



Umbilical Cord Blood Collection Training



Our primary mission is to **Save Lives.**



Umbilical Cord Blood Collection

A special thank you from Cord for Life®, Inc.

With the dedication of Healthcare Professionals, millions throughout the world might be given another chance at life.

Laboratory Offices
270 Northlake Blvd., Suite 1012
Altamonte Springs, FL, 32701

Toll Free: 800-869-8608
Phone: 407-834-8333
Fax: 407-834-3533

An AABB Accredited Laboratory, NMDP Member.

Table of Contents



- I. The Process
- II. Umbilical Cord Collection
- III. Maternal Blood Draw
- IV. Packaging



Section I: The Process



Process Overview



1. Consent Form completion
2. Collection Kit distributed
3. Collection Kit is given to/provided by the physician for the collection
4. Cord blood is collected
5. Cord blood is picked up by the courier
6. Cord blood must be processed within 48 hours of collection!

Step 1: Complete Consent Form

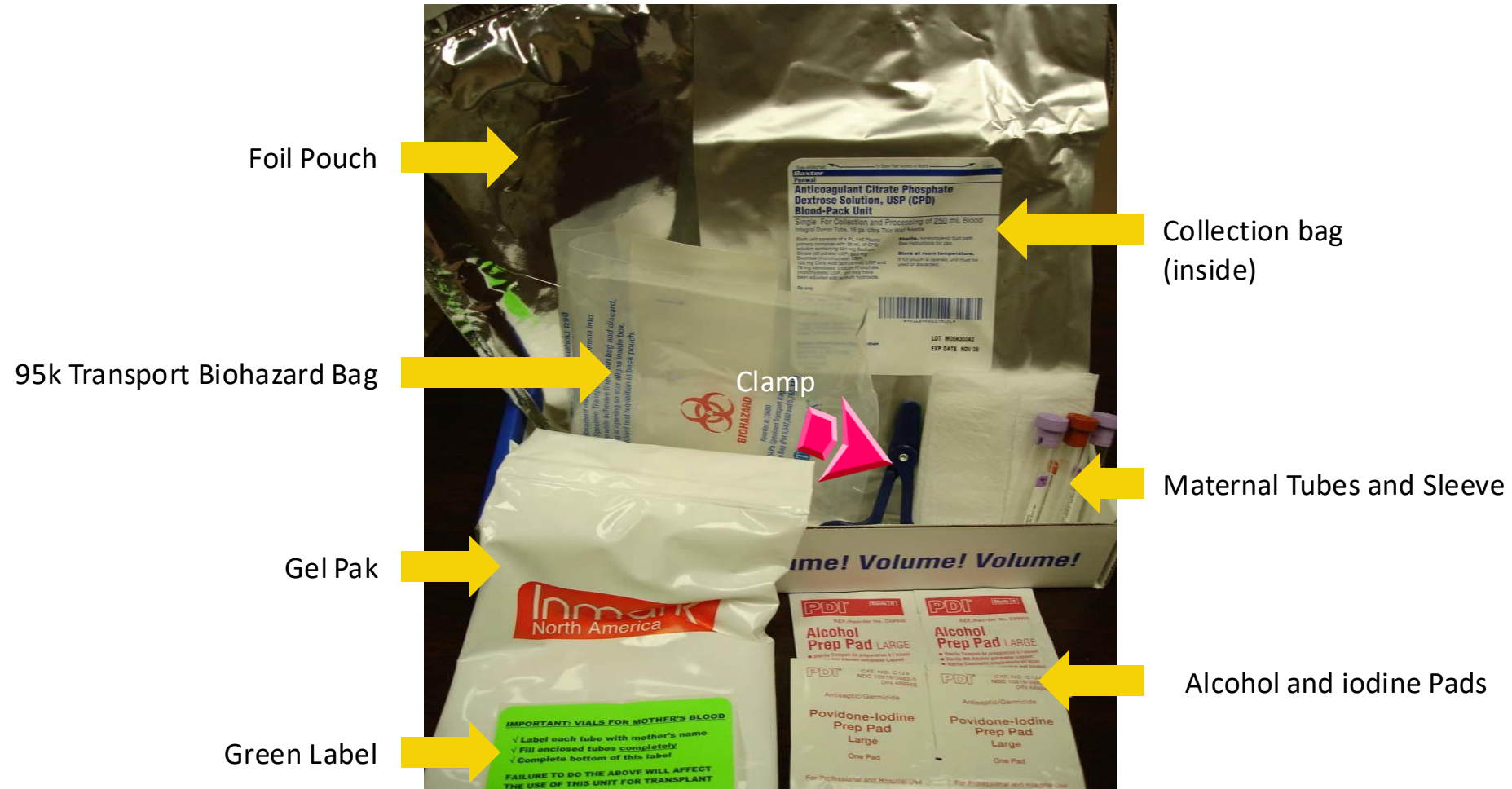


Enrollment forms must be completed and signed by the Mother and Physician for the unit to be processed.

