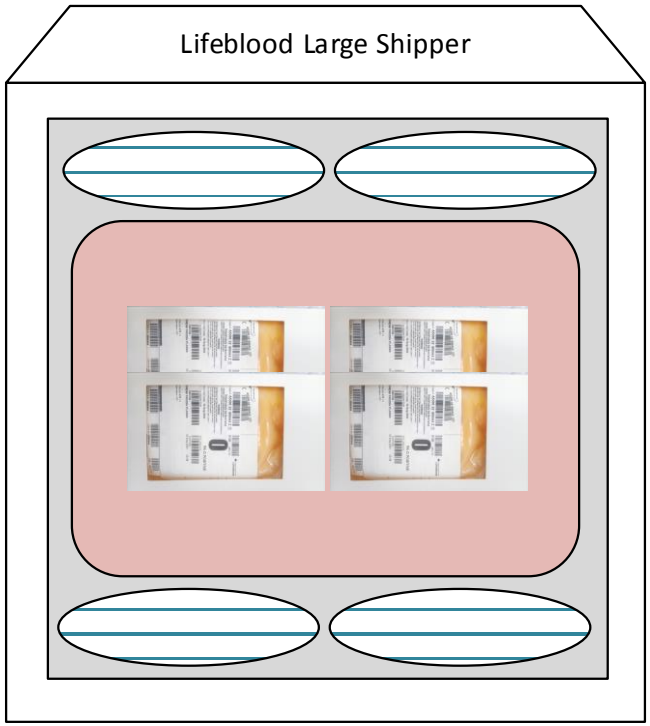
Configuration F1 and F2 are designed to maintain components at -25 °C as recommended in the Council of Europe “Guide to the Preparation, Use and Quality Assurance of Blood Components” 14th edition.

Table 3 - Packing configurations and the validated transport time.

Packing Configuration	No. of components per shipper	Validated Transport time (VTT)
F1	1 to 5 Whole Blood or Apheresis cFFP	45 minutes*
	5 to 25 Cryoprecipitate	N/A**
F2	1 to 5 Cryoprecipitate WB	17 hours 50 minutes*
	1 to 3 Cryodepleted APH 750ml	19 hours*
	1 to 6 Cryoprecipitate APH	17 hours 50 minutes*
	1 to 6 WB cFFP or APH cFFP	20 hours 40 minutes*
* If anticipated transport time exceeds the maximum VTT, a data logger must be placed in the shipper between the components **Use of the F1 configuration is not recommended for the routine transport of cryoprecipitate. If use of this configuration is required for this product, a data logger must be included in all shipments.		

Lifeblood Shippers - Receipt and Use by External Institutions

F1	Capacity	Validated Transport Time
	See table insert on right	



Legend	Name	Quantity	Note
	**Foil pouch**	**1**	Used to line box and contains all other items
	**Frozen -40°C ballast**	**2**	Place inside foil pouch – face down

Component	Min	Max	Validated Transport Time*
WB or Apheresis cFFP	1	5	45 minutes*
Cryoprecipitate	5	25	N/A**

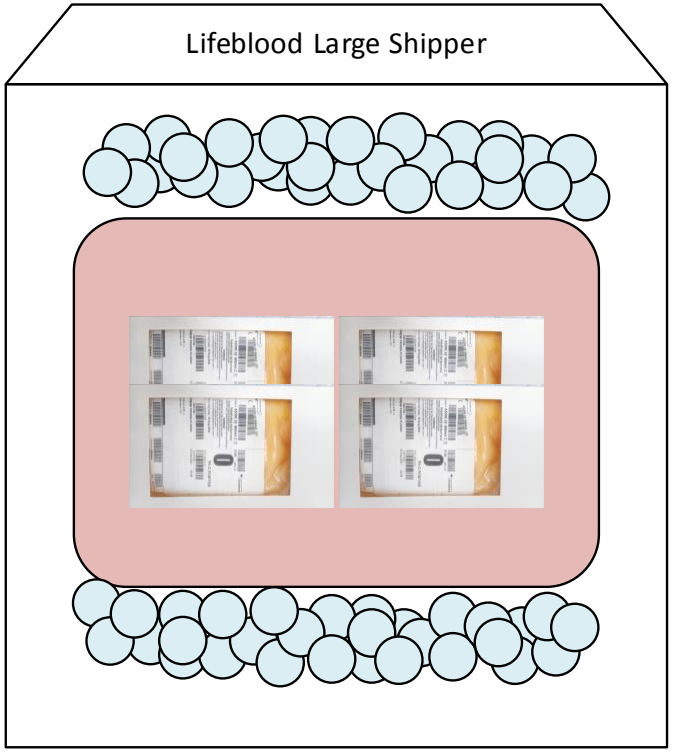
	**Plastic liner bag and product**	**1**	Used to contain frozen components and logger if added
	**Frozen -40°C ballast**	**2**	Place on bottom

Notes

- *This configuration is only to be used as a contingency when there is no dry ice available. A data logger must be included in all shipments.
- **Use of the F1 configuration is not recommended for the routine transport of cryoprecipitate.

