

Diagnostic accuracy in pre-eclampsia using proteinuria assessment

Submission date 15/10/2012	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 16/10/2012	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 17/12/2020	Condition category Pregnancy and Childbirth	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

We are carrying out a study of 3000 pregnant women with pre-eclampsia (high blood pressure, fluid retention and protein in the urine (proteinuria) in pregnancy) by collecting urine and comparing different diagnostic tests to find the most appropriate and effective method that predicts pre-eclampsia and its severity is needed to provide these women with the best possible care. Our aim is to find the most efficient assessment tool for diagnosing pre-eclampsia.

Who can participate?

Pregnant women, aged between 18 and 45 years of age from participating hospital trusts across England.

What does the study involved?

Participants will be invited to give a small urine sample when screened for pre-eclampsia, following 24 hour urine collection and at delivery. Woman will be asked to allow the researcher access to clinical data about them and their baby. At the end of the study the urine samples will be analysed in a laboratory using the current standard techniques for identifying pre-eclampsia.

What are the possible benefits and risks of participating?

There will be no immediate direct benefit to those taking part, but the findings from the study should benefit to future women who have suspected pre-eclampsia. This study may also help the NHS to develop more cost effective diagnosis techniques. There are no known risks to the patients taking part.

Where is the study run from?

Newcastle Upon Tyne Hospitals NHS Trust in collaboration with Newcastle University.

When is the study starting and how long is it expected to run for?

Recruitment will start beginning of November 2012 and participants will be enrolled on the study for a period of their pregnancy.

Who is funding the study?

NIHR Health Technology Programme and Newcastle University (UK)

Who is the main contact?
Dr Jason Waugh
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Contact information

Type(s)
Scientific

Contact name
Dr Jason Waugh

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Additional identifiers

Protocol serial number
6213; HTA 10/65/02

Study information

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

Acronym
DAPPA

Study objectives
Investigations aimed at determining which method of measurement and which diagnostic thresholds are the most accurate in predicting not just preeclampsia but the clinical significant outcomes which will help inform clinicians on the correct clinical management of gestational hypertensive disorders during pregnancy. This in turn will improve the clinicians ability predict maternal and fetal outcomes.

More details can be found here: <http://www.nets.nihr.ac.uk/projects/hta/106502>
Further details can be found here: http://www.nets.nihr.ac.uk/__data/assets/pdf_file/0011/81677/PRO-10-65-02.pdf

Ethics approval required
Old ethics approval format

Ethics approval(s)

NRES Committee North East - County Durham & Tees Valley, 21/09/2012, ref: 12/NE/0301

Study design

Multi-centre prospective cohort observation sample collection study

Primary study design

Observational

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Pre-eclampsia

Interventions

This study involves 3000 women who will provide urine samples during admission to hospital with suspected preeclampsia across England. Women will be in the study for the duration of pregnancy providing three urine samples.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Diagnostic accuracy of point of care and laboratory assessments of Spot Protein Creatine Ratio (SPCr) and Spot Albumin Creatine Ratio (SACr) compared with 24 hour urine protein measurement at different thresholds in diagnosing and predicting severe Pre-Eclampsia (PE)

Key secondary outcome(s)

1. To assess the accuracy of point of care assessments of SPCr and SACr at different thresholds in diagnosing PE compared to 24 hour urine protein measurement
2. To identify the most accurate laboratory assay method of 24 hour proteinuria in assessment of PE
3. To estimate the accuracy of both quantitative and point of care assessments of SPCr and SACr at different thresholds in predicting adverse fetal outcomes
4. To develop a decision analytic model to estimate the diagnostic utility potential of replacing the 24 hour protein with the SPCr or SACr
5. To assess the cost effectiveness of SPCr or SACr in comparison to the 24 hour urine protein measurement

Completion date

01/11/2014

Eligibility**Key inclusion criteria**

1. Pregnant women aged between 16- 45 years
2. More than 20 weeks gestation with confirmed gestational hypertension (systolic BP >140 mmHg and diastolic BP >90 mmHg)
3. Trace or more proteinuria on automated dipstick urinalysis. This is below the threshold of 1+ considered "test positive" by NICE and will thus allow exploration of the lower threshold for the index tests, i.e. below 300 mg/l protein
4. Ability of give informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

Female

Total final enrolment

959

Key exclusion criteria

1. Women with gestational hypertension but no proteinuria on automated dipstick urinalysis
2. Proteinuria before 20 weeks gestation
3. Pre-existing renal disease, pre-gestational diabetes and chronic hypertension
4. Those who are unable to provide informed consent
5. Those women who are already participating in a clinical trial of an investigational medicinal product (CTIMP)

Date of first enrolment

01/11/2012

Date of final enrolment

01/11/2014

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

Royal Victoria Infirmary
Newcastle Upon Tyne
United Kingdom
NE1 4LP

Sponsor information

Organisation

Newcastle Hospitals NHS Foundation Trust (UK)

ROR

<https://ror.org/05p40t847>

Funder(s)

Funder type

Government

Funder Name

Health Technology Assessment Programme

Alternative Name(s)

NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
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[Results article](#)

results

01/10/2017

17/12/2020

Yes

No