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## **Admission cardiotocography: a randomized controlled trial.**

Impey L, Reynolds M, MacQuillan K, Gates S, Murphy J, Sheil O.

Oxford Feto-Maternal Medicine Unit, Women's Centre, John Radcliffe Hospital, Headington, Oxford, UK. lawrence.impey@orh.nhs.uk

**BACKGROUND:** Admission cardiotocography is widely used to identify pregnancies that might benefit from continuous electronic fetal monitoring in labour. We aimed to compare the effect on neonatal outcome of admission cardiotocography versus intermittent auscultation of the fetal heart rate.

**METHODS:** 8580 women admitted to the delivery ward of a Dublin teaching hospital who were at low risk of fetal distress in labour were randomly assigned admission cardiotocography (20 min) or the unit's usual care (intermittent auscultation only, with continuous cardiotocography only if clinically indicated). The primary outcome was moderate to severe neonatal morbidity, or perinatal mortality in the absence of a major congenital malformation. Analyses were by intention to treat.

**FINDINGS:** 44 (1.0%) women assigned admission cardiotocography did not undergo the procedure; 15 (0.4%) assigned usual care had admission cardiotocography. The primary endpoint occurred in 56 (1.3%) of 4298 women assigned admission cardiotocography and 55 (1.3%) of 4282 in the usual-care group (relative risk 1.01; 95% CI 0.70-1.47). Other indices of neonatal morbidity also showed no differences. Despite an increase in use of continuous cardiotocography (1.39; 1.33-1.45) and fetal blood sampling (1.30; 1.14-1.47) with admission cardiotocography, there were no significant differences in the rates of caesarean delivery (1.13; 0.92-1.40), instrumental delivery (1.03; 0.92-1.16), or episiotomy (1.06; 0.99-1.13).

**INTERPRETATION:** Routine use of cardiotocography for 20 min on admission to the delivery ward does not improve neonatal outcome. No significant increase in operative delivery was apparent, probably because of liberal use of fetal blood sampling.