

# APD Perfusion Measurement Study

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The primary objective of this study is to test safety and performance of the APD Perfusion Measurement Catheter & Monitor for the measurement of gut perfusion in humans. The secondary objectives of this study are to assess the normal values for...

|                              |                            |
|------------------------------|----------------------------|
| <b>Ethical review</b>        | Not approved               |
| <b>Status</b>                | Will not start             |
| <b>Health condition type</b> | Other condition            |
| <b>Study type</b>            | Observational non invasive |

## Summary

### ID

NL-OMON35764

### Source

ToetsingOnline

### Brief title

To test safety and performance of APD devices to measure gut perfusion

### Condition

- Other condition

### Synonym

Blood flow in the gut. Gut mucosa perfusion

### Health condition

gut perfusion

### Research involving

Human

### Sponsors and support

**Primary sponsor:** CMI GMBH

**Source(s) of monetary or material Support:** CMI GMBH

## Intervention

**Keyword:** Gut perfusion, Shock

## Outcome measures

### Primary outcome

A device developed to determine the intestinal mucosa blood flow, measured in ml / min

### Secondary outcome

None.

## Study description

### Background summary

The APD Perfusion Measurement Catheter is intended to provide non-invasive measurement of gut perfusion, which can be used as an indication of septic and hypovolemic shock. The catheter also measures intra-abdominal pressure.

### Study objective

The primary objective of this study is to test safety and performance of the APD Perfusion Measurement Catheter & Monitor for the measurement of gut perfusion in humans.

The secondary objectives of this study are to assess the normal values for superior mesenteric artery flow in anaesthetised surgical patients.

### Study design

The APD Perfusion Measurement study is a prospective, single-center pilot study, enrolling 5 patients.

The study is to be carried out in a single centre, Zaans medisch Centrum

### Study burden and risks

Prior to the procedure a Radiologist to perform transcutaneous Doppler-Echography to measure the superior mesenteric flow. Patient is prepared for aortic vascular surgery, as per institutional

protocol. After opening of the abdomen a Gastroenterologist is to perform gastroduodenoscopy and to place the catheter.

A Doppler flow probe is placed on a branch of the mesenteric artery. The mesenteric artery flow, as measured by the Doppler flow probe and gut perfusion, as measured by the APD Catheter and Monitor are recorded for 15 minutes.

Post-procedural evaluation of the correlation between the gut perfusion, as indicated by the APD Perfusion Measurement & Monitor and the mesenteric artery flow.

The associated risks proposed in this study, are similar to risks posed by use of endoscopic and duodenal feeding procedures. These risks include bleeding, perforation and aspiration. The incident rate of perforation in gastroduodenoscopy is 0.029% for non-interventional procedures (Merchea A, et al., 2010).

The incident rates associated with the delivery and use of the APD Perfusion Measurement Catheter, are not anticipated to be greater than conventional gastro-duodenoscopic procedures. Specifically, risks to the patient are minimized due to the use of standard medical grade materials, extensive pre-clinical evaluation including in vitro bench testing and animal studies and the well established, standard nature of the endoscopic and duodenal feeding procedures used.

## Contacts

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### **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

Patients for elective surgery for repair of infrarenal abdominal aneurysm

### Exclusion criteria

ASA classification IV or V

Malignancy

Uncontrollable hypertension systolic > 240 mmHg or diastolic > 110 mmHg

Uncontrollable heart failure

## Study design

### Design

|                  |                            |
|------------------|----------------------------|
| Study phase:     | 2                          |
| Study type:      | Observational non invasive |
| Masking:         | Open (masking not used)    |
| Control:         | Uncontrolled               |
| Primary purpose: | Diagnostic                 |

### Recruitment

|                     |                |
|---------------------|----------------|
| NL                  |                |
| Recruitment status: | Will not start |
| Enrollment:         | 5              |
| Type:               | Anticipated    |

## Ethics review

Not approved

Date: 10-08-2012

Application type: First submission

Review commission: METC Noord-Holland (Alkmaar)

## 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     | NL37183.094.11 |