



Clinical trial results:

Chloroprocaine vs prilocaine for spinal anaesthesia in day-case surgery: a double-blind randomized trial

Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2015-001944-13 |
| Trial protocol | NL |
| Global end of trial date | 22 June 2018 |

Results information

| | |
|-----------------------------------|--|
| Result version number | v1 (current) |
| This version publication date | 28 January 2022 |
| First version publication date | 28 January 2022 |
| Summary attachment (see zip file) | Abstract & results (DEF rapm-2019-100673.full.pdf) |

Trial information

Trial identification

| | |
|-----------------------|----------|
| Sponsor protocol code | ZAA15CPP |
|-----------------------|----------|

Additional study identifiers

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

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Zaans Medisch Centrum |
| Sponsor organisation address | Koningin Julianaplein 58, Zaandam, Netherlands, 1502 DV |
| Public contact | Clinical trials information, Zaans Medisch Centrum, wesselink.e@zaansmc.nl |
| Scientific contact | Clinical trials information, Zaans Medisch Centrum, wesselink.e@zaansmc.nl |

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 | 05 May 2018 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 05 May 2018 |
| Global end of trial reached? | Yes |
| Global end of trial date | 22 June 2018 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

To investigate effectiveness of spinal chloroprocaine, and prilocaine in day case surgery. The null hypothesis is that there is no significant intergroup difference in time to complete recovery from motor blockade.

Protection of trial subjects:

METC approval

Background therapy: -

Evidence for comparator: -

| | |
|---|--------------|
| Actual start date of recruitment | 01 July 2015 |
| 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 | Netherlands: 150 |
| Worldwide total number of subjects | 150 |
| EEA total number of subjects | 150 |

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) | 132 |
| From 65 to 84 years | 18 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

150 patients were randomly allocated to receive intrathecally either 40 mg of 2-chloroprocaine or 40 mg of prilocaine.

Pre-assignment

Screening details:

Patients scheduled for knee arthroscopy with spinal anesthesia were eligible for participation in the study if they were 18 years or older and had an American Society of Anesthesiologists' physical status I-II.

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, Carer, Assessor, Investigator |

Arms

| | |
|------------------------------|------------|
| Are arms mutually exclusive? | Yes |
| Arm title | Prilocaine |

Arm description: -

| | |
|--|----------------------------|
| Arm type | Active comparator |
| Investigational medicinal product name | Prilocaine 40 mg |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Solvent for parenteral use |
| Routes of administration | Intrathecal use |

Dosage and administration details:

40 mc intrathecal

| | |
|------------------|----------------|
| Arm title | chloroprocaine |
|------------------|----------------|

Arm description: -

| | |
|--|------------------------|
| Arm type | Active comparator |
| Investigational medicinal product name | chloroprocaine |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Solution for injection |
| Routes of administration | Intratracheal use |

Dosage and administration details:

chloroprocaine 40 mg intrathecal

| Number of subjects in period 1 | Prilocaine | chloroprocaine |
|---------------------------------------|------------|----------------|
| Started | 75 | 75 |
| Completed | 75 | 75 |

Baseline characteristics

Reporting groups

| | |
|--------------------------------|----------------|
| Reporting group title | Prilocaine |
| Reporting group description: - | |
| Reporting group title | chloroprocaine |
| Reporting group description: - | |

| Reporting group values | Prilocaine | chloroprocaine | Total |
|---|------------|----------------|-------|
| Number of subjects | 75 | 75 | 150 |
| Age categorical Units: Subjects | | | |
| In utero | | | 0 |
| Preterm newborn infants (gestational age < 37 wks) | | | 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) | | | 0 |
| From 65-84 years | | | 0 |
| 85 years and over | | | 0 |
| Age continuous Units: years | | | |
| arithmetic mean | 49.8 | 54.0 | |
| standard deviation | ± 11.2 | ± 12.5 | - |
| Gender categorical Units: Subjects | | | |
| Female | 31 | 34 | 65 |
| Male | 44 | 41 | 85 |

Subject analysis sets

| | |
|---|--------------------|
| Subject analysis set title | Prilocaine |
| Subject analysis set type | Intention-to-treat |
| Subject analysis set description: Prilocaine | |
| Subject analysis set title | Chloroprocaine |
| Subject analysis set type | Intention-to-treat |
| Subject analysis set description: Chloroprocaine | |

| Reporting group values | Prilocaine | Chloroprocaine | |
|------------------------------------|------------|----------------|--|
| Number of subjects | 75 | 75 | |
| Age categorical Units: Subjects | | | |
| In utero | | | |

| | | | |
|--|----------------|----------------|--|
| Preterm newborn infants (gestational age < 37 wks) Newborns (0-27 days) Infants and toddlers (28 days-23 months) Children (2-11 years) Adolescents (12-17 years) Adults (18-64 years) From 65-84 years 85 years and over | | | |
| Age continuous Units: years arithmetic mean standard deviation | 49.9 ± 11.2 | 54.0 ± 12.5 | |
| Gender categorical Units: Subjects | | | |
| Female | 31 | 34 | |
| Male | 44 | 41 | |

End points

End points reporting groups

| | |
|-----------------------------------|--------------------|
| Reporting group title | Prilocaine |
| Reporting group description: - | |
| Reporting group title | chloroprocaine |
| Reporting group description: - | |
| Subject analysis set title | Prilocaine |
| Subject analysis set type | Intention-to-treat |
| Subject analysis set description: | |
| Prilocaine | |
| Subject analysis set title | Chloroprocaine |
| Subject analysis set type | Intention-to-treat |
| Subject analysis set description: | |
| Chloroprocaine | |

Primary: Time to full motor block recovery

| | |
|------------------------|-----------------------------------|
| End point title | Time to full motor block recovery |
| End point description: | |
| End point type | Primary |
| End point timeframe: | |
| 15 minutes | |

| End point values | Prilocaine | chloroprocaine | Prilocaine | Chloroprocaine |
|---------------------------------|-----------------|-----------------|----------------------|----------------------|
| Subject group type | Reporting group | Reporting group | Subject analysis set | Subject analysis set |
| Number of subjects analysed | 64 | 73 | 75 | 60 |
| Units: minutes | | | | |
| number (confidence interval 5%) | 75 (60 to 90) | 60 (60 to 82.5) | 75 (60 to 90) | 60 (60 to 82.5) |

| | |
|-----------------------------------|--------------------------------------|
| Attachments (see zip file) | Fig 1. Consort 2010 Flow Diagram.jpg |
|-----------------------------------|--------------------------------------|

Statistical analyses

| | |
|---|-----------------------------|
| Statistical analysis title | Statistics |
| Statistical analysis description: | |
| For all variables, double data entry was used for verification and reconciliation in case of transcription errors and discrepancies caused by illegible data. Categorical variables were summarized per group by means of frequencies and percentages and compared between groups using the chi-square test or using Fisher's exact test in case of an expected cell count below 5. Continuous variables that were normally distributed were summarized by their mean and standard deviation. | |
| Comparison groups | Prilocaine v chloroprocaine |

| | |
|---|--------------------------------|
| Number of subjects included in analysis | 137 |
| Analysis specification | Pre-specified |
| Analysis type | equivalence |
| P-value | < 0.05 |
| Method | Chi-squared |
| Parameter estimate | Mean difference (final values) |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| Variability estimate | Standard deviation |

Adverse events

Adverse events information

Timeframe for reporting adverse events:

7 days postoperative

| | |
|-----------------|------------|
| Assessment type | Systematic |
|-----------------|------------|

Dictionary used

| | |
|-----------------|-----------------|
| Dictionary name | AE_ARTS_E1_C1_1 |
|-----------------|-----------------|

| | |
|--------------------|---|
| Dictionary version | 1 |
|--------------------|---|

Reporting groups

| | |
|-----------------------|------------|
| Reporting group title | Prilocaine |
|-----------------------|------------|

Reporting group description: -

| | |
|-----------------------|----------------|
| Reporting group title | Chloroprocaine |
|-----------------------|----------------|

Reporting group description: -

| Serious adverse events | Prilocaine | Chloroprocaine | |
|--|--|----------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 1 / 75 (1.33%) | 1 / 75 (1.33%) | |
| number of deaths (all causes) | 0 | 0 | |
| number of deaths resulting from adverse events | | | |
| General disorders and administration site conditions | | | |
| Prolonged hospital stay | Additional description: Prolonged hospital stay due to nausea&vomiting or pain | | |
| subjects affected / exposed | 1 / 75 (1.33%) | 1 / 75 (1.33%) | |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |

Frequency threshold for reporting non-serious adverse events: 1.3 %

| Non-serious adverse events | Prilocaine | Chloroprocaine | |
|---|---|----------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 4 / 75 (5.33%) | 2 / 75 (2.67%) | |
| Surgical and medical procedures | | | |
| Conversion to General Anesthesia | Additional description: spinal anesthesia failure | | |
| subjects affected / exposed | 4 / 75 (5.33%) | 2 / 75 (2.67%) | |
| occurrences (all) | 6 | 6 | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|---------------|---|
| 04 March 2017 | age 18-64 was changed to >18 years, this was more representative for the population BMI<30 was changed to 'no BMO' limitations, this was more representative for the population Both inclusion criteria were approved by the METC |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported

Online references

<http://www.ncbi.nlm.nih.gov/pubmed/31439640>