

ESAIC Clinical Trial Network: ARCTIC-I

Anaesthesiological Routine Care for Thrombectomy In Cerebral Ischaemia (ARCTIC-I): An International Prospective Observational Study

Fast Facts

Endovascular thrombectomy is the standard of care for acute ischaemic stroke due to large vessel occlusion.

Depending on the symptoms of the stroke, many patients will require sedation or general anaesthesia.

We want to provide an overview of routine practice for anaesthesiological care during endovascular thrombectomy around the world.

Research Questions

- How is functional outcome related to the anaesthetic technique – general anaesthesia or sedation?
- What anaesthetic agents are currently used and how is clinical outcome related to the choice of substances?
- How do blood pressure, oxygenation, and CO₂ levels influence patient outcomes?
- Which patients are successfully extubated after general anaesthesia for endovascular thrombectomy?
- What are risk factors for failure of sedation and the need for secondary intubation?

Study Design

International Prospective Observational Study

Inclusion Criterion

- Endovascular thrombectomy involving anaesthesia care

Exclusion Criteria

- In-hospital onset of stroke
- Inclusion in an interventional study concerning the anaesthesia protocol
- Age under 18 years

Primary Endpoint

The proportion of patients able to live independently three months after their stroke, corresponding to a modified Rankin scale ≤ 2 .

Secondary Endpoints (Selection)

- Functional outcome at 90 days using the full ordinal modified Rankin scale
- Extent of reperfusion achieved
- Length of periprocedural treatment steps (e.g., onset to recanalization time)

Sample Size

We plan to recruit at least 5,000 patients.

Patient Enrolment

Individual centres determine the beginning of the local enrolment period and choose a duration (six to nine months).

Sponsor

ARCTIC-I is sponsored and funded by a grant from the ESAIC Clinical Trial Network.

Chief Investigator

Dr. Andreas Ranft (Klinikum rechts der Isar, Technische Universität München)

Eligible Centres

Any hospital that performs endovascular thrombectomy routinely involving anaesthesia care is welcome to contribute as a study centre.

How to Get Involved

Please fill in the online call for centre form at:
www.esaic.org/research/clinical-trial-network/

Your Contribution

As a local Principal Investigator, you will:

- Lead the study in your institution
- Identify and enrol patients and collect data
- Communicate with ESAIC and the relevant National Coordinators during all steps

Your Benefit

In addition to gaining experience in an international clinical study sponsored by the ESAIC, you will be included in the publication as member of the ARCTIC-I Investigators according to the provisions of the study protocol.

Interested?

You will find the study documents on:
www.esaic.org/research/clinical-trial-network/
Address your questions to: research@esaic.org

Which aspects of anaesthesiological care during endovascular thrombectomy are associated with functional outcome of stroke patients?

ARCTIC-I

**Anaesthesiological Routine
Care for Thrombectomy
In Cerebral Ischaemia**

