Optimal Cord Management in Preterm Babies

Midwives role in implementing evidence into practice

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What is the change? and Why?

Resuscitation with an intact cord.

- Leaving the cord intact for **at least 1 minute** in preterm infants.
- Starting resuscitation such as inflation breaths or intubation, before clamping and cutting the cord.

Evidence shows that…..

- Immediate cord Clamping increases mortality rate by 30%
- OCM = Results in a reduction in hospital deaths by 27-30%

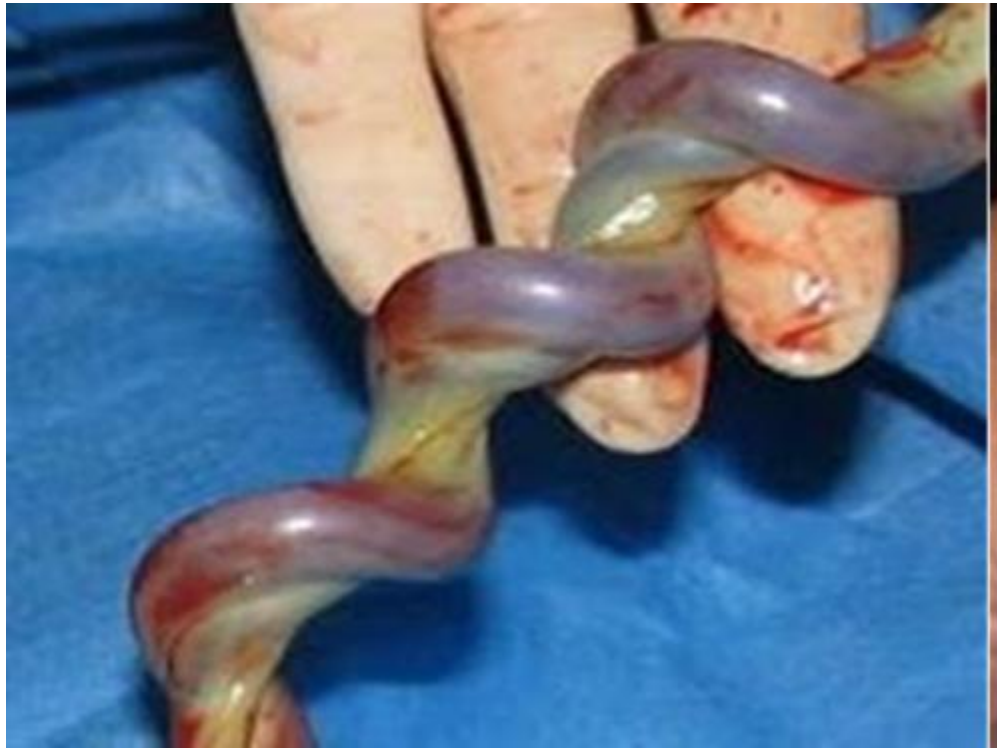
Fogarty 2017, Ghavam 2014, Rabe Cochrane 2019, Seidler 2021

Benefits of OCM for Premature babies

- Decreased Intraventricular Haemorrhage
- Decreased Necrotising Enterocolitis
- Decreased Late onset Sepsis
- Decreased Blood Transfusions
- Decreased need for Ventilation

- Increased Haemocrit
- Increased Haemoglobin
- Increased Blood Pressure
- Increased Cerebral, Lung + Organ oxygenation

Optimal Cord Management
Midwives + the MDT



Antenatal Education

- Antenatal education – making parents aware of OCM.
- Particularly parents whose baby is at risk of pre-term birth.
- These parents should receive information about OCM when they are receiving antenatal counselling about their imminent preterm birth.
- An additional section should be added to the notes/birth plan as a prompt + to record that information has been relayed to the parent/s.
- Development of parent leaflets to support verbal information of perinatal optimisation interventions which includes information about OCM.

Parents as change agents.

- Involving the parents in decision making, thereby ensuring truly informed consent by sharing the evidence that shows OCM improves their babies short + long term outcomes. This also fosters good communication and partnership in care between parents and professionals.

- *“I have never met a parent when given the evidence about the benefits of OCM, who has not been on board. In my experience educated parents have been some of the biggest change agents. We need to involve them more.”*
- Amanda Burleigh, Midwifery Consultant

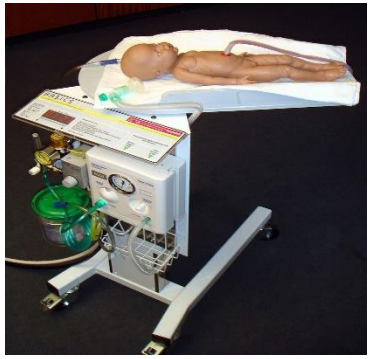
Implementation within a unit – Steps to success.

- A growing number of units have already have established OCM methods + protocols + these should continue.
- Development of a MDT involving Neonatology, Obstetrics + Midwifery.
- A proactive, collaborative team dedicated to intact cord resuscitation is essential for effective implementation.
- A new delivery room protocol, written according to locally possible settings + available equipment, with agreement + collaboration
- Mandatory interdisciplinary education sessions with simulation training.
- Midwives could take responsibility for ongoing training incorporating staff and new starters from all MDT areas.
- Delivery suite – Midwifery OCM champions - practitioners passionate/confident with the evidence + methods until OCM firmly embedded into practice.
- Following up with audit of the units own practices.

Delivery - preparation

- Pre-birth planning with the Obstetric/Midwifery/Neonatal Team.
- Informed + consenting parents.
- Prior to birth, decision making decided re optimal delivery position (maintaining privacy) + location of equipment (again involving parents).
- Ensuring necessary equipment is available + necessary standard checks completed.
- Midwife should be a commentator of events, keeping time, supporter of parents.
- Third stage management options discussed + consent obtained followed by discussion with the medical team. Mother should be reassured that administering oxytocic drugs + OCM do not increase risk of PPH or retained placenta.
- Documentation
- Parents should be given reassurance about their baby's wellbeing and at delivery be encouraged to touch or even hold their baby with clean hands where this is possible.

Delivery Room Preparation – thermal consideration



- Warm room – 24-26 degrees
- Warmed (sterile) towels are available for holding baby during OCM + later transfer to the stabilisation area.
- If gestation requires it, ensure (sterile) plastic bag or thermal suit is available for use.
- Ensure that the heat source, trans-warmers (or thermal mattresses) on the stabilisation trolley are switched on.
- Warm well-fitting hat for after delivery.
- Check temperature after OCM is complete, ideally with continuous temperature monitoring.

Contraindications to optimal cord management

Rare justifiable contraindications to Optimal Cord Management.

- Maternal resuscitation in the face of massive, acute haemorrhage.
- Ruptured vasa praevia, snapped cord or other trauma to the cord vessels which will result in haemorrhage from the baby.

Special Circumstances:

- Complete placental abruption
- Where the placenta is delivered at the same time as the baby, the Midwife could hold the placenta above the baby, then clamping at 60 seconds before the placenta is lowered. Umbilical cord milking may also be considered in this situation.

Not contraindications for OCM.

Short Cord length

- A short cord length might interfere with the management of the mother or baby but can usually be addressed with optimal positioning. Short cord length is not a consideration for early clamping.

Multiple gestations

- Studies of multiple births have demonstrated feasibility of providing OCM to twins and triplets28-30. Multiple births should not be routinely excluded from Optimal Cord Management and plans for delivery should be considered by an experienced perinatal team on an individual basis with a decision made ahead of birth.

Team Approach including the parents - Essential