Mothers can access enrollment forms in three ways:

1. Calling Cord for Life[®], Inc., and requesting forms to be mailed.
2. Visiting www.cordforlife.com and downloading the forms directly from our website.
3. Enrolling directly at a Cord for Life[®], Inc., program facility when in labor.

Step 2. Collection Kit



Step 3: Cord Blood Collection

It takes a few minutes that could save another's life!



- The cord blood collection is performed after the birth of the baby.
- The collection is typically performed by the attending physician, nurse or midwife.
- The process is non-invasive, painless, and easy to collect!

Step 4: Packaging



- After the collection is completed, the physician/midwife/nurse will return the collection kit to the donor (procedure may vary for program sites).
- Please ensure that all blood contents have been labeled as instructed prior to returning the collection kit to the donor.
- Once the collection kit has been returned to the donor, the individual designated by the donor will contact Cord for Life®, Inc. for further instruction.

Note: See Section IV for detailed instructions.

Step 5: Arranging the Courier



- Prior to packaging the cord blood for shipment, it is the responsibility of the designated person to contact **Cord for Life®**, Inc. at **1-800-869-8608**.
- Once notified, a Client Services Representative will obtain required delivery information, and assist the designee with properly packaging the collection for shipment.
- Please **DO NOT** package the collection prior to speaking with a **Cord for Life®**, Inc. team member.

TIP!

Some hospital protocols restrict couriers from pick-up at patient rooms. In this case, we may suggest taking the packaging to the nearest FedEx drop box for shipment.





Section II: Umbilical Cord Collection



2 Types of Collections



Vaginal

C-Section

Vaginal Delivery

Cord blood is collected following delivery of the infant, after the umbilical cord is cut, and while awaiting (or following) delivery of the placenta



Vaginal Delivery

Step 1

Remove the collection bag from its foil pouch and over wrap.



Vaginal Delivery

Step 2

Swab a site on the **lower** end of the cord with the povidone-iodine pad provided in the kit, followed by the alcohol pad.



Vaginal Delivery

Step 3

- Insert the collection needle attached to the cord blood collection bag into the cleansed area of the umbilical vein.
- Be sure to start low on the cord and move up. Lower the umbilical cord below the perineum.
- **Note: Clamp The Cord As Close To The Baby As Possible! This will ensure maximum volume!**



TIP!

- The collection bag must be placed lower than the placenta to allow the blood to drain by gravity into the bag.
- Minimize manipulation of the umbilical cord as this will adversely affect the volume of blood obtained.



Vaginal Delivery

Step 4

- **Check the volume!**
- Allow as much blood as possible to be collected.
- Sufficient volume is a crucial factor for its use as a transplant.
- A minimum collection volume of 60 mL or more is strongly suggested for the cord blood to be considered usable.
- It is NOT unusual for the collected volume to be above 100 mL!



***Volume! Volume! Volume!
Aim for over 100 mL!!!***

Vaginal Delivery

Step 5



- Including the weight of the collection bag and clamp, a 60 mL collection would weigh at least 135 grams.
- If less than 60 mL of cord blood is collected, please attempt to collect more by reinserting the needle into another cleansed site of the umbilical vein.
- Be sure to start low on the cord and move up!

