

Special Delivery

August 2017

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Donation of a Lifetime

Story from cord blood donor Keri Tawney

When Bloodworks Northwest called Keri one Tuesday afternoon, she thought she was eligible to donate blood again. The call was actually about her cord blood donation more than three years before -- following the birth of her daughter. Stem cells from her cord blood had matched with a someone in dire need. A little boy with leukemia -- barely older than Keri's own daughter -- would be getting her donation as a life-saving transplant.

Keri was already familiar with the importance of stem cell transplants. Twelve years earlier, her father fought multiple myeloma at UW Medical Center. Unfortunately, he was too ill to receive the scheduled stem cell reinfusion, and passed away. But the experience prompted Keri to become a regular blood donor. She says, "it would take me years of blood donations to make up for my dad's treatment, so I started giving as often as I could."



Cord blood donor Keri Tawney and her daughter Kassie

The decision to donate cord blood was obvious as Keri's delivery date approached. The donation "took very little time" and occurred after delivery. Together Keri and her new bundle of joy were able to give hope and life to another family.

As Keri wrote in her blog shortly after receiving the call: "[The recipient family's] road ahead is long, and the courage and will power required of this little boy will be beyond what most of us can ever comprehend, but I am so grateful that he has this chance, and so grateful to the Bloodworks Northwest cord blood donation program."

My Perspective on the 2017 ACOG Committee Opinion on Delayed Umbilical Cord Clamping After Birth

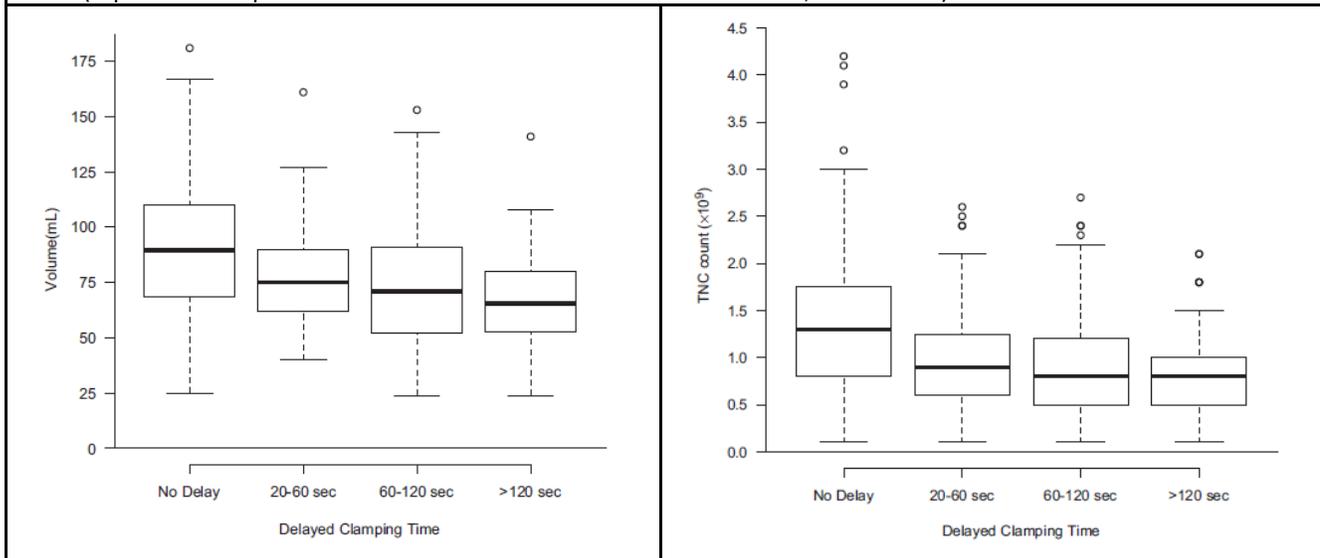
David Lin, MD, MHA – Associate Medical Director of Cord Blood Services

In 2015, the American Academy of Pediatrics (AAP) recommended delaying umbilical cord clamping in most vigorous term and preterm infants for at least 30 to 60 seconds after birth. This year, the American College of Obstetricians and Gynecologists (ACOG) came out with these same recommendations (ACOG Committee Opinion Number 684, January 2017), which was endorsed by the American College of Nurse-Midwives (ACNM).

The impact of delayed clamping after birth on public cord blood banking has been recently reported by Allan and colleagues (Transfusion 2016; 56: 662-665). In this study, a nurse with a timer recorded the time interval elapsed from the moment of birth until the first clamp was applied to the umbilical cord. Of the total of 367 cord blood units (CBUs) collected, 100 (27%), 69 (19%), 98 (27%), and 100 (27%) CBUs were collected within 20 seconds, 20 to 60 seconds, more than 60 seconds, and more than 120 seconds after birth, respectively. Applying a clamp to the umbilical cord 20 to 60 seconds after birth was observed to have a greater untoward impact on the TNC count than the volume (see Figure 1).

