



## MCB/OMD WHOLE BLOOD (LTOWB) PRODUCT LIST

Approved 9/14/22, Effective 10/1/22, new policy issuance

1. BLOOD COOLER that has been independently validated by South Texas Regional Advisory Council (STARAC).

The Crêdo ProMed™ carry bag is available in three sizes and two temperature ranges. TIC™ coolants filled with phase change material and vacuum insulated panels (VIP) keep medical materials at the required temperature for up to 72 hours.

Pelican Credo Cube w/Thermal isolation Chamber System(TIC)

Will need extra TIC to exchange out each shift.



ProMed part # (GH02A4248PMT)

2. FREEZER:

Of the shelf compact freezer to condition (i.e.: freeze) TIC packs.  
(Agency Choice)





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**3. BLOOD WARMER:**

The Qinflow Warrior is a 3-part system composed of a controller (or Base Unit), battery, and per-patient warmer (i.e., disposable unit). Warrior unit Part #: Q1110S0000, CDU Part #: QPORT0500U  
Battery Part#: QPORT1180U, Extension Cable#: QIF-CBL00019



Qinflow Warmer



Compact Disposable unit (CDU)



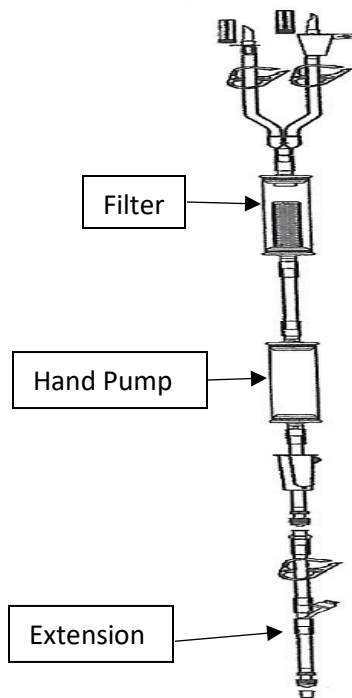
Battery



extension cable

**4. FILTERED BLOOD TUBING & PRESSURE BAG:**

- a. CodanY-type Blood/Solution Set with standard blood filter w/ hand pump built into tubing (these spike into blood bag and connects into proprietary warmer tubing).  
Tubing Part #: Codan; Cat# B8021-TF      Pressure Infuser Part #: 301-MTM310EA  
(Developed by San Antonio FD)      (Curaplex Brand)





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### 5. CONTINUOUS TEMPERATURE MONITORING:

Temp Stick (Wifi based option) Temperature monitoring (-40 F to 140 F)  
24/7 monitoring and alerts  
Data-logger + unlimited history  
Web-based, access remotely  
No fees or subscriptions



TempStick.com



MCB/OMD LTOWB Whole Blood Program  
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**Daily Responsibilities**

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1. At shift trade, remove empty black/white TIC box from station freezer. When the TIC is removed it should be frozen and should not “slosh around” or sound like water or slush. If this occurs check freezer operation and leave whole blood in cooler used by the previous shift until the problem, can be remedied. If no remedy is established take appropriate steps to return Whole Blood back to OBI. Inform your chain of command and OMD of these events.
2. Let the empty black/white TIC box sit at room temp for approximately 20 minutes (bench time) to achieve optimal temperature.
3. After 20-minute bench time has passed, remove the whole blood and Temp Stick from the TIC box that had been in the unit.
4. Review temperature log on Temp Stick to ensure temp range remained within 1-10 degrees Celsius. If temp was outside of this range, contact OMD for further steps.
5. Place Whole Blood and Temp Stick in black/white TIC box that had been in the freezer. Ensure that the TIC box had been in the freezer for a minimum of 8 hours prior to use and has had approximately 20 minutes bench time.
6. Place the new black/white TIC box that now contains the Whole Blood Unit and Temp Stick into the tan pelican case and secure the case in the designated storage area/Unit.
7. Place the black/white TIC box that was removed from the tan pelican case into the freezer, sitting upright. (do not place the lid on the top of the TIC box.)
8. Complete the Whole Blood Daily Check-off form.



## WHOLE BLOOD DAILY CHECK-OFF FORM

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OBI #


Date Received from OBI


Expiration Date  
Listed on Blood

Date Returned to OBI

Date Administered to Patient

\*Each unit of whole blood will be documented on its own individual daily check-off form and inspected daily while in storage/Possession by OMD credentialed agency. Return and exchange this unit of whole blood to OBI or administer to a patient, on or before the day 7 possession date.

