Clinical trial results:
Intranasal Sufentanyl analgesia Versus Morphine IV in Emergency room.

Summary

EudraCT number	2013-001665-16
Trial protocol	FR
Global end of trial date	10 April 2016

Results information

Result version number	v1 (current)
This version publication date	02 June 2022
First version publication date	02 June 2022

Trial information

Trial identification

Sponsor protocol code	38RC13.558

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02095366
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	CHU Grenoble Alpes
Sponsor organisation address	Boulevard de la Chantourne, La tronche, France,
Public contact	Blancher, University Hospital Grenoble, 33 047676630246, arcpromoteur@chu-grenoble.fr
Scientific contact	Blancher, University Hospital Grenoble, 33 047676630246, arcpromoteur@chu-grenoble.fr

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	28 March 2019
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	10 April 2016
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

verify the non-inferiority of analgesia with Sufentanil administered by intranasal spray compared to the reference analgesic treatment (Morphine intravenously) in patients hospitalized in the emergency room, presenting pain of traumatic origin estimated ≥ 6 on the numeric self-assessment pain scale.

Protection of trial subjects:

The study does not pose additional risks to participating subjects

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	02 September 2013
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	France: 157
Worldwide total number of subjects	157
EEA total number of subjects	157

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)	157
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Adult patients (18 to 75 years old) presenting with traumatic pain self-evaluated as >6/10 on a numerical pain rating scale (NRS) were recruited at triage in 6 hospital emergency departments

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, Data analyst

Arms

Are arms mutually exclusive?	Yes
Arm title	Intranasal sufentanil

Arm description: -

Arm type	Experimental
Investigational medicinal product name	SUFENTANIL
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oromucosal spray
Routes of administration	Intranasal use

Dosage and administration details:

initial dose of 0.30 µg/kg sufentanil (0.15 µg/kg in each nostril) was administered. Additional doses (0.15 µg/kg) were administered at 10 and 20 minutes in 1 of the nostrils if NRS remained >3/10

Investigational medicinal product name	PLACEBO
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous use

Dosage and administration details:

Placebo

Arm title	MORPHINE IV

Arm description: -

Arm type	Active comparator
Investigational medicinal product name	MORPHINE
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Solution for infusion

Dosage and administration details:

an initial dose of 0.1 mg/kg was administered, and additional doses of 0.05 mg/kg at 10 and 20 minutes if the NRS remained >3/10.

Number of subjects in period 1	Intranasal sufentanil	MORPHINE IV
Started	77	80
Completed	76	79
Not completed	1	1
Physician decision	1	1

Baseline characteristics

Reporting groups	
Reporting group title	overall trial

Reporting group description: -

Reporting group values	overall trial	Total	
Number of subjects	157	157	
Age categorical Units: Subjects			
Adults (18-64 years)	157	157	
Gender categorical Units: Subjects			
Female	74	74	
Male	83	83	

End points

End points reporting groups

Reporting group title	Intranasal sufentanil
Reporting group description: -	
Reporting group title	MORPHINE IV
Reporting group description: -	

Primary: non-inferiority of analgesia with Sufentanil administered by intranasal spray compared to the reference analgesic treatment

End point title	non-inferiority of analgesia with Sufentanil administered by intranasal spray compared to the reference analgesic treatment
End point description:	
non-inferiority of analgesia with Sufentanil administered by intranasal spray compared to the reference analgesic treatment (Morphine intravenously) in patients hospitalized in the emergency room, presenting pain of traumatic origin estimated ≥ 6 on the scale of digital self-assessment of pain (EN).	
End point type	Primary
End point timeframe:	
T 30 minutes	

End point values	Intranasal sufentanil	MORPHINE IV		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	67	69		
Units: scale of digital self-assessment of pain				
number (not applicable)	67	69		

Statistical analyses

Statistical analysis title	intention to treat analysis
Statistical analysis description:	
2 groups	
Comparison groups	Intranasal sufentanil v MORPHINE IV
Number of subjects included in analysis	136
Analysis specification	Pre-specified
Analysis type	non-inferiority
P-value	< 0.001 [1]
Method	Schuirmann
Parameter estimate	Schuirmann
Notes:	
[1] - p < 0.001),	

Adverse events

Adverse events information	
Timeframe for reporting adverse events: T - T10 - T20 - T30	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	21

Reporting groups	
Reporting group title	morphine iv
Reporting group description: -	
Reporting group title	sufentanil
Reporting group description: -	

Serious adverse events	morphine iv	sufentanil	
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 80 (3.75%)	10 / 77 (12.99%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0		
Investigations			
Oxygen saturation decreased			
subjects affected / exposed	1 / 80 (1.25%)	3 / 77 (3.90%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Heart rate decreased			
subjects affected / exposed	0 / 80 (0.00%)	1 / 77 (1.30%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Vascular disorders			
Hypotension			
subjects affected / exposed	1 / 80 (1.25%)	2 / 77 (2.60%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Vomiting			

subjects affected / exposed	1 / 80 (1.25%)	0 / 77 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Hypoxia			
subjects affected / exposed	0 / 80 (0.00%)	1 / 77 (1.30%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypoventilation			
subjects affected / exposed	0 / 80 (0.00%)	1 / 77 (1.30%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Bradypnea			
subjects affected / exposed	0 / 80 (0.00%)	2 / 77 (2.60%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 2 %

Non-serious adverse events	morphine iv	sufentanil	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 80 (1.25%)	0 / 77 (0.00%)	
Gastrointestinal disorders			
NAUSEA			
subjects affected / exposed	1 / 80 (1.25%)	0 / 77 (0.00%)	
occurrences (all)	1	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
13 April 2014	temporary stop of research
23 April 2014	ADDITION OF A SECONDARY OBJECTIVE: 30 "PRE-HOSPITAL" PATIENTS Restart of the research
18 November 2014	opening of a new investigation center, the Saint Jean de Maurienne hospital center and reducing the inclusion objective of two investigation centers, experiencing difficulties recruiting from 30 patients to 20 patients: Voiron hospital center and Hôpital Sud Grenoble
22 October 2015	Addition of a new centre: Services des Urgences du Center Hospitalier d'Albertville, and a new investigator. - Addition of 3 co-investigators at St Jean de Maurienne - Removal of the center of Voiron - Extension of the duration of the study until August 31, 2016.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? Yes

Date	Interruption	Restart date
13 April 2014	under-dosage of Sufentanil vials in the kits	02 October 2014

Notes:

Limitations and caveats

None reported

Online references

http://www.ncbi.nlm.nih.gov/pubmed/31310600