

Transportation Boxes Survey Results

The CSTM board asked the question, “What are hospitals using for blood transportation boxes once the CBS converts to their new boxes?”

The answers are listed below. Thank you to those that responded and were willing to share their validations.

1) Marvin Jones MLT, BSc (MLS), Charge Technologist in the Transfusion Medicine Department at Health Sciences North in Sudbury Ontario has compiled the following data arranged by transportation box types:

Vendor	Cooler	Product Temp	Testing Temp	In Range time	Use
www.packmaxq.com	Small MaxQ (12 inch)	20-24 C	Room Temp (20-24C)	96 hours +	In-house delivery of room temp products.
www.packmaxq.com	Large MaxQ (14 inch)	1-6 C	Room Temp (20-24C)	49 hours	In-house delivery of refrigerated products.
CBS	CBS Plt Box	20-24 C	Room Temp (20-24C)	44 hours and 40 minutes +	Delivery of room temp products to other hospitals.
CBS	CBS Plt Box	20-24 C	35C	13 hours and 42 minutes	Delivery of room temp products to other hospitals.
CBS	CBS Plt Box	20-24 C	-22C freezer	9 hours and 35 minutes	Delivery of room temp products to other hospitals.
CBS	J82 CBS Box	1-6 C	Room Temp (20-24C)	45 hours +	Delivery of refrigerated products to other hospitals.
CBS	J82 CBS Box	1-6 C	35C	24 hours	Delivery of refrigerated products to other hospitals.
www.pelicanbiothermal.com Credo Coolers/cubes	Golden Hour Box	1-6 C	Room Temp (20-24C)	3 days, 9 hours and 46 minutes	Used by other hospitals who redistribute to us.
www.pelicanbiothermal.com	Golden Hour Box	1-6 C	-22C freezer	28 hours and 10 minutes	Used by other hospitals who redistribute to us.
www.pelicanbiothermal.com	Golden Hour Box	1-6 C	35C	41 hours and 32 minutes	Used by other hospitals who redistribute to us.

Vendor	Cooler	Product Temp	Testing Temp	In Range time	Use
www.thermosafe.com	Thermosafe green box	1-6 C	Room Temp (20-24C)	6 days 7 hours and 11 minutes	In-house delivery of refrigerated products.
www.thermosafe.com	Thermosafe green box	1-6 C	-22C freezer	21 hours and 19 minutes	In-house delivery of refrigerated products.
www.thermosafe.com	Thermosafe green box	1-6 C	35C	38 hours 30 minutes+	In-house delivery of refrigerated products.
www.thermosafe.com	Thermosafe green box	20-24 C	Room Temp (20-24C)	3 days 21 hours+	In-house delivery of room temp products.
www.thermosafe.com	Thermosafe green box	20-24 C	-22C freezer	6 hours	In-house delivery of room temp products.
www.thermosafe.com	Thermosafe green box	20-24 C	35C	49 hours and 10 minutes	In-house delivery of room temp products.

2) Jenna Williams, Regional Transfusion Safety Officer at Labrador Grenfell Health, provided the following:

She has validated the Credo Cube (available from Pelican Bio thermal) at three different temperature ranges: below -18° Celsius, room temperature (20-24° Celsius), and at 32° Celsius. All conditions were tested with two different payloads (amount of product in box), empty and full. All were tested for 24 hours and passed, including the 24 hour validation in a freezer at -25° Celsius.

These boxes could be used for transportation in extreme conditions. The packing configuration is easy with 6 conditioned plates that make up the square box. No need for gel or ice packs.

She noted the company had initially validated the plates to be preconditioned in a freezer at -18° Celsius (normal freezer temperature) and taken out for 20-30 minutes to warm up before packing. However, they validated them to be preconditioned in a refrigerator at 2-6°Celsius for 24 hours, before packing. This allowed for immediate packing in the cases of Medivac or urgent issue cases without the delay of waiting for the plates to warm up. The box they validated was the Credo Cube 896 (8 litres) at an approximate price of \$300. There are different sizes and types available to suit different needs.

3) Elaine Van Oyen, Quality Coordinator for Calgary Lab Services shared that they attempted to validate the old CBS boxes for 24 hours. They had some success. Packing configuration included the box, a polystyrene foam cooler (Infinitrak) covered by a cardboard exterior box (Shipper's supply) with their logo and address of their central location printed on it and a strap that they used to keep the whole thing intact and for carrying ease. The packing configuration was managed for each temperature validation. Their testing concluded that CLS transport boxes are validated for transport and storage of products stored at 2-8°Celsius for up to 24 hours when transported at room temperature, 5 hours when transported at 37°Celsius and 30 minutes when transported at -20°Celsius. CLS expect everything to be transported fairly close to room temperature as all boxes are to be placed inside the vehicle (no car trunks) that is heated in winter and air-conditioned in summer. When they transport outside an urban zone, an

additional sign “Must ride with driver” is placed on the boxes. CLS does not monitor every shipment but does perform quarterly audits with data loggers inside shipment boxes of red cells and platelets.

4) Many others responded that they were validating the old CBS boxes for use at the three temperatures. Some were using CBS box validation SOPs and some created their own validations to suit their needs. Some respondents were using data loggers during transport which allowed them to extend the 1-6°C transportation times to 24 hours for refrigerated temperatures. Signage of the boxes seems to be the dilemma most are facing. How to rebrand the boxes to avoid confusion? Some had issue with their validations of the old CBS boxes dependent on the packing material used.

I would personally like to express my gratitude for those who shared and encourage any members to share their processes as we all move forward.

Heather Panchuk
CSTM Director at Large