Using the new recommended sequence of events for collection, scrubbing the site before the clamp is applied, will meet the new criteria and maximize the available volume of cord blood collection.

Figure 1. The impact of delayed cord clamping on the volume of (left) and total nucleated cell count in (right) collected CBUs (reprinted with permission from the Allan D et al. Transfusion 2016;56: 662-665).

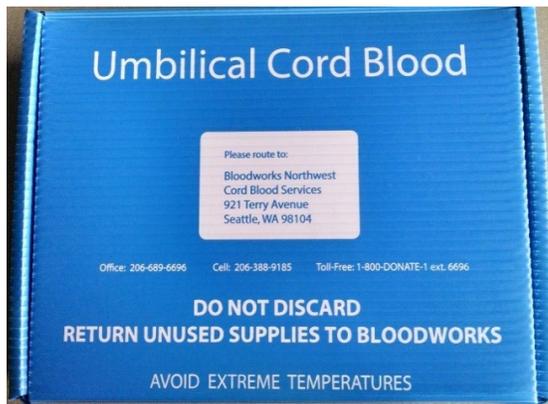


Both the volume and TNC count of collected CBUs are important determinants of its “bankability.” Based on the findings by Allan and colleague, if obstetricians and nurse midwives were to clamp the umbilical cord while simultaneously assessing the 1-minute (or 60-second) Apgar score, then the expectation is that the majority of the CBUs collected would not satisfy the minimum TNC count criterion of at least 1.05×10^9 at Bloodworks’ FDA-licensed Public Cord Blood Bank, even though the majority would satisfy the volume criterion of at least 50 ml.

Please Don't Discard!

You may have noticed half-page flyers in the storage rooms where collection kits are located advising *please not throw away opened, partially used or unused cord blood collection kits.*

But collection and maternal re-draw kits have gone missing! There are only a set number in circulation for each collection site. Within the gel packs are digital temperature monitors that are costly to replace.



If you find an incomplete kit, please allocate it where the courier will pick up.

Examples of incomplete kits are:

- Maternal re-draw kit missing the tubes or paperwork
- Collection kit with the stapled bag opened

Partial kits usually happen when the blood can't be drawn from the donor, so maternal sample re-draw tubes are used to complete the collection kit.

Please return opened, unused and partially used kits to us so we can get them decontaminated and sent back to you.

Collection kits and maternal sample redraw kits are one use only. Please don't take parts from one kit to complete another.

Please route collected and incomplete kits for courier pickup

Please return opened, unused and partially used kits so they can be decontaminated and put back in circulation.



New Step to Cord Blood Collection

On May 23, 2017 we implemented a new chlorhexidine/isopropyl wipe to be used in the **first step** of the venipuncture site cleansing process for vaginal births. Chlorhexidine/isopropyl products are not recommended for use during C-section cord blood collections.

The wipes are to be utilized at Step 1 prior to using the Chloraprep swab (Step 2).

The purpose is to remove excess biological residue around the venipuncture site prior to swabbing with the Chloraprep swab.

We recommend the following change on the order of events for cord blood collection after birth:

Select the collection site and scrub prior to clamping the cord. Then begin collecting as soon as the cord is cut and the baby has passed from the field without additional waiting. This can maximize patient care and cord blood collection considerations.

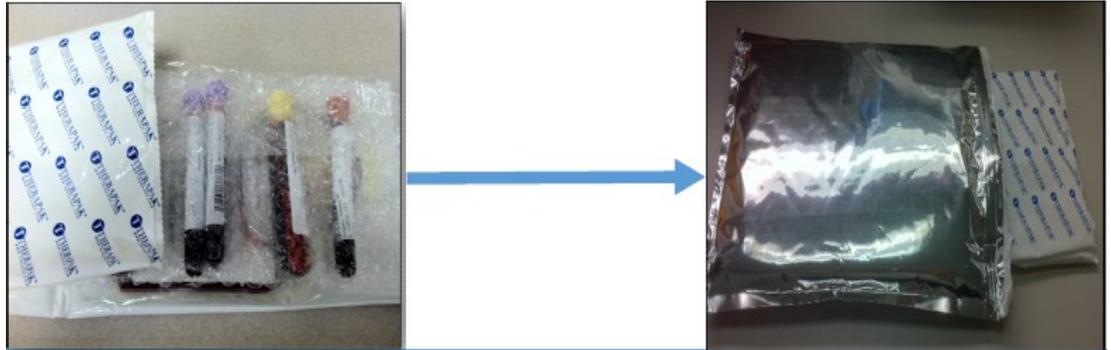
Revised collection instructions are in the collection boxes.

