# Rehabilitation treatment in patients with back pain

Submission date	Recruitment status	Prospectively registered
14/12/2018	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
30/01/2019	Completed	☐ Results
Last Edited	Condition category	Individual participant data
30/01/2019	Musculoskeletal Diseases	<ul><li>Record updated in last year</li></ul>

#### Plain English summary of protocol

Background and study aims

One of the most common causes of back pain disease is low back pain (LBP). Low back pain creates significant social and economic problems for many people. Approximately 60-80 % of people suffer from low back pain at least once in their life.. Our goal is to test how well works the rehabilitation in the treatment of these patients.

#### Who can participate

Adults with low back pain, who are patients of our Rehabilitation Institute.

#### What does the study involve

Our patients stay in our facility for 4-6 weeks. During these weeks they will get this treatment: all patients will receive at least five individual 30-minute rehabilitation exercise per week. They will also undergo twelve 30-minute group exercise sessions per week in a gymnasium and swimming pool. In addition patients will receive other therapies, i.e., electrotherapy, hydrotherapy, and massages.

Before and after the treatment we will measure some values using methods called posturography and plantography. All we need patients to do is to stay unsupported for 30 seconds. We will compare the results before and after treatment.

Patients will be also asked to label the level of the pain on the scale before and after the treatment.

#### What are the possible benefits and risks

Patients can benefit from this study by experiencing relief from the low back pain, body posture and stability improvement. Others may benefit in the future from the information we find in this study.

We don't expect any direct risk to the patients.

Where is the study run from

Rehabilitation Institut Brandýs nad Orlicí, Czech republic.

When is the study starting and how long is it expected to run 01/01/2017 to 30/06/2018.

Who is funding the study

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Who is the main contact
Jiri Duchacek, sekretariat@rehabilitacniustav.cz, +420 465 544 207

### Contact information

#### Type(s)

Public

#### Contact name

Mr Jiří Ducháček

#### Contact details

Lázeňská 58
Brandýs nad Orlicí
Czech Republic
56112
+420 465 544 207
sekretariat@rehabilitacniustav.cz

## Additional identifiers

**EudraCT/CTIS** number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers 3/2018

## Study information

#### Scientific Title

Efficacy of Rehabilitation Exercise and Treatment of Patients with Chronic Low Back Pain measured by posturography and plantography before and after the treatment

#### Study objectives

Evaluation of efficacy of our special rehabilitation treatment (INFINITY Method) measured by posturography and plantography before and after the treatment

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Ethics Committee of the Rehabilitation Institute Brandys nad Orlici, 01/02/2017

#### Study design

Interventional, non-randomsied

#### Primary study design

Interventional

#### Secondary study design

Non randomised study

#### Study setting(s)

Hospital

#### Study type(s)

Treatment

#### Participant information sheet

Not available in web format, please use contact details to request a participant information sheet.

#### Health condition(s) or problem(s) studied

Chronic low back pain

#### **Interventions**

All patients were hospitalized in our Rehabilitation Institute for 4-6 weeks and underwent:

- 1. At least five individual 30-minute special rehabilitation sessions per week
- 2. Six 30-minute group exercise sessions per week in a gymnasium and swimming pool

The INFINITY method is a rehabilitation approach based on neurophysiology, biomechanics, and anatomy. This Process encourages adjustment of the postural control system of the body, which gradually improves balance and symmetrization of the whole body in space, thus creating a precondition for better quality and more efficient movement. The rehabilitation is aimed at stabilizing, strengthening, and stretching of the thoracic, back, and abdominal muscles, including deep stabilizing system (DSS) with connection to diaphragmatic breathing. At the same time, the INFINITY method® enables increased mobility and flexibility via relaxation, stretching, mobilization and release of soft tissues of the musculoskeletal system. This rehabilitation approach uses active and passive exercises with supportive therapies including breathing exercises.

There was no participant follow-up.

#### Intervention Type

Other

#### Primary outcome measure

Objective posturography will be measured using the following parameters at at the baseline and after 4 weeks of treatment:

- 1. Feet parallel, eyes open (cm)- area before 2.76, area after 2.23
- 2. Feet parallel, eyes closed (cm)- area before 3.09, area after 2.40

#### Secondary outcome measures

Subjective pain reduction will be measured using the visual analogue scale (VAS) at baseline and after 4 weeks of treatment.

#### Overall study start date

01/01/2017

#### Completion date

30/06/2018

## **Eligibility**

#### Key inclusion criteria

- 1. Clinical diagnosis of low back pain
- 2. Confirmation of degenerative disease of lumbar spine by the MRI
- 3. The ability to stay unsupported for 30 seconds

#### Participant type(s)

**Patient** 

#### Age group

Mixed

#### Sex

Both

### Target number of participants

331

#### Key exclusion criteria

1. Immobile patients

#### Date of first enrolment

30/06/2017

#### Date of final enrolment

31/10/2017

#### Locations

#### Countries of recruitment

Czech Republic

#### Study participating centre Rehabilitation Institut Brandys nad Orlici

Lazenska 58

Brandys nad Orlici

## Sponsor information

#### Organisation

Rehabilitation Institut Brandys nad Orlici

#### Sponsor details

Lazenska 58
Brandys nad Orlici
Czech Republic
56112
+420 465 544 031
sekretariat@rehabilitacniustav.cz

#### Sponsor type

Hospital/treatment centre

#### Website

https://www.rehabilitacniustav.cz/cs

## Funder(s)

#### Funder type

Hospital/treatment centre

#### **Funder Name**

Rehabilitation Institut Brandys nad Orlici

#### **Results and Publications**

#### Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal.

#### Intention to publish date

30/06/2019

#### Individual participant data (IPD) sharing plan

The data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date