Lifeblood Shippers - Receipt and Use by External Institutions

F2	Capacity	Validated Transport Time
	See table insert on right	



Legend	Name	Quantity	Note
	**Dry ice**	**1.8 Kg**	On top plastic liner bag

Components	Min	Max	Validated Transport Time#
Cryoprecipitate WB (1-5 per cardboard box)	1	20	17 hours and 50 minutes
Cryodepleted APH 750ml (no packaging)	1	3	19 hours
Cryoprecipitate APH (1 per cardboard box)	1	6	17 hours and 50 minutes
WB cFFP or APH cFFP (1 per cardboard box & vacuum sealed)	1	6	20 hours and 40 minutes

Mixing Components:

Any combination of components up to six boxes total can be mixed. The component in a mixed shipper with the shortest validated transport time (VTT) dictates the VTT that should be used for that shipper.

	**Plastic liner bag and product**	**1**	Used to contain frozen components and logger if added
	**Dry ice**	**1.8 Kg**	At bottom of shipper

Notes	# If anticipated transport time exceeds the maximum transport time a data logger must be placed in with the shipment.

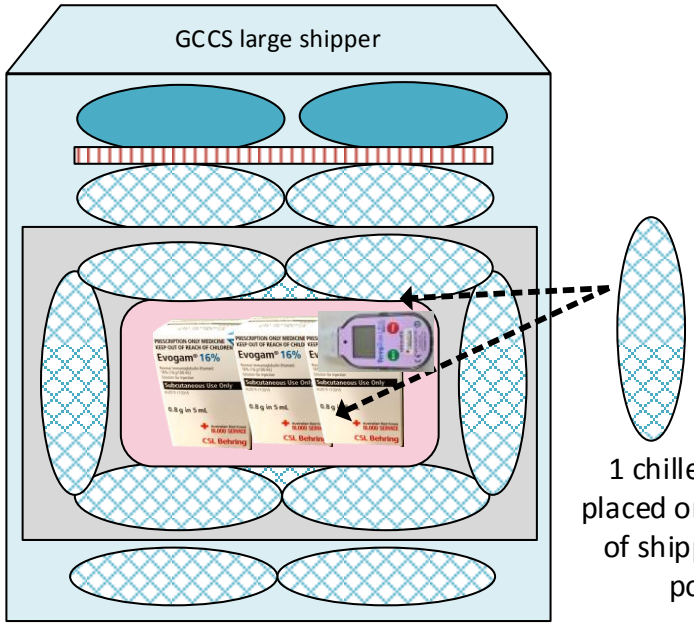
6. Manufactured products

The shipper configurations below are designed to maintain the temperatures required for various Manufactured Products as per the manufacturer's advice.

Table 4 - Shipper configurations, temperatures, and validated transport times

Configuration	Temperature range	Validated transport time
GCCS (TPC-15)	2°C to 8°C	24 hours
GCCS (VH-7)	2°C to 8°C	18 hours 5 minutes
N2	2°C to 11°C	19 hours
Lifeblood Transport Shipper for Evogam	2°C to 25°C	1 to 7 vials: 1 hour 40 mins 8 vials: 2 hours 40 mins

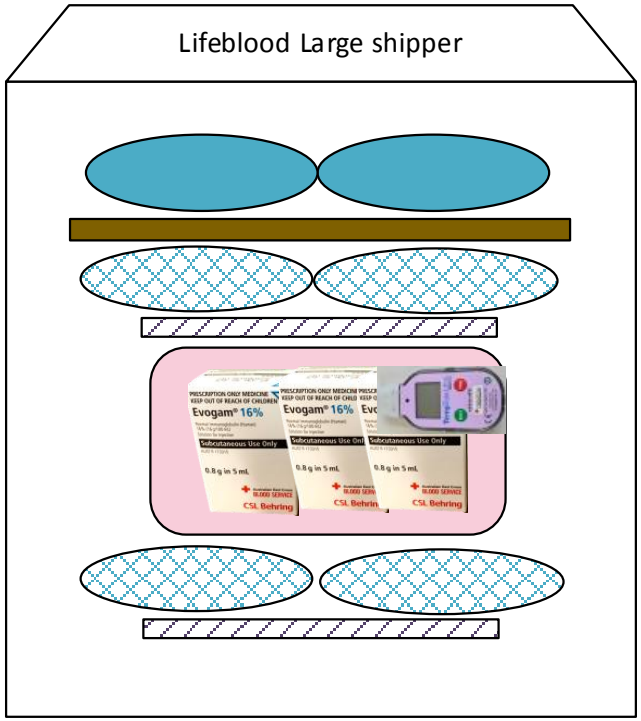
N2	Capacity	Validated Transport Time
	Evogam only: 1 to 13 vials	**19 hours**