Vaginal Delivery

Step 6

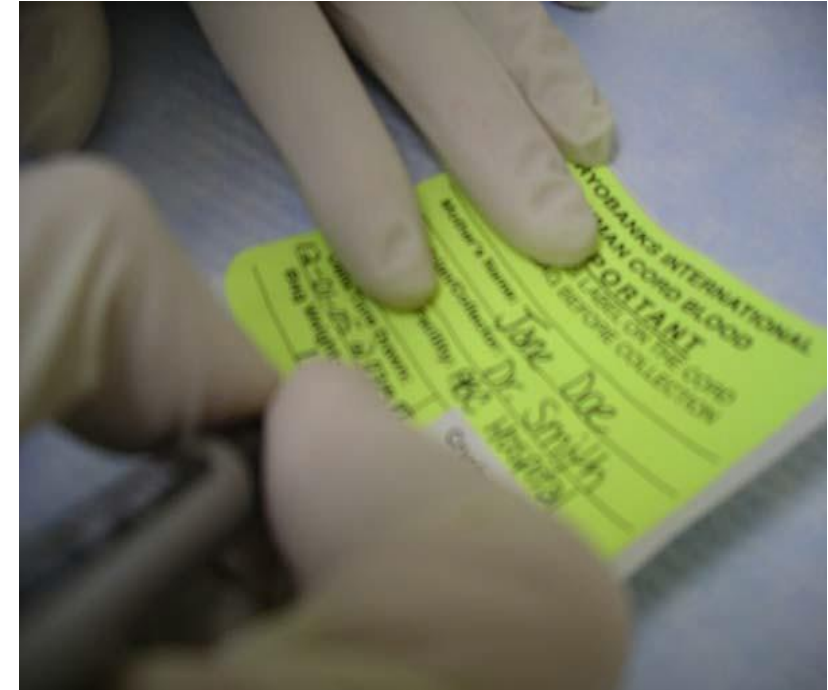
- Open the air filter to allow cord blood from the tubing to drain into the collection bag.
- Following the collection (which usually takes no longer than five minutes), clamp the tubing a few inches from the bag and cut it distal to the clamp.



Vaginal Delivery

Step 7

- Immediately after collection, write the following on the **YELLOW** cord blood identification label provided:
 - ☐ Mother's first & last name
 - ☐ Name of the physician/collector
 - ☐ Name of the collection facility
 - ☐ Date and time drawn
- Confirm the patient's name is written on the cord blood label.



Vaginal Delivery

Step 7

- Affix the completed **YELLOW** identification label ***directly*** to the collection bag.
- A Hospital ID may also be used.
- **IMPORTANT! Cord Blood units that are unlabeled cannot be used for transplant!**



Vaginal Delivery

Step 9



- Weigh the collection bag containing the cord blood. Write the weight in grams on the **YELLOW** cord blood label.
- Have the weight information readily available for the designated person, notifying Cord for Life[®], Inc. of the delivery and collection.

Vaginal Delivery

Step 10

- Fill out the **BLUE** Delivery Information Sheet, Form C.2-3, provided in the kit.
- Record the weight of the collection bag on the **BLUE** Delivery Information Sheet, Form C.2-3, provided in the kit.
- Complete the FDA Required Delivery Info Form. It must be signed and dated by the collector.
- **This form is REQUIRED!**

We cannot process the cord blood without it!



Vaginal Delivery

Step 11

Keep cord blood at room temperature to ensure viability. Refrigeration WILL damage the cells!

- **Do not refrigerate!**
- **Do not refrigerate!**
- **Do not refrigerate!**



C-Section Delivery

Option 1

The collection may be performed before or after the placenta is removed from the uterus. Follow these steps for collections performed *before* the placenta is delivered.



C-Section Delivery

Step 1

- Clamp the cord as close to the baby as possible for maximum volume!



C-Section Delivery

Step 2

- Swab a site on the umbilical cord with the povidone-iodine pad, followed by the alcohol pad.



