# **SUMMER-study**

Gepubliceerd: 15-06-2017 Laatst bijgewerkt: 15-05-2024

To determine the effectiveness of nutritional supplement Impryl® on pregnancy rate in men of infertile couples, with or without medically assisted reproduction (MAR).

**Ethische beoordeling** Positief advies

**Status** Werving nog niet gestart

Type aandoening -

**Onderzoekstype** Interventie onderzoek

# **Samenvatting**

#### ID

NL-OMON26205

**Bron** 

NTR

**Verkorte titel** 

**SUMMER** 

#### **Aandoening**

Infertility, subfertility, male infertility, nutritional supplements

## **Ondersteuning**

Primaire sponsor: Radboud University Medical Centre

Department of Obstetrics and Gynaecology

PO Box 9101 6500HB Nijmegen

The Netherlands

Overige ondersteuning: Goodlife Fertility B.V.

Hollandse Hout 239 8244 GJ Lelystad

## Onderzoeksproduct en/of interventie

#### **Uitkomstmaten**

#### Primaire uitkomstmaten

To test the hypothesis that the number of ongoing pregnancies (i.e. ≥12 weeks of gestation) will be improved by 7.5% in couples treated with Impryl® for infertility (IUI, IVF/ICSI or EM setting).

# **Toelichting onderzoek**

### Achtergrond van het onderzoek

Rationale: Infertility is a worldwide problem and about 10%-15% of all couples will be affected by the inability to have children. In approximately 50% of infertile couples a male factor is involved. In the past decade, the role of oxidative stress on sperm has been researched thoroughly and found to be the problem in 30% to 80% of male infertility cases. Impryl® is a nutritional supplement which works on the metabolic system and regulation of oxidative stress by activating the one carbon cycle and therefore recycling of homocysteine.

Objective: To determine the effectiveness of nutritional supplement Impryl® in men of infertile couples on ongoing pregnancy rate, with or without assisted reproduction technology (ART).

Study design: Multicentre, randomised double blind placebo controlled clinical trial/superiority study.

Study population: All participants in this study are male adults, age 18-50 years, part of a couple that is diagnosed with infertility, unregarded the outcome of semen analysis. The couple will either start or is already started with fertility treatment, i.e. expectative management (EM, duration 6 months), intra-uterine insemination (IUI) with or without ovarian stimulation (mild ovarian hyperstimulation (MOH) or ovulation induction (OI)), either in vitro fertilisation (IVF) or intracytoplasmic sperm injection (ICSI) treatment.

Intervention: Impryl® or placebo, with identical appearance one tablet each day for a total duration of 6 months. Intervention has to be consumed for at least 3 consecutive months before using semen for ART. In case of expectative management, patients can start directly to conceive.

Main study parameters/endpoints: The primary outcome is the number of ongoing pregnancies  $\geq 12$  weeks. Secondary outcomes are change in semen parameters between baseline and 3 months intervention in IUI/IVF/ICSI group, based on (pre-wash) total motile sperm count (TMSC). Furthermore the occurrence of pregnancy, time to pregnancy, number of miscarriages, number of ongoing pregnancies  $\geq 20$  weeks and live birth rate are documented within the study period. The occurrence of adverse events will be reported.

Nature and extent of the burden and risks associated with participation, benefit and group relatedness: Couples with infertility will receive standard fertility treatment, i.e. EM or ART. The risks and burden of participating in the trial are small. After a complete diagnostic work-

up for infertility, the males will be randomised for use of either Impryl® or placebo. Impryl® is a food supplement already free available throughout Europe. Males need to take study medication one tablet each day for 6 months in total. For this study, we want to measure improvement of semen parameters after at least 3 months use of study medication. Performing a pre-wash TMSC is in Radboudumc standard procedure when semen is used for IUI or IVF/ICSI. However, at some sites there is only a post-wash TMSC available. Furthermore, in couples with EM performing a TMSC after 3 months is not standard care. We decided not to perform a semen analysis in the EM group due to the fact that improvement in fertility treatment from expectative management is not possible. Participants are required to collect study medication directly at their local hospital or at Radboudumc. At the start of taking study medication the couple is asked to fill in a questionnaire about their baseline characteristics. To asses lifestyle changes during intervention and amount of used study medication, every male will be asked each month (6 times in total) to fill in an online questionnaire. Every couple will receive a final questionnaire, 15 months after inclusion, about the outcome of fertility treatment and occurrence of pregnancy. If a women of a couple is pregnant there is one extra site visit to have an ultrasound at 12 weeks of pregnancy for determining the primary outcome. In conclusion, the burden and risks associated with participation in this trial can be considered negligible.

#### Doel van het onderzoek

To determine the effectiveness of nutritional supplement Impryl® on pregnancy rate in men of infertile couples, with or without medically assisted reproduction (MAR).

## Onderzoeksopzet

0 - 1 - 2 - 3 - 4 - 5 - 6 - 15 months

### Onderzoeksproduct en/of interventie

nutritional supplement Impryl®

## Contactpersonen

#### **Publiek**

Department: Afdeling Verloskunde en Gynaecologie, Pijler Voortplantingsgeneeskunde

R.M. Smits Postbus 9101

Nijmegen 6500 HB The Netherlands

## Wetenschappelijk

Department: Afdeling Verloskunde en Gynaecologie, Pijler Voortplantingsgeneeskunde

R.M. Smits Postbus 9101

Nijmegen 6500 HB The Netherlands 06 51751244

## **Deelname** eisen

# Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Couples with failure to conceive for at least 12 months

Couples starting with EM or 1st/ 2nd/3rd cycle of IUI (with/without ovarian stimulation) or IVF/ICSI

Male with age 18-50 years

Female partner with age 18-43 years

Willing and able to give informed consent

# Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Planned or performed diagnostic testicular biopsy (TESE) or percutaneous epididymal sperm aspiration (PESA)

Ovulation induction (OI) without IUI

IVF for an absolute tubal factor

Embryo-transfers after cryopreservation

Known chromosomal abnormalities related to infertility

Known urological abnormality such as a varicocele

Use of other vitamin supplements

# **Onderzoeksopzet**

## **Opzet**

Type: Interventie onderzoek

Onderzoeksmodel: Parallel

Toewijzing: Gerandomiseerd

Blindering: Dubbelblind

Controle: Placebo

#### **Deelname**

Nederland

Status: Werving nog niet gestart

(Verwachte) startdatum: 01-10-2017

Aantal proefpersonen: 1200

Type: Verwachte startdatum

# **Ethische beoordeling**

Positief advies

Datum: 15-06-2017

Soort: Eerste indiening

# **Registraties**

## Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 53075

Bron: ToetsingOnline

Titel:

# Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

# In overige registers

Register ID

NTR-new NL6367 NTR-old NTR6551

CCMO NL61414.091.17 OMON NL-OMON53075

# Resultaten