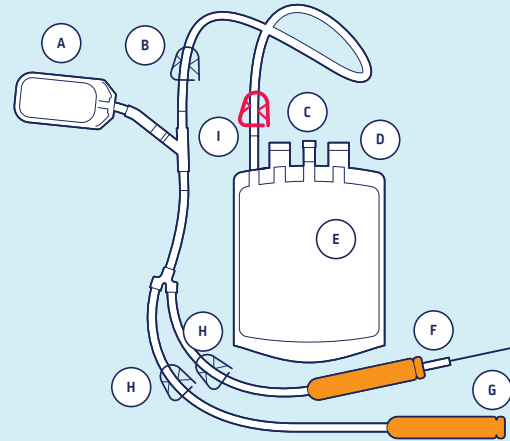




This procedure is done after the baby is safely delivered to minimize the disruption of the normal management of labour. The collection must never interfere in any way with the care given firstly to the mother and secondly to the infant. It is of the utmost importance that **the procedure is done in a sterile manner.**

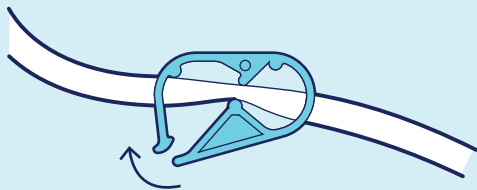
**Cord Blood Collection Bag**

- A Rinsing pouch
- B Main line clamp
- C Injection Site
- D Outlet ports (x2)
- E Collection bag
- F 14G needle with cap (x2)
- G Needle guards (x2)
- H Collection line clamp (x2)
- I Permanent Clamp



Open the blood collection bag onto a sterile tray just before the time of delivery. **01**

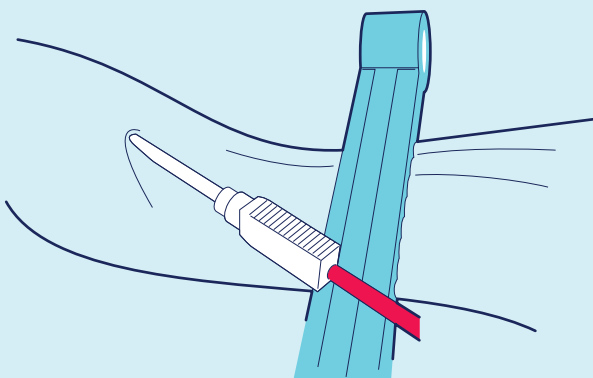
Close the main line Clamp (B) as well as both collection line clamps (H). **02**



Following the birth of the baby, either natural or Caesarian, clamp and cut the cord. The longer the cord, the easier it is to collect the appropriate volume of blood. **03**

The blood must be collected prior to the delivery of the placenta. Swab an insertion site on the umbilical cord with a chlorhexidine wipe **04**

Remove the needle cap by pulling off in a straight line. Stabilise the cord with the left hand and insert the needle towards the placenta into the umbilical vein. **05**

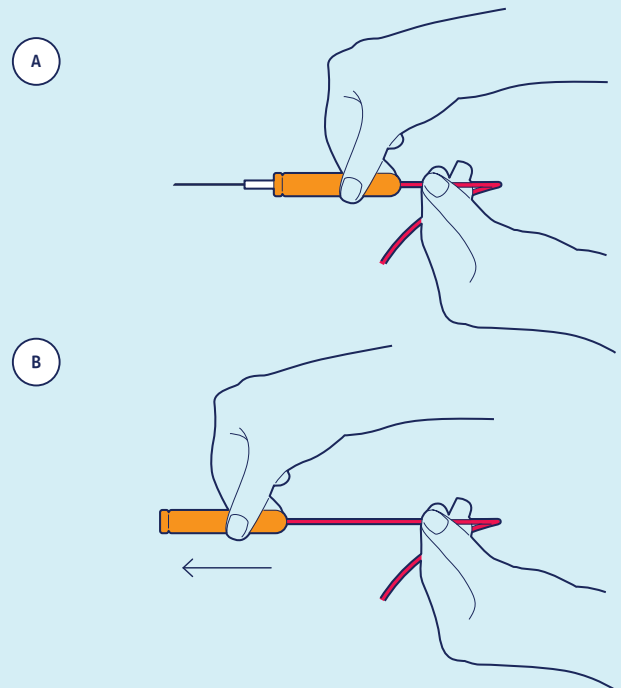


Open the blue clamp on the main line (B) as well as the clamp on the selected needle's collection line (H). **06**

The cord should be gently milked to speed up the collection process. **07**

Once the flow has stopped/slowed down significantly, remove the needle from the cord and close the blue clamp on the collection line (H) you were using (move the clamp up close to the needle). **08**

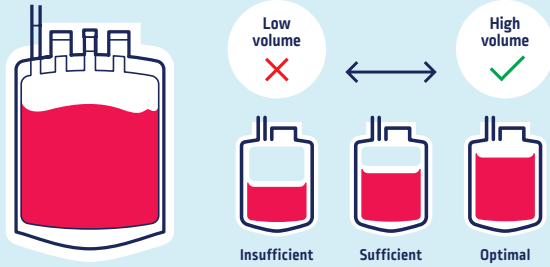
Secure the needle by sliding the needle guard over it until it clicks into place. **09**



Repeat the process (steps 5-9) with a 2<sup>nd</sup> venipuncture higher up on the umbilical cord, if desired. **10**

150ml of blood is required for a successful collection. Insufficient volume will render the cord blood unit unusable for stem cell transplant. Larger volume collection means a larger volume of stem cells collected, and is optimal for transplantation.

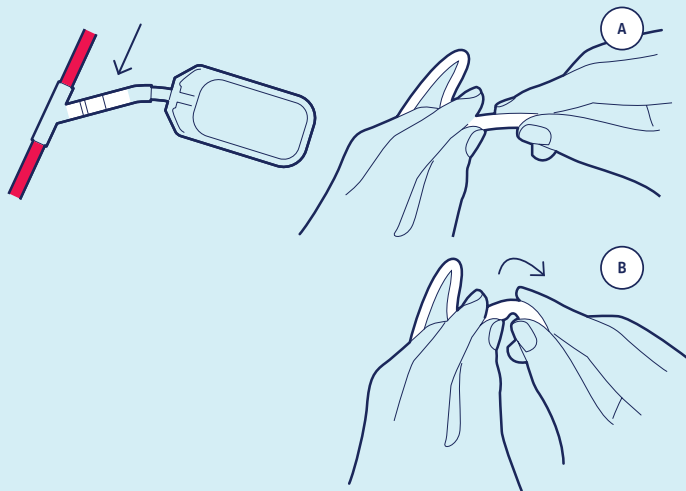
11



Optimal cord blood collection should result in the extraction of an adequate number of stem cells required for storage and ultimately for transplantation.

Once the collection is complete, release the contents of the rinsing pouch, snap the cannula just above the join.

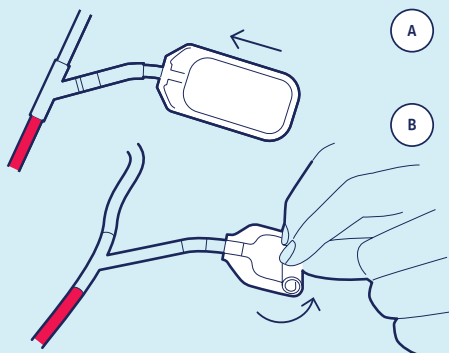
12



Roll the bag to add 8ml of anticoagulant solution from the rinsing pouch to flush the collection lines.

