**Placental Transfusion (Delayed Cord Clamping and Cord Milking) FAQs**

**What is placental transfusion?**

The transfer of residual placental blood to the baby during the 1st few minutes of life. The infant can receive up to 25-30% of its blood volume if the healthcare provider waits to clamp and cut the cord for just a few minutes. This is facilitated by delayed cord clamping (DCC) or umbilical cord milking (UCM). Both can be done at the time of vaginal birth and cesarean delivery.

**What factors influence placental transfusion?**

Several factors can influence how much residual placental blood the infant receives. Factors such as *time, gravity, and contractions* (including use of an uterotonic medication) before clamping can increase the amount of blood to the baby. Infants with DCC of 3 minutes, while held below the level of the perineum, will receive ~ 20 mL/kg of fresh whole blood. Infants held skin-to-skin (above the level of the placenta) will benefit by waiting 5 minutes before clamping the cord. Use of an uterotonic can increase uterine contractions and accelerate the transfer of placental blood to the infant but over transfusion does not occur. When there is a situation where the provider must “cut & run”, the infant can benefit from UCM.

**What is in cord blood?**

Within cord blood are 3 important components: red blood cells (15 ml/kg) with enough iron to meet the infant’s needs for 4-6 months, whole blood for volume expansion (~ 20-30 ml/kg) and millions of stem cells, enough to provide the infant with its first autologous stem cell transplant.

**Is there any harm?**

There have been 21 randomized controlled trials published since 1980 which demonstrate no harm. A Cochrane Review from 2013 suggests no increase in clinical jaundice, with placental transfusion compared to immediate cord clamping (ICC), however they report in an unpublished clinical trial that there was a slight increase in a need for phototherapy (3% vs. 5%). There was no difference in symptomatic polycythemia.

**Is there benefit?**

A full placental transfusion allows enough transfer of red blood cells to provide 4-6 months of iron. Iron plays a key role in early brain development.

**What is the role of iron sufficiency in early childhood?**

Iron sufficiency is critical to neurodevelopment. Iron is an essential substrate for healthy brain growth. With ICC, the infant can leave behind > 50-75 mg of iron in the placenta and this can place the infant at risk for iron deficiency anemia. Iron deficiency anemia can be linked to neurodevelopmental issues.

**Do professional organizations support placental transfusion at birth?**

In 2014, the American College of Nurse-Midwives published a position statement of DCC and recommended a delay of 5 minutes when the infant is held skin-to-skin or at least 2 minutes if held at or below the level of the perineum. The American College of Obstetricians & Gynecologists (2013) & the American Academy of Pediatrics (2013) suggest a wait of 60 seconds may benefit infants where iron deficiency is prevalent. The World Health Organizations recommends waiting 1-3 minutes. The Royal College of Midwives recommends ~ 3minutes “determined by the clinical context”.

**Are there clinical challenges to practicing DCC or UCM?**

Within the BirthTools.org toolbox resources on DCC is a PowerPoint entitled “Clinical Challenges to Cord Clamping.” This slide show reviews 6 clinical challenges and recommends how to maintain an intact cord for the first few minutes after birth. Please share this PowerPoint with your colleagues.