A retrospective parallel group dual-cohort study of the German Pain e-Registry on the efficacy and safety of CBD-rich oral cannabis extract vs. THC/dronabinol in older patients with therapy-resistant or chronic pain "CARE"

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Study Finalised

Administrative details

EU PAS number

EUPAS1000000490

Study ID

1000000490

DARWIN EU® study

No

Study countries

Germany

Study description

CARE is a non-interventional, retrospective analysis of depersonalized data from the German Pain e-Registry, in which routine data from everyday care are used to evaluate the efficacy and tolerability of cannabis-based medications in older adults with intractable pain.

The primary characteristic of the treatment documentation is the prescription of CBD-rich (i.e. CBD content > THC content) oral extracts or dronabinol/THC for the treatment of therapy-resistant ± chronic pain within the scope of the Glaw to amend narcotics and other regulations (§ 31 (6) SGB V) and the use of the online documentation software iDocLive® for standardized observation of the course of treatment in accordance with usual care standards.

As the treatment-justifying indication for the present evaluation, both parties agree on the presence of pain that is difficult to treat by other means (in accordance with the legal requirements for the use of cannabis-based drugs).

To ensure comparable baseline findings, a so-called propensity score matching (PSM) is carried out, in which each patient treated with dronabinol/THC is matched with a patient treated with a CBD-rich oral extract [with regard to age, sex, pain phenotype, duration of illness, severity of impairment, chronicity stage and analgesic co-medication (ATC group)] comparable patient is assigned to each patient treated with dronabinol/THC in a so-called “1:1 matching” (caliper 0.15, “without replacement”).

All analyses are exploratory. The primary endpoint is the absence of treatment discontinuation due to an ADR in conjunction with clinically relevant relief of pain and pain-related impairments in daily life (each with an improvement of at least 20 mm VAS and/or 30% vs. BL).

Study status

Finalised

Research institutions and networks

Institutions

O.Meany-MDPM

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Institution

Contact details

Study institution contact

Michael Ueberall michael.ueberall@omeany.de

Study contact

michael.ueberall@omeany.de

Primary lead investigator

Michael Ueberall

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 15/12/2024

Actual: 15/12/2024

Study start date

Planned: 02/01/2025

Actual: 02/01/2025

Data analysis start date
Planned: 02/01/2025

Actual: 02/01/2025

Date of final study report
Planned: 24/01/2025

Actual: 24/01/2025

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

IFNAP

private Institute of Neurological Sciences

Nordostpark 51

90411 Nürnberg

STADAPHARM GmbH

Stadastraße 2-18

61118 Bad Vilbel

Deutschland

Regulatory

Was the study required by a regulatory body?

No

Is the study required by a Risk Management Plan (RMP)?

Not applicable

Methodological aspects

Study type

Study type list

Study topic:

Human medicinal product

Study type:

Non-interventional study

Scope of the study:

Effectiveness study (incl. comparative)

Data collection methods:

Secondary use of data

Study design:

Retrospective, non-interventional evaluation of depersonalized routine-data provided by the German Pain e-Registry.

Main study objective:

Main objective of this non-interventional study is the comparative evaluation of safety, tolerability and efficacy of either CBD-rich cannabinoid full-spectrum extracts vs. pure THC/dronabinol extracts in elderly patients suffereing from chronic and elsewhere difficult-to-treat pain in daily practice.
For this purpose routine-data of the German Pain e-Registry were mirrored according to defined in- and exclusion criteria, depersonalized and stratified into two treatment cohorts. To ensure comparable baseline findings, a so-called propensity score matching (PSM) is carried out, in which each patient treated with dronabinol/THC is matched with a patient treated with a CBD-rich oral extract [with regard to age, sex, pain phenotype, duration of illness, severity of impairment (according to von Korff), chronicity stage (according to the Mainz stage model) and analgesic co-medication (ATC group)] comparable patient is assigned to each patient treated with dronabinol/THC in a so-called “1:1 matching” (caliper 0.15, “without replacement”) (Note: Patients for whom no suitable “partner” from the other treatment group can be found in the PSM are excluded from the analysis without replacement; a PSM carried out on the basis of the above-mentioned target criteria on December 1, 2024 identified 484 evaluable patients with at least 6-month follow-up data for each of the two comparison groups).
In addition to demographics and baseline data, treatment-related changes in pain intensity (least, mean, greatest 24-h pain intensity values, 24-h pain index - PIX), pain-related impairments (modified Pain Disability Index, mPDI), pain-related impairments of mood and affect (DASS-21, areas of depressiveness, anxiety and stress), pain-related restrictions on quality of life (Quality-of-Life Impairment by Pain Inventory, QLIP), as well as the daily cannabis dose and the need for or intake of other analgesics and co-analgesics for three evaluation points: baseline (i.e. immediately before the start of cannabis therapy) and at the end of months 3 and 6 under treatment.

Study Design

Non-interventional study design

Cohort

Study drug and medical condition

Medicinal product name, other

CBD>THC-full spectrum extract; THC/Dronabinol

Study drug International non-proprietary name (INN) or common name

CANNABIDIOL

DRONABINOL

Population studied

Short description of the study population

Elderly patients (65 years of age or higher) with chronic and otherwise difficult-to-treat chronic pain

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Age groups

- Elderly (≥ 65 years)
    - Adults (65 to < 75 years)
    - Adults (75 to < 85 years)
    - Adults (85 years and over)

Estimated number of subjects

968

Study design details

Setting

Patient data were split according to the cannabinoid treatments received and matched (as defined above) to harmonize them with respect to baseline parameters.

Comparators

This study aims to compare the safety, tolerability and efficacy of a cannabinoid-based analgesic medication either with CBD>THC full spectrum oral extracts or pure THC/dronabinol over a period of 6 months.

Outcomes

The primary endpoint is the absence of treatment discontinuation due to an ADR in conjunction with clinically relevant relief of pain (PIX) and pain-related impairment (mPDI; each with an improvement of at least 20 mm VAS and/or 30% vs. BL).
All other efficacy parameters will be evaluated as secondary endpoints.
The primary endpoint will be evaluated for the “as observed” data set (AOD) and as part of a sequential non-inferiority - superiority analysis). All other evaluations are based on a “last-observation carried forward” (for values “missing at random”, MAR) or “baseline observation carried forward” (for values “missing not at random”, MNAR; e.g. due to treatment discontinuation due to an adverse drug reaction) data set (LOCF/BOCF).

Data analysis plan

The primary endpoint will be evaluated for the “as observed” data set (AOD) and as part of a sequential non-inferiority - superiority analysis). All other evaluations are based on a “last-observation carried forward” (for values “missing at random”, MAR) or “baseline observation carried forward” (for values “missing not at random”, MNAR; e.g. due to treatment discontinuation due to an adverse drug reaction) data set (LOCF/BOCF). All analyses base on a

comparison of end of month 6 data vs. baseline.

Data management

ENCePP Seal

The use of the ENCePP Seal has been discontinued since February 2025. The ENCePP Seal fields are retained in the display mode for transparency but are no longer maintained.

Data sources

Data source(s), other

German Pain e-Registry

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Yes

Check completeness

Yes

Check stability

Yes

Check logical consistency

Yes

Data characterisation

Data characterisation conducted

No