

# INPLASY

## The efficacy and safety of general anesthesia vs conscious sedation for endovascular treatment in patients with acute ischemic stroke: a systematic review and meta-analysis

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### ADMINISTRATIVE INFORMATION

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**Review Stage at time of this submission** - Data analysis.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202370116

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 July 2023 and was last updated on 30 July 2023.

### INTRODUCTION

**Review question / Objective** Examine the effect of GA versus CS on functional outcomes and safety outcomes in patients with AIS.

**Rationale** Anesthesia and perioperative management may be important.

**Condition being studied** A number of studies have suggested that anesthesia type during intra-arterial treatment for acute ischemic stroke has implications for patient outcomes.

### METHODS

**Search strategy** We set the inclusion criteria as follows: (1) study type: RCT; (2) language restriction: only available in English; (3) participants: over 18 years of age; acute ischemic stroke (anterior circulation and posterior circulation).

**Participant or population** Patients with acute ischemic stroke.

**Intervention** GA VS CS.

**Comparator** GA AND CS.

**Study designs to be included** RCT.

**Eligibility criteria** We set the exclusion criteria as follows: no report about aforementioned outcomes or impossibility to extract the exact number of complications separately from GA and CS.

**Information sources** PubMed.

**Main outcome(s)** modified Rankin Scale.

**Additional outcome(s)** Intracerebral hemorrhage.

**Data management** Review Manager 5.3 software was used to assess the data. For the dichotomous outcomes, the risk ratio (relative risk [RR]; 95%

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confidence interval [CI]) was analyzed and calculated with a fixed effect model.

**Quality assessment / Risk of bias analysis** The risk of bias plot for individual studies was assessed with the Review Manager 5.3 software.

**Strategy of data synthesis** Review Manager 5.3 software was used to assess the data. For the dichotomous outcomes, the risk ratio (relative risk [RR]; 95% confidence interval [CI]) was analyzed and calculated with a fixed effect model.

**Subgroup analysis** The included studies will be appropriately stratified, with a meta-analysis of each subgroup to explore the sources of heterogeneity.

**Sensitivity analysis** Heterogeneity was estimated via the I<sup>2</sup> statistic, which was as follows: I<sup>2</sup> < 30% suggests “low heterogeneity”; I<sup>2</sup> between 30% and 50% means “moderate heterogeneity”; I<sup>2</sup> > 50% denotes “substantial heterogeneity”.

**Language restriction** English.

**Country(ies) involved** China.

**Keywords** Acute ischemic stroke; Endovascular thrombectomy.

**Contributions of each author**

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