Clinical trial results:
Doxapram as an Additive to Propofol Sedation in Sedation for ERCP - a Placebo controlled, randomized, double-blinded, prospective study

Summary

EudraCT number	2013-003873-85
Trial protocol	FI
Global end of trial date	01 December 2017

Results information

Result version number	v1 (current)
This version publication date	20 May 2022
First version publication date	20 May 2022
Summary attachment (see zip file)	doxapram as an additive to ERCP (Doxapram as an additive to propofol sedation for endoscopic retrograde cholangiopancreatography a placebo-controlled, randomized, double-blinded study.pdf)

Trial information

Trial identification

Sponsor protocol code	PCS02

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02171910
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Helsinki University Hospital
Sponsor organisation address	Haartmaninkatu 3, Helsinki, Finland, 00290
Public contact	Endoscopy unit / HUCH, Helsinki University central Hospital, jarno.jokelainen@gmail.com
Scientific contact	Endoscopy unit / HUCH, Helsinki University central Hospital, jarno.jokelainen@gmail.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?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	23 May 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	01 December 2016
Global end of trial reached?	Yes
Global end of trial date	01 December 2017
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

this study was carried out to assess the efficacy of doxapram as an additive to deep propofol sedation in reducing the incidence of respiratory depression in a randomized double-blinded protocol

Protection of trial subjects:

Normal clinical precautions and sedation during the procedure

Background therapy: -

Evidence for comparator:

placebo

Actual start date of recruitment	01 November 2016
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	Finland: 56
Worldwide total number of subjects	56
EEA total number of subjects	56

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)	27
From 65 to 84 years	29
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

A total of 56 patients scheduled for an ERCP procedure from November to December 2016 in Helsinki university hospital were enrolled in the study

Pre-assignment

Screening details:

Exclusion criteria were age > 75, epilepsy, coronary artery disease (stable or unstable angina pectoris), chronic obstructive pulmonary disease, acute alcohol withdrawal syndrome, allergy to propofol, or doxapram.

Period 1

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

Blinding implementation details:

The patient and the anesthesiologist who was also responsible for the data collection were blinded to the study drug administered as well as data analyst.

Arms

Are arms mutually exclusive?	Yes
Arm title	Doxapram

Arm description:

Group receiving doxapram

Arm type	Experimental
Investigational medicinal product name	Doxapram
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

the patients received an initial bolus of doxapram 10 mg/ml 0.1 ml/kg and an infusion of doxapram 10 mg/ml at 0.1 ml/kg/h

Arm title	Placebo

Arm description:

Group receiving placebo

Arm type	Placebo
Investigational medicinal product name	Sodium Chloride 0,9%
Investigational medicinal product code	
Other name	normal saline
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

Placebo dosing as in the doxapram group

Number of subjects in period 1	Doxapram	Placebo
Started	28	28
Completed	28	28

Baseline characteristics

Reporting groups	
Reporting group title	Doxapram
Reporting group description:	
Group receiving doxapram	
Reporting group title	Placebo
Reporting group description:	
Group receiving placebo	

Reporting group values	Doxapram	Placebo	Total
Number of subjects	28	28	56
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)	12	15	27
From 65-84 years	16	13	29
85 years and over	0	0	0
Age continuous			
Units: years			
median	51	48	
inter-quartile range (Q1-Q3)	19 to 70	20 to 68	-
Gender categorical			
Units: Subjects			
Female	11	12	23
Male	17	16	33

Subject analysis sets	
Subject analysis set title	Doxapram
Subject analysis set type	Full analysis
Subject analysis set description:	
Group that received doxapram	
Subject analysis set title	Placebo
Subject analysis set type	Full analysis
Subject analysis set description:	
Group that received placebo	

Reporting group values	Doxapram	Placebo	
Number of subjects	28	28	

Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	12	15	
From 65-84 years	16	13	
85 years and over	0	0	
Age continuous Units: years			
median	51	48	
inter-quartile range (Q1-Q3)	19 to 70	20 to 68	
Gender categorical Units: Subjects			
Female	11	12	
Male	17	16	

End points

End points reporting groups

Reporting group title	Doxapram
Reporting group description: Group receiving doxapram	
Reporting group title	Placebo
Reporting group description: Group receiving placebo	
Subject analysis set title	Doxapram
Subject analysis set type	Full analysis
Subject analysis set description: Group that received doxapram	
Subject analysis set title	Placebo
Subject analysis set type	Full analysis
Subject analysis set description: Group that received placebo	

Primary: apnoeic apisodes

End point title	apnoeic apisodes
End point description: PAtient stops breathing for 30 seconds	
End point type	Primary
End point timeframe: during the procedure	

End point values	Doxapram	Placebo	Doxapram	Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	28	28		
Units: n	11	17	11	17

Statistical analyses

Statistical analysis title	apnoeic episodes
Comparison groups	Doxapram v Placebo
Number of subjects included in analysis	56
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.18
Method	Fisher exact

Primary: Hypoxemia

End point title	Hypoxemia
End point description: peripheral oxygen saturation < 88%	
End point type	Primary
End point timeframe: during the procedure	

End point values	Doxapram	Placebo	Doxapram	Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	28	28	28	28
Units: n	8	5	8	5

Statistical analyses

Statistical analysis title	hypoxemia
Comparison groups	Doxapram v Placebo
Number of subjects included in analysis	56
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.53
Method	Fisher exact

Adverse events

Adverse events information[1]	
Timeframe for reporting adverse events: during the procedure	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	10.0

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

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: Adverse events that were encountered were apnoeic episodes and hypoxemia, which were the end points.

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