Clinical trial results:
THE PROGRAMMED INTERMITTENT EPIDURAL BOLUS ADRENALINE STUDY

Summary

EudraCT number	2015-004397-14
Trial protocol	NO
Global end of trial date	07 September 2020

Results information

Result version number	v1 (current)
This version publication date	25 April 2022
First version publication date	25 April 2022
Summary attachment (see zip file)	programmed intermittend epidural bolus (Haidl-2020-Programmed intermittent boluses vs.pdf)

Trial information

Trial identification

Sponsor protocol code	2015-2

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03043781
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Akershus University Hospital
Sponsor organisation address	Sykehusveien 25, Loerenskog, Norway, 1478 Loerenskog
Public contact	Professor, Akershus university hospital, +47 67964679, vegard.dahl@ahus.no
Scientific contact	Professor, Akershus university hospital, +47 67964679, vegard.dahl@ahus.no

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	10 December 2018
Is this the analysis of the primary completion data?	Yes
Primary completion date	10 December 2018
Global end of trial reached?	Yes
Global end of trial date	07 September 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main objective of this study is to investigate whether use of intermittent epidural bolus (IEB) + patient controlled epidural bolus (PCEA) results in lower epidural mixture use per time compared to continuous epidural infusion + PCEA in the setting of an adrenaline containing mixture.

Protection of trial subjects:

We recruited women in labor scheduled for epidural analgesia

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 March 2017
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Norway: 151
Worldwide total number of subjects	151
EEA total number of subjects	151

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)	151
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Women in labor in need of epidural analgesia

Pre-assignment

Screening details:

age > 18, read and signed written informed consent, one fetus at term

Period 1

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

Blinding implementation details:

Participants received either continuous infusion or pregrammed intermittent boluses of epidural analgesia

Arms

Are arms mutually exclusive?	Yes
Arm title	continuous

Arm description:

received continuous infusion of analgesia or bolus once hourly

Arm type	Active comparator
Investigational medicinal product name	bupivacaine/adrenaline/fentanyl
Investigational medicinal product code	n.a
Other name	standard EDA mixture
Pharmaceutical forms	Concentrate and solvent for solution for infusion
Routes of administration	Epidural use

Dosage and administration details:

5+5 ml bolus, then 5ml/hr

Arm title	intermittent

Arm description:

bolus of 5 ml solution once hourly

Arm type	Experimental
Investigational medicinal product name	bupivacaine/adrenaline/fentanyl
Investigational medicinal product code	n.a
Other name	standard EDA mixture
Pharmaceutical forms	Concentrate and solvent for solution for infusion
Routes of administration	Epidural use

Dosage and administration details:

5+5 ml bolus, then 5ml once hourly

Notes:

[1] - The roles blinded appear to be inconsistent with a double blind trial.

Justification: Investigator had to be aware of type of intervention, however the parturient, midwife and the person assessing the outcome was blinded

Number of subjects in period 1	continuous	intermittent
Started	76	75
Completed	75	75
Not completed	1	0
Lost to follow-up	1	-

Baseline characteristics

Reporting groups	
Reporting group title	baseline

Reporting group description: -

Reporting group values	baseline	Total	
Number of subjects	151	151	
Age categorical			
Aged > 18 years and in labor			
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)	151	151	
From 65-84 years	0	0	
85 years and over	0	0	
adult women	0	0	
Gender categorical			
women in labor > 18 year of age			
Units: Subjects			
Female	151	151	
Male	0	0	

End points

End points reporting groups	
Reporting group title	continuous
Reporting group description: received continuous infusion of analgesia or bolus once hourly	
Reporting group title	intermittent
Reporting group description: bolus of 5 ml solution once hourly	

Primary: total consumption	
End point title	total consumption
End point description:	
End point type	Primary
End point timeframe: total consumtion og solution per houir during the analgetic time frame	

End point values	continuous	intermittent		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	75	75		
Units: ml				
number (not applicable)	9.0	8.1		

Statistical analyses

Statistical analysis title	student T-test
Statistical analysis description: mean difference in total consummption between groups	
Comparison groups	continuous v intermittent
Number of subjects included in analysis	150
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.08 [1]
Method	t-test, 2-sided
Parameter estimate	Mean difference (final values)
Point estimate	0.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	-0.1
upper limit	1.8

Notes:
[1] - the actual measured P-value indicates no difference between groups

Adverse events

Adverse events information[1]	
Timeframe for reporting adverse events: last included participant in the post-delivery ward	
Adverse event reporting additional description: hypotenstion, total spinal effect etc	
Assessment type	Non-systematic

Dictionary used	
Dictionary name	no spescific
Dictionary version	0

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

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: In these participating parturients, there were no adverse events

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

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

none

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/32812652