



Clinical trial results: CANnabidiol for Behavioural Symptoms in Alzheimer's Disease Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2019-002106-52 |
| Trial protocol | GB |
| Global end of trial date | 24 May 2022 |

Results information

| | |
|-----------------------------------|---|
| Result version number | v1 (current) |
| This version publication date | 30 July 2023 |
| First version publication date | 30 July 2023 |
| Summary attachment (see zip file) | Data report (Clinical Study Report CANBiS-AD Version 1_7.7.2023 FINAL.docx) |

Trial information

Trial identification

| | |
|-----------------------|-----------|
| Sponsor protocol code | CANBiS-AD |
|-----------------------|-----------|

Additional study identifiers

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

Notes:

Sponsors

| | |
|------------------------------|---|
| Sponsor organisation name | King's College London |
| Sponsor organisation address | The Strand, London, United Kingdom, WC2R 2LS |
| Public contact | Dr Latha Velayudhan, King's College London, +44 02078480508, latha.velayudhan@kcl.ac.uk |
| Scientific contact | Dr Latha Velayudhan, King's College London, +44 02078480508, latha.velayudhan@kcl.ac.uk |
| Sponsor organisation name | South London and Maudsley NHS Foundation Trust |
| Sponsor organisation address | Denmark Hill, London, United Kingdom, SE5 8AZ |
| Public contact | Dr Latha Velayudhan, King's College London, +44 02078480508, latha.velayudhan@kcl.ac.uk |
| Scientific contact | Dr Latha Velayudhan, King's College London, +44 02078480508, latha.velayudhan@kcl.ac.uk |

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 | 04 July 2022 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 24 May 2022 |
| Global end of trial reached? | Yes |
| Global end of trial date | 24 May 2022 |
| Was the trial ended prematurely? | Yes |

Notes:

General information about the trial

Main objective of the trial:

(i)Acceptability: To investigate the acceptability of the randomisation procedure and delivery of the intervention (CBD or placebo in capsule form) to the AD patients and carers (recruitment rates).

(ii)Retention: To measure the study retention rate (follow-up rates).

(iii)Compliance: To assess compliance with treatment (adherence).

Protection of trial subjects:

Category of withdrawal I (Voluntary withdrawal) - As per the Declaration of Helsinki, all participants will have the right to withdraw from the study at any time without giving any reason without any prejudice to their future medical care and will be informed as such.

An independent Data Monitoring Committee (DMC) will be constituted to act in an advisory capacity to meet regularly (at approximately 6 monthly intervals) to review accumulating data and to monitor patient safety and outcome

Background therapy: -

Evidence for comparator: -

| | |
|---|-------------|
| Actual start date of recruitment | 20 May 2021 |
| 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 | United Kingdom: 16 |
| Worldwide total number of subjects | 16 |
| EEA total number of subjects | 16 |

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) | 1 |
| From 65 to 84 years | 15 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details: -

Pre-assignment period milestones

| | |
|----------------------------|-------------------|
| Number of subjects started | 22 ^[1] |
|----------------------------|-------------------|

| | |
|------------------------------|----|
| Number of subjects completed | 15 |
|------------------------------|----|

Pre-assignment subject non-completion reasons

| | |
|----------------------------|----------------|
| Reason: Number of subjects | Screen fail: 6 |
|----------------------------|----------------|

| | |
|----------------------------|-----------------------|
| Reason: Number of subjects | Physician decision: 1 |
|----------------------------|-----------------------|

Notes:

[1] - The number of subjects reported to have started the pre-assignment period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: 1 participant withdrew after randomisation but before any study procedures so was not included in the analysis.

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 |
|---------------|-----------------------|

Arms

| | |
|------------------------------|-----|
| Are arms mutually exclusive? | Yes |
|------------------------------|-----|

| | |
|-----------|---------|
| Arm title | CBD arm |
|-----------|---------|

Arm description: -

| | |
|----------|--------------|
| Arm type | Experimental |
|----------|--------------|

| | |
|--|-------------|
| Investigational medicinal product name | cannabidiol |
|--|-------------|

| | |
|--|--|
| Investigational medicinal product code | |
|--|--|

| | |
|------------|--|
| Other name | |
|------------|--|

| | |
|----------------------|---------------|
| Pharmaceutical forms | Capsule, hard |
|----------------------|---------------|

| | |
|--------------------------|----------|
| Routes of administration | Oral use |
|--------------------------|----------|

Dosage and administration details:

Within the CBD arm, all patients will start on 200 mg/day and thereafter they will receive an increased dose of 400 mg/day from day 8 and 600mg/day from day 15. If a patient begins to experience intolerable side effects, the dose will be dropped to the last tolerated dose.