C-Section Delivery

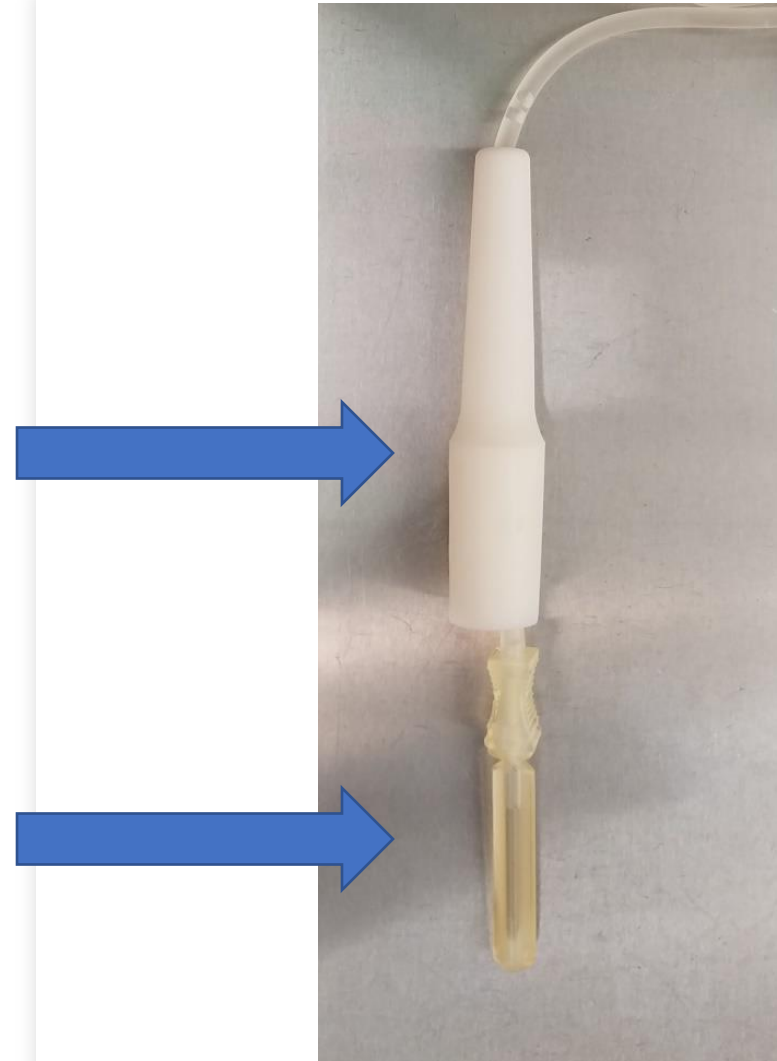
Step 3

Needle Guard.

- Pull completely over needle after collection is finished.

Collection needle in safety sheath.

- Uncap needle for collection



C-Section Delivery

Step 4

- Insert the needle into the cleansed site of the umbilical cord.
- Be sure to start low on the cord and move up.
- The collection bag can remain outside the sterile field at a lower level to allow gravity to fill it.



C-Section Delivery

Step 5

- Open the air filter to allow cord blood from the tubing to drain into the collection bag.
- When collection is complete and the needle is removed from the cord, allow the blood remaining in the tubing to enter the collection bag to maximize recovery.



C-Section Delivery

Option 2

- Collection of the umbilical cord can be performed up to 20 minutes **after** delivery of the placenta is removed from the uterus.
- However, this method typically results in a lower volume of cord blood.



C-Section Delivery

Step 1

- Place the placenta and umbilical cord in a tray.



C-Section Delivery

Step 1

- Clamp the cord as close to the baby as possible for maximum volume!



C-Section Delivery

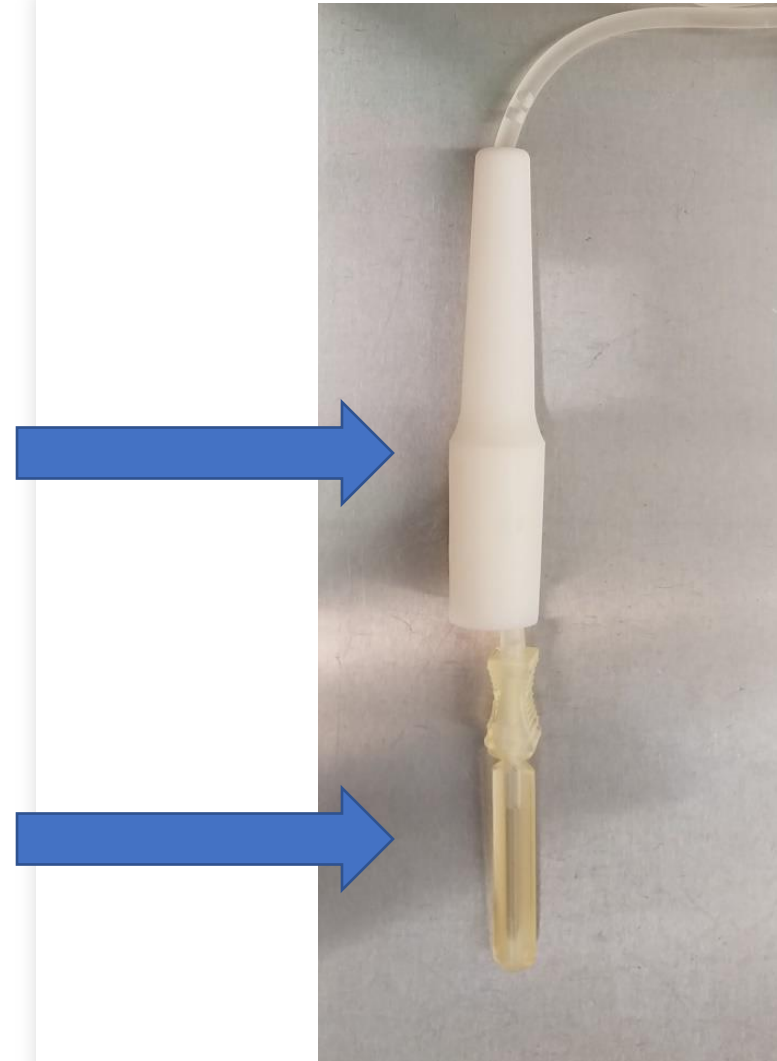
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C-Section Delivery

