Should clomiphene citrate (CC) or low-dose gonadotrophin therapy be the first-line treatment for anovulatory infertility associated with polycystic ovary syndrome (PCOS)? A multicentre, randomised, prospective study and cost effective analysis.

Submission date	Recruitment status	Prospectively registered
14/02/2006	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
14/02/2006	Completed	Results
Last Edited	Condition category	Individual participant data
25/08/2009	Urological and Genital Diseases	<ul><li>Record updated in last year</li></ul>

# Plain English summary of protocol

Not provided at time of registration

# **Contact information**

# Type(s)

Scientific

#### Contact name

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# Additional identifiers

#### Protocol serial number

# Study information

#### Scientific Title

### Acronym

**COFFI** study

### **Study objectives**

We hypothesize that the use of low dose gonadotrophin therapy, will prove to be more efficient than CC when used as first line treatment.

# Ethics approval required

Old ethics approval format

### Ethics approval(s)

Received from local medical ethics committee

### Study design

Multicentre randomised open label active controlled parallel group prospective study and cost effective analysis

### Primary study design

Interventional

# Study type(s)

Treatment

# Health condition(s) or problem(s) studied

Polycystic Ovary Syndrome (PCOS)

#### **Interventions**

Medications:

Patients will be randomised to receive either clomiphene citrate or Puregon (Follitropine/ recombinant - Follicule Stimulating Hormone [r-FSH]) for ovulation induction (a maximum of 3 cycles of treatment will be given for the purposes of this study).

Clomiphene citrate will be given starting on day 4 of the cycle for 5 days. If no response is seen by day 17 of the cycle, it should be abandoned.

Puregon (follitropine) will be given, starting from day 4 of the cycle, until the criteria for human Choionic Gonadotropin (hCG) administration are achieved. If these criteria are not reached following 35 days of stimulation, the cycle should be abandoned.

### Monitoring:

An U/S examination of follicle number and size and endometrial thickness will be performed. HCG will be given when at least 1 follicle of >17 mm is seen on U/S examination. This applies to both treatment protocols. HCG will be withheld if a total of >3 follicles >15 mm diameter are seen on U/S.

### Intervention Type

Other

#### **Phase**

**Not Specified** 

### Primary outcome(s)

- 1. Pregnancy rate per patient, per cycle, cumulative over 3 cycles (hCG measurement 15 days after ovulation)
- 2. Miscarriage rate embryonic, fetal (diagnosed with ultrasound)
- 3. Multiple pregnancy rate (number of gestational sacs measured with ultrasound)
- 4. Live birth rate
- 5. Ovulation rate (followed with ultrasound)
- 6. Initiation of treatment to pregnancy interval

# Key secondary outcome(s))

- 1. Number and size of follicles >10 mm on day of hCG
- 2. Endometrial thickness on day of hCG
- 3. Estradiol and progesterone concentrations on day of hCG
- 4. Number of abandoned cycles (hCG withheld) due to overstimulation or lack of response
- 5. Ovarian hyperstimulation
- 6. Correlation of basal hormone concentrations with pregnancy and miscarriage rates
- 7. Number of units of Puregon used per cycle and per pregnancy achieved

# Completion date

01/11/2008

# **Eligibility**

# Key inclusion criteria

- 1. The diagnosis of PCOS will be made when a history of at least 6 months inability to conceive is accompanied by at least 2 of the following:
- 1.1. Irregular menstruation (oligo- or amenorrhea) (>35 days)
- 1.2. Clinical or biochemical evidence of hyperandrogenism (hirsutism, acne, raised TT or FAI)
- 1.3. Typical features of PCO on ultrasound (U/S) examination (see The Rotterdam Consensus for further details)
- 2. All women desiring pregnancy who conform to the definition of PCOS cited above and who have had no fertility treatment in the preceding year
- 3. Age <40 years
- 4. Patients who have previously conceived either spontaneously or on CC therapy may also be included
- 5. Patients with a previous history of pregnancy, whether resulting in a delivery or spontaneous abortion, a previous history of gynecological or abdominal surgical intervention or pelvic inflammatory disease, should have a normal uterine cavity and tubal patency demonstrated by radiological (HSG), laparoscopic or ultrasonic means before entering the study
- 6. A mandatory sperm count deemed normal by the treating physician is acceptable for inclusion. Intrauterine insemination may be employed at the discretion of the treating physician.

# Participant type(s)

**Patient** 

# Healthy volunteers allowed

No

### Age group

**Not Specified** 

### Sex

**Not Specified** 

# Key exclusion criteria

- 1. Age >39 years
- 2. An obvious mechanical or male factor
- 3. Co-existing conditions such as overt diabetes mellitus, oestrogen dependent tumours, ovarian cysts, hypertension, thyroid disease, Cushings syndrome or congenital adrenal hyperplasia

### Date of first enrolment

01/11/2004

### Date of final enrolment

01/11/2008

# Locations

### Countries of recruitment

Netherlands

# Study participating centre VU University Medical Center

Amsterdam Netherlands 1007 MB

# Sponsor information

# Organisation

VU University Medical Centre (VUMC) (Netherlands)

#### **ROR**

https://ror.org/00q6h8f30

# Funder(s)

# Funder type

# Charity

# Funder Name

Gynaecology Research Foundation (Stichting Wetenschappelijk Onderzoek Gynaecologie [SWOG]) (Netherlands)

# **Results and Publications**

Individual participant data (IPD) sharing plan

# IPD sharing plan summary

Not provided at time of registration