

## Combination of maternal risk factors and first trimester biochemical and ultrasound markers for the prediction of early preeclampsia

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### Objective

To test the first trimester screening of early pre-eclampsia algorithm proposed by the Fetal Medical Foundation in a French unselected population.

### Methods

Prospective screening for early pre-eclampsia at 11-13+6 weeks of gestation using a combination of maternal factors, uterine artery lowest pulsatility index (UA- LPI), mean arterial pressure (MAP) and serum PAPP-A1 (MoM), over a 4-year period.

### Results

From 9095 first trimester pregnancies we retained 7490 singletons with a confirmed pregnancy outcome and who delivered a live born baby. From these 7490 patients, 27 (0. 4%) developed early PE, 86 (1. 1%) developed late PE and 118 (1. 6%) developed gestational hypertension (GH). Using the FMF risk algorithm for early pre-eclampsia, we got a sensitivity of 26. 3% and 47. 4% for a false positive rate of 5% and 10 % respectively.

### Conclusion

Although our results do not match those published to date, our data support the introduction of first trimester screening algorithm for early pre-eclampsia based at least on history, MAP, PAPP-A and uterine Doppler.