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# Integrated biomedical informatics for the management of intracranial aneurysms

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To establish an operational reference database on intracranial aneurysms encompassing clinical and genetic data on at least 800 patients, 400 controls and 400 relatives of patients where a familial trait is recognized, together with imaging data on...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruiting
<b>Health condition type</b>	Central nervous system vascular disorders
<b>Study type</b>	Observational invasive

## Summary

### ID

NL-OMON30929

### Source

ToetsingOnline

### Brief title

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### Condition

- Central nervous system vascular disorders
- Aneurysms and artery dissections

### Synonym

arterial bulging, arterial widening

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Erasmus MC, Universitair Medisch Centrum Rotterdam

**Source(s) of monetary or material Support:** EU

## Intervention

**Keyword:** epidemiology, genetics, imaging, intracranial aneurysm

## Outcome measures

### Primary outcome

a point estimation of relative risk for patients with certain genetic variations (which have to be established)

### Secondary outcome

To perform genome-wide association studies to search for other susceptibility loci.

To obtain reference geometries and perform computational fluid dynamics analyses for at least 100 patients

## Study description

### Background summary

Unruptured intracranial aneurysms occur in 1 to 6% of the population. Amongst those with IA, the incidence of rupture is relatively low, of the order of 10 / 10,000 per year. The consequences of rupture however are severe: 45% of individuals patients with a ruptured aneurysm will die within a month of the event.

Because roughly 10% of patients with aneurismal SAH have first or second degree relatives with SAH or unruptured IA aneurysms there is a likely genetic component to IA.

## Study objective

To establish an operational reference database on intracranial aneurysms encompassing clinical and genetic data on at least 800 patients, 400 controls and 400 relatives of patients where a familial trait is recognized, together with imaging data on at least 600 patients.

To identify genetic variations associated with increased risk (relative risk  $>1.5$ , allele frequency 0.35 - 0.65) for intracranial aneurysm with or without SAH on the basis of patient groups of at least 400 cases.

## Study design

case-control study

## Study burden and risks

burden:

venapuncture for 30 ml whole blood

CTA - dose of radiation

filling out questionnaire

benefit:

for this patient: nil

for future patients: increased knowledge

## Contacts

### Public

Erasmus MC, Universitair Medisch Centrum Rotterdam

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Nederland

### 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

unruptured intracranial aneurysm

### Exclusion criteria

inability to participate, due to severe mental or physical disabilities.  
(severe) claustrophobie (to anxious to undergo a CT-scan)

## Study design

### Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

### Recruitment

NL

Recruitment status: Recruiting

Start date (anticipated):	13-12-2007
Enrollment:	100
Type:	Actual

## Ethics review

Approved WMO	
Date:	12-06-2007
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	23-10-2009
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

## 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	NL16981.078.07