# Analysis of risk factors in early pregnancy to predict pregnancy complications and complications in these women later in life

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This study is focused on determination of risk factors associated with preeclampsia and intrauterine growth restriction, both develop in early pregnancy. These pregnancy complications are associated with cardiovascular diseases in later life. We...

Ethical review Approved WMO

StatusRecruitment stoppedHealth condition typeCoronary artery disordersStudy typeObservational invasive

## **Summary**

#### ID

NL-OMON30528

#### **Source**

ToetsingOnline

#### **Brief title**

Risk factors in pregnancy and in later life

## **Condition**

- Coronary artery disorders
- Maternal complications of pregnancy

## **Synonym**

intrauterine growth restriction, preeclampsia

## **Research involving**

Human

## **Sponsors and support**

**Primary sponsor:** Medisch Centrum Haaglanden

**Source(s) of monetary or material Support:** NWO klinische fellow (Dr de Groot)

## Intervention

**Keyword:** cardiovascular risk factors, prediction and later in life, preeclampsia, pregnancy

## **Outcome measures**

#### **Primary outcome**

- lipid-, glucose- and cytokin metabolism (differences between cases and controles) based on the hypothesis of op de hypothese van atherosclerosis for both pregnancy complications as well as cardiovascular diseases in later life

## **Secondary outcome**

none

# **Study description**

#### **Background summary**

Despite intensive research there is still an increased maternal mortality over the last decades, the maternal morbidity is unknown and perinatal death does not decline. Pregnancy complications are complex diseases with an unknown cause: interaction of both maternal and paternal genes and environmental factors play an important role.

Preeclampsia is in The Netherlands the most common cause of maternal mortality. Since its cause is unknown the only rational treatment is delivery of the placenta and fetus with the result of preterm birth and high neonatal morbidity and mortality. Preeclampsia is a multi-organ disease of pregnancy clinical characterized by hypertension and proteinuria.

To gain insight in the etiology of preeclampsia before or in early pregnancy we might reduce maternal and neonatal morbidity and mortality. In addition we hypothesis that pregnancy can be considered as a stress test for diseases in later life e.g. development of cardiovascular diseases.

## Study objective

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This study is focused on determination of risk factors associated with preeclampsia and intrauterine growth restriction, both develop in early pregnancy. These pregnancy complications are associated with cardiovascular diseases in later life. We will test the hypothesis that both diseases (preeclampsia/ intrauterine growth restriction and cardiovascular diseases in later life) share the pathogenesis of atherosclerosis. With increased knowledge of these diseases using pregnancy as a stress test we might prevent future vascular damage and cardiovascular diseases.

## Study design

All women attending the outpatient clinic for preconceptional counseling or antenatal control (before 15 weeks gestation) will be asking to participate. These pregnancies will be followed longitudinal.

Women who develop preeclampsia during pregnancy or intrauterine growth restriction are followed clinically and identified as cases whereas women with uncomplicated pregnancies will be identified as controls retrospectively. Data from the rest (not a case or control) will be analyzed anonymously

## Study burden and risks

There are no risk for the participants

## **Contacts**

#### **Public**

Medisch Centrum Haaglanden

Lijnbaans 32 2512 VA den Haag Nederland **Scientific** Medisch Centrum Haaglanden

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## **Trial sites**

## **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

## Age

Adults (18-64 years) Elderly (65 years and older)

## Inclusion criteria

Pregnancy with gestational age less 15 weeks

## **Exclusion criteria**

< 18 years, language problem, gestational age at first visit > 15 weeks

# Study design

## **Design**

Study type: Observational invasive

Intervention model: Other

Allocation: Non-randomized controlled trial

Masking: Open (masking not used)

Control: Active

Primary purpose: Basic science

## Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-04-2008

Enrollment: 1000

Type: Actual

# **Ethics review**

Approved WMO

Date: 31-05-2007

Application type: First submission

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

# **Study registrations**

# Followed up by the following (possibly more current) registration

No registrations found.

# Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

Register ID

CCMO NL14908.098.07