Chief Investigator	Dr. med. Andreas Ranft, DESA, Senior Physician Klinikum rechts der Isar, Technische Universität München E-mail: andreas.ranft@tum.de
Study Title	Anaesthesiological Routine Care for Thrombectomy in Cerebral Ischaemia: An International Prospective Observational Study
Acronym, NCT ID	ARCTIC-I, NCT04522856
Protocol Version	Version 2.0, 28 May 2021
Design	International Prospective Observational Study
Background	Endovascular thrombectomy is the standard of care for acute ischaemic stroke due to large-vessel occlusion. Current guidelines for periprocedural anaesthesiological care lack detailed information.
Main Objective	To determine how anaesthesiologists support endovascular thrombectomy with regard to anaesthetic technique, choice of substances, haemodynamic management, and ventilation. With a multivariate analysis, we will look for the factors of anaesthetic management that are independently correlated with a good or bad outcome.
Secondary Objectives	To find factors that predict failure of sedation with need of conversion to general anaesthesia. To describe which patients are successfully extubated at the end of the procedure.
Primary Endpoint	Functional outcome at 90 days expressed as modified Rankin Scale (mRS), dichotomized into good (mRS ≤ 2) versus poor (mRS > 2) outcome
Secondary Endpoints	Functional outcome at 90 days using the full ordinal mRS Mortality at 90 days Extent of reperfusion Duration to arterial puncture and to reperfusion Frequency of conversion from sedation to general anaesthesia Ratio of patients breathing spontaneously before transfer from angio suite
Inclusion Criterion	Endovascular thrombectomy for acute ischaemic stroke due to large vessel occlusion involving anaesthesia care
Exclusion Criteria	In-hospital onset of stroke Inclusion in another study Age under 18 years
Study assessment	Patients or their relatives will be contacted by telephone 90 days after the stroke for a structured interview which will take less than five minutes
Participants	Following sample size estimation, we plan to enrol at least 5,000 patients
Centres	We intend to involve about 100 centres
Project Duration	Inclusion period for each centre: 6 months, follow-up: 3 months Duration of the entire trial: 4 years
Statistical Considerations	Multivariable regression models will be computed to produce prediction models and to investigate prognostic and predictive factors associated with treatment and with the primary and secondary endpoints. Sensitivity analyses: Parametric and nonparametric models used in personalized medicine.