

# **Antecolic versus Retrocolic Route of the Gastroenteric Anastomosis after Pancreatoduodenectomy: ARCO-trial.**

Gepubliceerd: 06-03-2009 Laatst bijgewerkt: 18-08-2022

An antecolic route of the gastroenteric anastomosis in pancreatectomy may lead to a lower postoperative incidence of delayed gastric emptying than a retrocolic route, thus reducing length of hospital stay, lowering medical costs and improving...

**Ethische beoordeling** Positief advies

**Status** Werving gestart

**Type aandoening** -

**Onderzoekstype** Interventie onderzoek

## **Samenvatting**

### **ID**

NL-OMON26450

### **Bron**

Nationaal Trial Register

### **Verkorte titel**

ARCO-trial

### **Aandoening**

Pancreatic and periampullary tumors

Pancreatoduodenectomy

In Dutch:

Pancreas- en periampullaire tumoren

Pancreatoduodenectomie

### **Ondersteuning**

**Primaire sponsor:** AMC Medical Research B.V.

**Overige ondersteuning:** AMC Medical Research B.V.

### **Onderzoeksproduct en/of interventie**

# **Uitkomstmaten**

## **Primaire uitkomstmaten**

Postoperative incidence of delayed gastric emptying.

# **Toelichting onderzoek**

## **Achtergrond van het onderzoek**

ARCO-trial – Antecolic versus RetroCOLic route of the gastroenteric anastomosis after pancreatoduodenectomy – summary.

Background:

Though mortality has dropped below 5%, morbidity of pancreatic surgery remains high (30%-50%). One of the most common complications after pancreatoduodenectomy (PD) is delayed gastric emptying (DGE). In recent literature, incidences vary from 19% to 57%. DGE leads to longer hospital stay, higher costs and decreases quality of life. This pertains especially to DGE grade B ("moderate") and C ("severe") according to the recently published definition by the International Study Group of Pancreatic Surgery (ISGPS).

The causative mechanisms of DGE are unknown. Some retrospective studies suggest a role for the route of gastroenteric anastomosis: antecolic or retrocolic gastrojejunostomy/duodenojejunostomy. A recent randomized trial by Tani et al. from Japan showed a tenfold difference in postoperative DGE incidence, in favour of the antecolic route (5% versus 50%). Small patient numbers and unclear definitions make it difficult to understand this enormous difference. A new methodologically sound randomized trial seems required to compare the antecolic and retrocolic route.

Hypothesis:

An antecolic route of gastroenteric anastomosis after pancreatoduodenectomy leads to lower postoperative DGE incidence than a retrocolic route.

Objective:

Primary objective:

To determine the relationship of route of gastroenteric anastomosis after PD and postoperative incidence of DGE.

**Secondary objectives:**

To determine the relationship of route of gastroenteric anastomosis after PD and gastric emptying (measured by scintigraphy), quality of life, postoperative complications, length of stay and costs.

**Study design:**

Randomized controlled trial with blinding for treatment allocation of patient and medical personnel except surgeon.

**Study population:**

Patients of >18 years old with suspicion of pancreatic or periampullary tumor, who will undergo explorative laparotomy with resection (pancreatoduodenectomy) if possible.

**Intervention:**

Antecolic route.

Control: retrocolic route.

**Primary outcome parameter:**

Postoperative incidence of DGE according to the definition by the International Group of Pancreatic Surgery (ISGPS).

**Secondary outcome parameters:**

1. Gastric emptying measured by scintigraphy (AMC patients only);
2. Quality of life;
3. Postoperative complications;
4. Length of stay;
5. Costs.

## **Doe**

An antecolic route of the gastroenteric anastomosis in pancreateoduodenectomy may lead to a lower postoperative incidence of delayed gastric emptying than a retrocolic route, thus reducing length of hospital stay, lowering medical costs and improving quality of life.

## **Onderzoeksopzet**

Delayed gastric emptying: according to ISGPS-criteria (International Study Group of Pancreatic Surgery).

Gastric emptying rate:

1. 1 week before operation;
2. 7th postoperative day;

Quality of life:

1. Before operation;
2. 2, 4 and 12 weeks after operation.

## **Onderzoeksproduct en/of interventie**

1. Antecolic route of gastroenteric anastomosis after pancreateoduodenectomy;
2. Retrocolic route of gastroenteric anastomosis after pancreateoduodenectomy.

## **Contactpersonen**

### **Publiek**

Academisch Medisch Centrum  
Postbus 22660  
W.J. Eshuis  
Afdeling chirurgie, G4-132  
Amsterdam 1100 DD  
The Netherlands  
+31 (0)20 5662661/+31 (0)20 5669111, sein 58008

## **Wetenschappelijk**

Academisch Medisch Centrum  
Postbus 22660  
W.J. Eshuis  
Afdeling chirurgie, G4-132  
Amsterdam 1100 DD  
The Netherlands  
+31 (0)20 5662661/+31 (0)20 5669111, sein 58008

## **Deelname eisen**

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

1. Planned explorative laparotomy for suspected pancreatic or periampullary disease, with intention of resection;
2. Age  $\geq$  18 yrs;
3. Willing and able to give written informed consent.

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

Peroperative findings of unresectability.

## **Onderzoeksopzet**

### **Opzet**

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blinding:	Enkelblind
Controle:	Geneesmiddel

## Deelname

Nederland  
Status: Werving gestart  
(Verwachte) startdatum: 11-03-2009  
Aantal proefpersonen: 182  
Type: Verwachte startdatum

## Ethische beoordeling

Positief advies  
Datum: 06-03-2009  
Soort: Eerste indiening

## Registraties

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

Geen registraties gevonden.

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

Geen registraties gevonden.

## In overige registers

Register	ID
NTR-new	NL1613
NTR-old	NTR1697
Ander register	Medical Ethics Committee of the Academic Medical Center, Amsterdam : 09/005
ISRCTN	ISRCTN wordt niet meer aangevraagd

## Resultaten

## **Samenvatting resultaten**

N/A