# Acute cholecystitis in high risk patients: percutaneous cholecystostomy versus laparoscopic cholecystectomy; a randomized controlled, open, parallel, superiority, multicenter trial

Published: 15-01-2011 Last updated: 04-05-2024

To demonstrate that primary LC as compared to PC is preferable with respect to morbidity and mortality in high risk surgical patients (APACHE-II score 7-14) with acute calculous cholecystitis.

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typeGallbladder disorders

Study type Interventional

## Summary

#### ID

NL-OMON40048

#### Source

**ToetsingOnline** 

**Brief title** 

**CHOCOLATE** 

#### Condition

- Gallbladder disorders
- Hepatobiliary therapeutic procedures

#### **Synonym**

cholecystitis, inflamed gallbladder

#### Research involving

Human

## **Sponsors and support**

**Primary sponsor:** Sint Antonius Ziekenhuis

**Source(s) of monetary or material Support:** er is geen financiering voor het onderzoek. Alle deelnemende centra zijn in overleg met het initierende centrum verantwoordelijk voor hun eigen kosten; welke vrijwel geheel binnen het normale behandelspectrum vallen.

#### Intervention

**Keyword:** cholecystitis, laparoscopic cholecystectomy, percutaneous cholecystostomy

#### **Outcome measures**

#### **Primary outcome**

Combined endpoint including all major complications, need for re-intervention and mortality.

#### **Secondary outcome**

Individual components of composite endpoint, Minor complications, Difficulty of cholecystectomy, total length of hospital stay, emergency room visits, cost efficiency

# **Study description**

#### **Background summary**

Acute calculous cholecystitis is a frequently encountered problem in the surgical practice and laparoscopic cholecystectomy (LC) is still the standard treatment for patients without significant comorbidity and therefore low-moderate risks on intervention. Acute cholecystitis is not a disease confined to this population, and in elderly patients or patients with significant comorbidity, surgery in general is associated with higher complication rates and even mortality, and there is no consensus in the general surgical practice if LC actually is the treatment of choice in this patient category. In addition, LC for acute cholecystitis can be a more difficult procedure than elective LC for cholelithiasis and is associated with increased operating time, higher conversion rate and more post-operative complications in any patient category, especially in elderly patients or patients with comorbidity. Percutaneous cholecystostomy (PC) may be a more preferable method,

and in the current surgical practice many surgeons prefer this method over LC in acute calculous cholecystitis in patients with increased risks. Because the gallbladder remains in situ, the infection can worsen mandating an emergency LC which can be even more difficult, and there is always the risk of recurrence. There is some evidence in the current literature regarding the safety, success rate and procedure specific technique of this procedure, but the question whether there is a place for PC in the treatment of acute calculous cholecystitis, remains unanswered.

#### Study objective

To demonstrate that primary LC as compared to PC is preferable with respect to morbidity and mortality in high risk surgical patients (APACHE-II score 7-14) with acute calculous cholecystitis.

#### Study design

Multi center randomized controlled trial

#### Intervention

The study has two treatment arms; arm one will be treated with laparoscopic cholecystectomy, arm two with percutaneous cholecystostomy.

#### Study burden and risks

Risks of participation are no greater or different from the general treatment of acute calculous cholecystitis.

Burden of participation is a total of 12 follow up phone calls that would normally not take place.

Benefit of participation is treatment within 24 hours, and, when assigned to the LC-arm, surgery by a specialised GI-surgeon.

# **Contacts**

#### **Public**

Sint Antonius Ziekenhuis

Koekoekslaan 1 Nieuwegein 3435 CM NL

#### Scientific

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## **Trial sites**

### **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

#### Age

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

#### Inclusion criteria

APACHE-II score >= 7 AND <= 14
Acute calculous cholecystitis
Written informed consent

#### **Exclusion criteria**

Onset of symptoms >=7 days before first presentation
Already admitted to ICU
Pregnancy
<18 Years of age
Acalculous cholecystitis
Decompensated liver cirrhosis
Mental illness prohibiting informed consent

# Study design

## **Design**

Study type: Interventional

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

#### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-02-2011

Enrollment: 284

Type: Actual

## **Ethics review**

Approved WMO

Date: 15-01-2011

Application type: First submission

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

(Nieuwegein)

Approved WMO

Date: 12-05-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 20-06-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 28-06-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 30-06-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 04-07-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 16-08-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 02-09-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 16-09-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 07-10-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 08-11-2011

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 08-06-2012

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 18-02-2013

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 17-07-2013

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 06-08-2013

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 19-12-2013

Application type: Amendment

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

(Nieuwegein)

Approved WMO

Date: 20-10-2014

Application type: Amendment

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 NL33662.100.10