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Efficacy, safety and tolerability of XM17 compared to Gonal-f® in women undergoing assisted reproductive technologies

Submission date	Recruitment status	[_] Prospectively registered
09/04/2010	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
18/05/2010	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
07/01/2016	Urological and Genital Diseases	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
XM17-05

Study information

Scientific Title
Efficacy, safety and tolerability of XM17 compared to Gonal-f® in women undergoing assisted reproductive technologies: a multinational, multicentre, randomised, controlled, assessor-blind, parallel group phase III study including follow-up periods

Study objectives
The primary objective is to show equivalent efficacy of XM17 (human recombinant follicle-stimulating hormone) compared to Gonal-f® in infertile women undergoing assisted reproductive technologies (ART).

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Hungary: National Institute of Pharmacy, 18/03/2010, ref: OGYI/684-6/2010
2. Poland: Bioethics Committee of the Regional Medical Council in Bialystok, 17/03/2010, ref: 22 /2010/IV
3. Germany: Ethics Committee of the Faculty of Medicine at the University of Heidelberg, 21/04 /2010, ref: AFmu-492/2009

Study design
International multicentre prospective randomised controlled assessor-blind parallel-group phase III study

Primary study design
Interventional

Study type(s)
Treatment

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

Interventions
After checking the suitability of the patient, the patients will be down-regulated with a gonadotropin releasing hormone agonist. After successful down-regulation the patients will be randomised to a treatment with 150 IU/d XM17 (human recombinant FSH) or 150 IU/d Gonal-f® (follitropin alpha). During the first 5 days the dose is fixed to 150 IU/d and thereafter the dose of follicle stimulating hormone (FSH) can be adapted. After successful ovarian stimulation human chorionic gonadotropin will be administered. The cumulus oocyte complexes will be retrieved. Embryo transfer will be performed. A pregnancy test will be done about 16 - 19 days after oocyte retrieval. Clinical pregnancy (foetal heart beat, gestational sacs) will be evaluated by ultrasound examination about 5 - 7 weeks after oocyte retrieval. Patients being pregnant will be followed up until they give birth (follow-up part A). Patients not being pregnant can be treated for a second or third cycle with XM17 as stimulating drug (follow-up part B).

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
XM17, Gonal-f®

Primary outcome(s)

Number of cumulus oocyte complexes retrieved

Key secondary outcome(s))
Efficacy:
1. Total r-hFSH dose
2. Number of days of r-hFSH stimulation
3. Number of follicles, 17-ß estradiol serum concentration and endometrial thickness on stimulation Day 6 prior to dose adaptation and on the day of hCG injection
4. Cancellation rate
5. Oocyte maturity and quality
6. Fertilisation rate
7. Clinical pregnancy rate

Safety:
8. Frequency of OHSS
9. Adverse events
10. Vital signs
11. Laboratory tests
12. Physical examination, body weight
13. 12-lead electrocardiogram (ECG)
14. Tolerability (overall and local)
15. Immunogenicity (anti-FSH antibody formation)

Completion date
30/09/2011

Eligibility

Key inclusion criteria
1. Infertile female patients of any racial origin undergoing superovulation for ART
2. Aged 18 - 37 years (inclusive) at the time of enrolment
3. Good physical and mental health
4. Regular menstrual cycles of 21 - 35 days and presumed to be ovulatory
5. Body mass index (BMI) between 18 - 29 kg/m^2 inclusive
6. Transvaginal ultrasound documenting the presence of both ovaries without abnormalities and normal adnexa within the last 6 months
7. Basal follicle stimulating hormone (FSH), estradiol, prolactin, thyroid stimulating hormone (TSH) within the normal reference ranges at enrolment
8. Normal or clinically insignificant haematology, clinical chemistry and urinalysis parameters
9. Negative cervical Pap test within the last 6 months prior to study entry
10. Negative pregnancy test prior to starting pituitary downregulation
11. Able to understand and follow instructions and able to participate in the study for the entire period
12. Signed and dated written informed consent

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
Female

Key exclusion criteria
1. More than two previously completed consecutive unsuccessful in-vitro fertilisation (IVF) cycles
2. Primary ovarian failure or women known as poor responders
3. More than three miscarriages
4. History of a severe ovarian hyperstimulation syndrome (OHSS)
5. Malformations of sexual organs incompatible with pregnancy
6. One or both ovaries inaccessible for oocyte retrieval
7. Ovarian enlargement or cyst of more than 2 cm
8. Hydrosalpinx that has not been surgically removed or ligated
9. Patient affected by pathologies associated with any contraindication of being pregnant
10. Gynaecological haemorrhages of unknown aetiology
11. Uncontrolled moderate arterial hypertension defined as systolic blood pressure greater than 160 mmHg and diastolic blood pressure greater than 100 mmHg
12. Any significant cardiovascular, pulmonary, neurologic, allergic, endocrine, hepatic, renal or systemic disease
13. Patient with insulin-dependent diabetes mellitus
14. History of coagulation disorders
15. Known positive test for human immunodeficiency virus (HIV) antibodies, hepatitis B or hepatitis C
16. Neoplasm (e.g. tumours of the ovary, breast, uterus, hypothalamus or pituitary gland)
17. History of chemo- or radio-therapy
18. Use of concomitant medications that might interfere with study evaluations (e.g., prostaglandin inhibitors, psychotropic agents)
19. Known allergy or hypersensitivity to recombinant FSH preparations or one of their excipients
20. History of drug or alcohol abuse (last 3 years), current or past (3 months) smoking habits of greater than 10 cigarettes per day
21. Pregnancy or lactation at enrolment
22. Administration of clomiphene or gonadotropins within 30 days prior to enrolment
23. Administration of investigational drugs within 90 days prior to enrolment

Date of first enrolment
19/03/2010

Date of final enrolment
30/09/2011

Locations

Countries of recruitment
United Kingdom

Belgium

Czech Republic

Germany

Hungary

Poland

Study participating centre
UZ Brussels
Brussels
Belgium
1090

Sponsor information

Organisation
BioGeneriX AG (Germany)

ROR
https://ror.org/03xa4xh46

Funder(s)

Funder type
Industry

Funder Name
BioGeneriX AG (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?

Results article	results	06/01/2016		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes