



## Clinical trial results:

### Pilot Study with Treatment of Short Bowel Syndrome Patients with end-jejunosomi with the Glucagon-Like Peptide-1 analogue, Liraglutide (Victoza®)

#### Summary

EudraCT number	2013-005499-16
Trial protocol	DK
Global end of trial date	20 June 2014

#### Results information

Result version number	v1 (current)
This version publication date	26 June 2022
First version publication date	26 June 2022
Summary attachment (see zip file)	manuscript (Hvistendahl2016.pdf) supplementary material (Supplementary_Materials_online_supp.pdf)

#### Trial information

##### Trial identification

Sponsor protocol code	2013-624
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##### Additional study identifiers

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

Notes:

#### Sponsors

Sponsor organisation name	Rigshospitalet
Sponsor organisation address	Inge Lehmanns Vej 7, Copenhagen, Denmark, 2100
Public contact	Palle Bekker Jeppesen, Department of Intestinal Failure and Liver Diseases, clinic 2101, +45 20481323, bekker@dadlnet.dk
Scientific contact	Palle Bekker Jeppesen, Department of Intestinal Failure and Liver Diseases, clinic 2101, +45 20481323, bekker@dadlnet.dk

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?	No

Notes:

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**Results analysis stage**

Analysis stage	Final
Date of interim/final analysis	02 October 2014
Is this the analysis of the primary completion data?	Yes
Primary completion date	20 June 2014
Global end of trial reached?	Yes
Global end of trial date	20 June 2014
Was the trial ended prematurely?	No

Notes:

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**General information about the trial**

Main objective of the trial:

The objective of the trial is to assess the therapeutic effect of the glucagon-like peptide-1 analogue, liraglutide (Victoza®) for SBS patients with an end-jejunosomy. The efficacy is assessed through the ability of liraglutide (Victoza®) to increase intestinal absorption, reduce diarrhea and the need for hyperphagia, and determine if liraglutide (Victoza®) can reduce the need for parenteral support.

Protection of trial subjects:

Several safety parameters were done during the trial period, including a physical examination, electrocardiography, vital signs, local tolerability and blood samples.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	03 February 2014
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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**Population of trial subjects****Subjects enrolled per country**

Country: Number of subjects enrolled	Denmark: 8
Worldwide total number of subjects	8
EEA total number of subjects	8

Notes:

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**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 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	3
From 65 to 84 years	5
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Dates of recruitment: from 3rd February 2014 to 17th March 2014.

Recruitment was done through the out-patient clinic database at Department of Intestinal Failure and Liver Diseases, clinic 2101, Inge Lehmanns Vej 7, DK-2100 Copenhagen, Denmark

### Pre-assignment

Screening details: -

### Pre-assignment period milestones

Number of subjects started	8
Number of subjects completed	8

### Period 1

Period 1 title	Change after 8 weeks treatment
Is this the baseline period?	No
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

NA

### Arms

<b>Arm title</b>	8 weeks on liraglutide treatment
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Arm description:

All endpoints and explorative assessments done at the first baseline balance study were repeated at this period "8 weeks on liraglutide treatment". All outcome data were compared with baseline values.

Arm type	Active comparator
Investigational medicinal product name	Liraglutide
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Uptitration to 1.8 mg/day, subcutaneous injections

<b>Number of subjects in period 1</b>	8 weeks on liraglutide treatment
Started	8
Completed	8

**Period 2**

Period 2 title	Baseline
Is this the baseline period?	Yes <sup>[1]</sup>
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

**Arms**

<b>Arm title</b>	8 weeks on liraglutide treatment
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Arm description:

All endpoints and explorative assessments done at the first baseline balance study were repeated at this period "8 weeks on liraglutide treatment". All outcome data were compared with baseline values.

Arm type	Active comparator
Investigational medicinal product name	Liraglutide
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Uptitration to 1.8 mg/day, subcutaneous injections

Notes:

[1] - Period 1 is not the baseline period. It is expected that period 1 will be the baseline period.

Justification: Period 1 is the baseline period

<b>Number of subjects in period 2</b>	8 weeks on liraglutide treatment
Started	8
Completed	8

## Baseline characteristics

### Reporting groups

Reporting group title	Baseline
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Reporting group description: -

Reporting group values	Baseline	Total	
Number of subjects	8	8	
Age categorical			
Units: Subjects			
Adults (18-64 years)	3	3	
From 65-84 years	5	5	
Age continuous			
Age			
Units: years			
arithmetic mean	63		
standard deviation	± 11	-	
Gender categorical			
Units: Subjects			
Female	3	3	
Male	5	5	
Wet weight dietary intake			
Measured by 72-hour metabolic balance study			
Units: kg/day			
arithmetic mean	2.7		
standard deviation	± 0.8	-	
Wet Weight Ostomy Output			
Measured from 72-hour metabolic balance study			
Units: kg/day			
arithmetic mean	3.2		
standard deviation	± 1.4	-	
Parenteral support volume			
Measured from 72-hour metabolic balance study			
Units: L/day			
arithmetic mean	3.3		
standard deviation	± 2.2	-	
Energy dietary intake			
Measured from 72-hour metabolic balance study			
Units: kJ/day			
arithmetic mean	10147		
standard deviation	± 2584	-	
Energy ostomy output			
Measured from 72-hour metabolic balance study			
Units: kJ/day			
arithmetic mean	6904		
standard deviation	± 3390	-	
Energy parenteral intake			
Units: kJ/day			
arithmetic mean	4375		

standard deviation	± 2936	-	
Urine output			
Measured from 72-hour metabolic balance study			
Units: L/day			
arithmetic mean	1543		
standard deviation	± 532	-	

## End points

### End points reporting groups

Reporting group title	8 weeks on liraglutide treatment
Reporting group description: All endpoints and explorative assessments done at the first baseline balance study were repeated at this period "8 weeks on liraglutide treatment". All outcome data were compared with baseline values.	
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Reporting group description: All endpoints and explorative assessments done at the first baseline balance study were repeated at this period "8 weeks on liraglutide treatment". All outcome data were compared with baseline values.	

### Primary: Change in wet weight ostomy output

End point title	Change in wet weight ostomy output <sup>[1]</sup>
End point description:	
End point type	Primary
End point timeframe: After 8 weeks of treatment	
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: system wont allow posting	

End point values	8 weeks on liraglutide treatment			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: g/day				
arithmetic mean (standard deviation)	-474 (± 563)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Change in wet weight dietary intake

End point title	Change in wet weight dietary intake
End point description:	
End point type	Secondary
End point timeframe: After 8 weeks of treatment	

<b>End point values</b>	8 weeks on liraglutide treatment			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: g/day				
arithmetic mean (standard deviation)	9 (± 57)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Urine volume

End point title	Urine volume
End point description:	
End point type	Secondary
End point timeframe:	
Change from baseline after 8 weeks of treatment	

<b>End point values</b>	8 weeks on liraglutide treatment			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: g/day				
arithmetic mean (standard deviation)	765 (± 759)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Wet weight absorption

End point title	Wet weight absorption
End point description:	
End point type	Secondary
End point timeframe:	
Change from baseline after 8 weeks of treatment	



<b>End point values</b>	8 weeks on liraglutide treatment			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: g/day				
arithmetic mean (standard deviation)	464 (± 557)			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Intestinal energy absorption

End point title	Intestinal energy absorption
End point description:	
End point type	Secondary
End point timeframe:	
Change from baseline after 8 weeks of treatment	

<b>End point values</b>	8 weeks on liraglutide treatment			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: kJ/day				
arithmetic mean (standard deviation)	902 (± 882)			

### Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information<sup>[1]</sup>

Timeframe for reporting adverse events:

8 weeks treatment

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	1
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### Reporting groups

Reporting group title	After 8 weeks of treatment
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Reporting group description: -

<b>Serious adverse events</b>	After 8 weeks of treatment		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 8 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

<b>Non-serious adverse events</b>	After 8 weeks of treatment		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 8 (0.00%)		

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.

Justification: system wont allow posting

## **More information**

### **Substantial protocol amendments (globally)**

Were there any global substantial amendments to the protocol? No

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### **Interruptions (globally)**

Were there any global interruptions to the trial? No

### **Limitations and caveats**

None reported