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Study finds that electronic fetal heart rate monitoring greatly reduces infant mortality

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In a study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting ™, in San Francisco, researchers will present findings that prove that the use of fetal heart rate monitors lowers the rate of infant mortality.

There have been a handful of small studies conducted in the past that looked at the effectiveness of fetal heart rate monitors, but none of them were large enough to be conclusive.

"There was some criticism within the obstetric community that fetal heart rate monitoring was quickly accepted technology without proof that it was effective," said Suneet P. Chauhan, M.D., one of the study's authors. "We thought we could use data from the National Birth Cohort to get a large enough sample to gauge its effectiveness."

Chauhan and his colleagues (Han-Yang Chen, Cande Ananth, Anthony Vintzileos and Alfred Abuhamad) used a sample of 1,945,789 singleton infant birth and death records from the 2004 National Birth Cohort. Multivariable log-binomial regression models were fitted to estimate risk ratio to evaluate the association between electronic fetal heart rate monitoring (EFM) and mortality, while adjusting for age, race, marital status, education, smoking, and the infant's gender.

The results showed that in 2004, 89% of singleton pregnancies had EFM. EFM was associated with significantly lower infant mortality (adjusted RR 0.75; 95% CI 0.69, 0.81); this was mainly driven by the

lower risk of early neonatal mortality (adjusted RR 0.50; 95% CI 0.44, 0.57) associated with EFM. In low-risk pregnancies, EFM was associated with decreased risk for low (

The study demonstrates that the use of EFM decreased early neonatal mortality by 53%.

Provided by Society for Maternal-Fetal Medicine

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