# Quantitative sensory testing of pain hypersensitivity in chronic pain patients

Published: 15-08-2018 Last updated: 12-04-2024

The primary goal of this pilot is to study the chronic pain patient population with respect to the prevalence of central sensitization measured with eQST measurements.

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typePeripheral neuropathiesStudy typeObservational non invasive

## **Summary**

#### ID

NL-OMON46511

Source

**ToetsingOnline** 

**Brief title** QST study

#### Condition

Peripheral neuropathies

#### **Synonym**

Central sensitization and pain hypersensityity

#### Research involving

Human

## **Sponsors and support**

**Primary sponsor:** Sint Antonius Ziekenhuis

Source(s) of monetary or material Support: Ministerie van OC&W

#### Intervention

**Keyword:** Chronic pain, Pain hypersensitivty, Quantitative sensory testing

1 - Quantitative sensory testing of pain hypersensitivity in chronic pain patients 6-05-2025

## **Outcome measures**

#### **Primary outcome**

Electrical Quantitative Sensory Testing (eQST): Electrical Pain Detection

Threshold (EPDT) [mA]

#### **Secondary outcome**

Subject characteristics (i.e age, gender, body mass index, employment status).

# **Study description**

### **Background summary**

Chronic pain is known to be a major influence in a patient\*s life. Chronic pain can lead to pain hypersensitivity, however still little is known about the underlying mechanism and makes it difficult to determine an appropriate treatment. Quantitative sensory testing (QST) is a psychophysical method used to quantify somatosensory function and to test the integrity of the peripheral and central nervous system. Assessment of nociceptive thresholds (e.g., detection threshold or pain tolerance thresholds) using various modalities (e.g., electrical, thermal or mechanical) allows observation of sensory processing under normal and pathophysiological conditions. The aim of this pilot study is to get insight in the prevalence of pain hypersensitivity in pain patients compared to healthy subjects. We will examine the feasibility of this approach which is intended to be used in a larger scale study, focused on subject characteristics and the relation with sensitization phenomena.

## **Study objective**

The primary goal of this pilot is to study the chronic pain patient population with respect to the prevalence of central sensitization measured with eQST measurements.

#### Study design

Single-centre, prospective, observational pilot study.

#### Study burden and risks

There are no risks associated with the study, given the non-invasive nature of

2 - Quantitative sensory testing of pain hypersensitivity in chronic pain patients 6-05-2025

the measurements.

## **Contacts**

#### **Public**

Sint Antonius Ziekenhuis

Koekoekslaan 1 Nieuwegein 3435CM NL

Scientific

Sint Antonius Ziekenhuis

Koekoekslaan 1 Nieuwegein 3435CM NL

## **Trial sites**

## **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

#### Age

Adults (18-64 years) Elderly (65 years and older)

## **Inclusion criteria**

Patients:

Chronic pain (>3 months) Lumbar spine related pain Age: >18 years old;Controls:

Pain free

Age: >18 years old

## **Exclusion criteria**

Pregnancy
Diabetes Mellitus
Alcohol or drug abuse
Implantable cardioverter defibrillator or pacemaker
Incapable of controlling device
Language barrier

# Study design

## **Design**

Study type: Observational non invasive

Intervention model: Other

Allocation: Non-randomized controlled trial

Masking: Open (masking not used)

Control: Active

Primary purpose: Diagnostic

## Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 28-09-2018

Enrollment: 200

Type: Actual

## Medical products/devices used

Generic name: NociTRACK AmbuStim

Registration: No

## **Ethics review**

Approved WMO

Date: 15-08-2018

Application type: First submission

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

# **Study registrations**

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

Register ID

CCMO NL65160.100.18