

# EP17.34 Soluble fms-like tyrosine kinase-1 (sFlt-1) before 11 weeks for the prediction of preterm and early pre-eclampsia

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## Introduction

Screening for preterm preeclampsia (PE) and early-PE at 11-14 weeks using the FMF algorithm and prevention with aspirin is now possible

We evaluated the blood markers collected before 11 weeks and observed an association between low sFlt-1 and the risk of early-PE (figure 1). Therefore we aimed to validate this association in another population.

## Methods

Case-cohort based on PRESIDE study (prospective)  
Cases : 24 participants who developed preterm-PE (including 11 early-PE)  
Controls: 272 participants randomly selected.

PAPP-A, PIGF and sFlt-1 were measured in samples from 8+0 to 10+6 weeks in MoMs adjusted for gestational age and maternal characteristics.

Primary endpoints: preterm-PE and early-PE.

## Results

PAPP-A, PIGF and sFlt-1 before 11 weeks were associated with preterm-PE and early-PE (fig 2)

Using a FPR of 20%, sFlt-1, alone, can detect 38% of preterm-PE and 55% of early-PE whereas its combination with PIGF increased the detection rate to 54% and 73%, respectively. It can reach 89% using the FMF algorithm.

## Conclusion

Before 11 weeks, low sFlt-1 is strongly associated with the risk of preterm-PE and early-PE. A combination of blood markers (sFlt-1, PIGF and/or PAPP-A), before 11 weeks, could be used with the FMF algorithm to predict preterm-PE.

This option is an alternative to those without rapid access to blood markers.

Figure 1 : Preliminary results:

Maternal sFlt-1 and PIGF before 11 weeks of gestation for the prediction of early preeclampsia.

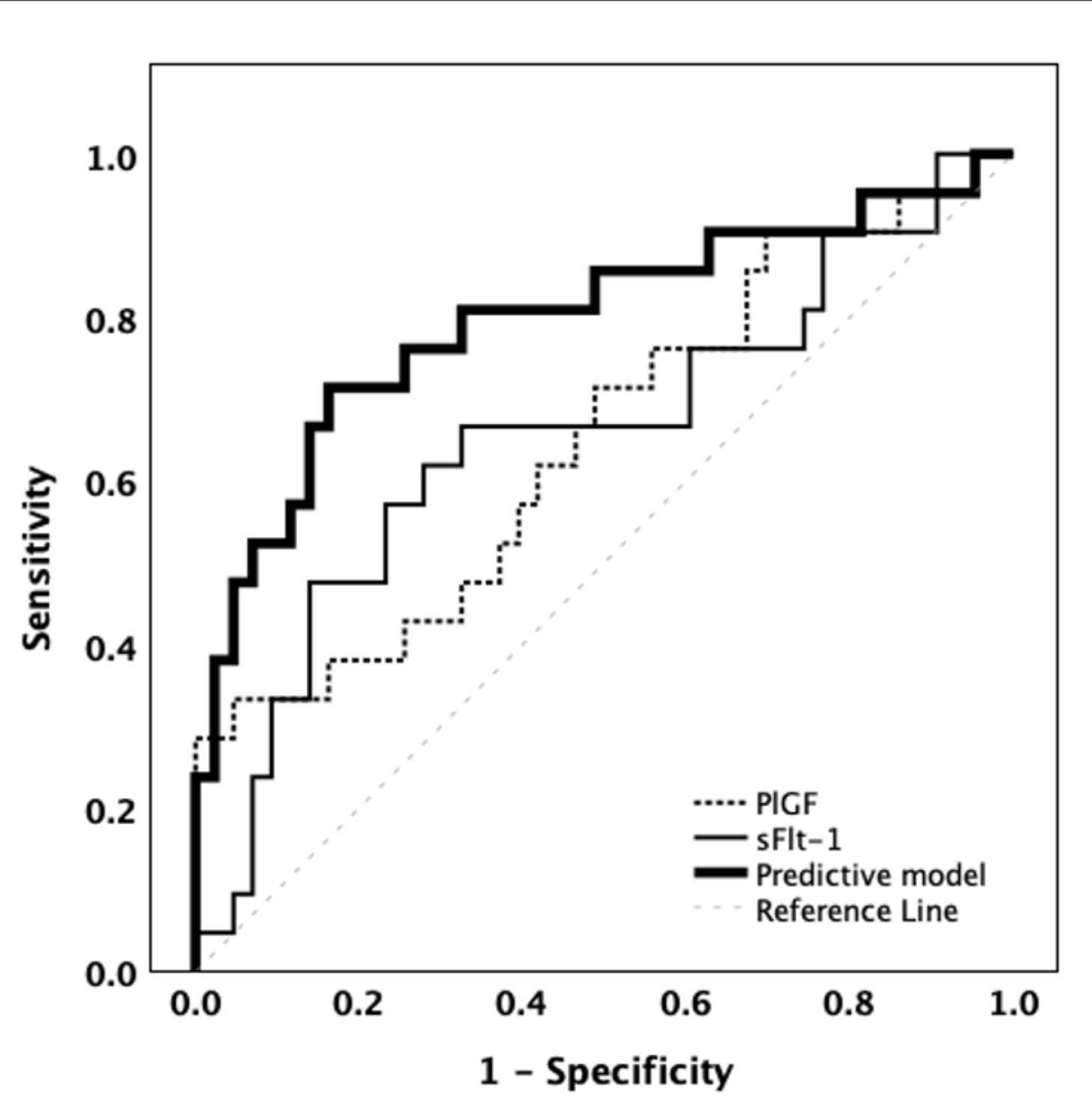


Figure 2 : Current study :

