Clinical trial results:
A Multicenter, Open-Label, Randomized, Two Arm Cross-Over Study Assessing Dyad (Subject and Caregiver) and Adult Subject Perception of Convenience and Preference of the Newly Developed Genotropin Mark VII Pen

Summary

EudraCT number	2009-017354-12
Trial protocol	SE CZ SK DE GB NL
Global end of trial date	26 October 2011

Results information

Result version number	v1 (current)
This version publication date	15 March 2016
First version publication date	09 July 2015

Trial information

Trial identification

Sponsor protocol code	A6281297

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01112865
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Pfizer Inc.
Sponsor organisation address	235 E 42nd Street, New York, United States, NY 10017
Public contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 1 800-718-1021, ClinicalTrials.gov_Inquiries@pfizer.com
Scientific contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc., 1 800-718-1021, ClinicalTrials.gov_Inquiries@pfizer.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	09 March 2012
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	26 October 2011
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To evaluate the ease of use or convenience of the new Genotropin Mark VII pen compared to the current Genotropin Pen.

Protection of trial subjects:

The study was in compliance with the ethical principles derived from the Declaration of Helsinki and in compliance with all International Conference on Harmonization (ICH) Good Clinical Practice (GCP) Guidelines. All the local regulatory requirements pertinent to safety of trial subjects were followed.

Background therapy: -

Evidence for comparator:

Comparison of subject acceptance of the Genotropin Mark VII pen and the current marketed Genotropin pen.

Actual start date of recruitment	06 August 2010
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Netherlands: 5
Country: Number of subjects enrolled	Slovakia: 13
Country: Number of subjects enrolled	Sweden: 14
Country: Number of subjects enrolled	United Kingdom: 17
Country: Number of subjects enrolled	Czech Republic: 32
Country: Number of subjects enrolled	Germany: 19
Country: Number of subjects enrolled	Turkey: 20
Worldwide total number of subjects	120
EEA total number of subjects	100

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23	0

months)	
Children (2-11 years)	51
Adolescents (12-17 years)	27
Adults (18-64 years)	40
From 65 to 84 years	2
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 120 subjects were screened from 23 centers of 7 countries worldwide and all subjects were included in the trial. Study started on 06 August 2010 and completed on 26 October 2011.

Period 1

Period 1 title	Overall study (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Arm title	Entire Study Population

Arm description:

Included all subjects which were randomized to use either the Mark VII pen first or the current Genotropin® pen first.

Arm type	Experimental
Investigational medicinal product name	Genotropin Mark VII pen
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solution for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Subjects randomized to use the Mark VII pen subcutaneous injections daily for 2 months. Pen provided in 5, 5.3, and 12 mg doses of Genotropin (somatropin [rDNA origin]), doses received by subjects based on body weight.

Investigational medicinal product name	Genotropin Pen
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solvent for solution for injection in pre-filled syringe
Routes of administration	Subcutaneous use

Dosage and administration details:

Subjects randomized to use the current Genotropin® pen subcutaneous injections daily for 2 months. Pen provided in 5, 5.3, and 12 mg doses of Genotropin (somatropin [rDNA origin]), doses received by subjects based on body weight.

Number of subjects in period 1	Entire Study Population
Started	120
Completed	120

Baseline characteristics

Reporting groups	
Reporting group title	Overall study

Reporting group description: -

Reporting group values	Overall study	Total	
Number of subjects	120	120	
Age categorical			
Included all subjects which were randomized to use either the Mark VII pen first or the current Genotropin® pen first.			
Units: Subjects			
Less than or equal to (<=) 7 years	28	28	
Between 8 and 17 years	50	50	
Between 18 and 44 years	18	18	
Between 45 and 64 years	22	22	
Greater than or equal to (>=) 5 years	2	2	
Gender categorical Units: Subjects			
Female	51	51	
Male	69	69	

End points

End points reporting groups

Reporting group title	Entire Study Population

Reporting group description:

Included all subjects which were randomized to use either the Mark VII pen first or the current Genotropin® pen first.

Subject analysis set title	Mark VII Pen
Subject analysis set type	Full analysis

Subject analysis set description:

Subjects who used the Mark VII pen any time during the study. Pens provided in 5, 5.3, and 12 mg doses of Genotropin (somatropin [rDNA origin]), doses were received by subjects based on body weight.

Subject analysis set title	Genotropin® Pen
Subject analysis set type	Full analysis

Subject analysis set description:

Subjects who used the current Genotropin® pen anytime during the study. Pens provided in 5, 5.3, and 12 mg doses of Genotropin (somatropin [rDNA origin]); doses were received by subjects based on body weight.

Primary: Percentage of Dyads (Subject and Caregiver or Parent) and Adult Subjects Reporting no Difference or Easier to Use for the New Genotropin Mark VII Injection Pen Compared to the Genotropin Pen®

End point title	Percentage of Dyads (Subject and Caregiver or Parent) and Adult Subjects Reporting no Difference or Easier to Use for the New Genotropin Mark VII Injection Pen Compared to the Genotropin Pen®[1]

End point description:

Subjects were asked the following question from Section II of the Injection Pen Assessment Questionnaire (IPAQ) patient-reported outcome (PRO) tool, "Thinking about the Genotropin pen and the new injection pen you used over the past few months, please compare both injection pens and choose which one is easier to use overall?" Choices included: Genotropin Pen® easier to use, new injection pen easier to use, or no difference. Full Analysis Set (FAS): randomized subjects who used a study pen at least once to administer somatropin. Dyad defined as the subject (child being treated) and adult partner (parent or caregiver).

End point type	Primary

End point timeframe:

Month 4

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Only descriptive data was planned to be reported for this end point.

End point values	Entire Study Population			
Subject group type	Reporting group			
Number of subjects analysed	119[2]			
Units: percentage of dyads, adult subjects				
number (confidence interval 95%)	67.23 (58.79 to 75.66)			

Notes:

[2] - Number of subjects analyzed (N)= subjects with evaluable data.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Dyads and Adult Subjects Reporting no Preference or Preference for the New Genotropin Mark VII Injection Pen Compared to the Genotropin Pen®

End point title	Percentage of Dyads and Adult Subjects Reporting no Preference or Preference for the New Genotropin Mark VII Injection Pen Compared to the Genotropin Pen®

End point description:

Subjects were asked the following question from Section II of the IPAQ PRO tool, "Thinking about both injection pens over the past few months, please choose which injection pen you prefer overall." Choices included: prefer Genotropin Pen®, prefer new injection pen, or no preference. FAS population.

End point type	Secondary

End point timeframe:

Month 4

End point values	Entire Study Population			
Subject group type	Reporting group			
Number of subjects analysed	120			
Units: percentage of dyads, adult subjects				
number (confidence interval 95%)	64.17 (55.59 to 72.75)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Dyads and Adult Subjects Reporting the New Genotropin Mark VII Injection Pen Easier to Use Compared to the Genotropin Pen®

End point title	Percentage of Dyads and Adult Subjects Reporting the New Genotropin Mark VII Injection Pen Easier to Use Compared to the Genotropin Pen®

End point description:

Subjects were asked the following question from Section II of the IPAQ PRO tool, "Thinking about the Genotropin pen and the new injection pen you used over the past few months, please compare both injection pens and choose which one is easier to use overall?" Choices included: Genotropin Pen® easier to use, new injection pen easier to use, or no difference. FAS population.

End point type	Secondary

End point timeframe:

Month 4

End point values	Entire Study Population			
Subject group type	Reporting group			
Number of subjects analysed	119[3]			
Units: percentage of dyads, adult subjects				
number (confidence interval 95%)	51.26 (42.28 to 60.24)			

Notes:

[3] - Number of subjects analyzed (N)= subjects with evaluable data.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Dyads and Adult Subjects Reporting the New Genotropin Mark VII Injection Pen Preferable Compared to the Genotropin Pen®

End point title	Percentage of Dyads and Adult Subjects Reporting the New Genotropin Mark VII Injection Pen Preferable Compared to the Genotropin Pen®

End point description:

Subjects were asked the following question from Section II of the IPAQ PRO tool, "Thinking about both injection pens over the past few months, please choose which injection pen you prefer overall." Choices included: prefer Genotropin Pen®, prefer new injection pen, or no preference. FAS population.

End point type	Secondary

End point timeframe:

Month 4

End point values	Entire Study Population			
Subject group type	Reporting group			
Number of subjects analysed	120			
Units: percentage of dyads, adult subjects				
number (confidence interval 95%)	54.17 (45.25 to 63.08)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Dyads and Adult Subjects Who Would Choose the New Genotropin Mark VII Injection Pen in Preference to the Genotropin® Pen

End point title	Percentage of Dyads and Adult Subjects Who Would Choose the New Genotropin Mark VII Injection Pen in Preference to the Genotropin® Pen

End point description:

Investigators were asked the following study treatment continuation question, "Which device did the subject choose for continued treatment?" Choices included the Genotropin® Pen or the new injection pen. FAS subset of subjects located in areas where the new device was available.

