

Placental growth factor (alone or in combination with soluble fms-like tyrosine kinase 1) as an aid to the assessment of women with suspected pre-eclampsia: systematic review and economic analysis

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Plain English summary

Placental growth factor in cases of suspected pre-eclampsia

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Plain English summary

Pre-eclampsia affects some pregnant women, with potentially serious consequences for the mother and/or baby if not identified and treated. However, not all women suspected of having pre-eclampsia develop it. In the NHS, routine pregnancy care involves checking for signs of pre-eclampsia.

Two new tests (Triage and Elecsys) measure proteins in blood which are often abnormal in women with pre-eclampsia. We investigated whether or not these blood tests accurately predict the risk of pre-eclampsia developing in women suspected of having the condition after week 20 of pregnancy. These tests could help to identify women who require hospital admission for further assessment and women who could safely be monitored by their midwife or family doctor, potentially improving care and saving money.

We conducted extensive medical evidence searches, using review methods that minimised the risk of error and bias. The costs and accuracy of the blood tests were used to develop an economic model. This model estimated costs and benefits to predict whether or not the tests would be good value for money to the NHS.

Our results predict that the 'Triage' and 'Elecsys' tests would improve care and save money if used in addition to routine pregnancy care in women with suspected pre-eclampsia in early pregnancy (20–35 weeks) compared with routine pregnancy care alone. However, cost savings for late pregnancy (35–37 weeks) would be small. There is uncertainty around the size of the cost savings, but the tests were cost-saving even when tested in 'worst-case' scenarios. Research recommendations are made to reduce this uncertainty.

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This report

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