Step 4

- Insert the needle into the cleansed site of the umbilical cord.
- Be sure to start low on the cord and move up.
- The collection bag can remain outside the sterile field at a lower level to allow gravity to fill it.



C-Section Delivery

Step 5



- Follow Vaginal Delivery Steps 6-11

6. Open the air filter

7. *Volume!*
Volume!
Volume!

8. Immediately after collection, record information on the **YELLOW** cord blood identification label provided.

9. Affix the completed **YELLOW** identification label **directly** to the collection bag.

10. Fill out the **BLUE** Delivery Information Sheet, Form C.2-3, provided in the kit.

11. *DO NOT* refrigerate

Section III: Maternal Blood Draw

Maternal Blood Is Required With Every Cord Blood Collection!



Maternal Blood Draw

Step 1

- Tubes are supplied with the kit to draw the maternal blood for required infectious disease testing.
- The blood can be drawn during labor or shortly after birth; anytime within 48 hours of the cord blood collection, but must be drawn prior to cord blood kit packaging and courier pick-up.
- So long as the maternal blood is drawn within 48 hours of the cord blood collection, the maternal blood can be drawn at IV start or with other lab blood draws.



Maternal Blood Draw

Step 2

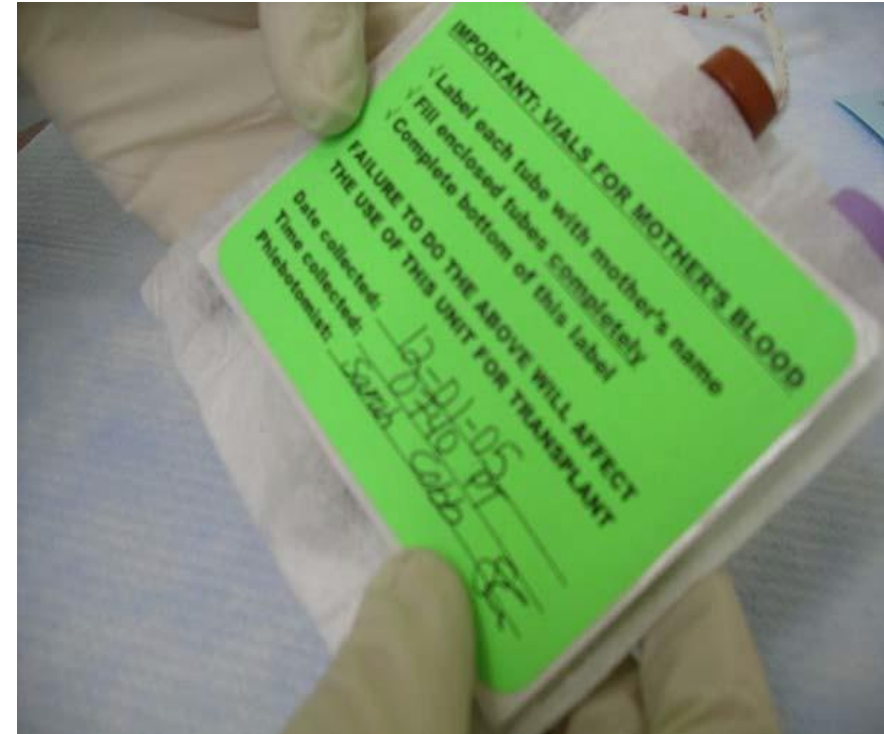
- Label the samples at the patient's bedside following patient ID verification procedures defined by the hospital.
- Place a hospital addressograph label on each tube of the maternal blood. If hospital labels are not available, write at minimum the mother's full first and last name on the tubes.



Maternal Blood Draw

Step 2

- Fill out the **GREEN** label with the phlebotomist's initials, date and time of collection, and place the completed green label on the absorbent tube-holder sleeve.
- Place the labeled maternal tubes into the absorbent sleeve provided.
- Complete the Maternal Sample Collection Record. It must be signed and dated by the phlebotomist regarding collection of samples.