| | |
|-----------|---------|
| Arm title | placebo |
|-----------|---------|

Arm description: -

| | |
|----------|---------|
| Arm type | Placebo |
|----------|---------|

| | |
|--|---------|
| Investigational medicinal product name | placebo |
|--|---------|

| | |
|--|--|
| Investigational medicinal product code | |
|--|--|

| | |
|------------|--|
| Other name | |
|------------|--|

| | |
|----------------------|---------------|
| Pharmaceutical forms | Capsule, hard |
|----------------------|---------------|

| | |
|--------------------------|----------|
| Routes of administration | Oral use |
|--------------------------|----------|

Dosage and administration details:

Placebo arm patients will receive identical number of capsules over the study period.

| Number of subjects in period 1 ^[2] | CBD arm | placebo |
|--|---------|---------|
| | | |
| Started | 8 | 7 |
| Completed | 8 | 7 |

Notes:

[2] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: 1 participant withdrew after randomisation but before any study procedures so was not included in the analysis.

Baseline characteristics

Reporting groups

Reporting group title

Overall Trial

Reporting group description: -

| Reporting group values | Overall Trial | Total | |
|---|---------------|-------|--|
| Number of subjects | 15 | 15 | |
| 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 | 77.91 | | |
| standard deviation | ± 0.08 | - | |
| Gender categorical | | | |
| Units: Subjects | | | |
| Female | 1 | 1 | |
| Male | 14 | 14 | |

End points

End points reporting groups

| | |
|--------------------------------|---------|
| Reporting group title | CBD arm |
| Reporting group description: - | |
| Reporting group title | placebo |
| Reporting group description: - | |

Primary: Overall adherence

| | |
|------------------------|----------------------------------|
| End point title | Overall adherence ^[1] |
| End point description: | |

| | |
|-------------------------|---------|
| End point type | Primary |
| End point timeframe: | |
| Randomisation to week 6 | |

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 statistical analysis

| End point values | CBD arm | placebo | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 8 | 7 | | |
| Units: Retention Rate | 8 | 7 | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Screening to day 71

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

Dictionary used

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

| | |
|--------------------|----|
| Dictionary version | 26 |
|--------------------|----|

Reporting groups

| | |
|-----------------------|---------|
| Reporting group title | CBD arm |
|-----------------------|---------|

Reporting group description: -

| | |
|-----------------------|---------|
| Reporting group title | placebo |
|-----------------------|---------|

Reporting group description: -

| Serious adverse events | CBD arm | placebo | |
|---|---------------|----------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 8 (0.00%) | 1 / 7 (14.29%) | |
| number of deaths (all causes) | 0 | 0 | |
| number of deaths resulting from adverse events | 0 | 0 | |
| Injury, poisoning and procedural complications | | | |
| Fall | | | |
| subjects affected / exposed | 0 / 8 (0.00%) | 1 / 7 (14.29%) | |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | |

Frequency threshold for reporting non-serious adverse events: 1 %

| Non-serious adverse events | CBD arm | placebo | |
|---|----------------|----------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 6 / 8 (75.00%) | 1 / 7 (14.29%) | |
| Investigations | | | |
| liver enzymes raised | | | |
| subjects affected / exposed | 1 / 8 (12.50%) | 0 / 7 (0.00%) | |
| occurrences (all) | 2 | 0 | |
| Nervous system disorders | | | |
| Dizziness | | | |

| | | | |
|---|--|--|--|
| subjects affected / exposed occurrences (all) | 2 / 8 (25.00%) 5 | 0 / 7 (0.00%) 0 | |
| Gastrointestinal disorders Nausea subjects affected / exposed occurrences (all) | 1 / 8 (12.50%) 1 | 1 / 7 (14.29%) 1 | |
| Psychiatric disorders Depression subjects affected / exposed occurrences (all) Somnolence subjects affected / exposed occurrences (all) | 1 / 8 (12.50%) 1 1 / 8 (12.50%) 2 | 0 / 7 (0.00%) 0 0 / 7 (0.00%) 0 | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|-------------------|---|
| 01 April 2020 | Protocol v3.0 submitted in response to REC comments |
| 28 September 2021 | IMPD updated to extend capsule shelf life |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? Yes

| Date | Interruption | Restart date |
|------------------|---|-----------------|
| 01 December 2021 | The study had a brief pause in recruitment for about 8 weeks (Dec 2021 to Jan 2022) due to delays in approval and re-labelling and shipment of IMP supply. The overall delay in study start meant tight limitations for recruitment and IMP expiry (30th April 2022). This meant the final recruitment date for the study was 18th March 2022 to ensure that the patient recruited on that date completed the trial by the 30th of April 2022 | 31 January 2022 |

Notes:

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

We faced a number of challenges due to multiple waves of the COVID-19 pandemic and risk to potential trial participants, who were already vulnerable to covid because of their age and co-morbid health conditions.

Notes: