Prediction of pre-eclampsia: a protocol for systematic reviews of test accuracy

Jeltsje S Cnossen, Joris AM van der Post, Ben WJ Mol, Khalid S Khan, Catherine A Meads, and Gerben ter Riet

Abstract

Background

Pre-eclampsia, a syndrome of hypertension and proteinuria, is a major cause of maternal and perinatal morbidity and mortality. Accurate prediction of pre-eclampsia is important, since high risk women could benefit from intensive monitoring and preventive treatment. However, decision making is currently hampered due to lack of precise and up to date comprehensive evidence summaries on estimates of risk of developing pre-eclampsia.

Methods/Design

A series of systematic reviews and meta-analyses will be undertaken to determine, among women in early pregnancy, the accuracy of various tests (history, examinations and investigations) for predicting pre-eclampsia. We will search Medline, Embase, Cochrane Library, MEDION, citation lists of review articles and eligible primary articles and will contact experts in the field. Reviewers working independently will select studies, extract data, and assess study validity according to established criteria. Language restrictions will not be applied. Bivariate meta-analysis of sensitivity and specificity will be considered for tests whose studies allow generation of 2×2 tables.

Discussion

The results of the test accuracy reviews will be integrated with results of effectiveness reviews of preventive interventions to assess the impact of test-intervention combinations for prevention of pre-eclampsia.