Timing of Umbilical Cord Clamping

The timing of the umbilical cord clamping during delivery has been the source of debate for decades. Several reviews have suggested that clamping the umbilical cord in all births should be delayed for at least 30–60 seconds, with the infant maintained at or below the level of the placenta because of the associated neonatal benefits. Currently, insufficient evidence exists to support or to refute the benefits from delayed umbilical cord clamping for term infants that are born in settings with rich resources. Although a delay in umbilical cord clamping for up to 60 seconds may increase total body iron stores and blood volume, which may be particularly beneficial in populations in which iron deficiency is prevalent, these potential benefits must be weighed against the increased risk for neonatal phototherapy. In addition, no difference is apparent between infants who undergo early umbilical cord clamping versus those who undergo delayed umbilical cord clamping with respect to immediate birth outcomes, such as Apgar scores, umbilical cord pH, or respiratory distress caused by polycythemia. Although maternal outcomes have not been rigorously studied, the incidence of postpartum hemorrhage is reported to be similar between immediate umbilical cord clamping groups and late umbilical cord clamping groups. However, evidence supports delayed umbilical cord clamping in preterm infants. As with term infants, delaying umbilical cord clamping to 30–60 seconds after birth with the infant at a level below the placenta is associated with neonatal benefits, including improved transitional circulation, better establishment of red blood cell volume, and decreased need for blood transfusion. The single most important clinical benefit for preterm infants is the possibility for a nearly 50% reduction in intraventricular hemorrhage. It is important to note that the timing of umbilical cord clamping should not be altered for the purpose of collecting umbilical cord blood for banking.

As such, a December 2012 American College of Obstetricians and Gynecologists (ACOG) committee opinion concluded that the decision to perform early versus delayed cord clamping in term deliveries should be based on patient-specific factors, particularly the infant's risk of developing iron deficiency anemia. For preterm deliveries, ACOG recommends delayed cord clamping given significant reduction in intraventricular hemorrhage associated with this intervention.