

DELAYED CORD CLAMPING STILL NOT ROUTINE

Despite mounting evidence of the harm done to babies as a result of early cord clamping, New Zealand obstetricians and far too many midwives are still clamping and cutting the umbilical cord almost immediately after birth. There is no, and never has been, any evidence to support the practice of clamping the cord before it has stopped pulsating. Before the mid-1950s most cord clamping and cutting happened when the umbilical cord stopped pulsating, around five minutes after birth. Cord clamping was originally introduced to reduce the risk of postpartum haemorrhaging, despite the lack of evidence of any relationship between early cord clamping and maternal bleeding. There is also no evidence to support a relationship between delayed cord clamping following a normal birth and hyperbilirubinaemia or jaundice.

While premature clamping and cutting of the cord was introduced and became routine practice without a shred of evidence that it would be safe to interfere with the natural process that ensures that babies get the blood they need to make the transition to life outside the womb and to stay healthy, changing back to what nature intended needs research studies and randomised controlled trials and a campaign to try and convince maternity care providers that it is safe to leave the cord until it has stopped pulsating. How sick is that!

In 2012 paediatrician Mark Sloan wrote: “Though there is no strong scientific support for immediate cord clamping (ICC), entrenched medical habits can be glacially slow in changing.” (1)

“Whether a baby is premature or full term, approximately one-third of its total blood volume resides in the placenta. This is equal to the volume of blood that will be needed to fully perfuse the fetal lungs, liver, and kidneys at birth.

In addition to the benefits that come with adequate iron stores, babies whose cords are clamped at 2 to 3 minutes – and thus, who have an increased total blood volume compared with their immediately-clamped peers – have a smoother cardiopulmonary transition at birth.

A third benefit: stem cells, which play an essential role in the development of the immune, respiratory, cardiovascular, and central nervous systems, among many other functions. The concentration of stem cells in fetal blood is higher than at any other time of life. Immediate cord clamping leaves nearly one-third of these critical cells in the placenta.”

Recent research has confirmed that babies are deprived of around a third of the vital blood they need from the placenta when the cord is clamped and cut early, and that this can be shown to be still affecting them months and even years later. Premature babies also benefit from delayed cord clamping.

Six months ago *JAMA Pediatrics* published the results of a study undertaken by researchers in Sweden which measured the effects of delayed cord clamping on children past infancy and up to four years of age, a time frame that few doctors have examined. (2) In the study, a group of 263 healthy Swedish full-term babies were randomly split into two groups. One group had their umbilical cords clamped less than 10 seconds after birth. The cords of the other group were clamped three

minutes after birth. The two groups were then monitored for four years. The babies with delayed cord clamping performed modestly better on tests assessing their fine motor skills and social skills. The boys in the study displayed the most statistical improvement. The results, researchers say, showed no difference in overall IQ.

Lead researcher, Ola Andersson told CNN "It's incredible to see what a difference an extra three minutes and one-half cup of blood can have on the overall health of a child, especially four years later." (3)

The publication of this latest research follows publication of her previous study on the effect of premature cord clamping on the iron status of 4-month old babies which appeared in the *British Medical Journal* in 2011. (4) The study revealed that delayed cord clamping, compared with early clamping, resulted in improved iron status and reduced prevalence of neonatal anaemia which is associated with impaired development.

In June 2013 the MSCC's newsletter reported on the campaign in the UK to change the practice around cord clamping. Childbirth experts including midwives were urging the National Health Service (NHS) to reverse its policy on premature cord clamping and advocating for the National Institute for Health and Care Excellence (NICE) which advises the NHS to change its guidelines.

At that time Andrew Gallagher, a consultant paediatrician at the Worcestershire Royal Hospital in Worcester, which adopted delayed cord-clamping in 2009, said: "Immediate cord-clamping is a harmful practice because it denies the baby the blood from the placenta, and means that later on they are more likely to become iron-deficient. That matters because iron deficiency can cause serious problems. It affects the brain and learning capacity of toddlers ... [who] are going to be slower to learn, for example to speak and to understand. It's time for the NHS to sweep away an outdated and potentially harmful and thoughtless practice that we have been doing for decades," he said.