Legend	Name	Quantity	Note
	Frozen -19°C ballast	**2**	Outside of foil pouch
	Corflute separator	**1**	Used as a barrier to maintain temperature
	Chilled ballast	**2**	Outside of foil pouch
	Foil Pouch	**1**	Used for additional insulation. Contains product and chilled ballasts as below.
	Chilled ballast	**8**	Positioned inside the foil pouch to make a "pocket": • 2 on top of liner/product • 4 placed with one on each side of shipper • 2 under the liner/product
	Plastic liner bag and product	**1**	Used to contain products and logger
	Chilled ballast	**2**	Outside of foil pouch

Notes	
	• Only used to transport Evogam • Uses GCCS large shipper and Lifeblood ballasts • A data logger must be included in **all** shipments using this configuration.

LB for Evogam*	Capacity	Validated Transport Time
	Evogam only: 1 to 8 vials	**1 to 7 vials: 1 hour 40 mins** **8 vials: 2 hours 40 mins**

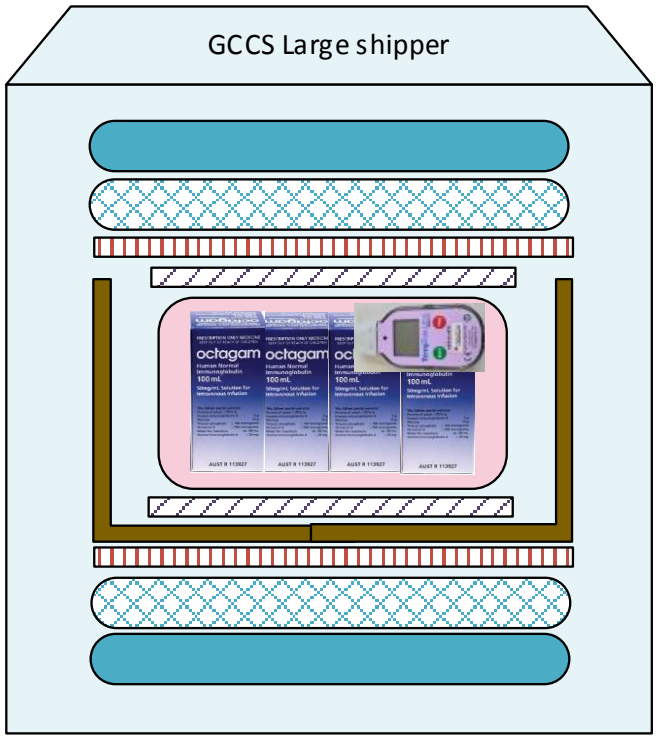


Legend	Name	Quantity	Note
	Frozen -19°C ballast	**2**	
	Cardboard divider	**1**	Used as a barrier to prevent product getting too cold
	Chilled ballast	**2**	
	Bubble wrap	**1**	Used as additional insulation and to prevent movement of product
	Plastic liner bag and product	**1**	Used to contain products and data logger
	Chilled ballast	**2**	
	Bubble wrap	**1**	Used as additional insulation

Notes

- *Full name: Lifeblood Transport Shipper Configuration for Evogam
- Only used to transport Evogam
- This configuration **is not recommended for the routine transport** of Evogam
- A data logger must be included in **all** shipments.

TPC-15	Temperature	Validated Transport Time
	2°C to 8°C	**24 hours**



Legend	Name	Quantity	Note
	GCCS large frozen ballast -19°C	**1**	
	GCCS large chilled ballast	**1**	
	Corflute separator	**1**	Used as a barrier to maintain temperature
	Cardboard collar	**1**	Used as additional insulation
	Bubble wrap	**1**	Used as insulation and to prevent movement of product
	Plastic liner bag and product	**1**	Used to contain products and data logger
	Bubble wrap – wrapped from below product	**1**	Used as insulation and to prevent movement of product
	Corflute separator	**1**	Used as a barrier to maintain temperature
	GCCS large chilled ballast	**1**	
	GCCS large frozen ballast -19°C	**1**	

Notes	
	• A data logger must be included in **all** shipments using this configuration.

