SITS International Report 2025

Dear Colleagues and Readers,

It is my great pleasure to present the SITS International Report 2025. Since its foundation in 1996, the Safe Implementation of Treatments in Stroke (SITS) has remained committed to contribute in advancing stroke care worldwide through high-quality real-world evidence, international collaboration, and continuous quality improvement.

Before I continue, SITS would like to take this opportunity to express our deepest gratitude to the network for your support and solidarity following the news of the passing of Professor Emeritus Nils Wahlgren, the founder of SITS International. Professor Nils Wahlgren was a deeply respected colleague, an outstanding neurologist, and a leading figure in stroke medicine. His work transformed the care of patients with acute ischemic stroke, particularly through advances in thrombolysis and reperfusion therapies. We remember him not only for his scientific contribution and achievements, but also for his generosity, integrity, and dedication to patients and colleagues alike. His legacy will continue to guide and inspire us.

Over the past year, SITS has continued to grow in scale, scope, and scientific impact. The registry now includes more than 500,000 unique patients from over 90 countries, reflecting the dedication of clinicians, researchers, and coordinators across the globe. The data collected through SITS not only document routine clinical practice but also referred in international guidelines, regulatory decisions, and daily patient care.

SITS is currently conducting 3 large registry based studies, SITS-TNK (Tenecteplace), SITS ICH and I-DOAC, addressing critical gaps between clinical trials and routine clinical. Alongside ongoing work in thrombolysis, thrombectomy, atrial fibrillation, and quality improvement, these study initiative demonstrates SITS' continued evolution as a comprehensive platform for implementation of stroke care and science.

This year (2026), 3 abstracts based on SITS data have been accepted as posters at ESOC 2026 in Maastricht, Netherland and 2 abstracts have been submitted in ESMINT congress.

None of these achievements would be possible without the sustained commitment of participating centres, national and regional coordinators, users and members of the Scientific Committee, and the dedicated staff of the SITS Coordination Office. I would also like to express my sincere gratitude to the patients whose data make this work possible.

This report provides an overview of our progress, scientific output, and future directions. We welcome continued collaboration and feedback as we strive to improve stroke care and outcomes worldwide.

Yours sincerely,

Professor Niaz Ahmed
SITS Chairman

SITS Scientific Committee Members

Prof. Niaz Ahmed, Sweden (Chairman)
Prof. Gary A. Ford, United Kingdom
Prof. Kennedy R. Lees, United Kingdom
Prof. Danilo Toni, Italy
Prof. Christine Roffe, United Kingdom
Prof. Adam Kobayashi, Poland
Prof. Georgios Tsivgoulis, Greece
Prof. Peter Ringleb, Germany
Prof. Jose M. Ferro, Portugal
Prof. Simona Sacco, Italy
Assoc. Prof. Anne Hege Aamodt, Norway
Assoc. Prof. Daniel Strbian, Finland

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Prof. Cesare Fieschi, Italy
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Assoc. Prof. Robert Mikulik, Czech Republic
Prof. Turgut Tatlisumak, Finland
Prof. Vincent Larrue, France
Prof. Werner Hacke, Germany
Prof. Valeria Caso, Italy

Current SITS Coordination Team Members

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Charlotte Lahnborg Alme, PhD – Chief Operating Officer
Michael V. Mazya, MD, PhD, FESO – Research and Network Executive
Tiago Moreira, MD, PhD – Research and Network Executive
Marius Matusevicius, MD, PhD – Research Executive
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Julia Lundby - Research nurse
Aileen Burrows - Executive and Network Coordinator (on leave)
Simone Stodell, MSc - Network Coordinator and Administrator

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About SITS

Background and purpose

Stroke remains a leading cause of death and long-term disability globally, necessitating continuous evaluation of evidence-based treatments in real-world clinical practice. While randomized controlled trials establish efficacy under controlled conditions, registries such as SITS are essential for monitoring safety, effectiveness, and implementation of a new treatment in routine care, as well as for generating evidence where randomized trial data are lacking.

SITS was founded in 1996 by investigators involved in the European Cooperative Acute Stroke Studies (ECASS) to support the safe introduction of intravenous thrombolysis. In 2002, SITS was endorsed by the European Medicines Agency as the official post-marketing registry for thrombolysis in acute ischemic stroke. Over time, the scope of SITS expanded to include endovascular thrombectomy, secondary prevention, intracerebral hemorrhage, cerebral venous thrombosis data entry forms and a broader stroke care quality metrics.

The purpose of this report is to document the continued growth of SITS, summarize accumulated evidence, and highlight the registry's role in advancing modern stroke care through real-world data and international collaboration.

The time span of the presented data is December 2002 – December 2025, illustrating the growth of SITS over 23 years. When writing this report, a total of 117 scientific articles based solely or partly on SITS data have been published/are accepted for publication in peer reviewed journals since 2007, with more than 400 co-authors. This would not have been possible without the dedicated efforts of SITS national, regional, local coordinators and local users.

The SITS network is expanding. More than 1500 stroke centres in over 90 countries on five continents have contributed with data to the registry. This makes SITS one of the world's largest stroke treatment databases and networks, with participation from many leading stroke experts, and one of the leading stroke registries globally, recognised for its international reach, extensive treatment data, and scientific impact.

Support and Funding

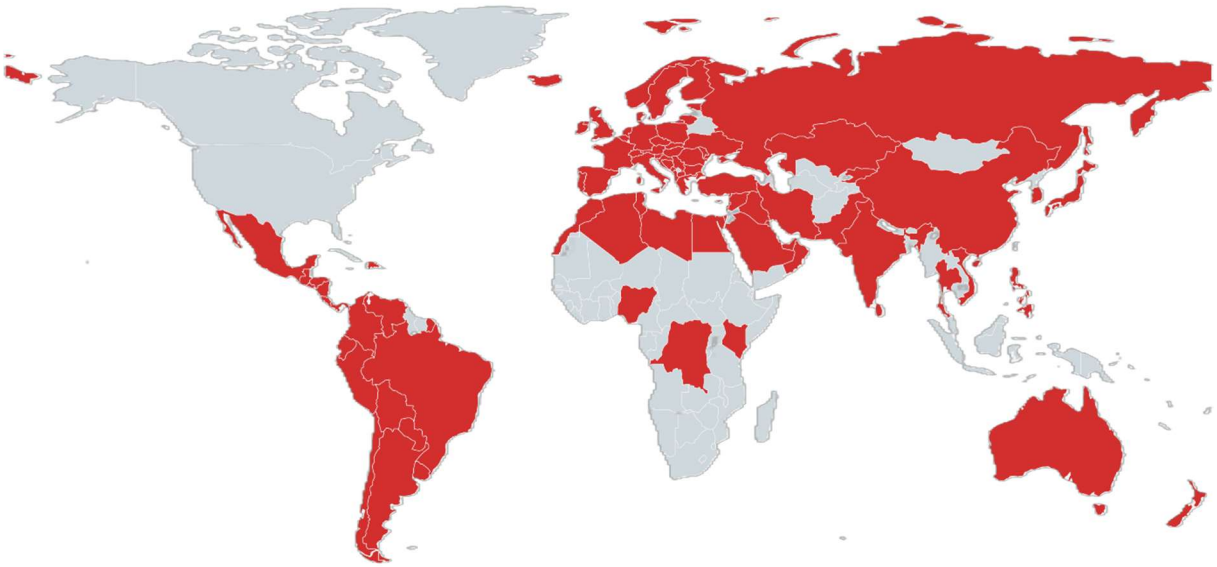
SITS is financed from an unrestricted sponsorship from Boehringer-Ingelheim. SITS studies have been financed directly and indirectly by grants from Karolinska Institutet, Stockholm County Council, the Swedish Heart-Lung Foundation and Angebys Foundation. SITS has previously been the Swedish Order of St. John, Friends of Karolinska Institutet, and private donors, as well as received grants from the European Union Framework 7, the European Union Public Health Authority and Ferrer Internacional. SITS-ICH study was supported by AstraZeneca until last year. SITS has completed studies supported by EVER Pharma and Biogen, as well as in collaboration with Karolinska Institutet, supported by the Swedish Heart and Lung Foundation, Stryker, Covidien, Phenox, Codman. SITS is currently conducting studies supported by Boehringer-Ingelheim.

Structure and Ethics

SITS operates as an independent, non-profit scientific collaboration, supported by an international Scientific Committee composed of leading stroke experts. The Committee advises on scientific activities, reviews research proposals and publications using the SITS registry, and helps uphold scientific quality and methodological standards.

SITS adheres to international ethical principles and participating centres are responsible for obtaining local ethical approval in accordance with national regulations. The SITS registry complies with applicable data protection legislation including the General Data Protection Regulation (GDPR). The SITS Registry is approved by the Research Ethics Committee in Stockholm, Sweden,.

SITS World Map



Countries in SITS

A
Albania
Algeria
Argentina
Armenia
Australia
Austria

B
Bahrain
Belgium
Bermuda
Bolivia
Bosnia and Herzegovina
Brazil
Bulgaria

C
Chile
China
Colombia
Costa Rica
Croatia
Cyprus*
Czech Republic
Democratic Republic of the Congo

D
Denmark
Dominican Rep.

