# The PERFORM study: Pre-Eclampsia and other Risk FactORs in relation to Migraine

No registrations found.

**Ethical review** Positive opinion

**Status** Recruiting

Health condition type -

**Study type** Observational non invasive

## **Summary**

#### ID

NL-OMON24250

Source

NTR

**Brief title** 

PERFORM study

**Health condition** 

Migraine, pre-eclampsia

## **Sponsors and support**

**Primary sponsor:** Erasmus Medical Center

Source(s) of monetary or material Support: The study will be funded by the principal

investigator(s)

## Intervention

## **Outcome measures**

#### **Primary outcome**

The one-year (period) prevalence and incidence of migraine (both, migraine with aura and migraine without aura) among postpartum women who suffered from hypertensive disorders

in pregnancy compared to the one-year (period) prevalence and incidence of migraine in (healthy) women – relative to prior pregnancy.

#### **Secondary outcome**

- 1. Trends (and changes) in migraine frequency and severity over time before, during and after pregnancy in women who suffered from severe pre-eclampsia compared to (healthy) women with an uncomplicated labor until one-year postpartum.
- 2. The (possible) association between cognitive functioning/impairment within the first year postpartum and hypertensive disorders as well as migraine.
- 3. Correlations between migraine prevalence, incidence and severity and the cardiovascular risk factors in women who have suffered from severe pre-eclampsia during pregnancy until one-year postpartum.
- 4. The impact of migraine and pre-eclampsia onset and trends on the mental wellbeing.

# **Study description**

### **Background summary**

The Pre-Eclampsia and other Risk FactORs in relation to Migraine (PERFORM) study has a multidisciplinary approach to examine the relationship between migraine and hypertensive disorders in pregnancy, including (severe) pre-eclampsia in postpartum women (3 and 12 months after pregnancy). Indeed, both diseases, migraine and pre-eclampsia, are associated with cardiovascular risk factors, including blood pressure, serum total and high-density lipoprotein cholesterol, as well as endothelial dysfunction. We will study the one-year prevalence and incidence of migraine in postpartum women suffering from hypertensive disorders in pregnancy, including (severe) pre-eclampsia, which will be compared to a welldefined control group. Also, we will examine the impact of both migraine and pre-eclampsia on depression (severity), sleep, and the Quality of Life. This might elucidate the combined (additive or synergistic) effect of migraine and pre-eclampsia on depression, sleep, and/or Quality of Life. As data on cardiovascular risk factors are obtained in patients who suffered from severe pre-eclampsia, in our study a direct link between the course (onset) of migraine and cardiovascular risk profile in patients with pre-eclampsia can be drawn. Moreover, the prospective nature of the PERFORM study could elucidate the temporal relationship between both migraine and pre-eclampsia, as the date of migraine onset after pregnancy is clearly determined, mainly in patients who never had migraine in the past and who newly develop migraine one-year postpartum. Besides, within the PERFORM study we will measure cognitive performance prospectively in a subset of the included women.

## Study objective

Pre-eclampsia is associated with migraine, probably due to a shared pathophysiological mechanism (endothelial dysfunction) and a cognitive decline postpartum.

#### Study design

Primary and secondary endpoints will be assessed after inclusion (at baseline), three and twelve months postpartum in both group 1 and 2. Validated questionnaires (on migraine, sleep, quality of life, depression, et cetera) and validated cognitive tests will be used to reach these endpoints.

## **Contacts**

#### **Public**

Erasmus Medical Center Linda Al-Hassany

0684142771

Scientific

Erasmus Medical Center Linda Al-Hassany

0684142771

# **Eligibility criteria**

## Inclusion criteria

Postpartum normotensive women or women with uncomplicated preexisting hypertension (group 1):

- Postpartum female adults aged ≥18 years;
- Women should either be normotensive or suffer from uncomplicated preexisting hypertension;
- Capable of understanding the purpose of the study, fully informed and given written informed consent (signed Informed Consent Form has been obtained).

A subset of group 1 will be asked to participate in the second part of the PERFORM study, which comprises the objective and subjective assessment of cognitive functioning and decline at the Erasmus MC. This subset of participants should include women who have had an uncomplicated and natural, non-assisted vaginal delivery (with a healthy baby born between 37 and 41 weeks). These women should also have had no complications during pregnancy and delivery, including hypertension or ruptures, which might have affected their mental state.

Postpartum women with (severe) pre-eclampsia, gestational hypertension, or superimposed

3 - The PERFORM study: Pre-Eclampsia and other Risk FactORs in relation to Migraine 11-05-2025

hypertension/pre-eclampsia (group 2):

- Postpartum female adults aged ≥18 years;
- Postpartum women who have experienced a severe form of pre-eclampsia during pregnancy, or gestational hypertension, or superimposed hypertension/pre-eclampsia;
- Capable of understanding the purpose of the study, fully informed and given written informed consent (signed Informed Consent Form has been obtained).

All subjects of group 2 will be asked to participate in the second part of the PERFORM study, which comprises of the objective and subjective assessment of cognitive functioning and decline.

## **Exclusion criteria**

A (new) pregnancy within the first year after inclusion for the PERFOM study.

# Study design

## **Design**

Study type: Observational non invasive

Intervention model: Parallel

Allocation: Non-randomized controlled trial

Masking: Open (masking not used)

Control: N/A, unknown

#### Recruitment

NL

Recruitment status: Recruiting

Start date (anticipated): 06-03-2021

Enrollment: 600

Type: Anticipated

## **IPD** sharing statement

Plan to share IPD: Undecided

# **Ethics review**

Positive opinion

Date: 12-05-2021

Application type: First submission

# **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

NTR-new NL9483

Other METC EMC: MEC-2020-0658

# **Study results**