

# Predicting aspirin resistance by biomarkers at 11-13 weeks' gestation

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## Objective

To describe the first trimester biomarkers associated with low dose aspirin (LDA) failure to prevent preeclampsia (PE).

### Methods

A case-control study nested in the cohort of 6037 pregnancies in which the Fetal Medicine Foundation (FMF) algorithm was validated by audit and adjustment. 21 singleton pregnancies with PE were compared to 510 singleton pregnancies with no PE, according to treatment; those taking LDA before 16th week are the treated group, those not taking LDA before 16th week are the untreated group. Maternal mean uterine pulsatility index, mean arterial pressure, free-Beta-hCG and PAPP-A multiples of the median (MoM) were calculated, and compared between groups.

### Results

A non-statistically significant lower free-Beta-hCG was observed in the treated group who developed PE. No differences were found between groups for any other biomarker.

### Conclusion

Relatively low levels of free-Beta-hCG at 11-13 weeks' gestation may be associated to aspirin resistance in certain pregnancies, perhaps due to idiosyncratic placental insufficiency.