VH-7	Temperature	Validated Transport Time #
	2°C to 8°C	**18 hours 5 minutes**

Legend	Name	Quantity	Note
	GCCS small frozen ballast -19°C	**1**	
	GCCS small chilled ballast	**1**	
	Bubble wrap	**1**	Used as additional insulation and to prevent movement of product
	Plastic liner bag and product	**1**	Used to contain products and data logger if added
	Bubble wrap	**1**	Used as additional insulation and to prevent movement of product
	GCCS small chilled ballast	**1**	

Notes	# If anticipated transport time exceeds the validated transport time, a data logger must be placed in with the shipment.

Appendix A: Details of suppliers of shipper consumables

Item	Company	Phone
Plastic bags (shipper liners)	Valpak	(02) 9984 0777
Shipper carton (outer cardboard box)	OJI Fibre Solutions	(02) 9724 8408
Shipper divider	OJI Fibre Solutions	(02) 9724 8408
Foil bags	Qualtape Australia	(03) 9729 8401
Polystyrene (foam) inserts	R Max Rigid Cellular Plastics	(02) 9609 6088
Ballast pack with bubble wrap on one side	Sancell Pty Ltd	(03) 8796 5555
TempTale data logger	Sensitech	(03) 9686 5622
GCCS TPC-15 shipper (outer and foam inner)	Global Cold Chain Solutions	(03) 9330 3603
GCCS VH-7 shipper (outer and foam inner)		
GCCS TPC-15 ballast		
GCCS VH-7 ballast		
Corflute Separators		
Cardboard collar		

Appendix B: Transport of blood products using dry ice

The use of couriers must be taken into consideration as the use of dry ice in transporting items by vehicle can be hazardous to the driver, who may be unaware of the potential risk of exposure to CO2 gas. Drivers need to be aware of the hazards and what to do in an emergency.

Below are two references which may be helpful for formulating policies and procedures.

- www.iata.org
- Technical Manual American Association of Blood Banks (AABB), 14th edition, pg 659

Definitions

Term/abbreviation	Definition
Ballast pack	Sancell/Lifeblood gel pack that is preconditioned to maintain temperature for the transportation of blood products. Extra ballast packs (in excess of the base number of ballast required for a configuration) are added to provide temperature stability during transportation.
GCCS ballast	Hard plastic brick containing blue phase change fluid preconditioned to maintain temperature for the transportation of blood products. There are two sizes: VH-7 ballasts are smaller. TPC-15 are larger.
Blood products	The result of a procedure in which blood is withdrawn from a donor, separated into individual components e.g. platelets and/or retained as individual products for transfusion/fractionation. And/or products manufactured from plasma, such as immunoglobulins.
VTT	Validated transport time

Referenced external documents

N/A

Referenced internal documents

Document number	Document title
SOP-00326	Issuing and Packing Components and Products

Change history

Version number	Effective date	Reference	Summary of change
-	-	-	For previous change history contact National Document Control.
5	24/05/2021	CCR-20-000805	TempTale data logger supplier details added
6	12/07/2021	-	Minor grammatical changes to align with corresponding PPM configurations
		CCR-20-000781	Update validated transport times for R1, R2, R3, P1, P2 Update unit and ballast numbers for R1, R3. Remove R4 configuration.
7	16/07/2021	CCR-21-000600	Reinstate R4 configuration Updated R1 shipper to have VTT of 6 hours and not to be used for air travel
8	20/07/2021	CCR-21-000600	R4 – add ‘1’ to number of red cell units.

Version number	Effective date	Reference	Summary of change
9	11/10/2021	CCR-21-000380	Validation transport time table updated to remove option of packing WB cryoprecipitate, include the validated transport time when 1-4 units are sent and provide instruction for mixing components.
		N/A	R4 - Rh red cell removed as this was added to v4 in error. P2 - clarified note for foil pouch and corrected spelling error
10	Refer to footer	N/A	• Add frozen ballasts and dry ice to cFFP consumables. • New look diagrams. • Frozen components summary table added. • Update that F1 always requires logger, to align with WI-00325.
		CCR-21-000380	PIR - Updates to F2 capacity.
		CCR-21-000903	Remove logger use from R1.
		CCR-22-000685	Include manufactured product shipper consumables and validated configurations.

Electronic signature

Author	NANCY KAY (nxkay)
Approver(s)	TERRY JONES (tjones)
Final Approver	MELANIE MADDOCK (mmaddock)
Owner	MELANIE MADDOCK (mmaddock)