Clinical trial results:
Comparative doubleblind study with prilocaine 2 % and 2-chloroprocaine for elective caesarean section.

Summary

EudraCT number	2016-000813-63
Trial protocol	BE
Global end of trial date	

Results information

Result version number	v1 (current)
This version publication date	11 September 2020
First version publication date	11 September 2020

Trial information

Trial identification

Sponsor protocol code	TACs

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	UZ Brussels
Sponsor organisation address	Laarbeeklaan 101, Jette, Belgium, 1090
Public contact	Data nurse, Universitair Ziekenhuis Brussel, +32 2+4763134, veerle.vanmossevelde@uzbrussel.be
Scientific contact	Data nurse, Universitair Ziekenhuis Brussel, +32 2+4763134, veerle.vanmossevelde@uzbrussel.be

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	Interim
Date of interim/final analysis	30 March 2018
Is this the analysis of the primary completion data?	Yes
Primary completion date	30 March 2018
Global end of trial reached?	No

Notes:

General information about the trial

Main objective of the trial:

The goal of this trial is to investigate the efficacy of the IMP during caesarean section with and without the use of Sufenta: as well as onset of action and duration of action, the degree of motor block and level of sensory block will be investigated.

Protection of trial subjects:

Deze klinische studie wordt opgestart na evaluatie door één of meerdere ethische comité(s). Uw deelname is vrijwillig; er kan op geen enkele manier sprake zijn van dwang. Voor deelname is uw ondertekende toestemming nodig. Ook nadat u hebt getekend, kan u de arts-onderzoeker laten weten dat u uw deelname wilt stopzetten. De beslissing om al dan niet (verder) deel te nemen zal geen enkele negatieve invloed hebben op de kwaliteit van de zorgen noch op de relatie met de behandelende arts(en). De gegevens die in het kader van uw deelname worden verzameld, zijn vertrouwelijk. Bij de publicatie van de resultaten is uw anonimiteit verzekerd. Er worden u geen kosten aangerekend voor specifieke behandelingen, bezoeken / consultaties, onderzoeken in het kader van deze studie. Er is een verzekering afgesloten voor het geval dat u schade zou oplopen in het kader van uw deelname aan deze klinische studie. Indien u extra informatie wenst, kan u altijd contact opnemen met de arts-onderzoeker of een medewerker van zijn of haar team.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 April 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	Belgium: 80
Worldwide total number of subjects	80
EEA total number of subjects	80

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)	80
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Patients from UZ Brussels who come in for a caesarean are asked to participate in the study.

Pre-assignment

Screening details:

Inclusion: female, 18-45 years old, ASA I or II, uncomplicated singleton pregnancy at term or indication for elective caesarean delivery.

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

Blinding implementation details:

Group allocation will be performed according to a computerised randomisation list.
Supervising anaesthesiologist will perform combined spinal and epidural puncture after receiving a closed envelop with group allocation.

Arms

Are arms mutually exclusive?	Yes
Arm title	Group A

Arm description:

60 mg prilocaine 2% and 2 mcg sufentanil

Arm type	Experimental
Investigational medicinal product name	Prilocaine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Epidural use

Dosage and administration details:

60 mg prilocaine

Investigational medicinal product name	sufentanil
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Intrathecal use

Dosage and administration details:

2 mcg sufentanil

Arm title	Group B

Arm description:

60 mg prilocaine 2% en 3 mcg sufentanil

Arm type	Experimental
Investigational medicinal product name	Prilocaine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Epidural use

Dosage and administration details: 60 mg prilocaine	
Investigational medicinal product name	sufentanil
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Intrathecal use
Dosage and administration details: 3 mcg sufentanil	
Arm title	Group C
Arm description: 60 mg prilocaine + 4 mcg sufentanil	
Arm type	Experimental
Investigational medicinal product name	Prilocaine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Epidural use
Dosage and administration details: 60 mg prilocaine	
Investigational medicinal product name	sufentanil
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Intrathecal use
Dosage and administration details: 4 mcg sufentanil	
Arm title	Group D
Arm description: 60 mg prilocaine en 1 mcg sufentanil	
Arm type	Experimental
Investigational medicinal product name	Prilocaine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Epidural use
Dosage and administration details: 60 mg prilocaine	
Investigational medicinal product name	sufentanil
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for injection/infusion
Routes of administration	Intrathecal use
Dosage and administration details: 1 mcg sufentanil	

Number of subjects in period 1	Group A	Group B	Group C
Started	20	20	20
Completed	20	20	20

Number of subjects in period 1	Group D
Started	20
Completed	20

Baseline characteristics

Reporting groups	
Reporting group title	Group A
Reporting group description:	
60 mg prilocaine 2% and 2 mcg sufentanil	
Reporting group title	Group B
Reporting group description:	
60 mg prilocaine 2% en 3 mcg sufentanil	
Reporting group title	Group C
Reporting group description:	
60 mg prilocaine + 4 mcg sufentanil	
Reporting group title	Group D
Reporting group description:	
60 mg prilocaine en 1 mcg sufentanil	