UK midwife Amanda Burleigh is another active and persistent campaigner who has spent the past decade campaigning on behalf of babies. Amanda was interviewed in April 2015 by the *Daily Mail* following the change to the NICE guidelines, (5) and was named Midwife of the Year by the *British Journal of Midwifery*. "In 20 or 30 years I think we will look back on immediately cord-clamping and think "What were we doing? We dropped an absolute clanger," she said. Amanda is now supporting midwives all around the world to change their practice around immediate cord clamping, including Australia, Norway, Sweden, Pakistan, Tunisia, Israel and Turkey.

In 2010 Amanda joined forces with a group of consultants led by Dr David Hutchon. Realising that one of the obstacles to delaying cord cutting was needing to take the baby away for resuscitation, they developed a trolley which is now known as Basics/Lifestart. "Typically about 15% of babies need some form of resuscitation after birth (though a hospital audit suggested leaving the cord intact could reduce this to 5%). The Basics/Lifestart trolley is a small resuscitation unit that can be wheeled up to the bed and allows the cord to be left intact while the baby is resuscitated. Hospitals have started buying them so they can carry out the new

evidence-based practice that babies should be attached to the cord for at least a minute after birth.” (6)

Changing the practice around immediate cord clamping in New Zealand has also been underway for some time. In August 2013 the NZ College of Midwives revised their consensus statement on facilitating the birth of the placenta. As part of what they refer to as “physiological placental birth”, also known as physiological third stage, the statement recommends that “the cord is left alone until either it stops pulsating, or preferably, the placenta is born so the baby receives an optimal blood supply to start extra-uterine life, the cord may then be clamped/tied and cut.” (7)

In August 2014 the Canterbury DHB issued their own guideline on umbilical cord clamping for babies at or near term. It begins by stating that: “the question of when to clamp the umbilical cord after birth has received renewed attention in recent years. Compelling evidence has been published supporting the practice of waiting for placental perfusion which aids the newborn's physiological transition to extra-uterine life.” (8)

Delayed cord clamping is usually considered to be part of a physiological third stage which includes not using drugs to hasten the birth of the placenta, and not pulling on the umbilical cord (controlled cord traction) after the baby is born, as well as leaving the cord intact until it has stopped pulsating.

However, in Auckland, in their latest Annual Clinical Report, National Women's defines physiological third stage as “expectant management without ecbotic and delivery of the placenta by maternal effort.” There is no mention of waiting until the cord has stopped pulsating before clamping and cutting it as part of their definition.

The latest Annual Clinical Report also records that “in 2014 rates of physiological management of the third stage are unchanged.” The previous year's report states “in 2013 the management of the third stage of labour has changed insignificantly from 2012. Physiological management of the third stage remain unchanged.”

By excluding “the practice of delayed cord clamping” as part of a physiological third stage which the latest report states has increased but doesn't say by how much, the true picture of what is happening to babies at National Women's immediately after birth remains hidden.

Middlemore hospital on the other hand introduced delayed cord clamping as standard practice in 2010. However, it is still an issue for very premature babies as a recent research proposal that came before the Northern A ethics committee in October revealed. The study is called the ABC Study and is an attempt to prevent morbidity and the need for blood transfusion by delaying clamping of the cord in babies who are less than 31 weeks gestation. The study will investigate whether delayed cord clamping and breathing assistance can improve the short and long term outcomes for very preterm babies.

During the lengthy discussion on this proposal the researcher stated that delayed cord clamping is not standard treatment in New Zealand for preterm babies, and is still only standard treatment for term babies in some hospitals. After the introduction

of delayed cord clamping as standard practice in 2010 researchers at Middlemore hospital compared babies over 31 weeks gestation who did not have delayed cord clamping with those who did, and found there were better outcomes for the babies when the cord was not clamped immediately after birth. And now they are trying to prove that there would also be better outcomes for very premature babies who have delayed cord clamping. Isn't this common sense? It shouldn't require any more research trials to return to a practice that we now know is best for all babies.

The next step is to require all DHBs to record the percentage and numbers of babies who are given the gold standard of immediate postpartum care by leaving the cord to stop pulsating before it is clamped and cut.

References

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