

ClinicalTrials.gov Protocol and Results Registration System (PRS) Receipt  
Release Date: 02/12/2010

## A Study of the Efficacy and Safety of Highly Purified Menotrophin Versus Recombinant Follitropin Alfa

This study has been completed.

Sponsor:	Ferring Pharmaceuticals
Collaborators:	
Information provided by:	Ferring Pharmaceuticals
ClinicalTrials.gov Identifier:	NCT00257556

### ► Purpose

Prospective open label, randomised, parallel group, comparative pilot.

Condition	Intervention	Phase
Infertility	Drug: Menotrophin Drug: Follitropin alfa	Phase 4

Study Type: Interventional

Study Design: Treatment, Parallel Assignment, Open Label, Randomized, Safety/Efficacy Study

Official Title: A Prospective, Open Label, Randomised, Parallel Group, Comparative Pilot Study to Study the Efficacy and Safety of Highly Purified Menotrophin Versus Recombinant FSH (Follitropin Alfa) Administered Subcutaneously to Subfertile Female Patients Undergoing IVF Using Antagonist Downregulation

Further study details as provided by Ferring Pharmaceuticals:

Primary Outcome Measure:

- Number of Participants With an Ongoing Pregnancy [Time Frame: Approx week 13; 9 weeks or more after the 1st positive pregnancy test] [Designated as safety issue: No]

Number of participants who met human chorionic gonadotrophin (hCG) criterion, received an embryo transfer, tested positive with a serum pregnancy test 11-14 days after embryo transfer and had an ongoing pregnancy (defined as positive fetal heart action) at  $\geq 9$  weeks after the first positive pregnancy test.

- Percentage of Participants With an Ongoing Pregnancy [Time Frame: Approx week 13; 9 weeks or more after the first positive pregnancy test] [Designated as safety issue: No]

Percentage of participants who had an ongoing pregnancy  $\geq 9$  weeks after the first positive pregnancy test, as indicated by positive fetal heart action.

#### Secondary Outcome Measures:

- Participants With Varying Numbers of Follicles That Were Greater Than or Equal to 17 Millimeters [Time Frame: Day 7 and, if appropriate, every 2 days thereafter (Days 9/11/13)] [Designated as safety issue: No]  
The criterion for ovulation induction was three follicles  $\geq 17$  mm diameter as shown by pelvic ultrasound examination. Patients were assessed by pelvic ultrasound on the morning (prior to menotrophin or follitropin alfa administration) of Day 7 and, if appropriate, every 2 days thereafter (Days 9/11/13) until the criterion was met.
- Participants With Varying Numbers of Oocytes Retrieved [Time Frame: Approximately study day 15] [Designated as safety issue: No]  
Number of participants with grouped by the number of oocytes retrieved. Oocytes were retrieved following ovulation induction by subcutaneous administration of human chorionic gonadotrophin (hCG) in the form of choriogonadotropin alfa at a dose of 250 micrograms once participants reached the criteria of at least three follicles with  $\geq 17$  mm in diameter.
- Participants With Varying Numbers of Pronuclear Stage Oocytes [Time Frame: Approximately study day 15] [Designated as safety issue: No]  
Number of participants with various groupings of pronuclear oocytes retrieved 16-20 hours after insemination.
- Participants With Varying Numbers of Embryos Transferred [Time Frame: Approximately study day 17] [Designated as safety issue: No]  
Number of participants with various categories of numbers of embryos transferred.
- Participants With Varying Numbers of Embryos Frozen [Time Frame: Approximately study day 17] [Designated as safety issue: No]  
Number of participants with different categories of number of embryos frozen.
- Mean Number of Days Stimulated With Gonadotrophins [Time Frame: study days 1 - 13] [Designated as safety issue: No]  
Number of days stimulated with study drug until participant met the criteria for ovulation induction. Ovulation induction criteria is three follicles greater than or equal to 17 mm diameter as shown by pelvic ultrasound examination.
- Pregnancy Outcomes [Time Frame: Approximately 10 months] [Designated as safety issue: No]  
Long term follow-up to determine the outcome of the pregnancy.
- Mean Endometrial Thickness [Time Frame: Day 7 or 9 or 11 or 13] [Designated as safety issue: No]  
Measurement performed on day of human chorionic gonadotrophin (hCG) administration/ovulation induction.
- Mean Estradiol Level [Time Frame: Day 7 or 9 or 11 or 13] [Designated as safety issue: No]  
Measurement on day of human chorionic gonadotrophin (hCG) administration / ovulation induction.

Enrollment: 80

Study Start Date: October 2005

Primary Completion Date: July 2008

Study Completion Date: April 2009

Arms	Assigned Interventions
Experimental: Menotrophin	<p>Drug: Menotrophin 150 IU Menotrophin daily subcutaneous injection for a maximum of 13 days. In the event of hyperstimulation, the dose was reduced to 75 IU daily.</p> <p>Other Names:</p>

Arms	Assigned Interventions
	Menopur hMG highly purified menotrophin
Active Comparator: Follitropin alfa	Drug: Follitropin alfa 150 IU follitropin alfa daily by subcutaneous injection for a maximum of 13 days. In the event of hyperstimulation, the dose was reduced to 75 IU daily.  Other Names: rFSH recombinant FSH

#### Detailed Description:

Ongoing pregnancy rate, defined as positive fetal heart action 9 weeks after the first positive pregnancy test. Number/diameter of follicles, number of oocytes retrieved, number of pronuclear oocytes (referred to as zygotes or pre-embryos in the UK), quality of pronuclear stage oocytes, number of embryos transferred, quality of embryos, number of frozen embryos, endometrial thickness and morphology on day of HCG administration, estradiol levels at day of HCG administration, implantation rate, number of days stimulated with gonadotrophins and number of ampoules used, clinical pregnancy rate at 6 weeks after the first positive pregnancy test, pregnancy outcome.

## ► Eligibility

Ages Eligible for Study: 20 Years to 35 Years

Genders Eligible for Study: Female

Accepts Healthy Volunteers: Yes

### Criteria

Female patients aged  $\geq 20$  and  $\leq 35$  years with a BMI of  $>18$  and  $<32$  kg/m<sup>2</sup> who have received no more than two previous cycles of in vitro fertilisation (IVF) or other assisted reproductive technique (ART) and whose partners have normal sperm (according to WHO 1999 criteria).

#### Inclusion criteria:

- Signed informed consent;
- Subfertile premenopausal female patients eligible for IVF treatment;
- Aged  $\geq 20$  and  $\leq 35$  years;
- Body mass index of  $>18$  and  $<32$  kg/m<sup>2</sup>
- Normal endocrine assessment within the last 6 months;
- Normal pelvic ultrasound (showing two ovaries, no ovarian abnormalities and normal uterus) within the last 6 months;
- Receipt of no more than two previous cycles of IVF (or other ART);
- At least 3 consecutive ovulatory menstrual cycles of 24-35 days, and documented evidence of ovulatory cycles within the previous 12 months;
- No fertility-modifying treatment within the 3 months prior to this treatment cycle;
- Infertility attributable to or in association with either tubal factor, or unexplained causes;
- Sperm of partner classed as normal according to WHO 1999 criteria within the year prior to beginning therapy;

- Negative serum beta-HCG pregnancy test prior to beginning therapy;
- Clinically normal baseline haematology, clinical chemistry, and urinalysis parameter values, negative serum HBsAg and HIV antibody tests;
- Screening endocrine test results (estradiol, LH, FSH, progesterone, prolactin, TSH) in early follicular phase within the normal limits for the clinical laboratory.

#### Exclusion criteria

- Presence of any clinically relevant systemic disease(e.g. insulin- dependent diabetes mellitus);
- A history of or current endocrine disease, including polycystic ovary- like syndrome and hyperprolactinaemia;
- A history of coagulation disorders;
- Persistent ovarian cysts;
- Contraindications for the use of gonadotrophins or GnRH antagonists;
- A history of hypersensitivity to any of the constituents of the study medication or related compounds;
- Three or more previous cycles of IVF (or other ART);
- A history of alcohol abuse (more than 30 units per week on a regular basis);
- History of chemo- or radiotherapy;
- Currently breast-feeding, pregnant or with a contraindication to pregnancy;
- Diagnosed poor responders in prior IVF treatment;
- History of severe ovarian hyperstimulation syndrome (OHSS) (4 or 5) in former IVF treatment;
- Investigational drug within the 30 days prior to treatment;
- Any other condition or history that the investigator considers might increase the risk to the individual.

