**Delayed Cord Clamping Guidelines**

*NRP 7th Ed: Current evidence suggests that cord clamping should be delayed for at least 30 to 60 seconds for most vigorous term and preterm newborns. If placental circulation is not intact, such as after a placental abruption, bleeding placenta previa, bleeding vasa previa, or cord avulsion, the cord should be clamped immediately after birth. There is insufficient evidence to recommend an approach to cord clamping for newborns who require resuscitation at birth.*

**Definition:** Clamping the umbilical cord at 60 seconds of life, after the baby is delivered to allow for the placental transfusion to take place.

Milking of the umbilical cord is not currently recommended due to a lack of data in

support of this practice. NRP does not support milking of the cord and HPMC will

not incorporate it into practice at this time.

**Benefits:** Increased circulating blood volume, decreased need for blood transfusion, increased iron load, decrease high grade IVH in premature infants

**Eligible patients:**

* All term babies who are vigorous at birth or not anticipated to require immediate resuscitation at birth.
  + C-section and Vaginal deliveries
  + Multiple gestation
* Premature babies in coordination with the NICU team.
  + C-section and Vaginal deliveries
  + Multiple gestation

**Contraindications:**

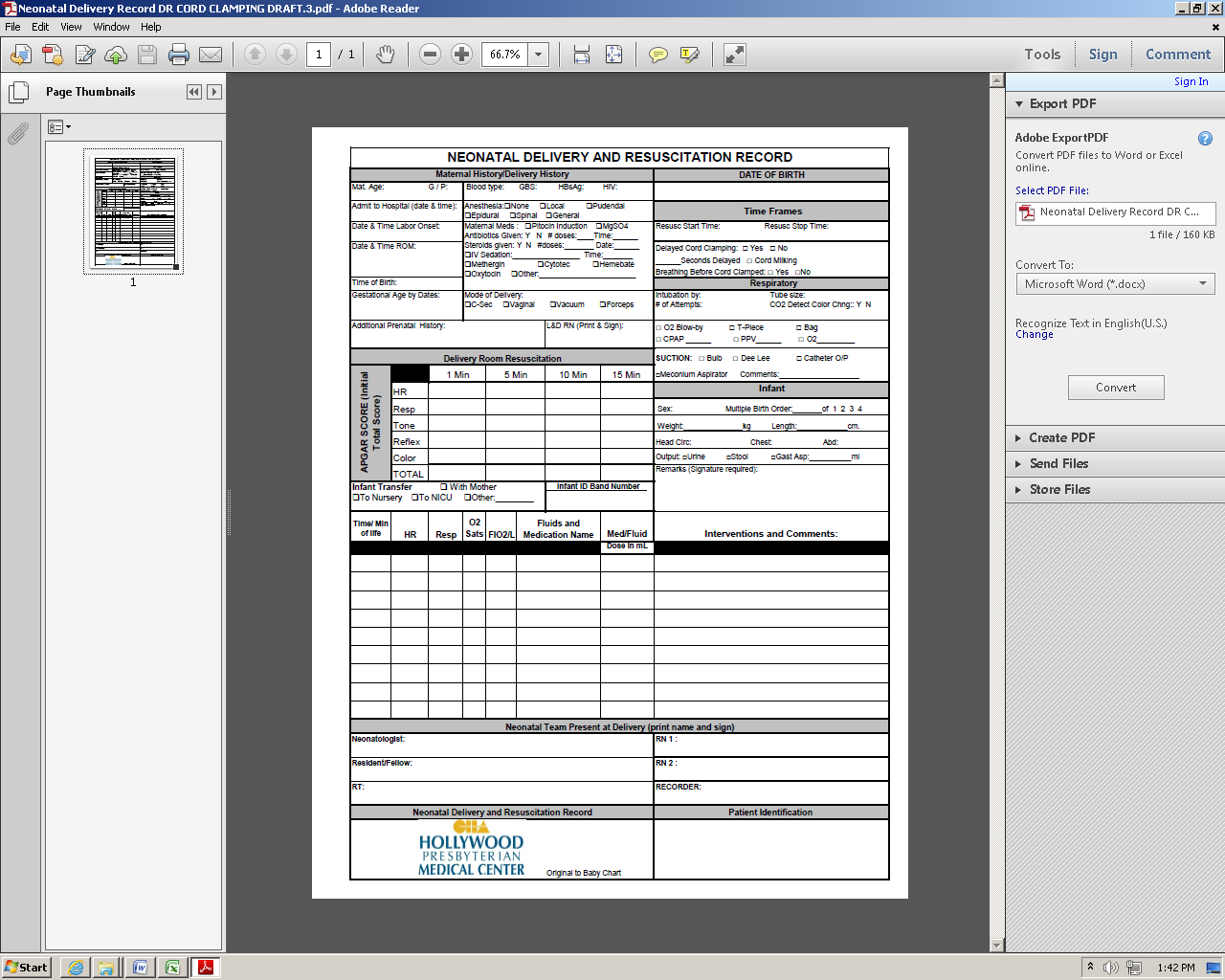
* Emergent delivery
  + Fetal intolerance to labor
* Cases with interruption of the placental blood flow/oxygenation:
  + Abruption
  + Maternal hemorrhage (i.e. bleeding placenta previa)
  + Vasa previa
  + Active maternal seizure
  + Tight nuchal cord
  + Cord avulsion
* MSAF and baby is not vigorous
* Apnea or poor respiratory effort at birth
  + no spontaneous respiration by 20 – 30 seconds
* Hydrops due to any underlying cause
* Recipient twin in twin to twin transfusion syndrome
* Selected congenital malformations:
  + Myelomeningocele
  + Congenital heart disease with anticipated need for immediate intubation
  + Congenital Diaphragmatic Hernia
  + CCAM with thoracoamniotic shunt in place
  + Gastroschisis

**Method:**

* Duration of DCC
  + Term Infants
    - Clamping the umbilical cord at 60 seconds of life, after the baby is delivered to allow for the placental transfusion to take place.
  + Preterm Infants
    - Clamping the umbilical cord at 30 - 60 seconds of life, after the baby is delivered to allow for the placental transfusion to take place
* LBW preterm/28-32:
  + NICU team will provide OB with warm sterile blanket
    - Prepare chemical mattress on radiant warmer
  + OB will be asked to gently suction and stimulate baby
    - Hold below level of mother’s introitus (vaginal delivery) or below level of incision (cesarean section)
  + DCC for 30 seconds
    - NICU team member verbalizes time in 5-10 second intervals
    - Obstetrician then clamps and cuts the cord at 30 seconds
* NICU team will notify OB of time frame to clamp the cord or the need to terminate the procedure and expedite patient hand off to NICU team
* ELBW preterm/ 23-27:
  + NICU team will provide OB with neo wrap on a warm sterile blanket
    - Prepare chemical mattress on radiant warmer
  + OB will be asked to gently suction and stimulate baby
    - Hold below level of mother’s introitus (vaginal delivery) or below level of incision (cesarean section)
  + DCC for 30 seconds
    - NICU team member verbalizes time in 5-10 second intervals
    - Obstetrician then clamps and cuts the cord at 30 seconds
  + Multiples: trial of 30 second DCC
  + Term multiples can be handed off to NICU team
  + Premature multiples, same as for LBW and ELBW above
  + NICU team will notify OB of time frame to clamp the cord or the need to terminate the procedure and expedite patient hand off to NICU team

**Documentation on the Neonatal Delivery and Resuscitation Record:**

* Neonatal Delivery and Resuscitation Record
  + 1. Was delayed cord clamping performed:
    - yes no (if no, document why)
  + 2. If yes, then for how long: \_\_\_\_\_\_
    - i.e. 30, 30 – 60 seconds, 60 seconds
  + 3. Was milking of the cord performed
    - yes no
  + 4. Was patient spontaneously breathing prior to clamping the cord
    - yes no



**Sources:**

Pediatrics 2014 134(2)26-272

Royal College of OB GYN, Scientific Impact Paper No. 14, February 2015

Frontiers in Pediatrics Rev Article October 2014 (2)Article 113

Adv Neonatal Care. 2012 Dec;12(6):371-6

Journal of Perinatology 2016, (36)35-40

Early Human Development 91 (2015) 407–411

J Neonatal Perinatal Med. 8(4):393-402.Dec2015

Obstet Gynecol. 2014 Jul;124(1):47-56

Transfusion. 2014 Apr;54(4):1192-8.