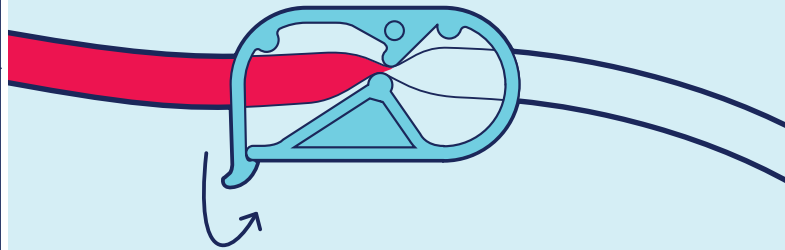
13

**\*Please note that use of the anticoagulant is critical**



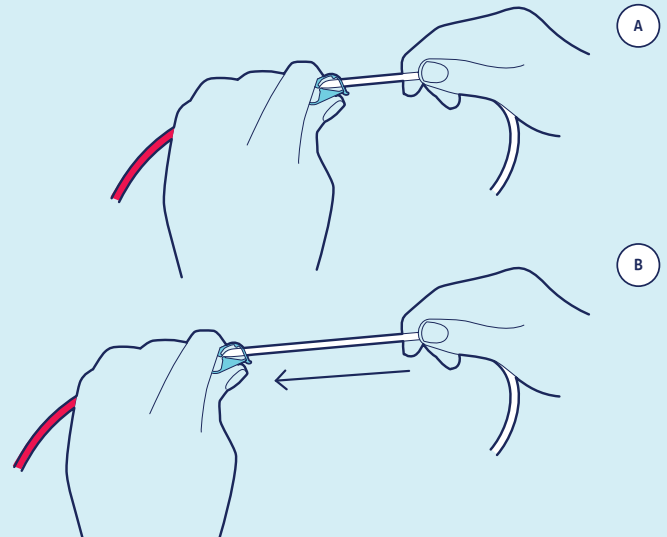
Ensure all three clamps on the collection lines are closed.

14



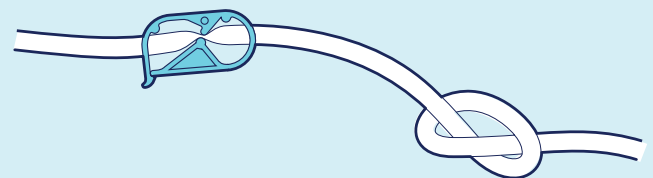
With the clamp closed strip the tubing (i.e move the clamp down towards the blood bag to empty the tubing).

15



Tie a knot in the tubing above the main line clamp (B).

16



**\* Please note that tying this knot is essential**

Turn the bag over gently several times to mix the blood and anticoagulant.

17

Close the red permanent clamp (I). Do NOT close the clamp before the collection is complete as this clamp cannot be re-opened.

18



**Immediately following cord blood collection, choose a section of the umbilical cord that is:**

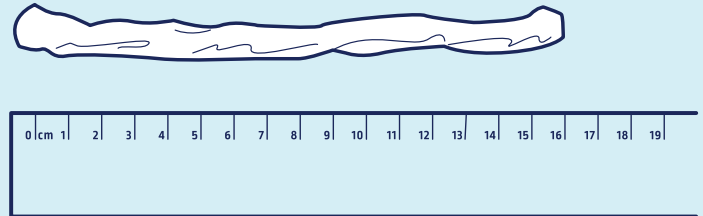
- Undamaged/unpunctured by the cord blood collection needle
- Untangled

**01**



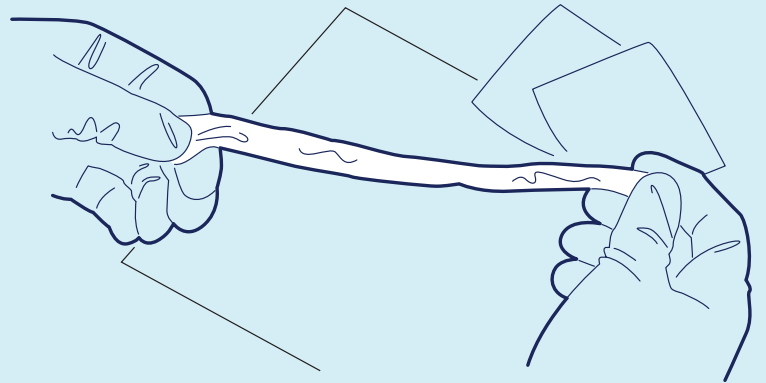
Using a pair of sterile scissors, cut a length of cord about 10 - 15cm long

**02**



Clean the cord with sterile gauze and chlorhexidine. Squeeze as much blood out of the cord as possible.

**03**



Place the cut, clean piece of umbilical cord into the tube provided. Immerse the cord into the liquid (phosphate buffered saline) provided. Close the lid tightly. Should the saline be spilled, sterile saline may be used to replace it.

**04**



Place the tube into the clear bag with the yellow label completed, then into the silver foil envelope along with the cord blood bag. Seal the silver foil envelope and place in the Collection Kit provided.