NICU MEDICAL GUIDELINE

Title:	**Delayed Cord Clamping**
This document is attached to:	Attached – Evidence

1. **PURPOSE:**

   Given the benefits of DCC, it is now endorsed as standard of care by most professional organizations such as NRP, ACOG, CPS, AAP, WHO, SOGC and NICE. It is recommended to delay umbilical cord clamping for at least 30-60 seconds after birth in vigorous term and preterm infants.

2. **GUIDELINE HAS BEEN APPROVED BY:**

3. ELEMENTS OF CLINICAL ACTIVITY:

Eligibility for DCC

All babies who are vigorous at birth will be eligible for delayed cord clamping unless there are **contraindications** such as:

1. Cases with interruption of the placental blood flow and oxygenation due to abruption, maternal hemorrhage (bleeding placenta previa), fetal hemorrhage (vasa previa), active maternal seizure
2. Cord related issues- cord avulsion, cord prolapse or tight nuchal cord
3. A requirement for immediate newborn resuscitation – hydrops, congenital heart disease with anticipation need for immediate intubation, congenital diaphragmatic hernia
4. IUGR with certain abnormal umbilical cord Doppler evaluation
5. Multiple gestation involving monochorionic twins regardless of the presence or absence of twin to twin transfusion syndrome. The clinical trials involving DCC did not include multiple gestations and there is little information regarding its safety or efficacy in this group. There is theoretical risk of placental vessel anastomosis that may result in unfavorable hemodynamic changes during DCC.

Procedure:

In the preterm infant < 32 weeks of gestation:

- Staff neonatologist or fellow is present at delivery to supervise the transition of these infants to extrauterine life. One of these NICU members may scrub in for the delivery of < 29 week of gestation.
- Discuss with OB team if there is any contraindication for DCC prior to delivery.
- Ensure required supply such as Neo-HeLP (sterile polyethylene occlusive suit to prevent hypothermia) is provided to the OB delivering team by the attending NICU team.
- Assigned time- keeper (NICU resus RN) starts the APGAR timer as soon as the infant is delivered and thereafter announces the time in 15 second interval.
- Immediately after birth, infant is covered with NeoHelp and stimulated with gentle tactile stimulation (rubbing of the back). Secretions can be suctioned if they are copious. During the first 20-30 seconds, the newborn's tone and respiratory effort should be evaluated to determine if the infant is vigorous or non-vigorous. If the preterm is vigorous, clamping of the cord should be delayed for at least 60 seconds. If the infant is assessed to be non-vigorous, the cord needs to be clamped immediately and subsequent steps of resuscitation should be initiated per the NRP algorithm.
- Documentation of duration of DCC should be included in Centricity. Reason for early clamping if DCC was not offered needs to be documented as well.

In the Infant > 32 weeks of gestation:

- NICU resus team to attend the delivery of preterm infants of 32-37 weeks of gestation.
- NICU team (if present) to discuss with OB if there is any contraindication for DCC prior to delivery.
- Ensure required supply such as NEO HELP (for less than 32 weeks) or 2 sterile towels are available for the OB delivering team (circulating nurse to provide)
- Assigned time- keeper (NICU resus RN if present) or peds nurse starts the APGAR timer as soon as the infant is delivered and there after announces the time in 15 second interval.
- Immediately after birth, the infant is covered with Neo-Help or sterile towels depending on the gestational age and stimulated gently. Suction only if there is copious secretions. Assess if the infant is vigorous or not by evaluating breathing effort and tone. If the infant is vigorous, delaying of the cord should be delayed for at least 1-2 minutes or until cord pulsation stops. Clamp the cord immediately if the newborn is non-vigorous and hand-over to the NICU team (if present). Press code pink if the infant is non-vigorous and NICU team is not present.
- Documentation of duration of DCC should be included in Centricity. Reason for early clamping if DCC was not offered needs to be documented as well.

4. *MAIN AUTHOR:*

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5. *CONSULTANTS*:

Resus resuscitation team

6. SPECIAL CONSIDERATIONS:

7. APPROVAL PROCESS

Institutional and professional approval

Committees	Date [yyyy-mm-dd]
☐ Pediatric Clinical Practice Review Committee (CPRC) (if applicable)	
☐ Pediatric Pharmacy and Therapeutics (Peds P&T) (if applicable)	

8. REVIEW DATE

To be updated in maximum of 4 years or sooner if presence of new evidence or need for practice change.

Version History (for Administrative use only)			
Version	**Description**	**Author/responsable**	**Date**
1	Delayed Cord Clamping guideline	Dr Elizabeth Hailu	2020-04-26