# The optimal treatment of odontoid fractures in the elderly: A prospective study.

Published: 25-09-2012 Last updated: 15-05-2024

Odontoid fractures are the most common cervical spine fractures in the elderly. However, the optimal treatment of this condition is still subject to controversy. The goal of this study is to assess fracture union/stability and clinical outcome after...

**Ethical review** Approved WMO

**Status** Recruitment stopped

**Health condition type** Nervous system, skull and spine therapeutic procedures

**Study type** Observational invasive

# **Summary**

#### ID

NL-OMON25295

Source

NTR

**Brief title** 

**INNOVATE Trial** 

## **Condition**

Nervous system, skull and spine therapeutic procedures

#### **Synonym**

Dens fractures

#### **Health condition**

Odontoid fractures in the elderly

#### Research involving

Human

## **Sponsors and support**

Primary sponsor: Leiden University Medical Center, Leiden, The Netherlands

Source(s) of monetary or material Support: EuroSpine

## Intervention

#### **Outcome measures**

## **Primary outcome**

1. Osseous union; 2. Fracture stability; 3. Clinical outcome (NDI). **Secondary outcome** 

- 1. MDI; 2. VAS neck pain score; 3. SF-36; 4. EQ5D;
- 5. DS14;
- 6. IPQ-K;
- 7. Fracture gap;
- 8. Fracture angulation;
- 9. Grade of osteoporosis in C2;
- 10. Grading of degeneration in C0-C2 joints;
- 11. Complications;
- 12. Secondary interventions.

# **Study description**

#### **Background summary**

Patients meeting the inclusion criteria will be asked to participate. The treatment will be based on the treating surgeon's preference and can be either surgical or conservative. The goal of this study is to assess fracture union/stability and clinical outcome after the different treatments. Seventeen centres from eight different countries have agreed to participate (The Netherlands, Austria, Germany, Spain, United Kingdom, Sweden, Belgium, Italy).

## **Study objective**

Odontoid fractures are the most common cervical spine fractures in the elderly. However, the optimal treatment of this condition is still subject to controversy. The goal of this study is to assess fracture union/stability and clinical outcome after surgical and conservative treatments for odontoid fractures in the elderly.

## Study design

Follow-up moments are scheduled at 6, 12, 26, 52 and 104 weeks after the start of treatment.

#### Intervention

- 1. Surgical treatment (anterior odontoid screw fixation or posterior cervical fusion);
- 2. Conservative treatment (cervical collar or halo traction).

# **Contacts**

#### **Public**

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# **Eligibility criteria**

#### Age

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

## **Inclusion criteria**

11-04-2013: New inclusion criteria: 1.  $\geq$  55 years old;

- 2. Acute type II or III odontoid fracture according to Anderson and d'Alonzo classification (possibly in combination with other fractures); diagnosed using CT;
- 3. Less than two weeks after injury;
- 4. Informed consent.

#### **Exclusion criteria**

- 11-04-2013: New exclusion criteria: 1. Rheumatoid arthritis;
- 2. Ankylosing spondylitis;
- 3. Previous treatment for odontoid fracture;
- 4. Communication with patient is hampered (e.g. language barrier, severe cognitive impairment, coma).

# Study design

# **Design**

Study phase: N/A

Study type: Observational invasive

Intervention model: Parallel

Allocation: Non-randomized controlled trial

Masking: Open (masking not used)

Control: Active

Primary purpose: Treatment

## **Recruitment**

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-08-2012

Enrollment: 275

Type: Actual

## **IPD** sharing statement

Plan to share IPD: Undecided

# **Ethics review**

Approved WMO

Date: 23-08-2012

Application type: First submission

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

# **Study registrations**

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

ID: 50404

Bron: ToetsingOnline

Titel:

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

No registrations found.

# In other registers

Register ID

NTR-new NL3337 NTR-old NTR3630

CCMO NL39744.058.12 OMON NL-OMON50404

# **Study results**

## **Summary results**

N/A