

Newborn Critical Care Center (NCCC) Clinical Guidelines

Timing of Umbilical Cord Clamping After Birth in the Preterm and Term Infant

BACKGROUND

Management of the umbilical cord and placental transfusion at the time of the delivery remains an area of robust investigation. The volume of blood transferred to the newborn from the placenta and the effect can vary based on gestational age, mode of delivery, timing of cord clamping, and clinical status of the newborn. The plan for umbilical cord management should be a routine part of the pre-birth brief.

Delayed cord clamping in preterm infants has been associated with possible improvement in survival to discharge, decreased inotrope use in the first 24 hours of life, less intraventricular hemorrhage of any grade, and fewer blood transfusions.¹⁻³ Delayed cord clamping in healthy term infants may confer some benefits including higher birthweight, increased iron reserves up to 6 months after birth, and improvement in neurodevelopmental outcomes.^{4,5}

Delayed cord clamping should be deferred in the following circumstances:

1. Maternal hemorrhage and/or hemodynamic instability
2. Abnormal placentation
3. Fetal/Neonatal perinatal depression and/or profound bradycardia
4. Placental circulation not intact

Timing of Umbilical Cord Clamping in the PRETERM Infant

- Defer cord clamping for at least **30 seconds** after birth in the preterm infant with intact placental circulation
- Initial steps of NRP (warming, drying, and stimulation) should be provided by the obstetric team while infant is still attached to the placental circuit

Timing of Umbilical Cord Clamping in the TERM Infant

- Defer cord clamping for at least **30 seconds** after birth in the term infant with intact placental circulation
- Initial steps of NRP (warming, drying, and stimulation) should be provided by the obstetric team while infant is still attached to the placental circuit

References:

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