Agency/Unit	Possession Day	TIC Box Exchanged	Temperature Checked	Photo Sent	Date	Signature	Time
	Day 1						
	Day 2						
	Day 3						
	Day 4						
	Day 5						
	Day 6						
	Day 7						

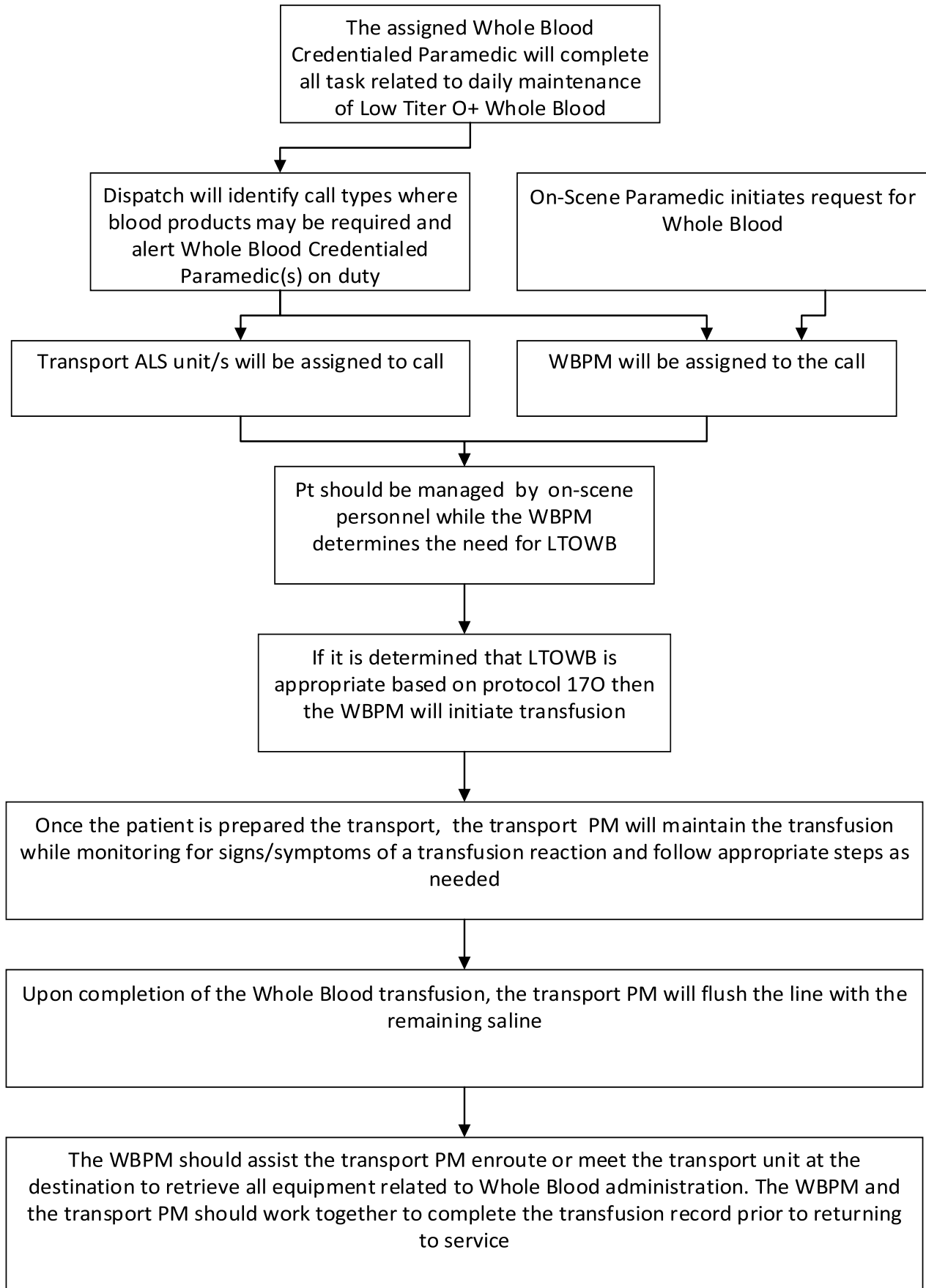
\*Complete a Whole Blood variance form for any issues or concerns



## MCB/OMD LOW TITER O+ WHOLE BLOOD

### SCENE COORDINATION

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**Prehospital Whole Blood (LTOWB) Product Transfusion Record**  
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Patient Name:	Agency/Unit or Engine #:	Receiving Facility:
	<input type="checkbox"/> EMSA _____	<input type="checkbox"/> OUMC/MR # _____
	<input type="checkbox"/> OCFD _____ <input type="checkbox"/> TFD _____	<input type="checkbox"/> St John/MR # _____
	<input type="checkbox"/> Other _____	<input type="checkbox"/> St Francis/MR # _____
		<input type="checkbox"/> Other _____

Product Unit Number (Write unit number)	Transfusion Date & Start Time	Transfusion Complete* (Check one)	Transfusion Reaction** (Check one)	Transporting Medic Initials
	Date:  Time:	<input type="checkbox"/> Yes  <input type="checkbox"/> Ongoing	<input type="checkbox"/> Yes-Describe in comments <input type="checkbox"/> No	
	Date:  Time:	<input type="checkbox"/> Yes  <input type="checkbox"/> Ongoing	<input type="checkbox"/> Yes-Describe in comments <input type="checkbox"/> No	
	Date:  Time:	<input type="checkbox"/> Yes  <input type="checkbox"/> Ongoing	<input type="checkbox"/> Yes-Describe in comments <input type="checkbox"/> No	
Type of Call (check one) <input type="checkbox"/> Scene call <input type="checkbox"/> Interfacility Transfer				
Comments:				

\*If blood product transfusion is ongoing at time of patient transfer to hospital, document "ongoing."