E
Ecuador
Egypt
El Salvador
Estonia
Ethiopia*

F
Finland
France

G
Germany
Greece
Guatemala

H
Honduras
Hong Kong
Hungary

I
Iceland
India
Iran
Iraq
Ireland
Israel
Italy

J
Japan

K
Kazakhstan
Kenya*
Kuwait
Kyrgyzstan

L
Lebanon
Libya
Lithuania

M
Malta
Mexico
Moldova, Rep of.
Montenegro
Morocco

N
Netherlands
New Zealand
Nicaragua
Nigeria
North Macedonia
Norway

O
Oman

P
Pakistan
Panama
Paraguay
Peru
Philippines
Poland
Portugal

Q
Qatar

R
Romania
Russian Federation

S
Saudi Arabia
Serbia
Singapore
Slovakia
Slovenia
South Korea
Spain
Sri Lanka
Sweden
Switzerland
Syria

T
Thailand
Tunisia
Türkiye

U
Ukraine
United Arab Emirates
United Kingdom
Uruguay

V
Venezuela
Vietnam

SITS Studies and projects

Ongoing and Upcoming

SITS I-DOAC Study

The I-DOAC study addresses a gap in the management of acute ischemic stroke (AIS) in patients treated with direct oral anticoagulants (DOACs). Intravenous thrombolysis (IVT) is currently contraindicated in patients who have received DOACs within the previous 48 hours. However, emerging retrospective data suggest that IVT may be safe in this population. This study is designed as a large, international, registry-based, prospective, observational matched-controlled study, with data collection launched in January 2026 and planned to run through 2028.

SITS Tenecteplase study

Intravenous thrombolysis (IVT) with alteplase has until recently been the only approved pharmacological treatment for acute ischemic stroke (AIS). Tenecteplase is a genetically modified variant of alteplase, which has several advantages over alteplase including greater fibrin specificity, higher thrombolytic efficacy, and easier administration. Two recent randomized controlled trials (RCT) demonstrated non-inferiority of tenecteplase to alteplase in AIS. European Medicine Agency (EMA) has very recently approved tenecteplase 25 mg vial as IVT in AIS. SITS is aiming to investigate the safety and outcomes of IVT with tenecteplase in patients with AIS in routine clinical practice.

Intracerebral Haemorrhage (ICH) Registry and Study

Intracerebral haemorrhage (ICH) is the most devastating form of stroke, with 30-day mortality reaching 50% and half of the survivors suffering from severe disability. With emerging treatments, new diagnostic techniques and updated management guidelines for ICH, there is a need for a large international collaborative registry to enable better follow-up, care quality assurance, and research studies in this field. The SITS ICH data entry form is already becoming a valuable tool and network for clinicians and researchers striving to improve outcomes in the most severely afflicted stroke patients. Data collection for the SITS ICH study started in January 2024. The SITS-ICH study investigates acute management and outcomes in patients with spontaneous ICH and examines the association of care bundle protocol implementation with outcomes in routine clinical practice.

SITS CVT study

Cerebral venous thrombosis (CVT) is a rare cause of stroke, accounting for approximately 0.5–3.0% of all cases, with an estimated annual incidence of 1.2–1.6 per 100,000 person-years.
Data collection is ongoing, and we are planning to publish a descriptive study on the demographic and clinical characteristics, management, and outcomes of patients with CVT within the SITS CVT Registry. Several additional projects based on the CVT registry are currently under discussion. All participating center coordinators will be invited to contribute as co-authors to these studies.

SITS IVT Paediatric Study

Until recently, IVT with alteplase was not approved in patients with acute ischaemic stroke aged under 18 years. Based on observational data, regulatory authorities in several countries have now approved the use of IVT with alteplase in patients 16-18 years if other Summary of Product Criteria (SmPC) are fulfilled. Regulatory authorities have requested monitoring of treatment in this age group, and SITS will perform a study of IVT in patients with acute ischaemic stroke aged 16-17 years.

SITS Collaborative Project with Angels, ESO and WSO.

The Angels Initiative in collaboration with The European Stroke Organisation (ESO) and World Stroke Organisation (WSO) are currently conducting a Europe-wide and a world-wide project respectively, aiming to stimulate high quality in stroke management by awarding excellent performance in key quality factors, such as high proportion of ischaemic stroke patients undergoing reperfusion treatment, door-to-needle time, and proportion of patients treated in stroke units. To be able to participate in the Angels Award program through SITS, hospitals can use our quality data entry form called SITS-QR to qualify for several awards.

SITS Collaborative Project with AHA/ASA

SITS is collaborating with the American Heart Association/American Stroke Association (AHA/ASA) on a certification program to evaluate and provide hospitals with needed tools and support to achieve long-term success in improving stroke patient outcomes. Through this robust performance improvement program and dedicated staff, centres can achieve the goal to provide high quality stroke care. Certification provides a positive framework to guide hospitals on this journey. Currently this program has been launched in collaboration with AHA/ASA and Middle East and North Africa Stroke Organization (MENASO). Since 2025, Mexico is also able to certify through this program.

SITS Collaborative Project: MonitorISA (mISA)

MonitorISA is a quality improvement program initiated by the Italian Stroke Association and the Angels Initiative. SITS has been working closely with Professor Danilo Toni and the Italian Angels representatives to develop and translate an add-on to the SITS-QR protocol for Italian centres to be able to participate in the MISA program.

QR Latin America

In 2021, SITS developed a new add-on to the SITS-QR protocol in collaboration with Tony Fabian Alvarez Guzman and Sheila Martins from Brazil. This add-on gives centres the opportunity to register data not only for the Angels award, but also for the WSO certification program, Certificación de los Centros de ACV en Latinoamérica.

SITS APPNA-MERIT Collaboration

SITS has started a collaboration with the Association of Physicians of Pakistani Descent of North America and Medical Education, Research, International Training and transfer of Technology (the APPNA-MERIT organization). Together with SITS, several new ground-breaking research project is focusing on medical education and quality improvement in stroke care in Pakistan.

IV thrombolysis in India

There are currently limited data on iv thrombolysis (IVT) in acute ischemic stroke (AIS) from India. In collaboration with Indian National Coordinators, we aim to investigate the safety and outcome after IVT in AIS in India and to compare the results with available global data. The results of this study will be submitted for publication in an international peer revied journal.

Completed Studies

SITS-MOST

An open, prospective, non-randomised observational study of safety and efficacy of treatment with intravenous rt-PA within 3 hours of onset of acute ischaemic stroke, based on the SITS International Stroke Thrombolysis Register. Performed in European Union countries.

SITS-NEW

An observational study of safety and efficacy of intravenous rt-PA within 3 hours of symptom onset in acute ischaemic stroke patients, according to the Summary of Product Characteristics (SPC) of the countries involved. Performed in India, People´s Republic of China, Singapore, and South Korea.

SITS-UTMOST

A prospective, post-approval registry study of intravenous rt-PA (0.9 mg/kg) up to 4.5 hours after symptom onset in acute ischaemic stroke patients. The study has been completed and the main results were published in the European Stroke Journal in 2016.

SITS-OPEN

An international, multicentre, prospective, controlled, blinded evaluation study of safety and efficacy of thrombectomy in acute occlusive stroke. The trial results were published in Stroke in 2021.

SITS Thrombectomy Studies

Implementation of thrombectomy in large artery occlusive stroke in routine clinical practice was published in 2021. Until now more than 10 scientific articles have been published based solely or partly on thrombectomy data from the SITS Registry.

SITS Dabigatran Study

A retrospective study on timing of dabigatran initiation after acute ischaemic stroke in patients with atrial fibrillation was published in 2020.

SITS IVT > 80 years Study

A retrospective study based on prospective, post-approval registry of intravenous rt-PA (0.9 mg/kg) in acute ischaemic stroke patients over 80 years within the SITS-ISTR. Although IVT in patients > 80 years has been used off-label in many countries, treatment in patients > 80 years will probably increase further after approval. This study has been completed recently and the results of this study is under review for publication.

SITS Cerebral Oedema Study

Large hemispheric infarction often leads to high morbidity and mortality, and real-world data on clinical management, outcomes and healthcare utilization is limited. There is also a growing interest in understanding the efficacy and effectiveness on thrombectomy in patients with large infarcts. The number of incidents, current clinical management, recurrent strokes and functional outcomes, including how thrombectomy modifies the risk of cerebral oedema in patients with large hemispheric infarction, forms the basis for this study.

SITS-Thrombectomy in large artery occlusive stroke with minor stroke symptom
Safety and efficacy of endovascular thrombectomy plus intravenous thrombolysis versus intravenous thrombolysis alone in mild symptoms stroke with large vessel occlusion: propensity score matched analysis.

SITS Registries / Data entry forms

SITS Registry

The SITS Registry consists of several data entry forms designed to capture acute stroke management, care processes, and outcomes. Forms are automatically activated based on the selected treatment, ensuring efficient and context-specific data collection.

Core modules include intravenous thrombolysis, endovascular thrombectomy, general stroke and Intracerebral haemorrhage, atrial fibrillation, cerebral venous thrombosis, and stroke quality indicators. Many of the modules are available in both standard and minimal versions to accommodate varying resource settings while maintaining essential data completeness.

This modular design enables comprehensive documentation of routine clinical practice while minimizing administrative burden for participating centers.

Current data entry forms

Thrombolysis data entry forms - suitable for all stroke patients treated with IV thrombolysis.

- **Intravenous Thrombolysis, standard version (IVT-s) -** for registering stroke patients treated with IV thrombolysis.
- **Intravenous Thrombolysis, minimal version (IVT-m) -** for registering all stroke patients treated with IV thrombolysis. The minimal version omits certain variables at various time points, making it less extensive compared to IVT-s.

General Stroke data entry forms - suitable for any stroke and TIA patients who have not received IV thrombolysis or thrombectomy or for centres which do not use the IV thrombolysis or thrombectomy data entry forms.