The new wipes are not recommended for use during C-section cord blood collections.

Maternal Sample Tubes

Both gel pack flaps need to be even with each other when placed into foil pouch

- If you are only able to draw some of the tubes, please send the tubes you were able to obtain with the collected cord blood unit
 - Sandwich the tubes and the cord blood unit inside the gel pack
 - Place the gel pack inside the insulated envelope
- ⇒ Note: both gel pack flaps need to be even with each other when placed into foil pouch (like slices of bread are lined up in a sandwich!)



- Place all completed and required paperwork on top of the insulated envelope:
 - ◆ consent form
 - ◆ donor screening form
 - ◆ donor demographic form
 - ◆ delivery information form
 - ◆ maternal sample form
- Allocate the kit where the courier will pick it up.
- Call or e-mail cord blood staff if the unit is being sent without some or all of the maternal samples, and that the remaining samples will be sent separately

Monday to Friday 8:00 am to 4:30 pm 206-689-6696

After-hours 206-388-9185

cordblood@bloodworksnw.org

Please call cord blood staff to let us know if maternal samples will be sent separate from the unit.

Maternal Samples without Cord Blood Units and Redraws:

- Draw the donor's blood using the sample tubes from the maternal re-draw kit (blue box with pink label on the outside)
- Sandwich the sample tubes inside the gel pack
- Include the completed Maternal Sample form in the box
 - This form is included inside the maternal sample re-draw kit
 - If the form is missing, it's a partial kit and should be left for courier pickup
- Allocate maternal re-draw kit where the courier will pick it up

Second cord blood collector signature

Per FDA requirement, collectors need to be annually recertified on cord blood collection. Unfortunately, cord blood units get discarded if a collector is untrained or their certification has lapsed.

If you assist in collection with an uncertified collector, please sign underneath the signature on the Delivery Information Form. (see *Daisy Duck in the example*)

Cord blood collectors need to be recertified annually

Delivery Information Form
Cord Blood Program
Header for Bloodworks use only

BBCS Donor ID _____	NMDP CBU ID: _____	Transportation Box # _____
Emp ID _____ Date _____		Emp ID _____ Date _____
Virology Samples DIN: _____	NMDP Maternal ID: _____	HPC, Cord Blood Local DIN: _____
Emp ID _____ Date _____	Emp ID _____ Date _____	

MATERNAL INFORMATION Apply pre-printed hospital label or fill in: OR HOSPITAL ID LABEL

Mother's Full Name: SALLY SMITH

Mother's Medical Record Number: M12345678

Mother's Date of Birth: 10/10/1980

COLLECTION INFORMATION

Name of Hospital where Delivery Occurred: SEATTLE GENERAL

Approximate Gestational Age (must be ≥ 37 weeks): 39.1 weeks

Approximate Date and Time of membrane rupture: Date: 04/04/17 Time: 00:31

Infant's Date and Time of Birth: Date: 04/04/17 Time: 07:30

Infant's Sex: Female Male

Cord Blood Unit Collection Date and Time: Date: 04/04/17 Time: 07:32

Type of Delivery: Vaginal C-section

DELIVERY INFORMATION

See back of form for a list of relevant complications/abnormalities and additional guidelines for physical assessment of the donor baby and mother. Add comments below as needed.

Were there any abnormalities observed in the baby and/or complications of birth/pregnancy that could affect the cord blood? Yes No

Were any findings detected on the physical exam of the donor mother that may indicate risk behavior for or infection with a communicable disease? Yes No

VERIFICATION

A trained cord blood collector followed the cord blood collection instructions included in the collection kit, confirmed that physical assessments were done on the donor mother and baby, and verified that the patient's identity matches the identity on the cord blood unit and paperwork, and that all labeling and paperwork are legible.

Verification Signature: Daisy Duck, RN Date: 04/04/2017

CORD BLOOD COLLECTOR'S PRINTED NAME and TITLE

First Name: MENNIE Last Name: MOUSE Title: MD

DAISY DUCK, RN

For Bloodworks Use Only
Reviewed By: _____ Date: _____



Keri Tawney, and her daughter Kassie, from the donor story on page one

For collector training, please contact Cord Blood Services:

Monday to Friday 8:00 am to 4:30 pm 206-689-6696

After-hours 206-388-9185

cordblood@bloodworksnw.org

CONTACT US:

Phone: 1-800-DONATE-1, Ext. 1896
 Email: cordblood@bloodworksnw.org
 Web: BloodworksNW.org
 Facebook: facebook.com/BloodworksNW.cordbloodprogram



Cord Blood Program