Trends in late preterm, early term birth rates and association with clinician-initiated obstetric interventions

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Between 2006 and 2014, late preterm and early term birth rates decreased in the United States and an association was observed between early term birth rates and decreasing clinician-initiated obstetric interventions, according to a study appearing in the July 26 issue of *JAMA*.

Late preterm and early term births are of emerging clinical and public health importance and concern due to the associated risks of adverse neonatal and childhood outcomes. Preterm and early term births may occur spontaneously or be initiated by clinicians through the use of obstetric interventions such as labor induction or cesarean delivery. Clinicians have been urged to delay the use of obstetric interventions until 39 weeks or later in the absence of maternal or fetal indications for intervention.

Jennifer L. Richards, M.P.H., of Emory University, Atlanta, and colleagues examined trends in late preterm and early term birth rates across 6 high-income countries in North America and Europe, and assessed the association between these trends and changes in the use of clinician-initiated obstetric interventions. The researchers analyzed live births from 2006 to the latest available year (ranging from 2010 to 2015) in Canada, Denmark, Finland, Norway, Sweden, and the United States and determined annual country-specific late preterm (34-36 weeks) and early term (37-38 weeks) birth rates.

The study population included approximately 30 million births. The researchers found that late preterm birth rates decreased in Norway and the United States. Early term birth rates decreased in Norway, Sweden and the United States. In the United States, early term birth rates decreased from 33 percent in 2006 to 21 percent in 2014 among births with clinician-initiated obstetric intervention, and from 30 percent in 2006 to 27 percent in 2014 among births without clinician-initiated obstetric intervention. Rates of clinician-initiated obstetric intervention increased among late preterm births in Canada, Denmark and Finland and among early term births in Denmark and Finland.

The authors note that the U.S. findings were consistent with several recent hospital- and regional-based studies reporting reductions in elective obstetric intervention at early term gestations and may reflect the success of perinatal quality collaboratives aimed at reducing elective deliveries prior to 39 weeks. "Concerns have been expressed that delaying interventions until 39 weeks might increase stillbirth rates, and this is an area requiring further study."

"Richards and colleagues have provided a thoughtful multinational picture of late preterm and early term deliveries and their association with obstetric interventions," writes Catherine Y. Spong, M.D., of the Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, Md., in an accompanying editorial.

"More data are needed to better understand the differences between countries and changes over time. Better tools and technologies to date pregnancies are now available, and, as studies continue to demonstrate, it is critical to wait until full term for delivery in uncomplicated pregnancies. However, physicians cannot become too devoted to decreasing late preterm and early term birth rates. For pregnancies in which there is a complication and when delivery will optimize the pregnancy outcome, delivery should occur and will require an obstetrical

intervention."

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