



LETTERS

ELECTRONIC FETAL MONITORING DEBATE

Randomised trials are not the only evidence, and for some questions they may not be the best

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Further to the debate on continuous electronic fetal heart rate monitoring,¹ neither electronic fetal monitoring nor intermittent auscultation has ever saved a baby or harmed a mother directly. What saves (or harms) is intrauterine resuscitation or delivery.

The trials of monitoring versus intermittent auscultation are difficult to interpret because none of them specified how obstetricians and midwives should respond to different heart rate patterns; it was just assumed that they knew what to do. Even today the rules are disputed.² In the absence of a trial of monitoring according to 2017 NICE guidelines for delivery versus intermittent auscultation according to an agreed set of guidelines for delivery, we have to decide on the basis of non-randomised evidence.

At least one in 2000 babies—and in some settings perhaps one in 20—die in labour.^{3,4} In animals gradually increasing hypoxia is marked by well described changes in fetal heart rate,⁵⁻⁷ but human studies of how these patterns predict hypoxia, death, or brain damage are confused by the interventions mandated in response—the so called treatment paradox.

One review of the non-randomised evidence found that 12 of 13 studies examining periods before and after the introduction of continuous electronic fetal monitoring, and all nine contemporaneous non-randomised studies comparing monitoring with intermittent auscultation, showed fewer intrapartum deaths with monitoring.⁸ Although rates of cerebral palsy did not fall in the first 30 years or so of electronic fetal monitoring, they have begun to fall in the past 10 years, as formal training in interpretation has become widespread.⁹ Correlation does not prove causation, and observational studies may be biased in many ways, but in light of what we know about physiology, the evidence, at least for intrapartum death, is supportive.

Competing interests: I have been paid to give expert opinions in cases of stillbirth and cerebral palsy allegedly caused by negligence in the interpretation or performance of both intermittent auscultation and continuous electronic fetal heart rate monitoring. I am a practising obstetrician involved in intrapartum care. I chair a weekly review meeting in my Trust, where obstetricians and midwives present and discuss some of the previous week's continuous electronic fetal heart rate traces. Full response at: <http://www.bmj.com/content/359/bmj.j5423/rr-1>.

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