- **All Patients, standard version (APP-s) -** for registering stroke and TIA patients who have not been treated with IV thrombolysis or thrombectomy or for centres which do not use the IV thrombolysis or thrombectomy data entry forms.
- **All Patients, minimal version (APP-m) -** for registering stroke and TIA patients who have not been treated with IV thrombolysis or thrombectomy. The minimal version omits certain baseline and imaging variables, 2-, and 24-hour follow-up.

Thrombectomy data entry forms - suitable for all stroke patients treated with thrombectomy.

- **Thrombectomy, standard version (TBYs) -** for registering stroke patients treated with thrombectomy with (bridging data entry forms) or without prior treatment with IV thrombolysis.
- **Thrombectomy, minimal version (TBY-m)** - for registering stroke patients treated with thrombectomy without prior treatment with IV thrombolysis. The minimal version omits certain variables.

Data entry forms for Atrial Fibrillation and with ongoing DOAC treatment - suitable for all patients admitted to hospital with an acute ischemic stroke or TIA, diagnosed with atrial fibrillation and taking DOAC treatment. This data entry form provides additional data entry options for details surrounding atrial fibrillation and DOAC.

SITS Quality data entry form (SITS-QR) – suitable for SITS centres that prefer a short and simple stroke care quality data entry form, which can be completed in under 5 minutes. It can be used by all centres to participate in the Angels Award Program.

SITS Cerebral Venous Thrombosis data entry form (SITS CVT) – enables documentation of CVT risk factors, aetiology, management, and outcomes of patients.

SITS ICH Registry

SITS International has created a large, international, collaborative protocol to document, evaluate and conduct research on intracerebral haemorrhage with the aim to help reduce the burden of the most severe type of stroke.

SITS Intracerebral Haemorrhage data entry form (SITS ICH) – suitable for all stroke patients suffering intracerebral haemorrhage and/or intraventricular haemorrhage. The layout and data entry form for the SITS ICH Registry is separate from the traditional SITS registry, which aims to simplify data entry.

SITS Data overview

The data presented in this section provides an overview of the progress of data collection across all data entry forms in the SITS Registry until December 31, 2025. Whereas the tables illustrate the overall number of patients entered, the graphs represent the number of registered patients for each data entry form over time. The development of patient characteristics for stroke treatment and care is also presented in the trend charts, based on patient data entered in the thrombolysis (IVT) and thrombectomy (TBY) data entry forms.

General SITS data overview

Data presented in this general overview is based on all unique patient files entered in the SITS registries between December 25, 2002 and December 31, 2025. Patient recruitment is calculated using unique patient files with both confirmed and unconfirmed data.

Figure 1. Cumulative patient recruitment in SITS:

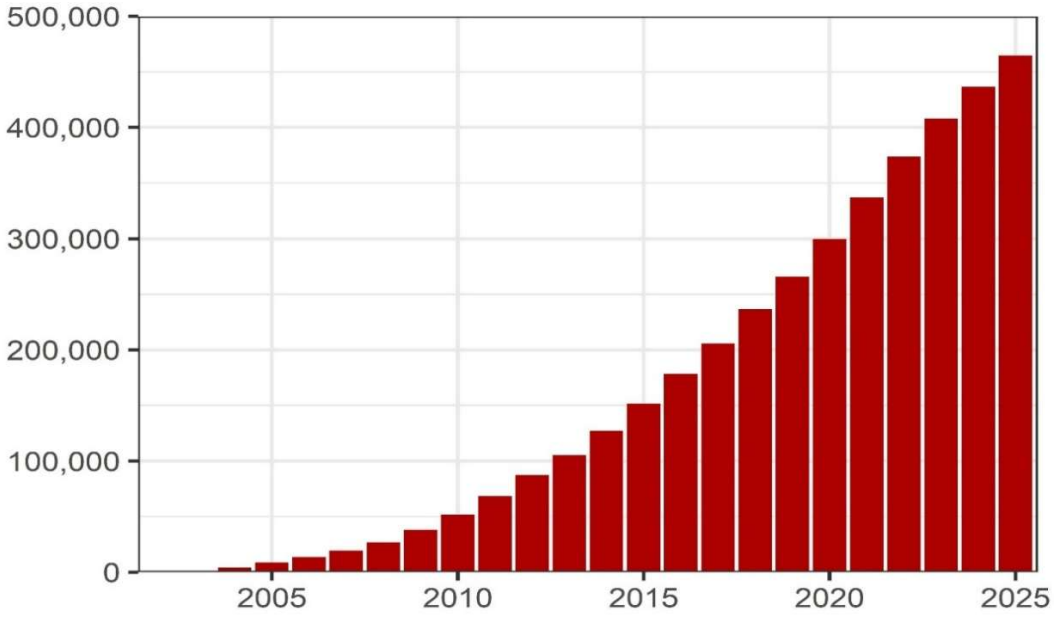


Table 1. Top 20 recruiting countries in SITS, all data entry forms

	Country	Patients
1	Italy	248,001
2	Brazil	51,397
3	Czech Republic	33,093
4	United Kingdom	31,154
5	Iran	30,679
6	Egypt	19,114
7	India	18,078
8	Sweden	16,103
9	Portugal	15,630
10	Qatar	13,814
11	Belgium	11,528
12	Poland	9,824
13	Germany	8,233
14	Slovakia	7,305
15	Estonia	6,570
16	Pakistan	6,383
17	Spain	5,663
18	Bulgaria	5,314
19	Russian Federation	4,954
20	Greece	4,908

Table 2. Number of patients registered per data entry form in SITS

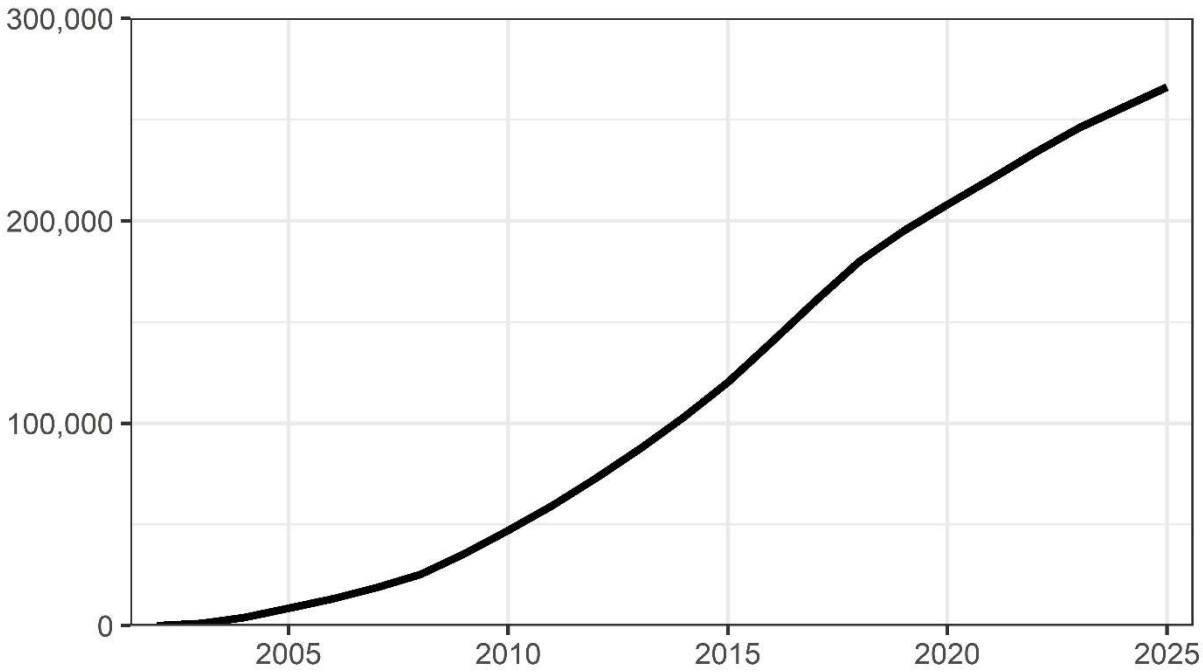
	Treatment type	Patients
1	IVT	247,806
2	TBY	16,933
3	IVT+TBY	18,288
4	APP	172,756
5	QR	158,791
6	CVTP	57

**Based on patient files in SITS, copies can occur.*

SITS Thrombolysis data overview

Data is based on all patient files entered between December 25, 2002 and December 31, 2025 using the standard and minimal SITS IV Thrombolysis data entry forms. Patient recruitment is calculated using unique patients with both confirmed and unconfirmed data.

Figure 2. Cumulative registration of patients in the IV thrombolysis data entry forms



**Based on patient files in SITS, copies can occur.*

Table 3. Top 20 recruiting countries in SITS using the IV thrombolysis data entry form

	Country	Patients, IVT treated
1	Italy	95,409
2	Czech Republic	31,680
3	United Kingdom	29,469
4	Sweden	10,069
5	Poland	7,936
6	Germany	7,381
7	Portugal	7,115
8	Iran	6,965
9	Belgium	6,706
10	Slovakia	6,282
11	Estonia	6,103
12	Brazil	5,699
13	Spain	4,895
14	Finland	3,736
15	Lithuania	3,614
16	Greece	3,578
17	Australia	3,058
18	Egypt	2,383
19	Denmark	2,375
20	Norway	2,121

IVT trends

Figure 3. Change in median age per year in patients with acute ischaemic stroke treated with IVT

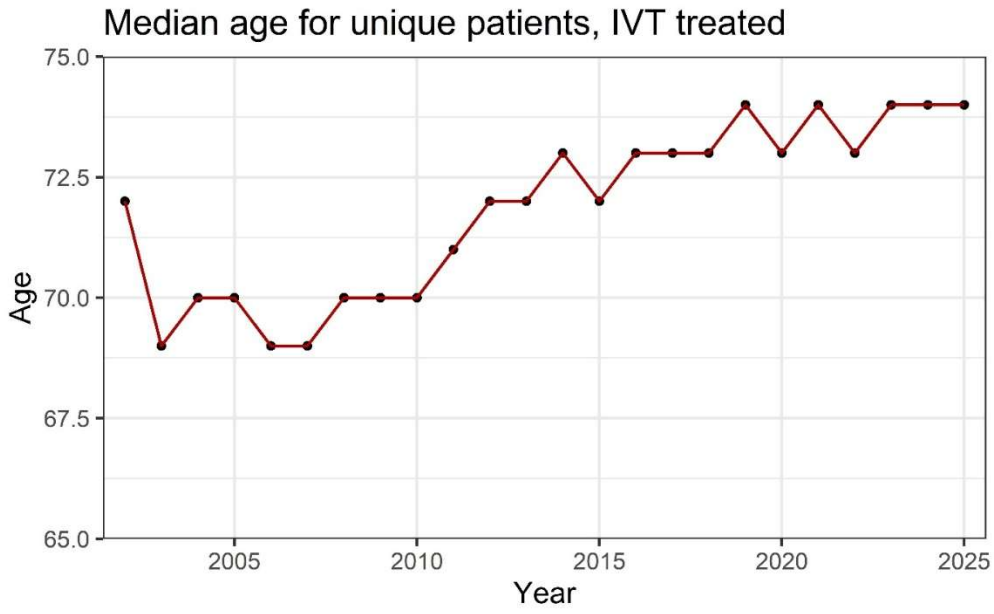


Figure 4. Change in median NIHSS score per year in patients with acute ischaemic stroke treated with IVT

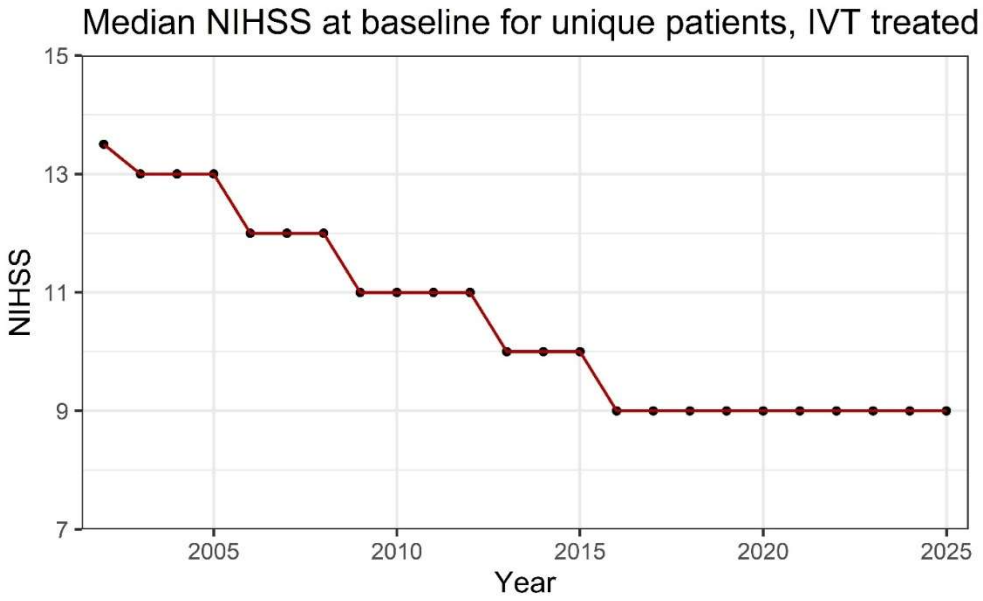


Figure 5. Change in median time logistics in minutes in IV thrombolysis treated patients - Onset to Door (OTD)

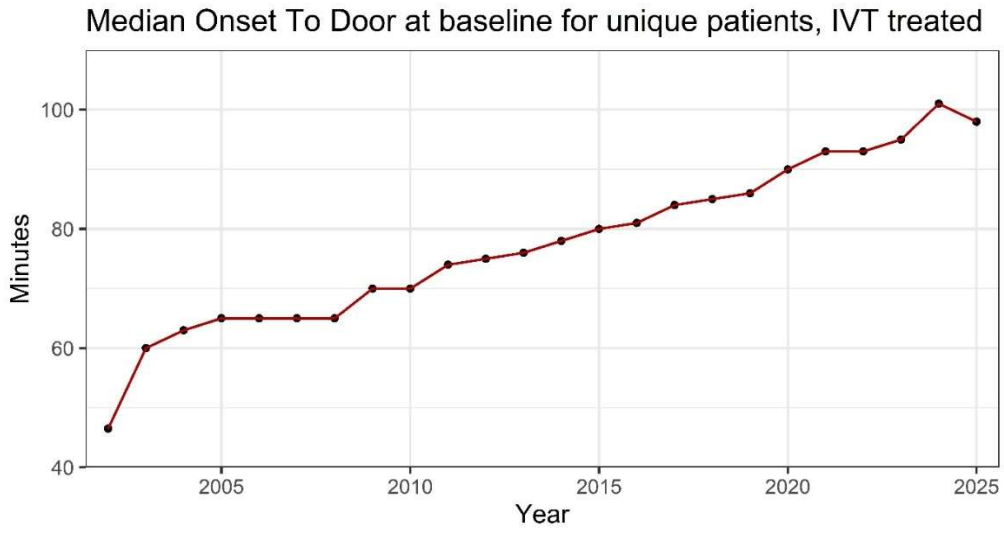


Figure 6. Change in median time logistics in minutes in IV thrombolysis treated patients - Onset to Treatment (OTT)

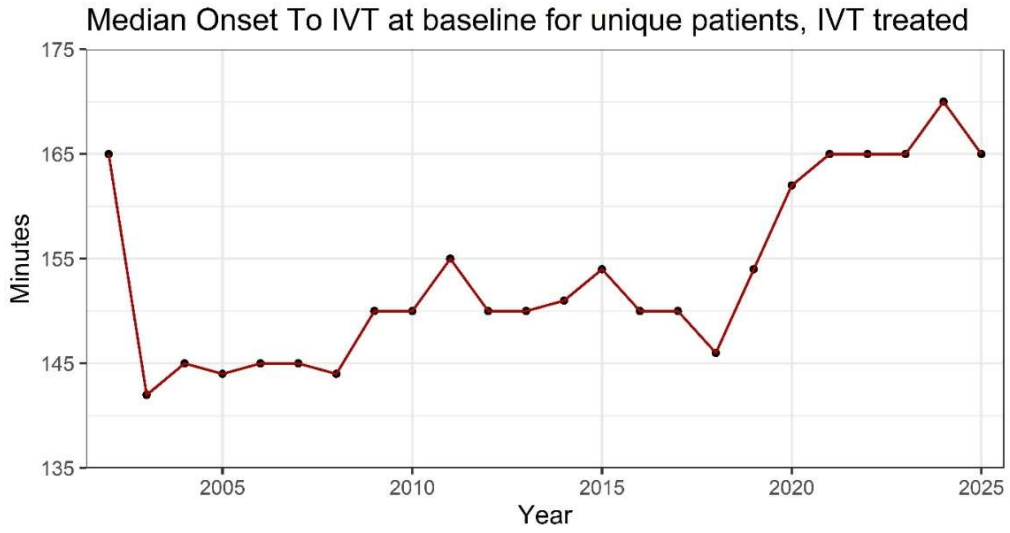
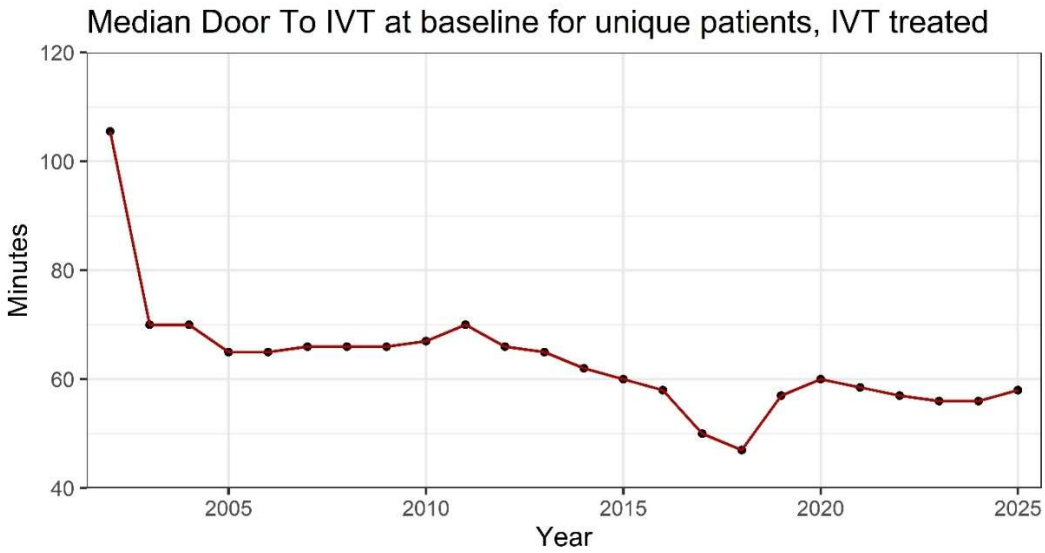


Figure 7. Change in median time logistics in minutes in IV thrombolysis treated patients - Door to Needle (DTN)



Outcome data

Intracerebral haemorrhage in patients treated with IVT

In the table below, frequency of intracerebral haemorrhage (ICH) of various types, and of symptomatic intracerebral haemorrhage (SICH) by three definitions, in patients treated with IV thrombolysis is presented. Data is based on more than 300 000 patients.

Table 4. Proportions of patients with intracerebral haemorrhage*

Bleedings, IVT treated	Percentage
HI1	4.8%
HI2	3.1%
PH1	2.5%
PH2	2.6%
PHr1	1.7%
PHr2	1%
SAH	4.1%
SICH SITS−MOST	1.3%
SICH modified SITS−MOST	1.6%
SICH ECASS	3.9%
SICH NINDS	5.6%

Haemorrhagic transformation Definitions

Haemorrhagic infarction type 1 (HI1): small petechiae along the margins of the infarct.

Haemorrhagic infarction type 2 (HI2): confluent petechiae within the infarcted area without space-occupying effect.

Parenchymal haemorrhage type 1 (PH1): local, or intra-ischemic confluent hematoma in ≤ 30% of the infarcted area with at the most some slight space-occupying effect.

Parenchymal haemorrhage type 2 (PH2): local, or intra-ischemic confluent hematoma >30% of the infarcted area with a substantial space-occupying effect.

Remote parenchymal haemorrhage type 1 (PHr1): small to medium sized hematoma located remote from the infarct(s), with mild space occupying effect.

Remote parenchymal haemorrhage type 2 (PHr2): large confluent hematoma in an area remote from the actual infarct(s), with substantial space occupying effect.

Symptomatic intracerebral haemorrhage (SICH) Definitions

SICH SITS-MOST: a local or remote parenchymal haemorrhage type 2 on the 22- to 36-h post-treatment imaging scan or earlier if clinically indicated, combined with a neurological worsening of ≥4 points between baseline and 24 h, or leading to death.

Modified SITS-MOST: any subarachnoid haemorrhage in the 22-36 hours post-thrombectomy imaging scans was added in addition to standard SITS-MOST definition.

SICH per ECASS II: Any intracranial haemorrhage with neurologic deterioration as indicated by an increase in NIHSS ≥4 compared to baseline or the lowest value within 7 days or leading to death.

SICH per NINDS: Any intracerebral haemorrhage on any post-treatment imaging scans combined with any decline in neurologic status as measured by NIHSS between baseline and 7d.

Figure 8. Outcome at 3 months in IVT treated patients
Data shows the distribution of patients on the modified Rankin Scale (mRS) as assessed at three months after the acute stroke.

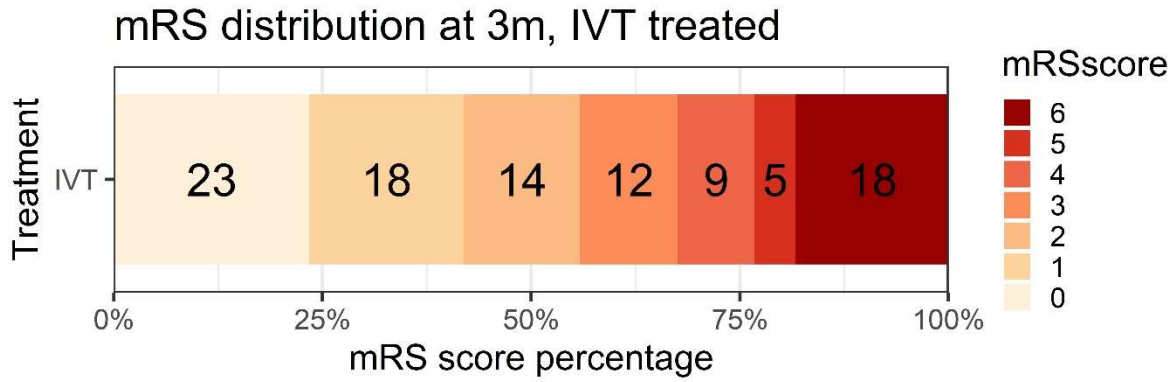


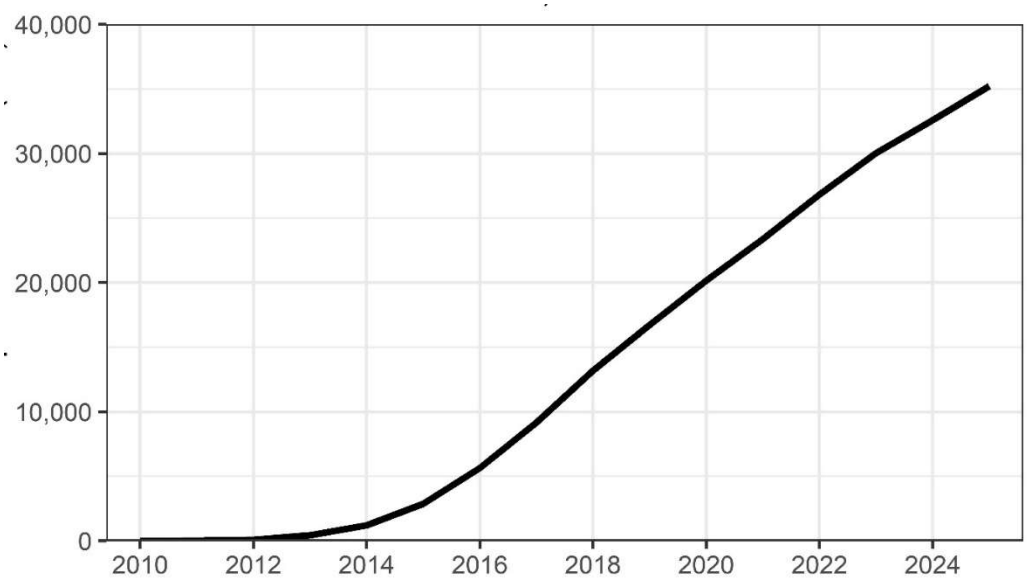
Table 5. Outcome at 3 months in IVT treated patients
Proportion of grouped mRS results
Excellent outcome (0-1), functional independence (0-2), death (6).

Outcomes, IVT treated	Percentage
mRS 0-1	41.9%
mRS 0-2	55.8%
Death	17.7%

SITS Thrombectomy data overview

Data is based on all patient files entered between 2014 and December 31, 2025, using the standard and minimal Thrombectomy forms and bridging of thrombectomy with IV thrombolysis. Patient recruitment is calculated using unique patients with both confirmed and unconfirmed data.

Figure 9. Cumulative registration of patients in the thrombectomy data entry forms



**Based on patient files in SITS, copies can occur.*

Table 6. Top 20 recruiting countries in SITS using the thrombectomy data entry forms

	Country	Patients, TBY treated
1	Italy	14,662
2	Portugal	5,160
3	Czech Republic	3,510
4	Sweden	1,765
5	Belgium	1,585
6	Estonia	1,258
7	Spain	1,254
8	Slovakia	1,110
9	Lithuania	986
10	Finland	748
11	United Kingdom	575
12	Türkiye	455
13	Greece	448
14	Egypt	254
15	Poland	234
16	United Arab Emirates	234
17	Germany	202
18	India	191
19	Russian Federation	129
20	Brazil	111

TBY trends

Figure 10. Change in median age per year in patients with acute ischaemic stroke treated with TBY

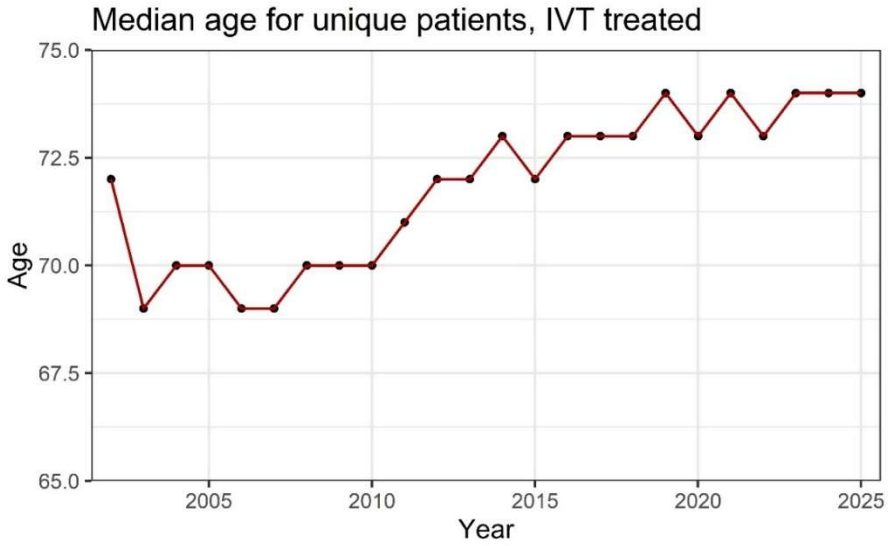


Figure 11. Change in median NIHSS score per year in patients with acute ischaemic stroke treated with TBY

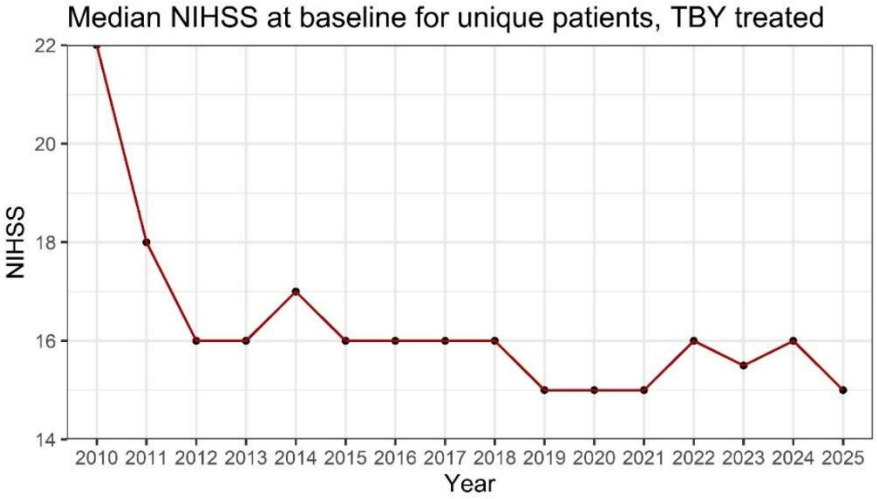
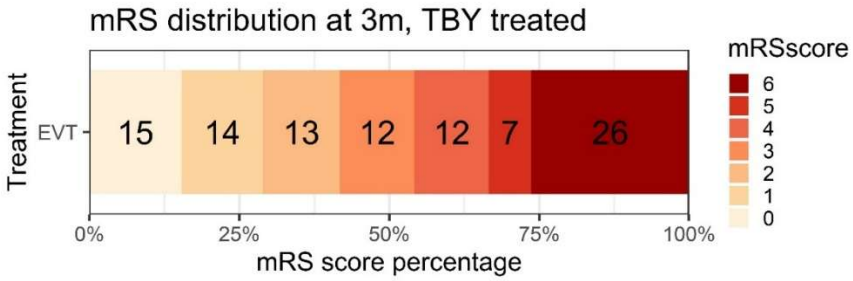


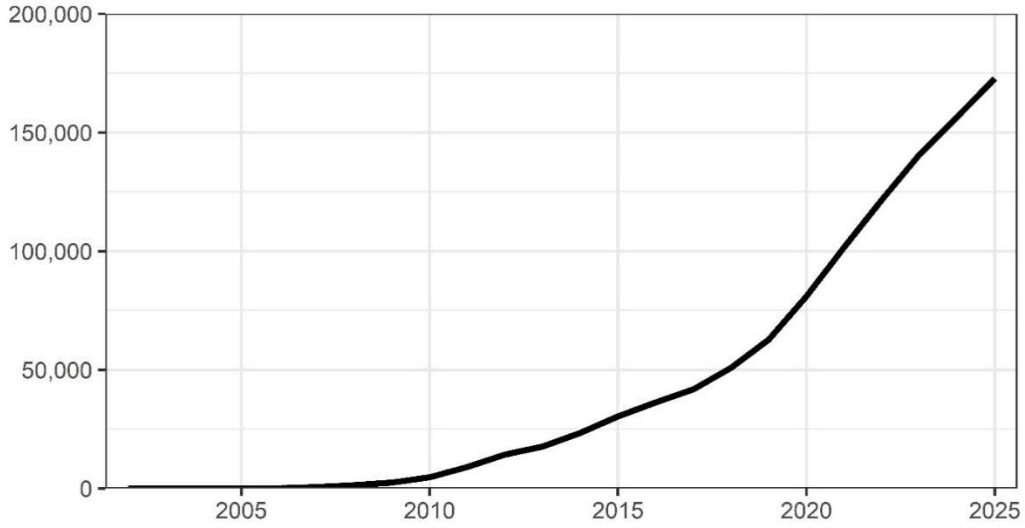
Figure 12. Outcome at 3 months in TBY treated patients



SITS General Stroke data overview (APP)

The SITS data entry form for general strokes is aimed at registering all stroke and TIA patients. This is done in our APP data entry forms. Recruitment numbers presented below are based on unique patients with confirmed and unconfirmed data entered until December 31, 2025.

Figure 13. Cumulative registration of patients in the general stroke data entry forms



**Based on patient files in SITS, copies can occur.*

SITS ICH Registry

The SITS ICH registry is aimed at registering all intracebral and or intraventricular hemorrhage patients. Until December 31, 2025, 2625 patients had been entered in this data entry form, and since the launch of the SITS ICH study, the number of patients is increasing. The SITS-ICH was study launched in January 2024 and continue data collection until December 2026. As per December 2025, 53 centres from 23 countries have contributed data by entering their patients into the ICH registry.

Figure 14. Cumulative patient recruitment in SITS ICH Registry

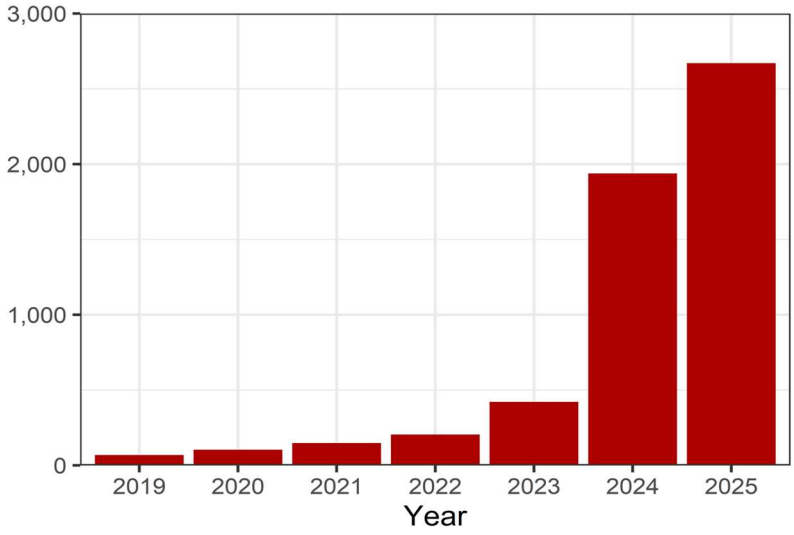


Table 7. Top 20 recruiting countries in SITS ICH Registry

	Country	Patients
1	Italy	528
2	United Kingdom	335
3	Poland	207
4	Egypt	193
5	Slovenia	192
6	Malta	174
7	Iran	172
8	Sweden	152
9	Belgium	136
10	Syria	113
11	Bulgaria	94
12	Russian Federation	75
13	Romania	70
14	Greece	65
15	Sri Lanka	52
16	Croatia	44
17	Tunis	24
18	Turkey	13
19	Slovakia	9
20	Israel	6

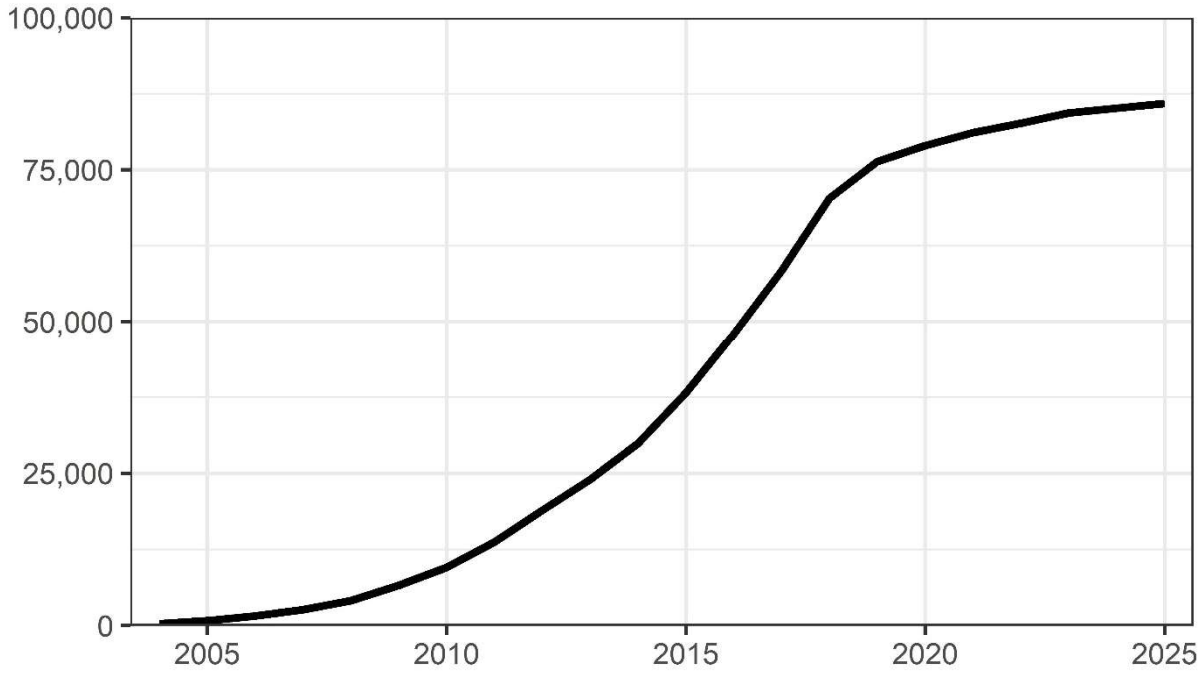
SITS network

SITS EAST

SITS–EAST is a regional network in Central and Eastern Europe.
It started as a study of implementation of evidence-based stroke therapy supported by the SITS International Registry. This initiative started in 2007 with the support of a grant from the European Union. It is now an ongoing collection of data within the registry for the documentation and statistical evaluation of stroke management in Eastern Europe. Recruitment numbers presented below are based on unique patients with confirmed and unconfirmed data entered until December 31, 2025.

Contributing countries*:
Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Kazakhstan, Kyrgyzstan, Lithuania, Montenegro, North Macedonia, Moldova, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Türkiye, Ukraine.
**See the Appendix for contributing centres.*

Figure 15. Cumulative recruitment of patients within the SITS-EAST network– all data entry forms



**Based on patient files in SITS, copies can occur.*

Table 8. Number of unique patient files registered per data entry form within the SITS-EAST network

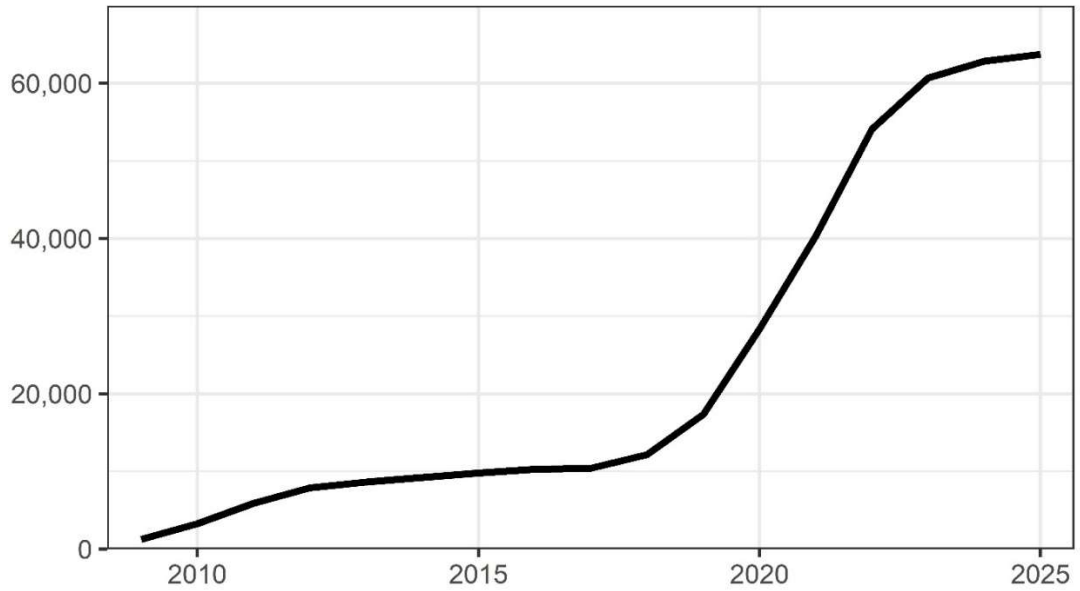
	Treatment type	Patients
1	IVT	63,526
2	TBY	2,936
3	IVT+TBY	5,242
4	APP	16,160
5	QR	2,319

SIECV-SITS

The SIECV-SITS is a regional network in Central- and South America. It was initiated through a joint venture by Sociedad Iberoamericana de Enfermedades Cerebrovasculares (SIECV) and SITS. Recruitment numbers presented below are based on unique patients with confirmed and unconfirmed data, entered until December 31, 2025. Since 2018, Sheila Martins functions as the International Regional Coordinator for SIECV-SITS.

Contributing countries*:
Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela.
**See the Appendix for contributing centres.*

Figure 16. Cumulative recruitment of patients within the SIECV-SITS network – all data entry forms



**Based on patient files in SITS, copies can occur.*

Table 9. Number of unique patient files registered per data entry form within the SIECV-SITS network

	Treatment type	Patients
1	IVT	6,520
2	TBY	91
3	IVT+TBY	33
4	APP	32,032
5	QR	25,047

SITS Sub-Saharan Africa

The SITS Sub-Saharan Africa is a regional network south of Sahara. Recruitment numbers presented below are based on unique patients with confirmed and unconfirmed data, entered until December 31, 2025. This is a region where we are currently working on recruiting hospitals. With more hospitals comes more data, hence research and quality will be the aim for the future.

Contributing countries*:
Democratic Republic of the Congo, Kenya, Nigeria.
**See the Appendix for contributing centres.*

Table 10. Number of unique patient files registered per data entry form within the SITS Sub-Saharan Africa network

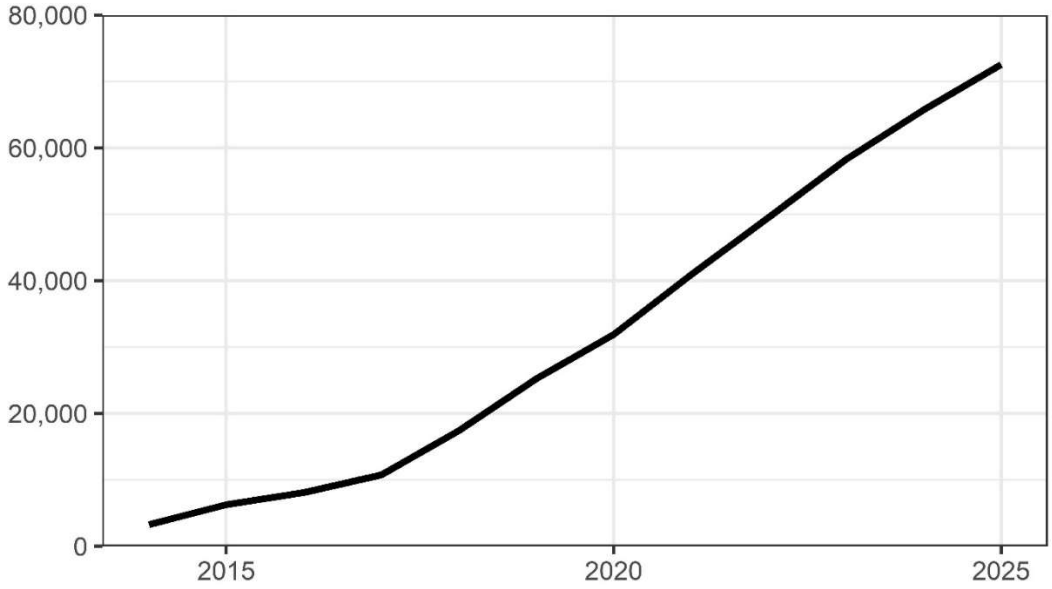
	Treatment type	Patients
1	APP	53

SITS-MENA

The SITS-MENA regional network was initiated in 2013 and includes countries in the Middle East and North Africa. Since 2018, Suhail Al Rukn functions as the International Regional Coordinator for the SITS-MENA region. Recruitment numbers presented below are based on patient files with confirmed and unconfirmed data, entered until December 31, 2025.

Contributing countries*:
Algeria, Bahrain, Egypt, Iran, Iraq, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Israel and Jordan.
**See the Appendix for contributing centres.*

Figure 17. Cumulative recruitment of patients within the SITS-MENA network – all data entry forms



**Based on patient files in SITS, copies can occur.*

Table 11. Number of unique patient files registered per data entry form within the SITS-MENA network

	Treatment type	Patients
1	IVT	11,110
2	TBY	357
3	IVT+TBY	305
4	APP	33,545
5	QR	27,152
6	CVTP	46

SITS Award 2025

Each year, SITS selects the top 20 centres fulfilling the highest standards of data collection into the SITS Registry over the last year (2025). The SITS Top Centres list was initiated to encourage centres to continue to enter high quality data into the SITS Registry and in keeping with our mission - to assure excellence in acute treatment and secondary prevention of stroke, and facilitate clinical research.

Diplomas for 2025 top centres in SITS using the IVT/TBY/APP data entry forms:

IV Thrombolysis:

United Kingdom	Newcastle upon Tyne Hospitals NHS Foundation Trust	Janna Byers
Portugal	Hospital Sao Jose - CHLC	Ana Paiva Nunes
United Kingdom	Northampton General Hospital	Magdalena Karwacka-Cichomska
Belgium	CHU St. Luc - Woluwe	Pasquale Scoppettuolo
Greece	Korgialenio-Benakio Greek Red - Cross General Hospital of Athens	Argyro Kiamili
Egypt	Ain Shams Universities	Tamer Roushdy
Italy	Policlinico Bari	Marco Petruzzellis
Italy	Ospedale dei Castelli	Fabrizio Sallustio
Italy	R. Dimiccoli	Maria Stella Aniello, Maurizio Giorelli, Ruggiero Leone
Italy	"Di Venere"	Giuseppe Rinaldi

Thrombectomy:

Egypt	Ain Shams Universities	Tamer Roushdy
Belgium	CHU St. Luc - Woluwe	Pasquale Scoppettuolo
Spain	Hospital San Carlos	Jose Egido
Portugal	Hospital Sao Jose - CHLC	Ana Paiva Nunes
Greece	Korgialenio-Benakio Greek Red Cross General Hospital of Athens	Argyro Kiamili
Italy	Policlinico Bari	Marco Petruzzellis

All Patients (APP):

Egypt	Ain Shams Universities	Tamer Roushdy
Portugal	Hospital Sao Jose - CHLC	Ana Paiva Nunes
Italy	Policlinico Bari	Marco Petruzzellis
Italy	R. Dimiccoli	Maria Stella Aniello, Maurizio Giorelli, Ruggiero Leone

What is new in SITS – current and future

Currently in SITS

The number of centres and countries participating in SITS has increased further during 2025, with patient input reaching new levels. This is a strong indicator that SITS remains highly relevant for centres treating acute stroke patients worldwide.

We have made significant advancements in our data entry forms in recent years and data collection for 3 new studies are ongoing in addition to several ongoing projects are ongoing and upcoming from our international network.

Our presence at events such as ESOC, WSC and various regional and national conferences has allowed us to engage with collaborators, new investigators, and industry leaders.

SITS FUTURE

SITS remains committed to advancing collaboration, high-quality research in stroke treatment and prevention, as well as continuous quality improvement and benchmarking. We actively encourage participation in research at all levels—from local initiatives to international collaborations. Our real-time online reporting system provides an accessible tool for quality improvement and benchmarking.

The SITS Coordination Office continues to refine and improve the user experience. A new registry platform is currently in development, designed to further streamline data collection and reporting, and to facilitate efficient, reliable data collection and contributions to research and quality improvement.

We also recognise and commend centres achieving high recruitment rates and data completeness. Their efforts set an important standard and contribute significantly to the strength and credibility of the registry.

This report summarises current patient and centre recruitment, as well as ongoing and upcoming activities. The next report is planned for release in spring 2027.

We welcome feedback from our users and collaborators. Your input is essential for the continued development of SITS and for strengthening our shared goal: improving stroke care and patient outcomes worldwide.

SITS Publications

These publications are solely or partly based on data collected in the SITS International registry.

117. Säflund M, Matusevicius M, Egido JA, Ferro JM, Kõrv J, Melis M, Peeters A, Petruzzellis M, Rand VM, Vilionskis A, Melancia D, Aguiar de Sousa D, Mazya MV, Moreira T, Ahmed N. **Initiation of direct oral anticoagulation after reperfusion therapy in ischemic stroke in clinical practice: Results from Sits-International Stroke Registry.** Eur Stroke J. 2025 Mar 14:23969873251325978. doi: 10.1177/23969873251325978. Epub ahead of print. PMID: 40087880; PMCID: PMC11909654. [PubMed]

116. Matusevicius M, Säflund M, Balestrino M, Cappellari M, Ferrandi D, Ghoreishi A, Peeters A, Rand VM, De Michele M, Vilionskis A, Zini A, Ahmed N. **Intravenous Thrombolysis in Patients Taking Direct Oral Anticoagulation Treatment Before Stroke Onset: Results from the Safe Implementations of Treatments in Stroke International Stroke Registry.** Ann Neurol. 2025 Feb 4. doi: 10.1002/ana.27189. Epub ahead of print. PMID: 39902556. [PubMed]

115. Matusevicius M, Paiva Nunes A, Krishnan M, Egido J, Concari L, Dixit A, Reggiani M, Pagès A, Danays T, Toni D, Ahmed N. **Safe Implementation of Treatments in Stroke: a study on intravenous thrombolysis in patients over 80 years of age with acute ischaemic stroke.** BMJ Open. 2025 Jan 11;15(1):e087454. doi: 10.1136/bmjopen-2024-087454. PMID: 39800396; PMCID: PMC11751842. [PubMed]

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113. Schwarz G, Cascio Rizzo A, Matusevicius M, Moreira T, Vilionskis A, Naldi A, Martinez-Majander N, Bigliardi G, Toni D, Roffe C, Agostoni EC, Ahmed N. **Reperfusion treatment in basilar artery occlusion presenting with mild symptoms.** Eur Stroke J. 2024 Aug 20:23969873241272517. doi: 10.1177/23969873241272517. Epub ahead of print. PMID: 39162131; PMCID: PMC11569457. [PubMed]

112. Halúsková S, Herzig R, Mikulík R, Bělašková S, Reiser M, Jurák L, Václavík D, Bar M, Klečka L, Řepík T, Šigut V, Tomek A, Hlinovský D, Šaňák D, Vyšata O, Vališ M, On Behalf Of The Czech Sits Investigators. **Intravenous Thrombolysis in Posterior versus Anterior Circulation Stroke: Clinical Outcome Differs Only in Patients with Large Vessel Occlusion.** Biomedicines. 2024 Feb 9;12(2):404. doi: 10.3390/biomedicines12020404. PMID: 38398006; PMCID: PMC10887309. [PubMed]

111. Cappellari M, Pracucci G, Saia V, Fainardi E, Casetta I, Sallustio F, Ruggiero M, Longoni M, Simonetti L, Zini A, Lazzarotti GA, Giannini N, Da Ros V, Diomedi M, Vallone S, Bigliardi G, Limbucci N, Nencini P, Ajello D, Marcheselli S, Burdi N, Boero G, Bracco S, Tassi R, Boghi A, Naldi A, Biraschi F, Nicolini E, Castellan L, Del Sette M, Allegretti L, Sugo A, Buonomo O, Dell'Aera C, Saletti A, De Vito A, Lafe E, Mazzacane F, Bergui M, Cerrato P, Feraco P, Piffer S, Augelli R, Vit F, Gasparotti R, Magoni M,

Comelli S, Melis M, Menozzi R, Scoditti U, Cavasin N, Critelli A, Causin F, Baracchini C, Guzzardi G, Tarletti R, Filauri P, Orlandi B, Giorgianni A, Cariddi LP, Piano M, Motto C, Gallesio I, Sepe FN, Romano G, Grasso MF, Pauciulo A, Rizzo A, Comai A, Franchini E, Sicurella L, Galvano G, Mannino M, Mangiafico S, Toni D, On Behalf Of The Iretas Group. **IV thrombolysis plus thrombectomy versus IV thrombolysis alone for minor stroke with anterior circulation large vessel occlusion from the IRETAS and Italian SITS-ISTR cohorts.** Neurol Sci. 2025 Dec;44(12):4401-4410. doi: 10.1007/s10072-023-06948-w. Epub 2025 Jul 17. PMID: 37458843. [PubMed]

110. Klail T, Sedova P, Vinklarek JF, Kovacova I, Bar M, Cihlar F, Cernik D, Kočí L, Jura R, Herzig R, Husty J, Kocher M, Kovar M, Nevšímalová M, Raupach J, Rocek M, Sanak D, Sevcik P, Skoloudik D, Sramek M, Vanicek J, Vaško P, Vaclavik D, Tomek A, Mikulik R. **Safety and Efficacy of Baseline Antiplatelet Treatment in Patients Undergoing Mechanical Thrombectomy for Ischemic Stroke: Antiplatelets Before Mechanical Thrombectomy.** J Vasc Interv Radiol. 2025 Sep;34(9):1502-1510.e12. doi: 10.1016/j.jvir.2025.05.017. Epub 2025 May 14. PMID: 37192724. [PubMed]

109. Cappellari M, Saia V, Pracucci G, Casetta I, Fainardi E, Sallustio F, Ruggiero M, Romoli M, Simonetti L, Zini A, Lazzarotti GA, Orlandi G, Vallone S, Bigliardi G, Renieri L, Nencini P, Semeraro V, Boero G, Bracco S, Tassi R, Castellano D, Naldi A, Biraschi F, Nicolini E, Del Sette B, Malfatto L, Allegretti L, Tassinari T, Tessitore A, Ferraù L, Saletti A, De Vito A, Lafe E, Cavallini A, Bergui M, Bosco G, Feraco P, Bignamini V, Mandruzzato N, Vit F, Mardighian D, Magoni M, Comelli S, Melis M, Menozzi R, Scoditti U, Cester G, Viario F, Stecco A, Fleetwood T, Filauri P, Sacco S, Giorgianni A, Cariddi LP, Piano M, Motto C, Gallesio I, Sepe F, Romano G, Grasso MF, Lozupone E, Fasano A, Comai A, Franchini E, Bruni S, Silvestrini M, Chiumarulo L, Petruzzelli M, Pavia M, Invernizzi P, Puglielli E, Casalena A, Pedicelli A, Frisullo G, Amistà P, Russo M, Allegritti M, Caproni S, Mangiafico S, Toni D; IRETAS Group. **Stroke with large vessel occlusion in the posterior circulation: IV thrombolysis plus thrombectomy versus IV thrombolysis alone**. J Thromb Thrombolysis. 2025 Oct;56(3):454-462. doi: 10.1007/s11239-023-02844-4. Epub 2025 Jun 28. PMID: 37378700. [PubMed]

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104. Escudero-Martínez I, Thorén M, Matusevicius M, Cooray C, Zini A, Roffe C, Toni D, Tsivgoulis G, Ringleb P, Wahlgren N, Ahmed N. **Association of cholesterol levels with hemorrhagic transformation and cerebral edema after reperfusion therapies.** Eur Stroke J. 2025 Mar;8(1):294-300. doi: 10.1177/23969873221148229. Epub 2022 Dec 28. PMID: 37021184; PMCID: PMC10069196. [PubMed]

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102. Schwarz G, Cascio Rizzo A, Matusevicius M, Giussani G, Invernizzi P, Melis F, Lesko N, Toni D, Agostoni EC, Ahmed N. **Reperfusion Treatments in Disabling Versus Nondisabling Mild Stroke due to Anterior Circulation Vessel Occlusion**. Stroke. 2025 Mar;54(3):743-750. doi: 10.1161/STROKEAHA.122.041772. Epub 2025 Feb 27. PMID: 36848431. [AHA Journals]

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100. Escudero-Martínez I, Thorén M, Ringleb P, Nunes AP, Cappellari M, Rand VM, Sobolewski P, Egido J, Toni D, Chen SY, Tsao N, Ahmed N. **Cerebral Edema in Patients with severe Hemispheric Syndrome: Incidence, Risk Factors, and Outcomes-Data from SITS-ISTR**. J Stroke. 2025 Jan;25(1):101-110. doi: 10.5853/jos.2022.01956. Epub 2022 Dec 6. PMID: 36470246; PMCID: PMC9911855. [Journal of Stroke]

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Appendix

List with centres contributing with data to the SITS Registry between December 25, 2002 and December 31, 2025.