

Spot protein–creatinine ratio and spot albumin–creatinine ratio in the assessment of pre-eclampsia: a diagnostic accuracy study with decision-analytic model-based economic evaluation and acceptability analysis

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Plain English summary

SPCR and SACR in assessment of pre-eclampsia

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Plain English summary

Pre-eclampsia (PE) occurs in pregnant women and stops after the baby is born. It starts in the placenta (which joins the mother and baby) and spreads, damaging blood vessels in the mother, and can cause fits, organ failure and death. The baby's growth can slow and stillbirth can occur. If the mother's kidneys are damaged, protein in the blood leaks through into the urine. This is proteinuria. Proteinuria and raised blood pressure (BP) are usually early signs of PE and pregnant women then go to hospital for more tests. Severe PE is a list of symptoms, signs and abnormal blood tests showing that PE is damaging the liver, kidney and brain. It includes very high BP.

This study looked at two hospital tests used to measure proteinuria: the spot protein–creatinine ratio (SPCR) test and the spot albumin–creatinine ratio (SACR) test. We wanted to know if these tests could identify women who are less likely to have severe PE.

The women we tested already had high BP and at least some protein in their urine. We found that:

- 4 in 10 women got severe PE
- when SPCR and SACR tests were negative they identified women who were 10 times less likely to get severe PE
- the tests did not show which babies would become ill
- doctors in the study put only one-third of women who got severe PE on a plan of special care.

These results could be used to help doctors decide which women with possible PE may not need so much intensive care.

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