Reporting group values	Group A	Group B	Group C
Number of subjects	20	20	20
Age categorical			
All females between 18 and 45 years old.			
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)	20	20	20
From 65-84 years	0	0	0
85 years and over	0	0	0
Gender categorical			
Female			
Units: Subjects			
Female	20	20	20
Male	0	0	0

Reporting group values	Group D	Total	
Number of subjects	20	80	
Age categorical			
All females between 18 and 45 years old.			
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)	20	80	
From 65-84 years	0	0	
85 years and over	0	0	
Gender categorical			
Female			
Units: Subjects			
Female	20	80	
Male	0	0	

End points

End points reporting groups	
Reporting group title	Group A
Reporting group description: 60 mg prilocaine 2% and 2 mcg sufentanil	
Reporting group title	Group B
Reporting group description: 60 mg prilocaine 2% en 3 mcg sufentanil	
Reporting group title	Group C
Reporting group description: 60 mg prilocaine + 4 mcg sufentanil	
Reporting group title	Group D
Reporting group description: 60 mg prilocaine en 1 mcg sufentanil	

Primary: Sensory and motor function	
End point title	Sensory and motor function
End point description: Sensory and motor function will be evaluated with an ether skin test and with a standardised motor score respectively.	
End point type	Primary
End point timeframe: 5 minutes post injection	

End point values	Group A	Group B	Group C	Group D
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	20	20	20	20
Units: 0, 1, 2, 3				
number (not applicable)	20	20	20	20

Statistical analyses

Statistical analysis title	ANOVA
Statistical analysis description: Comparison between groups will be performed by one-way ANOVA testing, followed by independent sample t-testing, when appropriate. Discontinuous data will be approached by a Fisher exact test.	
Comparison groups	Group A v Group B v Group C

Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	ANOVA

Statistical analysis title	T-test

Statistical analysis description:

Comparison between groups will be performed by one-way ANOVA testing, followed by independent sample t-testing, when appropriate. Discontinuous data will be approached by a Fisher exact test.

Comparison groups	Group A v Group B v Group C
Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	t-test, 1-sided

Statistical analysis title	FISHER

Statistical analysis description:

Comparison between groups will be performed by one-way ANOVA testing, followed by independent sample t-testing, when appropriate. Discontinuous data will be approached by a Fisher exact test.

Comparison groups	Group A v Group B v Group C
Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	Fisher exact

Statistical analysis title	ANOVA

Statistical analysis description:

Comparison between groups will be performed by one-way ANOVA testing, followed by independent sample t-testing, when appropriate. Discontinuous data will be approached by a Fisher exact test.

Comparison groups	Group A v Group B v Group C
Number of subjects included in analysis	60
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	ANOVA

Primary: Sensory and motor function post caesarean

End point title	Sensory and motor function post caesarean

End point description:

Sensory and motor function will be evaluated with an ether skin test and with a standardised motor score.

End point type	Primary

End point timeframe:

1 hour and every 15 minutes after termination of caesarean section.

End point values	Group A	Group B	Group C	Group D
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	20	20	20	20
Units: 0, 1, 2, 3				
number (not applicable)	20	20	20	20

Statistical analyses

Statistical analysis title	anova

Statistical analysis description:

Comparison between groups will be performed by one-way ANOVA testing, followed by independent sample t-testing, when appropriate. Discontinuous data will be approached by a Fisher exact test.

Comparison groups	Group A v Group B v Group C v Group D
Number of subjects included in analysis	80
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	< 0.05
Method	ANOVA

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 5 days postoperative	
Assessment type	Systematic

Dictionary used	
Dictionary name	CTCAE
Dictionary version	4

Reporting groups	
Reporting group title	All patients

Reporting group description: -

Serious adverse events	All patients		
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 80 (1.25%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Surgical and medical procedures			
Bleeding time abnormal	Additional description: Hysterectomie was performed due to excessive postoperative bleeding.		
subjects affected / exposed	1 / 80 (1.25%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	All patients		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	2 / 80 (2.50%)		
Pregnancy, puerperium and perinatal conditions			
Placenta accreta	Additional description: Placenta accreta with bleeding		
subjects affected / exposed	1 / 80 (1.25%)		
occurrences (all)	1		
Blood and lymphatic system disorders			
Hypotension			
subjects affected / exposed	1 / 80 (1.25%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
09 February 2020	We would like to add an open arm label to the previous study, where we use prilocaïne 2% + 1µg sufentanil. The objective of the study was to determine the ideal dose of spinal sufentanil in elective caesarean delivery. Therefore we used 3 different doses of sufentanil. However, we've noticed that all patient were comfortable at a doses of 2 µg sufentanil, so we would like to see if it is possible to diminish the intrathecal dose even further, which would have a positive effect also on side effects.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported