Early Term Births: Considerations in Management

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KEYWORDS

- Early term birth • Fetal lung maturity • Maternal outcomes
- Neonatal outcomes

It is often said that the 2 key decisions that obstetricians routinely make address the questions: When is the best time to deliver? and Through what mode should the delivery be undertaken? Ideally, delivery should occur at term. Traditionally, "term birth" refers to any birth between 37 weeks and 0 days of gestation and 41 weeks and 6 days. However, data suggesting heterogeneity in outcomes within this group has led many to reconsider the definition of a "term birth."[1] As a result, term births may be subgrouped into 2 categories, "early" term births and "full" term births. Early term births encompass neonates born between 37 and 0/7 weeks gestation and 38 6/7 weeks gestation; full-term deliveries are those that occur between 39 and 0/7 weeks gestation and 41 6/7 weeks gestation (births occurring beyond this period are postdate or postterm).[1,2] Some providers and patients may assume that optimal outcomes occur uniformly "at term," whereas births at 37 or 38 weeks are associated with worse outcomes compared with those at 39 to 40 weeks. Therefore, the "early term" designation draws appropriate attention to the potential for adverse outcomes and the need to carefully consider the indication for delivery at term but before 39 weeks. Although early term deliveries occurring spontaneously or that are necessary to avoid maternal or fetal complications are unavoidable, it is important to limit the frequency of early births by induction or scheduled cesarean without medical or obstetric reasons. These births contribute to the rising rate of induction and cesarean delivery in the United States and to the ongoing reduction in mean gestational age at delivery. For example, the rates of cesarean delivery in the United States rose from 20.7% in 1996 to 31.8% in 2007,[3] and this number is expected to continue to increase. A main reason for this increase is an increase in the number of primary cesareans and the decline in a trial of labor after cesarean.[4–6] Inductions of labor have

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Table 1
Incidence of early terms births

Study	Population	% Early Term	% Early Term Among Term Births
Tita et al, 2009[8]	Elective repeat cesarean delivery enrolled at 19 US centers	35.8	35.8
Bailit et al, 2010[10]	Singleton pregnancies, 10 US centers, 34–42 weeks	—	31.5[a]
Clark et al, 2010[10]	27 US hospitals, deliveries	36.8	43.8 (2007)–29.3 (2009)
Reddy et a, 2011[2]	US Singleton live births from 1995 to 2006	25.3	30.7
Wilmink et al, 2010[11]	Elective cesarean delivery in The Netherlands perinatal registry	56.6	56.6

[a] Calculated from data presented in Bailit et al,[10] **Table 2**.

also increased in the United States, from 9.5% in 1990 to 22.5% in 2006.[3] A significant proportion of these inductions and cesareans are elective,[7] and may even be scheduled solely for patient or provider convenience.

PREVALENCE AND SUBTYPES

The frequency of early term births naturally varies widely by patient characteristics, provider practice patterns, and health system factors.[2,8–11] These births fall into 3 main categories: Those that are spontaneous (and therefore inevitable), those that are medically or obstetrically indicated to improve maternal or fetal outcomes, and those that are performed without obvious medical or obstetric justification (so-called elective deliveries). Obstetric indications are numerous and include preeclampsia or gestational hypertension, nonreassuring fetal heart tones, premature rupture of membranes, placenta previa, abruption, and prior classical cesarean with attendant risk of rupture with labor.

Table 1 presents the prevalence of early term births for various study populations. In 1 large, US study of presumed elective cesarean deliveries, more than one third were performed before 39 weeks.[8] An even higher number of elective cesareans (>50%), were performed before 39 weeks in a Dutch cohort.[11]

NEONATAL OUTCOMES

The available data reveal increased respiratory morbidities in neonates born at 37 or 38 completed weeks of gestation compared with those born after 39 weeks (**Table 2**), suggesting a continuum with late preterm births. Overall, the risks increase progressively as gestational age at birth declines.[2,8,9,11–14] Recent studies suggest that increased morbidity with earlier delivery at term is not limited to the respiratory system.

A large study by the Maternal-Fetal Medicine Units Network network[8] examined the association between delivery before 39 weeks and the risk of adverse neonatal outcomes among women who underwent a repeat cesarean without labor or obvious maternal or fetal indications for delivery (elective delivery). Neonatal outcomes that were studied included death, adverse respiratory outcomes including respiratory