\*\*Document actions taken in Comments' Section at the time of patient drop-off at receiving hospital.

Actions to take for suspected transfusion reaction:

STOP TRANSFUSION

- Disconnect tubing from infusion site, flush site with normal saline
- Keep line open with normal saline
- Re-initiate new transfusion if it is clinically essential
- Transfer all remaining blood products to receiving hospital clinical personnel
- Document actions taken in Comments Section

COPY 1 (White) EMSA/Fire Department  
 COPY 2 (Yellow) Hospital



## EMS System for Metropolitan Oklahoma City and Tulsa 2022 Medical Control Board Treatment Protocols



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### 170 – LOW TITER O+ WHOLE BLOOD (LTOWB) METROPOLITAN OKLAHOMA CITY

#### TREATMENT PRIORITIES

1. MARCH Assessment:
  - Massive bleeding control
  - Airway – NPA/OPA/Crich
  - Respiratory – decompress chest if tension pneumothorax, seal “sucking” chest wound(s)
  - Circulation – IV/IO, wound packing
  - Hypothermia care
2. Minimize scene time in critical case.\*\*
3. **Initiate Whole Blood transfusion**
4. Enroute Care:
  - Reassess all primary care
  - Support oxygenation/ventilation
  - Vascular access
  - Secondary Survey (if able)
  - Keep patient warm/avoid hypothermia
5. Transport to OUMC - Trauma.

PARAMEDIC

**Class:** Blood Products

**Purpose:** Increase survival from traumatic hemorrhagic shock, factoring trauma patients who receive whole blood vs component therapy have many advantages, one of the most important being a reduction in 30-day mortality per published studies.

#### Actions/Pharmacodynamics:

Whole blood **provides red cells, stable clotting factors, and volume in each unit** that make it potentially beneficial in rapidly hemorrhaging patients.

#### Indications: Hemorrhagic Shock in Priority 1 Trauma Patients

- Males ≥15 years old/ Females ≥51 years old AND
- Systolic Blood Pressure < 70 mmHg OR
- Systolic Blood Pressure < 90 mmHg with Heart Rate ≥110 beats per min **OR**
- ETCO2 < 25 **OR**
- Witnessed traumatic arrest < 5 minutes prior to provider arrival and continuous CPR throughout downtime **OR**
- Post traumatic arrest/ ROSC obtained

#### For Hemorrhagic Shock in Priority 1 Geriatric Trauma Patients

- If age ≥ 65 years old **AND** Systolic Blood Pressure ≤ 100 with HR ≥100 beats per minute

#### Contraindications and Precautions:

- Ground level falls/found down
- Males less than 15 years old
- Females less than 51 years old
- Burns
- Religious objection to receiving whole blood





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### Protocol 17O: Low Titer O+ Whole Blood (LTOWB) Metropolitan Oklahoma City cont.'

**Side Effects:** Transfusion Reactions- Fever, chills, urticaria (hives), and itching. Respiratory distress, high fever, hypotension, and hemoglobinuria can indicate a more serious reaction.

**Dosage:** One unit of Low Titer O+ Whole Blood

**How Supplied:** One unit of Low Titer O+ Whole Blood contains approximately 500 ml of blood and is packaged by the Oklahoma Blood Institute.

#### Infusion Site Considerations

LTOWB requires an 18 gauge or larger IV/IO. IO transfusion is authorized but is less efficient than IV. The humeral neck is the most effective IO site if used for blood transfusion.

If TXA is needed it should be administered through a separate IV. This IV should be established in a different extremity than the one in which LTOWB is transfusing.

#### Procedure: Prepping Tubing and Disposable Unit for Whole Blood Administration

- Make certain that unused portion of the IV line is closed off.
- Attach the IV line to the Disposable Tubing Unit.
- Attach the Disposable Tubing Unit to the Blood Warmer.
- Attach Disposable Tubing Unit to the saline lock.
- Spike the 100 mL NS bag to appropriate port on the Blood Tubing.
- Spike the Whole Blood Bag to the appropriate port on the Blood Tubing.
- Prime the IV-line, Disposable Tubing Unit, and saline lock with saline prior to powering on the Blood Warmer.
- Turn Blood Warmer ON.
- Start infusion of LTOWB (do not wait for the blood to warm).
- Place LTOWB in the Pressure Bag and pump up the Pressure Bag.
- Use the hand pump built into the blood tubing for rapidly administering LTOWB.
- Once LTOWB infusion is complete, flush line with remaining saline from 100 mL bag.

**\*\***Avoid excessive delays related to availability of LTOWB. Scene times may be delayed while starting LTOWB. However, there should not be a significant delay waiting on LTOWB to arrive on-scene. Consider intercept enroute to transition LTOWB case to transporting unit if time allows.



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