



Clinical trial results:

Randomized double-blind explorative controlled clinical trial analyzing the effects of ferric carboxymaltose in patients with iron deficiency and chronic heart failure

Summary

| | |
|--------------------------|------------------|
| EudraCT number | 2019-003858-85 |
| Trial protocol | AT |
| Global end of trial date | 14 December 2021 |

Results information

| | |
|--------------------------------|-----------------|
| Result version number | v1 (current) |
| This version publication date | 11 October 2022 |
| First version publication date | 11 October 2022 |

Trial information

Trial identification

| | |
|-----------------------|---------|
| Sponsor protocol code | HFIRONT |
|-----------------------|---------|

Additional study identifiers

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

Notes:

Sponsors

| | |
|------------------------------|---|
| Sponsor organisation name | Medical University Innsbruck |
| Sponsor organisation address | Christoph-Probst-Platz 1, Innrain 52, Innsbruck, Austria, 6020 |
| Public contact | Univ. Prof. Dr. Günther Weiss, Medical University Innsbruck, Department of Internal Medicine II, Anichstrasse 35, 6020 IBK, 0043 0512504 23251, guenter.weiss@i-med.ac.at |
| Scientific contact | Univ. Prof. Dr. Günther Weiss, Medical University Innsbruck, Department of Internal Medicine II, Anichstrasse 35, 6020 IBK, 0043 0512504 23251, guenter.weiss@i-med.ac.at |

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 | 14 December 2021 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 14 December 2021 |
| Global end of trial reached? | Yes |
| Global end of trial date | 14 December 2021 |
| Was the trial ended prematurely? | Yes |

Notes:

General information about the trial

Main objective of the trial:

Primary objective of this study is to identify the mechanism(s) underlying the beneficial effects of iron supplementation in iron-deficient patients with CHF.

Protection of trial subjects:

Administration of intravenous iron is considered a safe procedure, but severe hypersensitivity reactions (HSRs) can occur at a very low frequency. However, the frequency of such HSR is less than 0,01 % and comparable with administration of paracetamol or ibuprofen.

Background therapy:

Patients should be on optimized background therapy according to the ESC guidelines 2016 for the diagnosis and treatment of acute and chronic heart failure. Changes or improvement in heart failure medication – if needed – are allowed throughout the study period except for the additional administration of iron preparation. Individually optimized long-term treatment will be recorded as well as relevant concomitant medication, which is intended to treat AEs.

No other investigational product is allowed to be used concomitantly with the study treatment. The patient must not have been administered another investigational product within 30 days before the baseline visit.

Evidence for comparator:

There is no evidence for comparators

| | |
|---|-----------------|
| Actual start date of recruitment | 02 January 2020 |
| 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 | Austria: 2 |
| Worldwide total number of subjects | 2 |
| EEA total number of subjects | 2 |

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) | 2 |
| From 65 to 84 years | 0 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

Candidates for the study will be screened during their scheduled visits at the cardiology ambulance for chronic heart failure (CHF) and concomitant iron deficiency (ID). If the patient meets all the inclusion criteria and none of the exclusion criteria, a baseline visit will be arranged.

Pre-assignment

Screening details:

Candidates for the study will be screened during their scheduled visits at the cardiology ambulance for chronic heart failure (CHF) and concomitant iron deficiency (ID).

Period 1

| | |
|------------------------------|----------------------------|
| Period 1 title | Treatment (overall period) |
| Is this the baseline period? | Yes |
| Allocation method | Randomised - controlled |
| Blinding used | Double blind |
| Roles blinded | Subject, Investigator |

Blinding implementation details:

Randomization will be done by an independent expert at the Institute of Medical Statistics and Informatics applying the permuted block method.

Arms

| | |
|--|---|
| Are arms mutually exclusive? | Yes |
| Arm title | Ferric carboxymaltose |
| Arm description: - | |
| Arm type | Experimental |
| Investigational medicinal product name | Ferric Carboxymaltose |
| Investigational medicinal product code | |
| Other name | Ferinject |
| Pharmaceutical forms | Concentrate and solvent for concentrate for solution for infusion |
| Routes of administration | Intravenous use |

Dosage and administration details:

1000 mg of ferric carboxymaltose (Ferinject®) will be given in 50 mL sterile sodium chloride 0.9 % via perfusor over a period of 60 minutes. It will be provided by the dispensary of the Innsbruck University Hospital in a black perfusor syringe and will be administered via a black perfusion line.

| | |
|--|-----------------------|
| Arm title | Placebo |
| Arm description: - | |
| Arm type | Placebo |
| Investigational medicinal product name | Sodiumchloride 0,9% |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Solution for infusion |
| Routes of administration | Intravenous use |

Dosage and administration details:

Sodium chloride 0.9% will be given via a perfusor over 60 minutes. It will be provided by the dispensary of the Innsbruck University Hospital in a black perfusor syringe and will be administered via a black perfusion line.

| Number of subjects in period 1 | Ferric carboxymaltose | Placebo |
|---------------------------------------|--------------------------|---------|
| Started | 1 | 1 |
| Completed | 1 | 0 |
| Not completed | 0 | 1 |
| Adverse event, serious fatal | - | 1 |

Baseline characteristics

Reporting groups

| | |
|-----------------------|-----------|
| Reporting group title | Treatment |
|-----------------------|-----------|

Reporting group description: -

| Reporting group values | Treatment | Total | |
|---|-----------|-------|--|
| Number of subjects | 2 | 2 | |
| Age categorical | | | |
| 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) | 2 | 2 | |
| From 65-84 years | 0 | 0 | |
| 85 years and over | 0 | 0 | |
| Age continuous | | | |
| Units: years | | | |
| arithmetic mean | 56.5 | | |
| full range (min-max) | 54 to 59 | - | |
| Gender categorical | | | |
| Units: Subjects | | | |
| Female | 0 | 0 | |
| Male | 2 | 2 | |

End points

End points reporting groups

| | |
|--------------------------------|-----------------------|
| Reporting group title | Ferric carboxymaltose |
| Reporting group description: - | |
| Reporting group title | Placebo |
| Reporting group description: - | |

Primary: Blood count

| | |
|---|----------------------------|
| End point title | Blood count ^[1] |
| End point description: We will determine the effects of a single ferric carboxymaltose infusion as compared to placebo administration on blood count including reticulocyte count and reticulocyte hemoglobin content. | |
| End point type | Primary |
| End point timeframe: Screening - follow-up visit 2 | |

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: As only one patient finished this trial no statistical analysis was done.

| End point values | Ferric carboxymaltose | Placebo | | |
|-----------------------------|-----------------------|------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 0 ^[2] | 1 ^[3] | | |
| Units: cell number | | | | |
| number (not applicable) | | 99999 | | |

Notes:

[2] - Patient dropped out of study before end of trial

[3] - "99999" is a value for 0 as no analysis was done

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information^[1]

Timeframe for reporting adverse events:

02.01.2020-14.12.2021

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

Dictionary used

| | |
|-----------------|-------|
| Dictionary name | CTCAE |
|-----------------|-------|

| | |
|--------------------|-----|
| Dictionary version | 5.0 |
|--------------------|-----|

Reporting groups

| | |
|-----------------------|-----------------------|
| Reporting group title | Ferric carboxymaltose |
|-----------------------|-----------------------|

Reporting group description: -

| | |
|-----------------------|---------|
| Reporting group title | Placebo |
|-----------------------|---------|

Reporting group description: -

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: Only two patients were enrolled in this trial. No Adverse Event was observed.

| Serious adverse events | Ferric carboxymaltose | Placebo | |
|---|-----------------------|-----------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 1 (0.00%) | 1 / 1 (100.00%) | |
| number of deaths (all causes) | 0 | 1 | |
| number of deaths resulting from adverse events | 0 | 1 | |
| Infections and infestations | | | |
| COVID-19 pneumonia | | | |
| subjects affected / exposed | 0 / 1 (0.00%) | 1 / 1 (100.00%) | |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 1 | |

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

| Non-serious adverse events | Ferric carboxymaltose | Placebo | |
|---|-----------------------|---------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 0 / 1 (0.00%) | 0 / 1 (0.00%) | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|---------------|--|
| 25 March 2020 | Change from paper-based CRF to electronic CRF |
| 30 March 2020 | Temporary stop of recruitment due to Covid 19 |
| 19 May 2020 | Resumption of recruitment after temporary stop due to Covid 19 |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported