Computerised interpretation of the fetal heart rate during labour: a randomised controlled trial (INFANT)

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Plain English summary

The INFANT RCT
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Plain English summary

The INFANT study aimed to find out if we can improve how we monitor babies during labour. In the UK, continuous monitoring is used if either the mother or the baby is considered likely to not cope well with contractions during labour. For these labours, a cardiotocograph is used to continuously record the baby’s heart rate. The midwives/doctors look at a graph of the heart rate to find out how the baby is coping.

Interpreting the pattern made by the baby’s heart rate is complicated. The INFANT study looked at whether or not a computer system that analyses the heart rate can help the midwives/doctors interpret the recording more accurately. The study asked questions about babies’ health and well-being, medical procedures experienced by women and whether one approach provided better value for money than the other in terms of delivering high-quality care. Women who agreed to have continuous electronic fetal monitoring were divided at random into two groups. One group had the computer decision support software switched on and the other group had it switched off. This made it possible to assess the effect of the new software fairly, as the groups of women and babies were otherwise almost identical in terms of their health and chance of complications.

Between January 2010 and August 2013, 47,062 women took part in the study. After the different interventions in their care, we found no difference in the chance of babies being unwell between the two groups of women: 0.7% (n = 172) of babies were unwell in the decision support group, as were 0.7% (n = 171) of babies in the no decision support group. We found no differences in other outcomes, such as the risk of pregnant women requiring an emergency caesarean section.

In this study, decision support software did not improve the care for women in labour.
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