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Angiogenic factors combined with clinical risk factors to predict preterm pre-eclampsia in nulliparous women: a predictive test accuracy study

Sir,

The SCOPE consortium report (September 2013) on the plasma biomarkers placental growth factor, soluble fms-like tyrosine kinase-1 and endoglin early in pregnancy for predicting preterm pre-eclampsia is the climax of a huge piece of work.[1]

However, the SCOPE study registration site[2] defined the planned primary outcome as pre-eclampsia 'at any stage during pregnancy after recruitment until delivery or in the first 2 weeks after delivery'. It also defined a planned secondary outcome of 'early onset pre-eclampsia' defined as 'pre-eclampsia resulting in delivery at <34 weeks'. Can the authors explain why the three tests' predictions of neither of these were reported? Have they been reported elsewhere? Why was the tests' prediction of a new outcome of 'pre-eclampsia before 37 weeks', which was not mentioned on the trial registry, reported instead? ■

References

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Authors' reply

Sir,

Professor Thornton is mistaken in his assumption that this paper[1] represents the climax of the SCOPE study. This study was carried out to evaluate the performance of angiogenic (placental growth factor) and anti-angiogenic (soluble endoglin and soluble Flt-1) factors to predict preterm pre-eclampsia in the first 3529 women recruited into the SCOPE study. As Professor Thornton points out, a prespecified aim of the SCOPE study *is* to develop predictive tests for pre-eclampsia (primary outcome) with a prespecified secondary outcome of early onset pre-eclampsia. The rationale for this particular case–cohort study was to determine, in nulliparous women, the performance of biomarkers recognised by other researchers[2,3] to have predictive value for preterm pre-eclampsia (<37 weeks), while SCOPE continued to recruit to a sample size sufficient for the predefined endpoints including pre-eclampsia <34 weeks. As written clearly in the paper, the results presented 'are likely to represent the highest achievable performance of these combinations in a nulliparous population and ongoing studies will aim to confirm these findings in the entire SCOPE cohort'. The SCOPE study recruitment is now complete and the cohort comprises 5690 women. A larger set of candidate biomarkers have been measured in samples from all women in the cohort (blinded to final diagnoses), and analysis against the original endpoints (including all pre-eclampsia, pre-eclampsia <34 weeks) has been undertaken. The SCOPE Consortium will shortly be submitting for publication manuscripts that report the analysis of single and multiple biomarkers, in combination with clinical risk factors, in order to evaluate their value in the prediction of pre-eclampsia. ■

References

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3 Akolekar R, Syngelaki A, Sarquis R, Zvanca M, Nicolaides KH. Prediction of early, intermediate and late pre-eclampsia from maternal factors, biophysical and biochemical markers at 11–13 weeks. *Prenat Diagn* 2011;31:66–74.

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