



Clinical trial results:

A Single-arm Uncontrolled 12-month Clinical Study to Evaluate the Safety and Efficacy of Miglustat (Zavesca®) for the Treatment of Niemann-Pick Disease Type C (NPC) in Chinese Subjects

Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2022-002514-16 |
| Trial protocol | Outside EU/EEA |
| Global end of trial date | 29 March 2022 |

Results information

| | |
|--------------------------------|------------------|
| Result version number | v1 (current) |
| This version publication date | 28 December 2022 |
| First version publication date | 28 December 2022 |

Trial information

Trial identification

| | |
|-----------------------|------------|
| Sponsor protocol code | AC-056C405 |
|-----------------------|------------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT03910621 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|---|
| Sponsor organisation name | Actelion Pharmaceuticals Trading (Shanghai) Co., Ltd |
| Sponsor organisation address | Suite 2002-2003, Henderson 688, No. 688 West Nanjing Road, Shanghai, China, 200041 |
| Public contact | Clinical Registry Group, Actelion Pharmaceuticals Trading (Shanghai) Co., Ltd, ClinicalTrialsEU@its.jnj.com |
| Scientific contact | Clinical Registry Group, Actelion Pharmaceuticals Trading (Shanghai) Co., Ltd, ClinicalTrialsEU@its.jnj.com |

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 | 29 March 2022 |
| Is this the analysis of the primary completion data? | No |
| Global end of trial reached? | Yes |
| Global end of trial date | 29 March 2022 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

The main objective of this trial was to evaluate the efficacy of miglustat on the rate of disease progression and disease stabilization in subjects with Niemann-Pick Disease Type C (NPC).

Protection of trial subjects:

This study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and that are consistent with Good Clinical Practices and applicable regulatory requirements.

Background therapy: -

Evidence for comparator: -

| | |
|---|---------------|
| Actual start date of recruitment | 03 April 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 | China: 17 |
| Worldwide total number of subjects | 17 |
| EEA total number of subjects | 0 |

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) | 5 |
| Adolescents (12-17 years) | 7 |
| Adults (18-64 years) | 5 |
| From 65 to 84 years | 0 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Out of the 17 enrolled subjects, 14 subjects completed the study.

Period 1

| | |
|------------------------------|--------------------------------|
| Period 1 title | Overall Study (overall period) |
| Is this the baseline period? | Yes |
| Allocation method | Not applicable |
| Blinding used | Not blinded |

Arms

| | |
|-----------|-----------|
| Arm title | Miglustat |
|-----------|-----------|

Arm description:

Adult and pediatric subjects aged 4 years and older, with established diagnosis of niemann-pick disease type C (NPC) were enrolled and received miglustat 200 milligrams (mg) from Day 1 through Week 52. Adult subjects received miglustat 200 mg thrice daily (t.i.d), while for subjects with mild renal impairment, the starting dose was 200 mg twice daily (b.i.d) and for moderate renal impairment, the starting dose was 200 mg once daily. For subjects with NPC less than 12 years of age, dosage regimen (0.2 grams [g] t.i.d, 0.2 g b.i.d, 0.1 g t.i.d, 0.1 g b.i.d, and 0.1 g once daily) was adjusted based on body surface area (BSA).

| | |
|--|---------------|
| Arm type | Experimental |
| Investigational medicinal product name | Miglustat |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Capsule, hard |
| Routes of administration | Oral use |

Dosage and administration details:

Miglustat 200 mg was administered t.i.d from Day 1 through Week 52. The recommended dose was 200 mg t.i.d. and adjusted according to BSA for children less than 12 years of age.

| Number of subjects in period 1 | Miglustat |
|--------------------------------|-----------|
| Started | 17 |
| Completed | 14 |
| Not completed | 3 |
| Consent withdrawn by subject | 1 |
| Death | 2 |

Baseline characteristics

Reporting groups

| | |
|-----------------------|-----------|
| Reporting group title | Miglustat |
|-----------------------|-----------|

Reporting group description:

Adult and pediatric subjects aged 4 years and older, with established diagnosis of niemann-pick disease type C (NPC) were enrolled and received miglustat 200 milligrams (mg) from Day 1 through Week 52. Adult subjects received miglustat 200 mg thrice daily (t.i.d), while for subjects with mild renal impairment, the starting dose was 200 mg twice daily (b.i.d) and for moderate renal impairment, the starting dose was 200 mg once daily. For subjects with NPC less than 12 years of age, dosage regimen (0.2 grams [g] t.i.d, 0.2 g b.i.d, 0.1 g t.i.d, 0.1 g b.i.d, and 0.1 g once daily) was adjusted based on body surface area (BSA).