## Contacts and Locations

#### Locations

##### Germany

Gemeinschaftspraxis und Tagesklinik, Olpe 19

Dortmund, Germany, 44135

Universitäts-Frauenklinik Heidelberg Abt. Gynakologische Endokrinologie und Fertilitätsstörungen, Voßstr. 9

Heidelberg, Germany, 69115

Gemeinschaftspraxis und Tagesklinik, Zingel 29

Hildesheim, Germany, 1134

##### United Kingdom

Royal Infirmary of Edinburgh, 51 Little France

Edinburgh, United Kingdom, EH16 4SA

Leeds General Infirmary, Great George Street

Leeds, United Kingdom, LS1 3EX

The Royal Hallamshire Hospital, University of Sheffield, Jessop Wing, Tree Root Walk

Sheffield, United Kingdom, S10 2SF

#### Investigators

Study Director:

Clinical Development Support

Ferring Pharmaceuticals

## More Information

Responsible Party: Ferring Pharmaceuticals (Clinical Development Support)  
 Study ID Numbers: FE999906 CS004 (PROSPECT)  
 2004-001307-35 [Registry ID: EudraCT]  
 Health Authority: United Kingdom: National Health Service  
 Germany: Ethics Commission

## Study Results

### Participant Flow

Pre-Assignment Details	Ninety (90) participants were screened and 80 participants randomized.
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#### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

#### Overall Study

	Menotrophin	Follitropin Alfa
Started	38	42
All Patients Treated Population	37 <sup>[1]</sup>	39 <sup>[2]</sup>
Completed	24	32
Not Completed	14	10
Adverse Event	1	4
Physician Decision	6	0
Did not meet hCG criterion	3	0
other reason	4	6

[1] Also the safety population. One randomized patient did not receive study medication.

[2] Also the safety population. Three randomized patients did not receive study medication.

## Baseline Characteristics

### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

### Baseline Measures

	Menotrophin	Follitropin Alfa	Total
Number of Participants	37	39	76
Age, Categorical [units: participants]			
<=18 years	0	0	0
Between 18 and 65 years	37	39	76
>=65 years	0	0	0
Age, Continuous [units: years] Mean (Standard Deviation)	30.7 (3.45)	30.9 (2.67)	30.8 (3.06)
Gender, Male/Female [units: participants]			
Female	37	39	76
Male	0	0	0
Tobacco Use [units: participants]			
Smoker	4	8	12
Ex-smoker	8	5	13
Never Smoked	25	26	51
Body Mass Index <sup>[1]</sup> [units: Kilograms/Meters squared] Mean (Standard Deviation)	24.02 (3.689)	23.81 (3.731)	23.91 (3.687)
Diastolic Blood Pressure [units: mm Hg] Mean (Standard Deviation)	74.1 (8.83)	73.8 (9.96)	74.0 (9.37)

	Menotrophin	Follitropin Alfa	Total
Pulse [units: beats per minute] Mean (Standard Deviation)	75.7 (9.63)	74.5 (9.16)	75.1 (9.35)
Systolic Blood Pressure [units: mm Hg] Mean (Standard Deviation)	115.3 (12.50)	116.1 (14.55)	115.7 (13.51)

[1] Body mass index (BMI) is measure of body fat based on height and weight that applies to both adult men and women

## Outcome Measures

### 1. Primary Outcome Measure:

Measure Title	Number of Participants With an Ongoing Pregnancy
Measure Description	Number of participants who met human chorionic gonadotrophin (hCG) criterion, received an embryo transfer, tested positive with a serum pregnancy test 11-14 days after embryo transfer and had an ongoing pregnancy (defined as positive fetal heart action) at $\geq 9$ weeks after the first positive pregnancy test.
Time Frame	Approx week 13; 9 weeks or more after the 1st positive pregnancy test
Safety Issue?	No

Analysis Population Description  
All patients treated population

### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	37	39
Number of Participants With an Ongoing Pregnancy [units: participants]	14	13

## 2. Primary Outcome Measure:

Measure Title	Percentage of Participants With an Ongoing Pregnancy
Measure Description	Percentage of participants who had an ongoing pregnancy $\geq 9$ weeks after the first positive pregnancy test, as indicated by positive fetal heart action.
Time Frame	Approx week 13; 9 weeks or more after the first positive pregnancy test
Safety Issue?	No

### Analysis Population Description

All patients treated population. Two menotrophin patients did not have pregnancy outcome data recorded in this timeframe but were later recorded as having live births so are included here as "YES" for ongoing pregnancy.

### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	37	39
Percentage of Participants With an Ongoing Pregnancy [units: percentage of participants]	37.8	33.3

### Statistical Analysis 1 for Percentage of Participants With an Ongoing Pregnancy

Statistical Analysis Overview	Comparison Groups	Menotrophin, Follitropin Alfa
	Comments	[Not specified]
	Non-Inferiority or Equivalence Analysis?	No
	Comments	[Not specified]
Method of Estimation	Estimation Parameter	Mean Difference (Final Values)
	Estimated Value	-0.045
	Confidence Interval	(2-Sided) 95% -0.170 to 0.260



	Estimation Comments	A two-sided 95% continuity-corrected confidence interval for the difference in percentages, based on the normal approximation
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### 3. Secondary Outcome Measure:

Measure Title	Participants With Varying Numbers of Follicles That Were Greater Than or Equal to 17 Millimeters
Measure Description	The criterion for ovulation induction was three follicles $\geq 17$ mm diameter as shown by pelvic ultrasound examination. Patients were assessed by pelvic ultrasound on the morning (prior to menotrophin or follitropin alfa administration) of Day 7 and, if appropriate, every 2 days thereafter (Days 9/11/13) until the criterion was met.
Time Frame	Day 7 and, if appropriate, every 2 days thereafter (Days 9/11/13)
Safety Issue?	No

Analysis Population Description  
All treated patients population

### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	37	39
Participants With Varying Numbers of Follicles That Were Greater Than or Equal to 17 Millimeters [units: participants]		
Did not meet criterion	10	3
3 follicles $\geq 17$ mm in diameter	11	11
4 follicles $\geq 17$ mm in diameter	7	10
5 follicles $\geq 17$ mm in diameter	2	10
6 follicles $\geq 17$ mm in diameter	4	1
7 follicles $\geq 17$ mm in diameter	0	0
8 follicles $\geq 17$ mm in diameter	1	3
9 follicles $\geq 17$ mm in diameter	0	0

	Menotrophin	Follitropin Alfa
10 follicles $\geq$ 17 mm in diameter	1	0
11-14 follicles $\geq$ 17 mm in diameter	0	0
15 follicles $\geq$ 17 mm in diameter	0	1
16 follicles $\geq$ 17 mm in diameter	1	0

#### 4. Secondary Outcome Measure:

Measure Title	Participants With Varying Numbers of Oocytes Retrieved
Measure Description	Number of participants with grouped by the number of oocytes retrieved. Oocytes were retrieved following ovulation induction by subcutaneous administration of human chorionic gonadotrophin (hCG) in the form of choriogonadotropin alfa at a dose of 250 micrograms once participants reached the criteria of at least three follicles with $\geq$ 17mm in diameter.
Time Frame	Approximately study day 15
Safety Issue?	No

Analysis Population Description  
All treated patients population.

#### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

#### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	23	29
Participants With Varying Numbers of Oocytes Retrieved [units: participants]		
0 oocytes retrieved	1	0
1 oocyte retrieved	1	1
2 oocytes retrieved	3	1

	Menotrophin	Follitropin Alfa
3 oocytes retrieved	3	1
4 oocytes retrieved	2	2
5 oocytes retrieved	2	5
6 oocytes retrieved	4	4
7 oocytes retrieved	2	2
8 oocytes retrieved	2	4
9 oocytes retrieved	2	2
10 oocytes retrieved	1	3
11 oocytes retrieved	0	0
12 oocytes retrieved	0	4
13 oocytes retrieved	0	1
14 oocytes retrieved	1	0
15 oocytes retrieved	0	3
16 oocytes retrieved	1	2
17-18 oocytes retrieved	0	0
19 oocytes retrieved	1	2
20 oocytes retrieved	0	0
21 oocytes retrieved	1	0
22 oocytes retrieved	0	0
23 oocytes retrieved	0	1

5. Secondary Outcome Measure:

Measure Title	Participants With Varying Numbers of Pronuclear Stage Oocytes
Measure Description	Number of participants with various groupings of pronuclear oocytes retrieved 16-20 hours after insemination.
Time Frame	Approximately study day 15
Safety Issue?	No

Analysis Population Description  
All patients treated population

Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	25	35
Participants With Varying Numbers of Pronuclear Stage Oocytes [units: participants]		
1 pronuclear stage oocyte	1	0
2 pronuclear stage oocytes	8	6
3 pronuclear stage oocytes	1	3
4 pronuclear stage oocytes	2	7
5 pronuclear stage oocytes	4	7
6 pronuclear stage oocytes	1	0
7 pronuclear stage oocytes	2	2
8 pronuclear stage oocytes	2	2
9 pronuclear stage oocytes	1	1
10 pronuclear stage oocytes	1	1
11 pronuclear stage oocytes	2	0
12 pronuclear stage oocytes	0	4
13 pronuclear stage oocytes	0	1
14-16 pronuclear stage oocytes	0	0
17 pronuclear stage oocytes	0	1

6. Secondary Outcome Measure:

Measure Title	Participants With Varying Numbers of Embryos Transferred
Measure Description	Number of participants with various categories of numbers of embryos transferred.
Time Frame	Approximately study day 17
Safety Issue?	No

Analysis Population Description  
All patients treated population

Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	24	33
Participants With Varying Numbers of Embryos Transferred [units: participants]		
0 embryos transferred	0	1
1 embryo transferred	3	1
2 embryos transferred	21	28
3 embryos transferred	0	3

7. Secondary Outcome Measure:

Measure Title	Participants With Varying Numbers of Embryos Frozen
Measure Description	Number of participants with different categories of number of embryos frozen.
Time Frame	Approximately study day 17
Safety Issue?	No

Analysis Population Description  
All patients treated population

Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	24	33
Participants With Varying Numbers of Embryos Frozen [units: participants]		
0 embryos frozen	16	22
1 embryo frozen	1	0
2 embryos frozen	2	1
3 embryos frozen	1	4
4 embryos frozen	4	2
5 embryos frozen	0	2
6-8 embryos frozen	0	0
9 embryos frozen	0	1
10 embryos frozen	0	1

8. Secondary Outcome Measure:

Measure Title	Mean Number of Days Stimulated With Gonadotrophins
Measure Description	Number of days stimulated with study drug until participant met the criteria for ovulation induction. Ovulation induction criteria is three follicles greater than or equal to 17 mm diameter as shown by pelvic ultrasound examination.
Time Frame	study days 1 - 13
Safety Issue?	No

Analysis Population Description  
All patients treated population

Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	37	39
Mean Number of Days Stimulated With Gonadotrophins [units: days] Mean (Standard Deviation)	9.2 (1.71)	8.9 (1.07)

9. Secondary Outcome Measure:

Measure Title	Pregnancy Outcomes
Measure Description	Long term follow-up to determine the outcome of the pregnancy.
Time Frame	Approximately 10 months
Safety Issue?	No

Analysis Population Description  
All patients treated population

Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	17	17
Pregnancy Outcomes		

	Menotrophin	Follitropin Alfa
[units: participants]		
Miscarriage	4	4
Pre-term: 1 live birth	1	1
Pre-term: 2 live births	2	3
Pre-term stillbirth	0	1
Full term: 1 live birth	7	6
Full term: 2 live births	3	2

#### 10. Secondary Outcome Measure:

Measure Title	Mean Endometrial Thickness
Measure Description	Measurement performed on day of human chorionic gonadotrophin (hCG) administration/ovulation induction.
Time Frame	Day 7 or 9 or 11 or 13
Safety Issue?	No

Analysis Population Description  
All patients treated population

#### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

#### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	27	38
Mean Endometrial Thickness [units: millimeters] Mean (Standard Deviation)	11.7 (2.73)	11.0 (2.31)



#### 11. Secondary Outcome Measure:

Measure Title	Mean Estradiol Level
Measure Description	Measurement on day of human chorionic gonadotrophin (hCG) administration / ovulation induction.
Time Frame	Day 7 or 9 or 11 or 13
Safety Issue?	No

Analysis Population Description  
All patient treated population

#### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

#### Measured Values

	Menotrophin	Follitropin Alfa
Number of Participants Analyzed	27	38
Mean Estradiol Level [units: picomoles / liter] Mean (Standard Deviation)	6706.6 (4109.26)	6268.3 (4132.11)



#### Reported Adverse Events

Time Frame	[Not specified]
Additional Description	The 'all patients treated' population is the same as the safety population in this study.

