# A multicenter randomized clinical trial investigating the cost-effectiveness of treatment strategies with or without antibiotics for uncomplicated acute diverticulitis.

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In the treatment of uncomplicated acute diverticulitis, supportive treatment without antibiotics is a more cost-effective approach than conservative treatment with antibiotics with respect to time-to-recovery as primary outcome.

Ethische beoordeling Positief advies

**Status** Werving nog niet gestart

Type aandoening -

**Onderzoekstype** Interventie onderzoek

# **Samenvatting**

#### ID

NL-OMON27328

**Bron** 

Nationaal Trial Register

Verkorte titel

**DIABOLO** trial

**Aandoening** 

Diverticulitis, antibiotics, observation

# **Ondersteuning**

**Primaire sponsor:** Academic Medical Center, department of Surgery **Overige ondersteuning:** ZonMw, grant number 80-82310-97-10039

Maag Lever Darm Stichting, grant number WO 08-54

## Onderzoeksproduct en/of interventie

#### **Uitkomstmaten**

#### Primaire uitkomstmaten

The primary endpoint is time-to-full-recovery with a follow-up period of 6 months. Recovery is defined by all of the following criteria: discharged from the hospital (out-patient), normal diet (defined by tolerating vast food and more than 1L of fluid orally), temperature < 38.0 °C, and VAS pain score < 4, with no use of daily pain medication and resuming to pre-illness working activities; as assessed by questionnaires and an out-patient clinic visit.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

Rationale/background:

The prevalence of colonic diverticular disease is increasing in Western countries. Approximately 10 to 25% of patients with diverticular disease will eventually develop an episode of acute diverticulitis. Currently conservative treatment often includes antibiotic therapy. This advice lacks sound evidence and is merely based on experts' opinion. An old clinical dogma is being clarified with this randomized trial.

#### Objective:

Primary objective is to evaluate whether or not using antibiotics reduces to time to full recovery of an attack of uncomplicated (mild) diverticulitis. Secondary objectives are to evaluate complications, quality of life, readmission rate, recurrence rate, medical and non-medical costs, and antibiotic resistance/sensitivity in both groups.

#### Study design:

A randomized, open label, multicenter clinical trial comparing treatment of acute uncomplicated diverticulitis with antibiotics to observation and supportive care alone.

#### Study population:

Patients 18 years or older are eligible for inclusion if they have a diagnosis of acute uncomplicated diverticulitis as demonstrated by imaging. Only patients with stages 1a and 1b according to Hinchey's classification or "mild" diverticulitis according to the Ambrosetti criteria are included.

#### Intervention:

Conservative strategy with antibiotics: supportive measures and at least 48 hours of intravenous antibiotics (and therefore admittance to the hospital) and subsequently switch to oral antibiotics if tolerated (total duration of 10 days).

#### Control:

Liberal strategy without antibiotics: supportive measures only. Observation and oral intake as tolerated. Admittance only if discharge criteria are not met on presentation.

#### Main study parameters/endpoints:

The primary endpoint is time-to-recovery with a 6-month follow-up period. Secondary endpoints are occurrence of complicated diverticulitis requiring surgery or percutaneous treatment, morbidity, health related quality of life, readmission rate, recurrence rate, medical and non-medical costs, and antibiotic resistance/sensitivity.

#### Doel van het onderzoek

In the treatment of uncomplicated acute diverticulitis, supportive treatment without antibiotics is a more cost-effective approach than conservative treatment with antibiotics with respect to time-to-recovery as primary outcome.

#### Onderzoeksopzet

N/A

#### Onderzoeksproduct en/of interventie

#### Intervention:

- 1. Conservative strategy with antibiotics: supportive measures and at least 48 hours of intravenous antibiotics (and therefore admittance to the hospital) and subsequently switch to
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oral antibiotics if tolerated (total duration of 10 days).

The choice of antibiotics is amoxicillin-clavulanate for a total of 10 days. Intravenous administration 3 times a day 1200 mg and switch to oral administration 3 times a day 625 mg after two days and if tolerated. In case of allergy a switch will be made to the combination of ciprofloxacin and metronidazole. In case of intravenous administration ciprofloxacin 2 times a day 400 mg and metronidazole 3 times a day 500 mg. In case of oral administration ciprofloxacin 2 times a day 500 mg and metronidazole 3 times a day 500 mg.

#### 2. Control:

Liberal strategy without antibiotics: supportive measures only. Observation and oral intake as tolerated. Admittance only if discharge criteria are not met on presentation.

# Contactpersonen

#### **Publiek**

Department of Surgery, Academic Medical Centre Meibergdreef 9, G4-132.1 M.A. Boermeester Department of Surgery, Academic Medical Centre Meibergdreef 9, G4-132.1 Amsterdam 1105 AZ The Netherlands +31-20-5662666

## Wetenschappelijk

Department of Surgery, Academic Medical Centre Meibergdreef 9, G4-132.1 M.A. Boermeester Department of Surgery, Academic Medical Centre Meibergdreef 9, G4-132.1 Amsterdam 1105 AZ The Netherlands +31-20-5662666

# **Deelname** eisen

# Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- 1. Only left-sided uncomplicated (mild) acute diverticulitis;
- 2. Clinical suspicion of acute diverticulitis. For acute diagnostic work-up: ultrasound or CT proven diverticulitis. In the case of diverticulitis-negative ultrasound in clinically suspected patients an intravenous contrast-enhanced CT scan is mandatory for confirmation of diverticulitis or exclusion of other pathology. CT for Hinchey/Ambrosetti classification (which is a CT-based classification system) is needed for all patients, but can be delayed 1 day in those with ultrasound diagnosis. Staging diverticultis is defined according the modified Hinchey/Ambrosetti staging, only stages 1a and 1b and "mild" diverticulitis (1a Confined pericoloc inflammation, 1b Confined small (smaller than 5cm) pericolic abscess) are included. In the attachments we have added a flow chart, showing systematically the inclusion criteria and the following steps after inclusion;
- 3. All patients with informed consent.

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

- 1. Previous radiological (ultrasound and/or CT) proven episode of diverticulitis;
- 2. Colonic cancer;
- 3. Inflammatory bowel disease (ulcerative colitis, Crohn's disease);
- 4. Hinchey stages 2, 3 and 4 or "severe" diverticulitis according to the Ambrosetti criteria, which require surgical or percutaneous treatment;
- 5. Disease with expected survival of less than 6 months;
- 6. Contra-indication for the use of the study medication (e.g. patients with advanced renal failure or allergy to antibiotics used in this study);
- 7. Pregnancy, breastfeeding;
- 8. ASA (American Society of Anaesthesiologists) classification > III;
- 9. Immunocompromised patients;
- 10. Clinical suspicion of bacteraemia (i.e. sepsis);
- 11. The inability of reading/understanding and filling in the questionnaires;
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12. Antibiotic use in the 4 weeks before admittance.

# **Onderzoeksopzet**

#### **Opzet**

Type: Interventie onderzoek

Onderzoeksmodel: Parallel

Toewijzing: Gerandomiseerd

Blindering: Open / niet geblindeerd

Controle: N.v.t. / onbekend

#### **Deelname**

Nederland

Status: Werving nog niet gestart

(Verwachte) startdatum: 02-01-2010

Aantal proefpersonen: 534

Type: Verwachte startdatum

# **Ethische beoordeling**

Positief advies

Datum: 20-10-2009

Soort: Eerste indiening

# **Registraties**

# Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 32858

Bron: ToetsingOnline

Titel:

# Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

# In overige registers

Register ID

NTR-new NL1951 NTR-old NTR2069

CCMO NL29615.018.09

ISRCTN wordt niet meer aangevraagd.

OMON NL-OMON32858

# Resultaten

## Samenvatting resultaten

N/A