Clinical trial results:
GLP-1 for bridging of hyperglycaemia during cardiac surgery: a randomized controlled trial

Summary

EudraCT number	2017-000043-40
Trial protocol	NL
Global end of trial date	30 September 2018

Results information

Result version number	v1 (current)
This version publication date	17 December 2021
First version publication date	17 December 2021
Summary attachment (see zip file)	GLOBE trail results (GLOBE Results Tables.xlsx)

Trial information

Trial identification

Sponsor protocol code	GLOBE2017

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	U1111-1183-2689
Other trial identifiers	UTN register: U1111-1183-2689, CCMO number: NL60461.018.17, Nederlands Trial Register: NTR6323

Notes:

Sponsors

Sponsor organisation name	AMC
Sponsor organisation address	Meibergdreef 9, Amsterdam, Netherlands, 1105 AZ
Public contact	Dr. J. Hermanides, Academic Medical Center, 0031 0205669111,
Scientific contact	Dr. J. Hermanides, Academic Medical Center, 0031 0205669111,

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:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	01 December 2021
Is this the analysis of the primary completion data?	Yes
Primary completion date	18 August 2018
Global end of trial reached?	Yes
Global end of trial date	30 September 2018
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

the primary objective of this study is to investigate the potential of liraglutide to lower the proportion of patients needing insulin therapy during cardiac surgery when aiming for a perioperative plasma glucose of <8 mmol l-1.

Protection of trial subjects:

Ondansetron given to all subjects to prevent nausea and vomiting

Background therapy:

Insulin for management of hyperglycaemia

Evidence for comparator: -

Actual start date of recruitment	01 April 2017
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: 278
Worldwide total number of subjects	278
EEA total number of subjects	278

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 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	145
From 65 to 84 years	133
85 years and over	0

Subject disposition

Recruitment
Recruitment details: -

Pre-assignment
Screening details: 1014 screened

Period 1	
Period 1 title	Randomised (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Investigator, Monitor, Carer, Assessor, Subject

Arms	
Are arms mutually exclusive?	Yes
Arm title	Placebo
Arm description: -	
Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use
Dosage and administration details: 0.6-1.2	
Arm title	Liraglutide
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	Liraglutide
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection/infusion
Routes of administration	Subcutaneous use
Dosage and administration details: 0,6 - 1,2 mg	

Number of subjects in period 1	Placebo	Liraglutide
Started	139	139
Received 1 dose of study drug	132	129
Completed	132	129
Not completed	7	10
Lost to follow-up	7	10

Baseline characteristics

Reporting groups	
Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Liraglutide
Reporting group description: -	

Reporting group values	Placebo	Liraglutide	Total
Number of subjects	139	139	278
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	73	72	145
From 65-84 years	66	67	133
85 years and over	0	0	0
Age continuous Units: years			
arithmetic mean	65	65	
standard deviation	± 11	± 11	-
Gender categorical Units: Subjects			
Female	28	26	54
Male	111	113	224

Subject analysis sets	
Subject analysis set title	Final analysis
Subject analysis set type	Intention-to-treat
Subject analysis set description: Intention to treat	

Reporting group values	Final analysis		
Number of subjects	261		
Age categorical Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	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)	128		
From 65-84 years	133		
85 years and over	0		
Age continuous Units: years			
arithmetic mean	65		
standard deviation	± 11		
Gender categorical Units: Subjects			
Female	50		
Male	211		

End points

End points reporting groups	
Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Liraglutide
Reporting group description: -	
Subject analysis set title	Final analysis
Subject analysis set type	Intention-to-treat
Subject analysis set description: Intention to treat	

Primary: Insulin therapy	
End point title	Insulin therapy
End point description:	
End point type	Primary
End point timeframe: Perioperative	

End point values	Placebo	Liraglutide		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	132	129		
Units: patients				
Yes	80	55		
No	52	74		

Statistical analyses

Statistical analysis title	Chi square
Comparison groups	Placebo v Liraglutide
Number of subjects included in analysis	261
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.003
Method	Chi-squared
Parameter estimate	Risk difference (RD)
Point estimate	18
Confidence interval	
level	95 %
sides	2-sided
lower limit	6
upper limit	30
Variability estimate	Standard error of the mean

Adverse events

Adverse events information

Timeframe for reporting adverse events:

In hospital

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	24

Reporting groups

Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Liraglutide

Reporting group description: -

Serious adverse events	Placebo	Liraglutide	
Total subjects affected by serious adverse events			
subjects affected / exposed	69 / 132 (52.27%)	65 / 129 (50.39%)	
number of deaths (all causes)	1	2	
number of deaths resulting from adverse events	1	2	
Cardiac disorders			
Composite cardiac outcome	Additional description: MI, cardiac death, stroke		
subjects affected / exposed	58 / 132 (43.94%)	53 / 129 (41.09%)	
occurrences causally related to treatment / all	0 / 58	0 / 53	
deaths causally related to treatment / all	0 / 1	0 / 1	
Infections and infestations			
Composite infectious complications	Additional description: Wound infections, pneumonia, UTI or blood infection		
subjects affected / exposed	11 / 132 (8.33%)	12 / 129 (9.30%)	
occurrences causally related to treatment / all	0 / 11	0 / 12	
deaths causally related to treatment / all	0 / 0	0 / 1	
Product issues			
Nausea and vomiting			
subjects affected / exposed	29 / 132 (21.97%)	37 / 129 (28.68%)	
occurrences causally related to treatment / all	0 / 29	0 / 37	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Placebo	Liraglutide	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	76 / 132 (57.58%)	93 / 129 (72.09%)	
Cardiac disorders			
Arythmia			
subjects affected / exposed	47 / 132 (35.61%)	56 / 129 (43.41%)	
occurrences (all)	47	56	
Product issues			
Nausea and vomiting			
subjects affected / exposed	29 / 132 (21.97%)	37 / 129 (28.68%)	
occurrences (all)	29	37	

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

Online references

http://www.ncbi.nlm.nih.gov/pubmed/31749275