#### Reporting Groups

	Description
Menotrophin	Highly purified menotrophin sourced from human menopausal gonadotrophin (hMG)
Follitropin Alfa	A genetically engineered substitute for follicle stimulating hormone (recombinant FSH (rFSH)).

## Serious Adverse Events

	Menotrophin	Follitropin Alfa
	Affected/At Risk (%)	Affected/At Risk (%)
Total	4/37 (10.81%)	9/39 (23.08%)
Gastrointestinal disorders		
Abdominal Pain <sup>A</sup> †	0/37 (0%)	2/39 (5.13%)
Abdominal Pain Lower <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
Constipation <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
Vomiting <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
General disorders		
Pyrexia <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
Pregnancy, puerperium and perinatal conditions		
Abortion Imminent <sup>A</sup> †	1/37 (2.7%)	0/39 (0%)
Abortion Spontaneous <sup>A</sup> †	1/37 (2.7%)	3/39 (7.69%)
Renal and urinary disorders		
Dysuria <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
Reproductive system and breast disorders		
Ovarian Hyperstimulation Syndrome <sup>A</sup> †	2/37 (5.41%)	3/39 (7.69%)
Uterine Haemorrhage <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)
Vaginal Haemorrhage <sup>A</sup> †	0/37 (0%)	1/39 (2.56%)

† Indicates events were collected by systematic assessment.

A Term from vocabulary, MedDRA 7.1

## Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

	Menotrophin	Follitropin Alfa
	Affected/At Risk (%)	Affected/At Risk (%)
Total	18/37 (48.65%)	21/39 (53.85%)

	Menotrophin	Follitropin Alfa
	Affected/At Risk (%)	Affected/At Risk (%)
Gastrointestinal disorders		
Abdominal Distension <sup>A</sup> †	1/37 (2.7%)	4/39 (10.26%)
Abdominal Pain <sup>A</sup> †	0/37 (0%)	2/39 (5.13%)
Abdominal Pain Lower <sup>A</sup> †	1/37 (2.7%)	2/39 (5.13%)
Constipation <sup>A</sup> †	0/37 (0%)	2/39 (5.13%)
Nausea <sup>A</sup> †	3/37 (8.11%)	0/39 (0%)
Vomiting <sup>A</sup> †	1/37 (2.7%)	3/39 (7.69%)
General disorders		
Injection Site Bruising <sup>A</sup> †	3/37 (8.11%)	2/39 (5.13%)
Injection Site Erythema <sup>A</sup> †	6/37 (16.22%)	4/39 (10.26%)
Injection Site Haemorrhage <sup>A</sup> †	0/37 (0%)	3/39 (7.69%)
Injection Site Pruritus <sup>A</sup> †	7/37 (18.92%)	2/39 (5.13%)
Injection Site Rash <sup>A</sup> †	0/37 (0%)	2/39 (5.13%)
Injection Site Swelling <sup>A</sup> †	4/37 (10.81%)	4/39 (10.26%)
Infections and infestations		
Nasopharyngitis <sup>A</sup> †	2/37 (5.41%)	0/39 (0%)
Nervous system disorders		
Dizziness <sup>A</sup> †	1/37 (2.7%)	2/39 (5.13%)
Headache <sup>A</sup> †	1/37 (2.7%)	6/39 (15.38%)
Reproductive system and breast disorders		
Breast Tenderness <sup>A</sup> †	1/37 (2.7%)	3/39 (7.69%)
Ovarian Hyperstimulation Syndrome <sup>A</sup> †	2/37 (5.41%)	4/39 (10.26%)
Vaginal Haemorrhage <sup>A</sup> †	2/37 (5.41%)	0/39 (0%)

	Menotrophin	Follitropin Alfa
	Affected/At Risk (%)	Affected/At Risk (%)
Skin and subcutaneous tissue disorders		
Pruritus <sup>A</sup> †	0/37 (0%)	2/39 (5.13%)
Skin Reaction <sup>A</sup> †	2/37 (5.41%)	3/39 (7.69%)

† Indicates events were collected by systematic assessment.

A Term from vocabulary, MedDRA 7.1

## ► Limitations and Caveats

[Not specified]

## ► More Information

Certain Agreements:

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

The only disclosure restriction on the PI is that the sponsor can review the draft manuscript prior to publication and can request delay of publication where any contents are deemed patentable by the sponsor or confidential to the sponsor. Comments will be given within four weeks from receipt of the draft manuscript.

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