

# **A prognostic model, including quantitative fetal fibronectin, to predict preterm labour: the QUIDS meta-analysis and prospective cohort study**

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## Plain English summary

The QUIDS meta-analysis and prospective cohort study

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## Plain English summary

Identifying which women with symptoms of labour will give birth early is challenging, so many women unnecessarily receive therapies aimed at preventing complications in preterm birth.

A test called quantitative fetal fibronectin, which uses vaginal swab samples, may help to improve the diagnosis of preterm labour. Fetal fibronectin is a protein that is released from the fetal membranes that surround the developing baby in the womb. The lower the concentration of fetal fibronectin, the less likely the occurrence of preterm birth.

Our aim was to see if quantitative fetal fibronectin, in combination with some features of pregnancy (e.g. previous pregnancy history and twin pregnancy), can accurately predict preterm birth in women who have symptoms of preterm labour.

We asked women, their partners, doctors and midwives what information would be most useful to them, and how this should be presented. We then analysed previous research data; we used quantitative fetal fibronectin and clinical risk factors together to predict the chance of preterm birth. We explored which features could predict preterm birth most effectively while still being good value to the NHS.

To ensure that this risk predictor worked in UK populations, we undertook a research study across 26 UK hospitals. Women who had symptoms of preterm labour were invited to participate. We collected information from these women (approximately 3000 women), including quantitative fetal fibronectin results.

We found that a risk predictor comprising quantitative fetal fibronectin and four other features performed best at predicting whether or not preterm birth will occur within the next week for women with symptoms of preterm labour, and that this had potential to be clinically useful and cost-effective. The quantitative fetal fibronectin testing process was acceptable to women, and clinicians found the risk predictor useful.

We used our findings to develop a risk calculator to help women and clinicians assess how likely preterm birth is, and decide whether or not to start treatment.

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## This report

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