End point type	Secondary

End point timeframe:

Month 4

End point values	Entire Study Population			
Subject group type	Reporting group			
Number of subjects analysed	55			
Units: percentage of dyads, adult subjects				
number (confidence interval 95%)	47.27 (34.08 to 60.47)			

Attachments (see zip file)	Statistical Analysis/Percentage of Dyads and Adult Subjects

Statistical analyses

No statistical analyses for this end point

Secondary: Ease of Use of Each Injection Pen

End point title	Ease of Use of Each Injection Pen

End point description:

Subjects were asked the following question from Section I of the IPAQ PRO tool, "Thinking about the injection pen you have been using for the past few months, how easy or difficult it is for you to use the injection pen overall?" Responses were provided using a 5 point scale which ranged from very easy (5), somewhat easy (4), neither easy nor difficult (3), somewhat difficult (2), or very difficult (1). FAS population.

End point type	Secondary

End point timeframe:

Month 2 and Month 4

End point values	Mark VII Pen	Genotropin® Pen		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	119[4]	119[5]		
Units: scores on a scale				
arithmetic mean (standard deviation)	4.5 (± 0.64)	4.2 (± 0.71)		

Notes:

[4] - Number of subjects analyzed (N)= subjects with evaluable data.

[5] - Number of subjects analyzed (N)= subjects with evaluable data.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Baseline up to 7 days after last dose

Adverse event reporting additional description:

The same event may appear as both an adverse event (AE) and a serious AE (SAE). An event may be categorized as serious in one subject and as nonserious in another subject. EU BR specific AE tables were generated separately as per EU format. Latest coding dictionary has been used for EU BR tables.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	17.1

Reporting groups

Reporting group title	Safety Population

Reporting group description:

All randomized participants who used a study pen (Genotropin® pen or the new Mark VII injection pen) at least once to administer Genotropin.

Serious adverse events	Safety Population		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 120 (1.67%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Laryngitis			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	Safety Population		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	48 / 120 (40.00%)		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Melanocytic naevus			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Injury, poisoning and procedural complications			
Accidental overdose			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Foot fracture			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Vascular disorders			
Flushing			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Nervous system disorders			
Dizziness			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	2		
Headache			
subjects affected / exposed	11 / 120 (9.17%)		
occurrences (all)	26		
Paraesthesia			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	2		
General disorders and administration site conditions			
Application site pain			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Fatigue			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Injection site bruising			

subjects affected / exposed	2 / 120 (1.67%)		
occurrences (all)	2		
Injection site haemorrhage			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Injection site injury			
subjects affected / exposed	4 / 120 (3.33%)		
occurrences (all)	12		
Injection site pain			
subjects affected / exposed	4 / 120 (3.33%)		
occurrences (all)	13		
Injection site reaction			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Oedema peripheral			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Pyrexia			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Ear and labyrinth disorders			
Ear pain			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	3		
Vertigo			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	4		
Diarrhoea			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Food poisoning			

subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Inguinal hernia			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Nausea			
subjects affected / exposed	2 / 120 (1.67%)		
occurrences (all)	2		
Vomiting			
subjects affected / exposed	2 / 120 (1.67%)		
occurrences (all)	2		
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	3 / 120 (2.50%)		
occurrences (all)	3		
Oropharyngeal pain			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Psychiatric disorders			
Attention deficit/hyperactivity disorder			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Muscle spasms			
subjects affected / exposed	2 / 120 (1.67%)		
occurrences (all)	2		
Myalgia			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Pain in extremity			
subjects affected / exposed	3 / 120 (2.50%)		
occurrences (all)	3		

Infections and infestations			
Conjunctivitis			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Gastroenteritis			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Nasopharyngitis			
subjects affected / exposed	7 / 120 (5.83%)		
occurrences (all)	8		
Otitis media			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Otitis media acute			
subjects affected / exposed	2 / 120 (1.67%)		
occurrences (all)	2		
Pharyngitis			
subjects affected / exposed	4 / 120 (3.33%)		
occurrences (all)	4		
Respiratory tract infection viral			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Rhinitis			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	2		
Urinary tract infection			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		
Viral infection			
subjects affected / exposed	6 / 120 (5.00%)		
occurrences (all)	7		
Metabolism and nutrition disorders			
Hypocalcaemia			
subjects affected / exposed	1 / 120 (0.83%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported