

The effect of mode of delivery and duration of labour on subsequent pregnancy outcomes: a retrospective cohort study

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Abstract

Objective To assess if delivery mode and duration of labour in a first labour of spontaneous onset is associated with gestational length, delivery mode and neonatal outcome in the subsequent pregnancy. **Study Design** Retrospective analysis of prospectively collected data. **Setting** 15 Maternity units in North West London (1988 to 2000). **Population** 30,840 women with spontaneous onset of labour in pregnancy 1 and a subsequent birth reported in the same database. **Methods** Assessment of outcomes by mode of delivery in pregnancy 1, restricting the analysis to the difference in the gestational length between pregnancy 1 and 2. **Main Outcome Measures** Gestational length, mode of delivery and neonatal unit admission in pregnancy 2. **Results** Caesarean section (CS) in the first or second stage of labour in pregnancy 1 was associated with pregnancy 2 being a median of 5 and 8 days shorter and a preterm birth rate of 6.0% and 10.1% respectively, whereas following a spontaneous or instrumental birth in pregnancy 1 the median duration was similar, with preterm delivery rates of 4.5% and 3.9%. 56.2% of women with a CS in pregnancy 1 had a repeat CS and 12.5% of their babies were admitted to neonatal unit, compared with 5.3% of women with vaginal birth. Longer labours were associated with shorter gestations in pregnancy 2. **Conclusions** Compared to vaginal birth, an emergency CS in the first term pregnancy is associated with a shorter gestational length, increased rate of repeat CS and increased risk of NNU admission in the next pregnancy.

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