

Trends in perinatal outcomes of women with chronic medical conditions: a 10-year population-based study in the Netherlands

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Abstract

Objective To gain insight into perinatal outcomes in women with chronic conditions, in order to contribute to the optimization of personalized perinatal care. **Design** Population-based study using data of the Dutch national perinatal registry between 2010-2019. **Setting** Nationwide. **Population** Pregnancies of women who were diagnosed with chronic medical conditions by a medical specialist before pregnancy (n=36,835), divided over seven subgroups and a reference group of pregnancies of women without known chronic medical conditions (n=1,084,623). **Methods** Descriptive and testing statistics. **Main outcome measures** The primary outcome was mode of birth. Secondary outcomes were onset of labor, preterm birth, asphyxia, NICU admission, and perinatal mortality. **Results** Spontaneous birth ranged from 45.0% (orthopedic conditions) to 71.3% (neurological conditions) to 82.6% in the reference group. Instrumental vaginal birth (p<0.001), planned Cesarean birth (p<0.001) and emergency Cesarean birth (p<0.001) differed significantly in all groups if compared to the reference group. Preterm birth was significantly more present in the studied groups (p<0.001) as well as perinatal asphyxia (p<0.001) and NICU admission (p<0.001). Adjusting for mode of birth, parity, age and ethnicity did not change the outcomes for the total group of women with chronic medical conditions. Perinatal mortality was seen in all groups but in none of the separate groups significantly more than in the reference group. **Conclusions** Women with chronic conditions more often are confronted with preterm birth, Cesarean deliveries, NICU admission of the newborn, and perinatal mortality

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