

# Spinal morphine in patients with hip fractures to reduce delirium

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We hypothesize that the use of intrathecal morphine reduces postoperative pain and opioid consumption, which in turn will reduce the incidence of delirium.

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON27635

### Bron

NTR

### Verkorte titel

SALMON-MIND

### Aandoening

Proximal femur fracture, delirium

### Ondersteuning

**Primaire sponsor:** Maasstad Hospital Rotterdam

**Overige ondersteuning:** Wetenschapsbureau, Maasstad Hospital, Rotterdam

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

The incidence of postoperative delirium during hospital admission, defined according to the DSM-5 criteria

# Toelichting onderzoek

## Achtergrond van het onderzoek

Delirium complicates surgical treatment for proximal femur fractures in 20-50% of the patients. Many modifiable and non-modifiable risk factors are identified. Two modifiable risk factors are opioid consumption and pain, both of which are reduced with the use of intrathecal morphine. Therefore, a randomized controlled trial is designed to investigate if the addition of intrathecal morphine to spinal anesthesia reduces the incidence of delirium after surgical treatment for proximal femur fractures.

## Doeleind van het onderzoek

We hypothesize that the use of intrathecal morphine reduces postoperative pain and opioid consumption, which in turn will reduce the incidence of delirium.

## Onderzoeksopzet

Day of admission:

- Baseline characteristics (such as pre-existing cognitive impairment and serum Neurofilament Light concentration (n=80))

Anesthesia and surgery

- Time to surgery, duration of surgery, type of surgery, estimated bloodloss
- Use of sedation during surgery, conversion to general anesthesia.

Post-operative day 1:

- QoR-15
- Pruritus severity score
- Ondansetron consumption

Post-operative day 2:

- Neurofilament light serum concentration (in a subset of the patients (n=80)).
- Ondansetron consumption

During hospital admission:

- The incidence of delirium, as measured with DSM-5 criteria
- Post-operative opioid consumption
- Time to mobilization after surgery
- Occurrence of complications
- Time to fit-for-discharge
- Length of hospital stay.

During the first 5 postoperative days:

- The mean DOSS-scores
- The mean pain-scores

- After discharge:
- Discharge facility
  - 30 day-mortality

## **Onderzoeksproduct en/of interventie**

Both arms will receive the same preoperative analgesic management, consisting of paracetamol, metamizol (if no contra-indications), a preoperative regional nerve block as soon as possible and opioids if necessary.

Patients will be randomized for the intervention group (receiving 10 mg bupivacaine + 100 mcg morphine in 4 ml) and the control group (receiving 10 mg bupivacaine in 4 ml) for spinal anesthesia. Postoperative analgesic management consists of paracetamol, metamizol (if no contra-indications) and opioids if necessary for both arms.

## **Contactpersonen**

### **Publiek**

Rijnstate Ziekenhuis  
Mark Koning

0880058888

### **Wetenschappelijk**

Rijnstate Ziekenhuis  
Mark Koning

0880058888

## **Deelname eisen**

### **Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)**

In order to be eligible to participate in this study, a subject must meet all of the following criteria:

- Femur fracture
- Scheduled for surgery
- Spinal anesthesia

## **Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)**

A potential subject who meets any of the following criteria will be excluded from participation in this study:

- Contraindications for spinal anesthesia:
  - o Patients' refusal
  - o Coagulation disorders (clopidogrel, INR>1.8, anticoagulation with nadroparine (>100 aXa-IE/kg), heparine (APTT> 30 sec), recent use of a Direct Oral Anticoagulant, as stated in the guideline "Neuraxisblokkade en antistolling" by the Dutch Society of Anesthesiology).
  - o Aortic Valve Stenosis of AVA < 1.0 cm<sup>2</sup>
  - o Lumbar malformations (local inflammation, lumbar osteosynthesis material, meningocele, tethered cord)
- Inability to retrieve cerebrospinal fluid by lumbar puncture.
- Contra-indications for intrathecal morphine:
  - o Chronic opioid or benzodiazepine use (>1 month daily use).
  - Allergies to amide-type local anesthetics and morphine.
  - Patients who are incapable of making decisions regarding anesthesia and no legal representative is available.

## **Onderzoeksopzet**

### **Opzet**

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blinding:	Dubbelblind
Controle:	Placebo

### **Deelname**

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	01-03-2022
Aantal proefpersonen:	364
Type:	Verwachte startdatum

## **Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)**

**Wordt de data na het onderzoek gedeeld:** Nog niet bepaald

### **Toelichting**

Will be shared upon reasonable request.

## **Ethische beoordeling**

Positief advies

Datum: 15-03-2021

Soort: Eerste indiening

## **Registraties**

### **Opgevolgd door onderstaande (mogelijk meer actuele) registratie**

ID: 54044

Bron: ToetsingOnline

Titel:

### **Andere (mogelijk minder actuele) registraties in dit register**

Geen registraties gevonden.

## **In overige registers**

<b>Register</b>	<b>ID</b>
NTR-new	NL9390
CCMO	NL73950.100.20
OMON	NL-OMON54044

## **Resultaten**