

# Postoperative pain: knowledge and beliefs of patients and nurses

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## Plain English summary of protocol

### Background and study aims

Many patients experience pain after surgery (postoperative pain). The day after surgery, patients who have undergone different types of surgery often high report high levels of pain, indicated by scores over 4 on the Numeric Rating Scale (NRS) that is used to assess pain. A patient's pain score on the NRS indicates their need for pain treatment. Previous research has shown that healthcare professionals' interpretations of pain are not in line with the patients' actual perceptions of pain. Most patients consider pain with an NRS score of 4–6 as bearable, while acute pain nurses consider pain with an NRS score over 4 as unbearable. In clinical practice, many patients who report NRS scores over 4 refuse analgesics (painkillers) that are offered according to the guidelines for pain management. It is not known why patients give high NRS scores but refuse analgesics, especially opioids. It is important that patients accept opioids when they are in pain, not only for their comfort, but also to prevent complications such as a pneumonia (chest infection) and thrombosis (blood clots). Specific information given before surgery about pain and pain treatment may help patients to achieve better pain relief. The aim of this study is to measure the influence of written information on patients' knowledge and beliefs about pain and pain management after surgery.

### Who can participate?

Adult patients scheduled for elective surgery (i.e., does not involve a medical emergency) at a university hospital

### What does the study involve?

Before undergoing surgery the participants are randomly allocated either to receive information about postoperative pain and its potential complications or to not receive the information. After filling in questionnaires assessing their knowledge and beliefs about postoperative pain management, participants had the usual care preoperative consultation including general information about postoperative pain management.

### What are the possible benefits and risks of participating?

Participants may be better informed before their operation and accept more pain treatment after the operation. There are no risks involved in this study.

Where is the study run from?  
University Medical Center (Netherlands)

When is the study starting and how long is it expected to run for?  
April to July 2013

Who is funding the study?  
University Medical Center (Netherlands)

Who is the main contact?  
Dr J.F.M. van Dijk  
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## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**Protocol serial number**  
12/567

## Study information

**Scientific Title**  
Postoperative pain: knowledge and beliefs of patients and nurses - a randomised controlled trial

**Study objectives**  
Reading information about postoperative pain complications increases patients' knowledge and belief relative to patients who had no extra information.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Institutional Ethics Committee of the University Medical Center Utrecht, 27/11/2012, ref: 12-567

**Primary study design**

Interventional

### **Study design**

Single-centre randomised controlled trial

### **Study type(s)**

Other

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

Postoperative pain

### **Interventions**

A researcher explained the purpose of the study to all eligible patients at the Outpatient Preoperative Evaluation (OPE) clinic while they were waiting for their preoperative consultation. Thereafter, they were asked to participate. Questionnaires with or without information about the postoperative complications of pain were inserted in sealed opaque envelopes, shuffled, and sequentially numbered. The envelopes were only opened when patients agreed to participate.

For the patients in the intervention group, the questionnaires with information started with a short (87-word) paragraph: "It is possible that you will have pain after surgery. Usually, we can treat this pain adequately. If you have severe pain, we can administer a strong analgesic, such as morphine. If severe pain is not adequately treated, it can have negative health consequences. Pain is unpleasant and can cause complications. Severe pain can cause pneumonia if it prevents you from coughing after surgery, and thrombosis can occur if it prevents you from moving normally. Therefore, good pain management can prevent complications." This text was derived in a meeting with experts on pain management and patient education.

Patients in the control group received the same questionnaire but without information, simply starting with the first question.

The researcher asked them to read the text first if they had not done so before beginning to answer the questions. To ensure this procedure the researcher observed the respondent during the reading and answering. The questionnaires were read aloud for patients with impaired eyesight. After filling in the questionnaires, patients had usual care preoperative consultation including general information about postoperative pain management.

There were no valid baseline assumptions possible regarding the difference in knowledge and beliefs between the two groups therefore formal power calculation was not feasible. Data collection of the study was planned for a period of three months, including as many patients as possible in this period. There is no follow-up.

### **Intervention Type**

Other

### **Primary outcome(s)**

Knowledge and beliefs about postoperative pain management, measured using the Pain Knowledge Questionnaire and the beliefs subscale of the Barriers Questionnaire at the single study visit

### **Key secondary outcome(s)**

N/A

**Completion date**

09/07/2013

## Eligibility

**Key inclusion criteria**

Adult patients scheduled for elective surgery at a university hospital

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

Patients unable to understand Dutch

**Date of first enrolment**

02/04/2013

**Date of final enrolment**

09/07/2013

## Locations

**Countries of recruitment**

Netherlands

**Study participating centre**

University Medical Center

Heidelberglaan 100

Netherlands

3584 CX

## Sponsor information

**Organisation**

Astellas Pharma BV

**ROR**

<https://ror.org/04kyfd050>

## **Funder(s)**

**Funder type**

Hospital/treatment centre

**Funder Name**

Universitair Medisch Centrum Utrecht

**Alternative Name(s)**

UMC Utrecht, University Medical Center Utrecht, UMCU, UMC

**Funding Body Type**

Government organisation

**Funding Body Subtype**

Universities (academic only)

**Location**

Netherlands

## **Results and Publications**

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

The datasets generated and/or analysed during the current study are available from Jacqueline van Dijk ([j.f.m.vandijk@umcutrecht.nl](mailto:j.f.m.vandijk@umcutrecht.nl)) on reasonable request

**IPD sharing plan summary**

Available on request