# 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<br>Units: Subjects | | | |
| Adults (18-64 years) | 157 | 157 | |
| Gender categorical<br>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<br>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.<br>- Addition of 3 co-investigators at St Jean de Maurienne<br>- Removal of the center of Voiron<br>- 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