| Reporting group values | Miglustat | Total | |
|---|-----------|-------|--|
| Number of subjects | 17 | 17 | |
| 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) | 5 | 5 | |
| Adolescents (12-17 years) | 7 | 7 | |
| Adults (18-64 years) | 5 | 5 | |
| From 65-84 years | 0 | 0 | |
| 85 years and over | 0 | 0 | |
| Age Continuous | | | |
| Units: years | | | |
| arithmetic mean | 15.1 | | |
| standard deviation | ± 6.56 | - | |
| Gender Categorical | | | |
| Units: Subjects | | | |
| Female | 8 | 8 | |
| Male | 9 | 9 | |

End points

End points reporting groups

| | |
|--|-----------|
| Reporting group title | Miglustat |
| Reporting group description: | |
| Adult and pediatric subjects aged 4 years and older, with established diagnosis of niemann-pick disease type C (NPC) were enrolled and received miglustat 200 milligrams (mg) from Day 1 through Week 52. Adult subjects received miglustat 200 mg thrice daily (t.i.d), while for subjects with mild renal impairment, the starting dose was 200 mg twice daily (b.i.d) and for moderate renal impairment, the starting dose was 200 mg once daily. For subjects with NPC less than 12 years of age, dosage regimen (0.2 grams [g] t.i.d, 0.2 g b.i.d, 0.1 g t.i.d, 0.1 g b.i.d, and 0.1 g once daily) was adjusted based on body surface area (BSA). | |

Primary: Change From Baseline to Week 52 in Horizontal Saccadic Eye Movement (HSEM) as Measured by Saccadic Peak Acceleration

| | |
|-----------------|---|
| End point title | Change From Baseline to Week 52 in Horizontal Saccadic Eye Movement (HSEM) as Measured by Saccadic Peak Acceleration ^[1] |
|-----------------|---|

End point description:

Change from baseline to Week 52 in HSEM as measured by saccadic peak acceleration was reported. Saccadic eye movements (SEM) were rapid eye movements under voluntary control (including saccade initiation, speed and extent) that were essential for the normal shifting of focus from one object to another within the visual field. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N' (number of subjects analysed) signifies number of subjects who were evaluable for this endpoint.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Baseline to Week 52

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: No inferential statistics was planned for this primary endpoint.

| End point values | Miglustat | | | |
|---|----------------------|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: degree per square second (deg/sec ²) | | | | |
| arithmetic mean (standard deviation) | 2900.42 (± 1923.432) | | | |

Statistical analyses

No statistical analyses for this end point

Primary: Change From Baseline to Week 52 in HSEM as Measured by Mean Velocity

| | |
|-----------------|---|
| End point title | Change From Baseline to Week 52 in HSEM as Measured by Mean Velocity ^[2] |
|-----------------|---|

End point description:

Change from baseline to Week 52 in HSEM as measured by mean velocity was reported. SEM were rapid eye movements under voluntary control (including saccade initiation, speed and extent) that were

essential for the normal shifting of focus from one object to another within the visual field. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N' (number of subjects analysed) signifies number of subjects who were evaluable for this endpoint.

| | |
|----------------------|---------|
| End point type | Primary |
| End point timeframe: | |
| Baseline to Week 52 | |

Notes:

[2] - 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: No inferential statistics was planned for this primary endpoint.

| | | | | |
|--------------------------------------|------------------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: degree per second (deg/sec) | | | | |
| arithmetic mean (standard deviation) | 8.745 (\pm 21.3558) | | | |

Statistical analyses

No statistical analyses for this end point

Primary: Change From Baseline to Week 52 in HSEM as Measured by Peak Duration

| | |
|-----------------|---|
| End point title | Change From Baseline to Week 52 in HSEM as Measured by Peak Duration ^[3] |
|-----------------|---|

End point description:

Change from baseline to Week 52 in HSEM as measured by peak duration was reported. SEM were rapid eye movements under voluntary control (including saccade initiation, speed and extent) that were essential for the normal shifting of focus from one object to another within the visual field. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N' (number of subjects analysed) signifies number of subjects who were evaluable for this endpoint.

| | |
|----------------------|---------|
| End point type | Primary |
| End point timeframe: | |
| Baseline to Week 52 | |

Notes:

[3] - 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: No inferential statistics was planned for this primary endpoint.

| | | | | |
|--------------------------------------|-------------------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: sec | | | | |
| arithmetic mean (standard deviation) | -4.074 (\pm 11.3309) | | | |

Statistical analyses

No statistical analyses for this end point

Primary: Change From Baseline to Week 52 in HSEM as Measured by Linear Regression Slopes

| | |
|-----------------|--|
| End point title | Change From Baseline to Week 52 in HSEM as Measured by Linear Regression Slopes ^[4] |
|-----------------|--|

End point description:

Change from baseline to Week 52 in HSEM as measured by linear regression slopes was reported. SEM were rapid eye movements under voluntary control (including saccade initiation, speed and extent) that were essential for the normal shifting of focus from one object to another within the visual field. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N' (number of subjects analysed) signifies number of subjects who were evaluable for this endpoint.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Baseline to Week 52

Notes:

[4] - 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: No inferential statistics was planned for this primary endpoint.

| | | | | |
|--------------------------------------|------------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: ms per degree | | | | |
| arithmetic mean (standard deviation) | 0.173 (± 2.0256) | | | |

Statistical analyses

No statistical analyses for this end point

Primary: Change From Baseline to Week 52 in HSEM as Measured by Line Slopes

| | |
|-----------------|---|
| End point title | Change From Baseline to Week 52 in HSEM as Measured by Line Slopes ^[5] |
|-----------------|---|

End point description:

Change from baseline to Week 52 in HSEM as measured by line slopes was reported. SEM were rapid eye movements under voluntary control (including saccade initiation, speed and extent) that were essential for the normal shifting of focus from one object to another within the visual field. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N' (number of subjects analysed) signifies number of subjects who were evaluable for this endpoint.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Baseline to Week 52

Notes:

[5] - 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: No inferential statistics was planned for this primary endpoint.

| | | | | |
|--------------------------------------|------------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: ms/degree | | | | |
| arithmetic mean (standard deviation) | 0.173 (± 2.0256) | | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline to Week 26 and Week 52 in Pineda Disability Scale Score

| | |
|--|--|
| End point title | Change From Baseline to Week 26 and Week 52 in Pineda Disability Scale Score |
| End point description: | |
| Change from baseline to Week 26 and Week 52 in Pineda disability scale score was reported. The changes in Pineda disability scale was a total additive score of 6 items which included ambulation ranged from 1(clumsy)-5(wheelchair-bound), manipulation ranged from 1(tremor)-4(severe dysmetria/dystonia), language ranged from 1(delayed acquisitions)-5(absence of communication), swallowing ranged from 1(abnormal chewing)-4(nasogastric/gastric button feeding), seizures ranged from 1(occasional seizures)-3(seizures resistant to antiepileptic drugs), and ocular movements ranged from 1(slow ocular pursuit)-3(complete ophthalmoplegia). The total score ranged from 0-24, where higher score indicates poorer condition. Full analysis set included all enrolled subjects who completed the screening period. Here, 'N'(number of subjects analysed) signifies number of subjects who were evaluable for this endpoint and 'n'(number analysed) signifies number of subjects evaluable at the specified timepoints. | |
| End point type | Secondary |
| End point timeframe: | |
| Baseline, Week 26, and Week 52 | |

| End point values | Miglustat | | | |
|--------------------------------------|-----------------|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 14 | | | |
| Units: units on a scale | | | | |
| arithmetic mean (standard deviation) | | | | |
| Ambulation: Week 26 (n=14) | 0.0 (± 0.39) | | | |
| Ambulation: Week 52 (n=12) | 0.0 (± 0.43) | | | |
| Manipulation: Week 26 (n=14) | 0.0 (± 0.55) | | | |
| Manipulation: Week 52 (n=12) | -0.1 (± 0.79) | | | |
| Language: Week 26 (n=14) | -0.1 (± 0.27) | | | |
| Language: Week 52 (n=12) | -0.1 (± 0.29) | | | |
| Swallowing: Week 26 (n=14) | -0.6 (± 0.76) | | | |
| Swallowing: Week 52 (n=12) | -0.4 (± 0.79) | | | |
| Seizures: Week 26 (n=14) | -0.1 (± 0.62) | | | |
| Seizures: Week 52 (n=12) | -0.2 (± 0.58) | | | |
| Ocular Movements: Week 26 (n=14) | -0.2 (± 0.43) | | | |
| Ocular Movements: Week 52 (n=12) | -0.4 (± 0.51) | | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects with Treatment-emergent Serious Adverse Events (TESAEs)

| | |
|-----------------|--|
| End point title | Number of Subjects with Treatment-emergent Serious Adverse Events (TESAEs) |
|-----------------|--|