Maternal Blood Draw

Step 3

- Complete the Maternal Sample Collection Record (Form C.1-6).
- Place all 4 labeled tubes in sleeves.
- Place the green completed vials label on the absorbent sleeve.

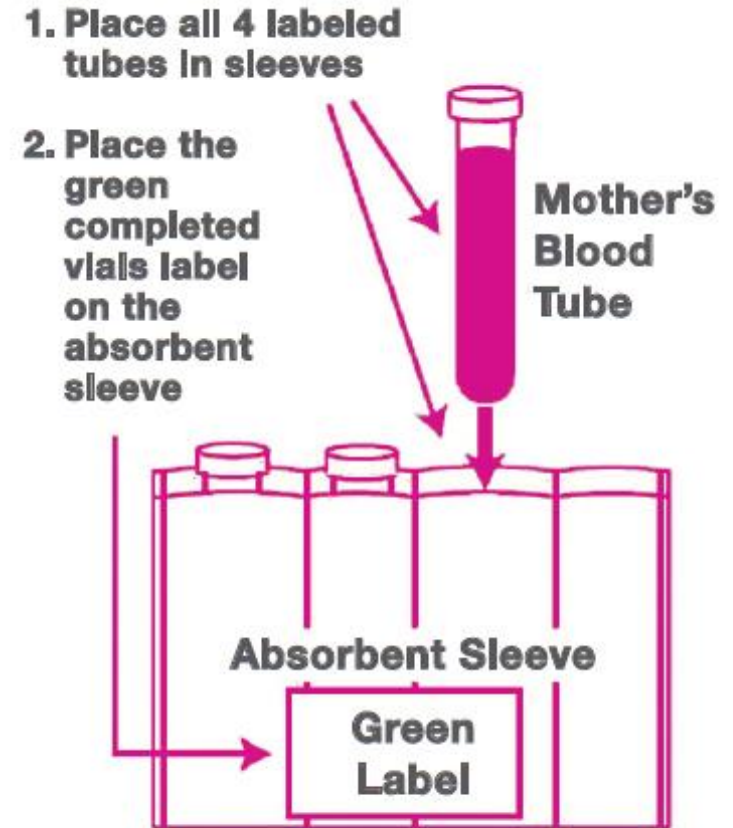


Figure 1

Maternal Blood Draw

Step 4

- Place yellow label with barcode on blood bag

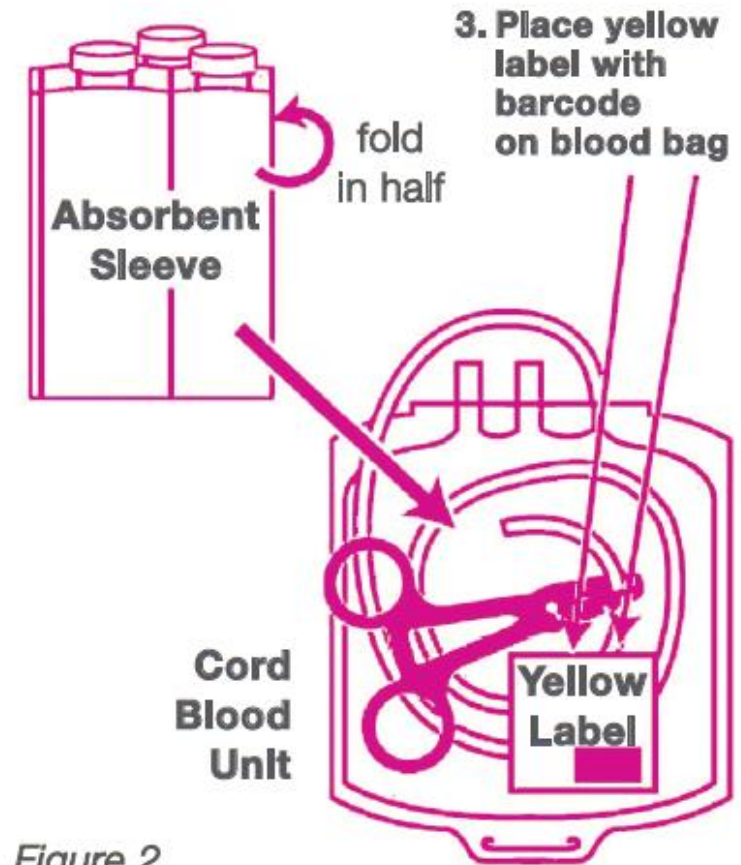


Figure 2

Maternal Blood Draw

Step 5

- Place absorbent vial sleeve and blood bag in 95 Kpa bio-hazard bag and seal.

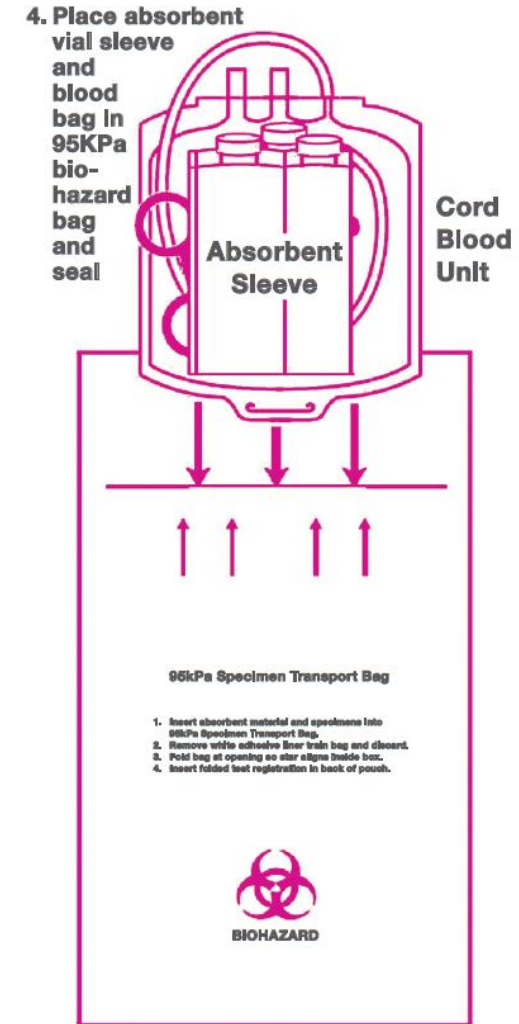


Figure 3

Maternal Blood Draw

Step 6

- Wrap 95 Kpa bag in gel pak
- Slip bag wrapped in gel pak into foil pouch.
- Return foil pouch and include completed blue delivery information sheet and other documents.

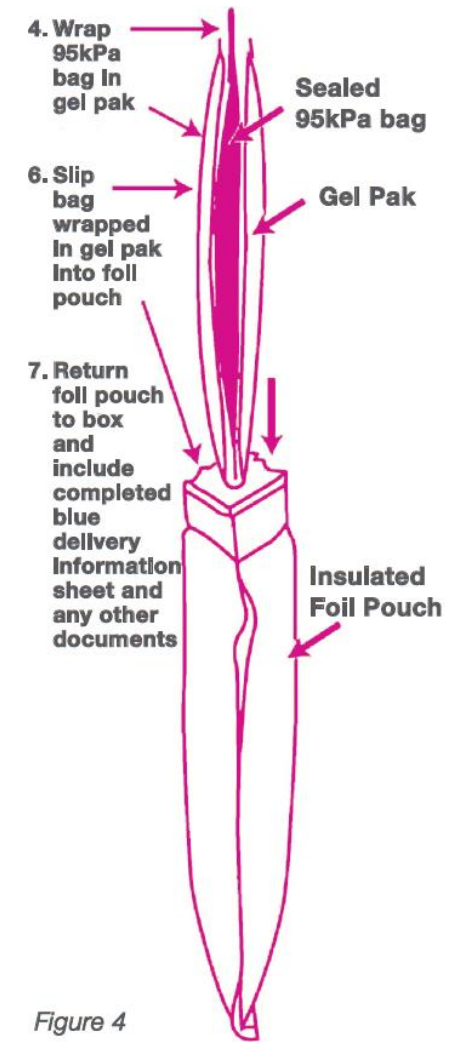


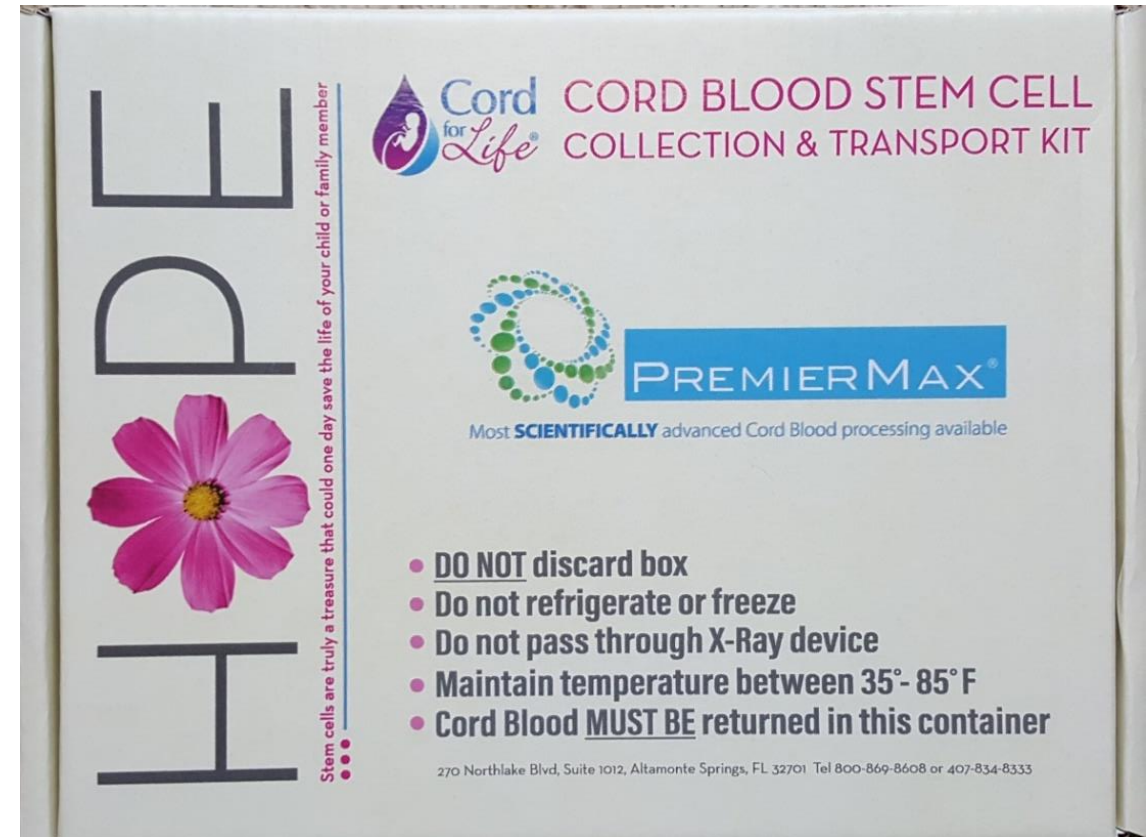
Figure 4

TIP!

- It is critical to the process that all paperwork is complete and signed by the appropriate individuals.
- Without proper paperwork, the cord blood unit cannot be used for the national donor inventory.



Section IV: Packaging



Packaging Directions

- All packaging directions pictured in the upcoming slides are located on the inside of the collection kit lid.



Final Checklist

- This checklist is used to verify that all forms and labels have been completed and signed by the appropriate personnel.
- Section 4 of the form must be signed and dated by the person completing the form.

FINAL CHECK IN ORDER TO MEET THE CRITERIA FOR TRANSPLANTABLE UNIT PLEASE CONFIRM THE FOLLOWING:

- ✓ **VOLUME IS VITAL - COLLECTION MUST EXCEED OUR MINIMUM WEIGHT REGULATION.**
- ✓ **THE VIALS WITH MOTHER'S BLOOD ARE Labeled WITH THE PATIENT'S FULL NAME (OR HOSPITAL ID LABEL).**
- ✓ **THE GREEN "VIALS FOR MOTHER'S BLOOD" LABEL IS COMPLETED AND ATTACHED TO THE ABSORBANT TUBE SLEEVE.**
- ✓ **THE YELLOW "HUMAN CORD BLOOD" LABEL (WITH THE BARCODE) IS COMPLETED AND ATTACHED TO THE CORD BLOOD BAG.**
- ✓ **THE BLUE DELIVERY INFORMATION SHEET HAS BEEN COMPLETED AND ENCLOSED.**
 - **Call 1-800-869-8608 or 1-407-834-8333 within two (2) hours after the delivery of the baby to arrange for cord blood pick-up. If you call after hours, leave a message and we will contact you the next morning.**
 - **Close the box by pushing the ends of the flap into the sides of the box. Slip the box into the large FedEx Clinical Pak Envelope. Place provided FedEx Shipping label in attached clear window (attached on the exterior).**
 - **IMPORTANT: DO NOT seal the FedEx Clinical Pak until you have spoken to a Cord for Life Representative. Weigh the cord blood unit and have this information available when you call.**



Thank you for making 25+ years of Cord
Blood collection possible

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