End point description:

A SAE is an AE resulting in any of the following outcomes or deemed significant for any other reason: death; initial or prolonged inpatient hospitalization; life-threatening experience (immediate risk of dying); persistent or significant disability/incapacity; congenital anomaly. An AE is any untoward medical occurrence, i.e., any unfavorable and unintended sign, including an abnormal laboratory finding, symptom, or disease that occurs in a subject during the course of the study, whether or not considered by the investigator as related to study treatment. Treatment-emergent SAEs are defined as serious events between administration of study drug and after the last dose that were absent before treatment or that worsen relative to pretreatment state. The safety set (SS) included all subjects who received at least one dose of miglustat.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Up to Week 52

| | | | | |
|-----------------------------|-----------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 17 | | | |
| Units: subjects | 5 | | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects with Treatment-emergent Adverse Events (TEAEs)

| | |
|-----------------|---|
| End point title | Number of Subjects with Treatment-emergent Adverse Events (TEAEs) |
|-----------------|---|

End point description:

An AE was any untoward medical occurrence, that was, any unfavorable and unintended sign, including an abnormal laboratory finding, symptom, or disease that occurs in a subject during the course of the study, whether or not considered by the investigator as related to study treatment. TEAE was any AE temporally associated with the use of study treatment (from study treatment initiation until 30 days after study treatment discontinuation) whether or not considered by the investigator as related to study treatment. The safety set (SS) included all subjects who received at least one dose of miglustat.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Up to Week 52

| | | | | |
|-----------------------------|-----------------|--|--|--|
| End point values | Miglustat | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 17 | | | |
| Units: subjects | 17 | | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Up to 52 weeks for serious and other (non-serious) adverse events and up to 56 weeks for all-cause mortality

Adverse event reporting additional description:

The safety set (SS) included all subjects who received at least one dose of miglustat.

| | |
|-----------------|----------------|
| Assessment type | Non-systematic |
|-----------------|----------------|

Dictionary used

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|-----------------|--------|
| Dictionary name | MedDRA |
|-----------------|--------|

| | |
|--------------------|------|
| Dictionary version | 19.0 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|-----------|
| Reporting group title | Miglustat |
|-----------------------|-----------|

Reporting group description:

Adult and pediatric subjects aged 4 years and older, with established diagnosis of niemann-pick disease type C (NPC) were enrolled and received miglustat 200 milligrams (mg) from Day 1 through Week 52. Adult subjects received miglustat 200 mg thrice daily (t.i.d), while for subjects with mild renal impairment, the starting dose was 200 mg twice daily (b.i.d) and for moderate renal impairment, the starting dose was 200 mg once daily. For subjects with NPC less than 12 years of age, dosage regimen (0.2 grams [g] t.i.d, 0.2 g b.i.d, 0.1 g t.i.d, 0.1 g b.i.d, and 0.1 g once daily) was adjusted based on body surface area (BSA).

| Serious adverse events | Miglustat | | |
|--|--|--|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 5 / 17 (29.41%) | | |
| number of deaths (all causes) | 2 | | |
| number of deaths resulting from adverse events | | | |
| General disorders and administration site conditions | | | |
| Accidental death | Additional description: Accidental death | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 1 | | |
| Respiratory, thoracic and mediastinal disorders | | | |
| Asphyxia | Additional description: Asphyxia | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 1 | | |
| Skin and subcutaneous tissue disorders | | | |
| Henoch-Schonlein purpura | Additional description: Henoch-Schonlein purpura | | |

| | | | |
|---|--------------------------------------|--|--|
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Infections and infestations | | | |
| Pneumonia | Additional description: Pneumonia | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Metabolism and nutrition disorders | | | |
| Malnutrition | Additional description: Malnutrition | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 0 | | |

Frequency threshold for reporting non-serious adverse events: 0 %

| | | | |
|---|--|--|--|
| Non-serious adverse events | Miglustat | | |
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 17 / 17 (100.00%) | | |
| General disorders and administration site conditions | | | |
| Influenza like illness | Additional description: Influenza like illness | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Pyrexia | Additional description: Pyrexia | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 2 | | |
| Reproductive system and breast disorders | | | |
| Menstrual disorder | Additional description: Menstrual disorder | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 2 | | |
| Respiratory, thoracic and mediastinal disorders | | | |
| Epistaxis | Additional description: Epistaxis | | |
| subjects affected / exposed | 3 / 17 (17.65%) | | |
| occurrences (all) | 9 | | |
| Psychiatric disorders | | | |

| | | | |
|--|---|--|--|
| Insomnia subjects affected / exposed occurrences (all) | Additional description: Insomnia | | |
| | 2 / 17 (11.76%) | | |
| | 2 | | |
| Mental disorder subjects affected / exposed occurrences (all) | Additional description: Mental disorder | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| Investigations Blood potassium increased subjects affected / exposed occurrences (all) Weight decreased subjects affected / exposed occurrences (all) | Additional description: Blood potassium increased | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| | Additional description: Weight decreased | | |
| | 2 / 17 (11.76%) | | |
| | 2 | | |
| Injury, poisoning and procedural complications Ligament sprain subjects affected / exposed occurrences (all) | Additional description: Ligament sprain | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| Congenital, familial and genetic disorders Niemann-Pick disease subjects affected / exposed occurrences (all) | Additional description: Niemann-Pick disease | | |
| | 2 / 17 (11.76%) | | |
| | 2 | | |
| Nervous system disorders Amnesia subjects affected / exposed occurrences (all) Dizziness subjects affected / exposed occurrences (all) Epilepsy subjects affected / exposed occurrences (all) Muscle tone disorder subjects affected / exposed occurrences (all) Paraesthesia | Additional description: Amnesia | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| | Additional description: Dizziness | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| | Additional description: Epilepsy | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| | Additional description: Muscle tone disorder | | |
| | 1 / 17 (5.88%) | | |
| | 1 | | |
| | Additional description: Paraesthesia | | |

| | | | |
|--------------------------------------|---|--|--|
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Tremor | Additional description: Tremor | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 2 | | |
| Blood and lymphatic system disorders | | | |
| Leukocytosis | Additional description: Leukocytosis | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 2 | | |
| Neutrophilia | Additional description: Neutrophilia | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Thrombocytopenia | Additional description: Thrombocytopenia | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Ear and labyrinth disorders | | | |
| Vertigo | Additional description: Vertigo | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 2 | | |
| Gastrointestinal disorders | | | |
| Anal incontinence | Additional description: Anal incontinence | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 7 | | |
| Abdominal pain | Additional description: Abdominal pain | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 3 | | |
| Diarrhoea | Additional description: Diarrhoea | | |
| subjects affected / exposed | 12 / 17 (70.59%) | | |
| occurrences (all) | 24 | | |
| Haemorrhoids | Additional description: Haemorrhoids | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Mouth ulceration | Additional description: Mouth ulceration | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Nausea | Additional description: Nausea | | |

| | | | |
|---|---|--|--|
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Vomiting | Additional description: Vomiting | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Hepatobiliary disorders | | | |
| Hepatic function abnormal | Additional description: Hepatic function abnormal | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 2 | | |
| Skin and subcutaneous tissue disorders | | | |
| Eczema | Additional description: Eczema | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Henoch-Schonlein purpura | Additional description: Henoch-Schonlein purpura | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Renal and urinary disorders | | | |
| Haematuria | Additional description: Haematuria | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Musculoskeletal and connective tissue disorders | | | |
| Muscle spasms | Additional description: Muscle spasms | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Infections and infestations | | | |
| Large intestine infection | Additional description: Large intestine infection | | |
| subjects affected / exposed | 2 / 17 (11.76%) | | |
| occurrences (all) | 2 | | |
| Tonsillitis | Additional description: Tonsillitis | | |
| subjects affected / exposed | 1 / 17 (5.88%) | | |
| occurrences (all) | 1 | | |
| Upper respiratory tract infection | Additional description: Upper respiratory tract infection | | |
| subjects affected / exposed | 7 / 17 (41.18%) | | |
| occurrences (all) | 18 | | |
| Metabolism and nutrition disorders | | | |

| | | | |
|--|--|--|--|
| Hyperuricaemia subjects affected / exposed occurrences (all) | Additional description: Hyperuricaemia | | |
| | 4 / 17 (23.53%) | | |
| | 7 | | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|---------------|---|
| 25 March 2020 | The purpose of this amendment was to add an additional choice of laboratory for genetic test that confirms the Niemann-Pick Disease Type C (NPC) disease diagnosis. |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported