



**SITS – SAFE IMPLEMENTATION
OF TREATMENTS IN STROKE**

SITS Report 2017

Dear Reader,

SITS started as an internet based registry for intravenous thrombolysis already in 1996. In 2002 it was given a broader international role when European Union authorities requested that all patients treated with thrombolysis should be registered in SITS for a period of three years.

Today, over 200 000 patient files are included from over 80 countries. 64 scientific reports have been published in international peer-reviewed journals based on SITS data, and many abstracts have been presented at different stroke conferences. This year, 7 abstracts based on SITS data, have been accepted at ESOC 2018 in Gothenburg, Sweden.

With endovascular thrombectomy and direct oral anticoagulants revolutionising stroke care in recent years, SITS has enabled registration of data from patients who have received these and other modern therapies. We have also started trials which use the same electronic case record forms but are separated from the registry, such as the recently completed SITS-OPEN trial. This year has seen the launch of a new data entry protocol for stroke quality parameters, the SITS-QR protocol, intended to be available for use in west- and non-European countries and which can be used for the ESO-Angels Award Program.

On May 25th, new General Data Protection Policy (GDPR) comes into effect in the EU. GDPR imposes new obligations on organisations like SITS to protect personal data, and SITS is taking several measures to be compliant. SITS will for instance implement safeguards like data minimization, 2-factor authentication and extended user terms and conditions, by May 25th.

With this annual report we give an overview of the data, ongoing and planned activities, and a list of our publications. We take the opportunity to acknowledge the contributions of more than 200 authors involved in these publications. National, regional and local coordinators, and users at participating centres are also acknowledged in this report. We thank our Scientific Committee members (previous and current) who overview the scientific activities in SITS and contribute with their expert knowledge. We also pass on our thanks to all patients participating in the registry. Last but not least, we are grateful to our team members at the SITS Coordination Office who have been involved in the preparation of this report.

Kind regards,



Nils Wahlgren
Chairman SITS International



Niaz Ahmed
Vice-Chairman SITS International

SITS Scientific Committee Members

Prof. Nils Wahlgren, Sweden (Chairman)
Associate Prof. Niaz Ahmed, Sweden
Prof. Valeria Caso, Italy
Prof. Antoni Davalos, Spain
Prof. Gary A. Ford, United Kingdom
Prof. Werner Hacke, Germany
Prof. Lawrence Ka Sing Wang, Hong Kong
Prof. Kennedy R. Lees, United Kingdom
Associate Prof. Robert Mikulik, Czech Republic
Prof. Risto Roine, Finland
Prof. Turgut Tatlisumak, Finland
Prof. Danilo Toni, Italy

Previous members of the Scientific Committee

Prof. Markku Kaste, Finland
Prof. Michael Hennerici, Germany
Prof. Martin Grond, Germany
Prof. Cesare Fieschi, Italy
Prof. Vincent Larrue, France

Current SITS Coordination Team Members

Prof. Nils Wahlgren, MD, PhD, FESO, Chairman
Assoc. Prof. Niaz Ahmed, MD, PhD, Executive Vice Chairman, Senior Researcher
Charlotte Lahnborg Alme, PhD, COO - Chief Operating Officer
Michael V. Mazya, MD, PhD, Network and Research Executive
Tiago Moreira, MD, PhD, Research Executive
Johan Lundberg, MSc, Project Leader for Registry Development
Isa Ek, Executive and Network Coordinator Assistant
Shayer Rizvi, MSc, User Services and IT Manager
Linda Ekström, Research nurse

Writing / Working group of this report

Michael V. Mazya
Niaz Ahmed
Nils Wahlgren
Charlotte Lahnborg Alme
Isa Ek

Contents

Background and purpose	4
Support and Funding	4
SITS Studies – completed, current and planned	5
SITS Registries and Data entry forms	7
SITS World map	8
Current countries in SITS	9
General SITS data overview	10
SITS Thrombolysis Registry	11
Outcome data	12
SITS Thrombectomy Registry	15
SITS General Stroke Registry	17
SITS-EAST	20
SIECV-SITS	24
SITS-MENA	25
What is new in SITS – current and future	27
SITS Publications	29
Appendix	35

Background and purpose

SITS (Safe Implementation of Treatment in Stroke) is a non-profit, research-driven, independent, international collaboration. It is an initiative by the medical profession to assure excellence in acute treatment and secondary prevention of stroke, as well as to facilitate clinical trials.

SITS started in 1996 as an initiative by participants in the European-Australian randomised stroke thrombolysis studies (ECASS). In 2002, the European Medicines Agency (then EMEA, currently EMA) endorsed SITS as the registry for follow-up on thrombolysis treatment in acute ischemic stroke. SITS has since developed its services to enable follow-up of other evidence-based treatments in acute stroke such as thrombectomy, as well as secondary prevention.

The purpose of this report is to demonstrate how the registry has developed since 2002 with updated data since the previous report of 2016 and summarize how SITS has contributed to the body of knowledge on modern stroke treatment. The time span of the presented data is December 2002 – December 2017, illustrating the growth of SITS over 15 years. More than 60 scientific articles based on SITS data have been published in peer reviewed journals since 2002, with over 200 co-authors. This would not have been possible without the dedicated efforts of SITS national, regional, and local coordinators, as well as local users.

The SITS network now includes over 1100 stroke centres in more than 80 countries on five continents. This makes SITS the world's largest stroke network, with the participation of many leading stroke experts.

Support and Funding

SITS is financed directly and indirectly by grants from Karolinska Institutet, Stockholm County Council, the Swedish Heart and Lung Foundation, the Swedish Order of St. John, Friends of Karolinska Institutet, and private donors, as well as from an unrestricted sponsorship from Boehringer-Ingelheim.

SITS has previously received grants from the European Union Framework 7, the European Union Public Health Authority and Ferrer Internacional.

SITS has recently completed studies supported by EVER Pharma, as well as in collaboration with Karolinska Institutet, supported by the Swedish Heart and Lung Foundation, Stryker, Covidien, Phenox, and Codman. SITS is currently conducting studies supported by Boehringer-Ingelheim.

SITS Studies – completed, current and planned

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 controlled study of safety and efficacy of thrombectomy in acute occlusive stroke. The study database was locked on 15 April 2018, and preparation for data analysis is ongoing.

SITS AF Educational program – a survey and meeting based interventional educational program aiming to identify factors that facilitate or hamper initiation of oral anticoagulants (OACs) in AF patients after IS or TIA. The intervention study is based on these identified factors and investigates the impact of implemented practice changes on the use of OACs in secondary stroke prevention.

Ongoing studies/projects

SITS TBY Study – A retrospective and prospective registry study of implementation of thrombectomy in routine clinical practice.

SITS AF Study 1 – A retrospective and prospective study to identify the safest and most effective time point for initiation of oral anticoagulation (OAC) following ischaemic stroke of different severity in patients with atrial fibrillation.

SITS AF Study 2 – A retrospective and prospective study to investigate the type, timing, safety and reasons for choice of acute interventions in patients taking direct OACs or warfarin prior to stroke onset. This study shall also evaluate the use of idarucizumab in patients on dabigatran suffering acute stroke.

SITS Fertile Woman Study – A retrospective and prospective study of intravenous rt-PA (0.9 mg/kg) given up to 4.5 hours after symptom onset in female acute ischaemic stroke patients, aged between 13 and 50 years, with particular focus on pregnancy and menstruation.

SITS Collaborative Project

ESO-Angels – The European Stroke Organisation (ESO) is currently implementing a Europe-wide project 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. Based on requests from numerous SITS users, we created the SITS-Quality Registry (SITS-QR) which can be used by SITS centers, including those participating in the ESO-Angels Award Program or the Angels Program outside ESO member countries.

Planned Projects

Intracerebral Haemorrhage (ICH) Network and Registry Intracerebral haemorrhage 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 planned SITS ICH registry and network will become a valuable tools for clinicians and researchers striving to improve outcomes in these most severely afflicted stroke patients.

SITS Seizure Study

A prospective study of seizures in acute stroke patients treated with intravenous rt-PA (0.9 mg/kg) up to 4.5 hours after symptom onset.

I-SITS

SITS International is preparing to create an imaging registry in collaboration with the SITS National Coordination Centre / SITS EAST Regional Coordination Centre in Brno, Czech Republic headed by Dr Robert Mikulik. Once established, images may be saved through links from the SITS registry data items for neuroimaging, so that clinical and imaging data can be coordinated.

SITS-TEST

The SITS Tenecteplase in Ischemic Stroke Monitoring Study (SITS-TEST): In the SITS IVT registry, it is now possible to enter whether Tenecteplase is used as IVT therapy in acute ischemic stroke. SITS is planning to perform an observational study of safety and efficacy of intravenous Tenecteplase in acute stroke in the clinical routine setting.

SITS IVT study >80 years

SITS IVT wake-up stroke Study

SITS IVT pediatric study

SITS low-dose IVT study

SITS 22-36 follow up imaging study in all consecutive IVT treated patients,

SITS IVT study in patients with previous disability and high burden of co-morbidity and frailty

Source data verification

SITS is planning to initiate source data monitoring activities on a continuous basis in randomly selected centres in collaboration with SITS National Coordinators.

SITS Registries and Data entry forms

A range of SITS registries allow centres to collect data on patients receiving various treatments during the acute stroke phase.

SITS protocols are electronic forms that are automatically enabled in the registry depending on the chosen acute phase intervention.
SITS protocols can also be downloaded as Case Record Forms in PDF format on the SITS website.

Current registries and data entry forms

Thrombolysis registry (IVT or IVT + TBY data entry form) – suitable for all stroke patients treated with IV thrombolysis.

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

General stroke registry (APP-S and APP-m 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 registries.

- **All Patients Protocol, standard version (APP-s)** – protocol 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 registries.
- **All Patients Protocol, minimal version (APP-m)** – protocol 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-hour, and 24-hour follow-up.

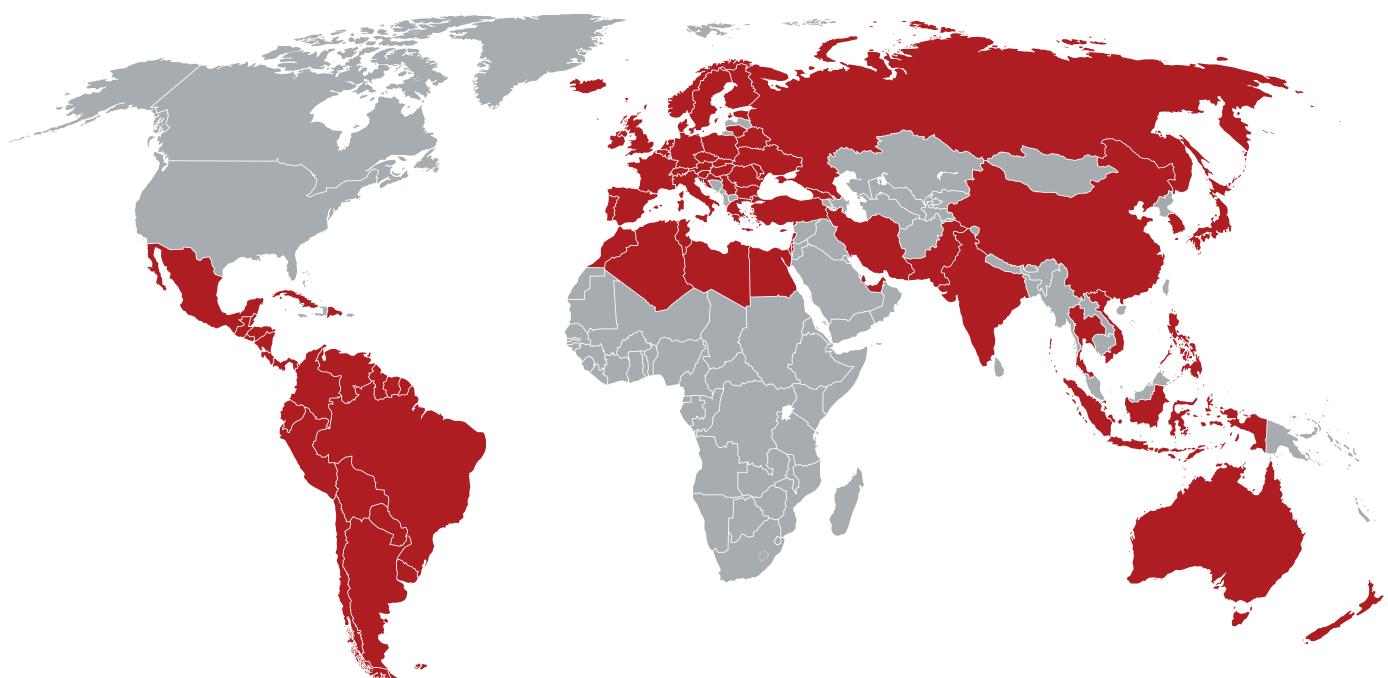
Thrombectomy registry (TBY or Bridge Protocol: IVT + TBY data entry form) – suitable for all stroke patients treated with thrombectomy.

- **Thrombectomy Protocol (TBYP)** – protocol for registering stroke patients treated with thrombectomy without prior treatment with IV thrombolysis.
- **Bridging Protocol: IVT + Thrombectomy** – protocol for registering patients who initially receive intravenous thrombolysis and are subsequently treated with thrombectomy.

Atrial Fibrillation and Oral Anticoagulation in Acute Stroke and TIA registry – suitable for all patients admitted to hospital with an acute ischemic stroke or TIA, diagnosed with atrial fibrillation. The registry provides additional data entry options for details surrounding atrial fibrillation and the use of oral anticoagulation for secondary stroke prevention.

SITS QR – suitable for some SITS centres, which prefer a short and simple stroke care registry quality registry protocol completed in 5 minutes. Can be used by centres in western European countries participating in the ESO-Angels Award Program or the Angels Program outside ESO member countries.

SITS World map



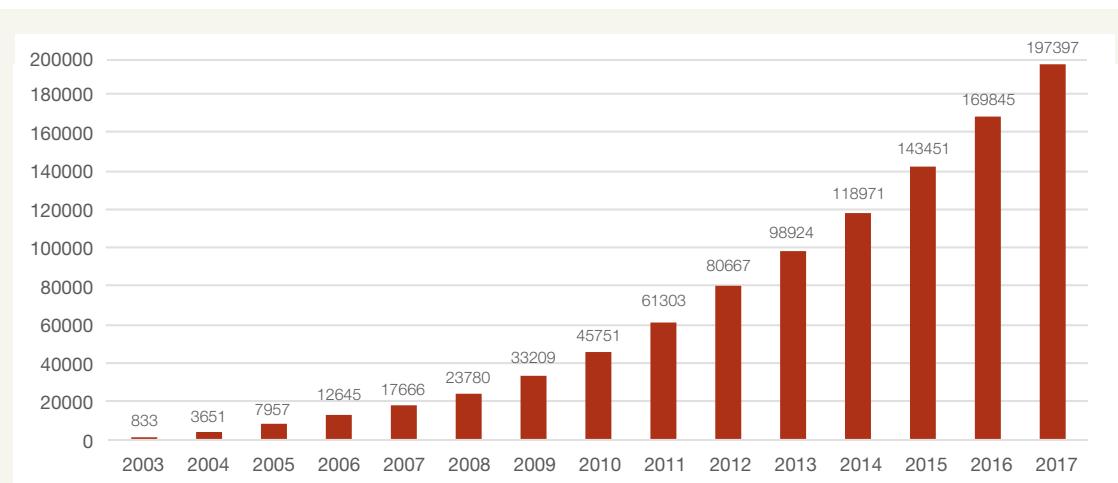
Current countries in SITS

Country			
Albania	El Salvador	Kyrgyzstan	Portugal
Algeria	Estonia	Lebanon	Qatar
Argentina	Finland	Libya	Romania
Australia	France	Lithuania	Russian Federation
Austria	Georgia	Rep of Macedonia	Saudi Arabia
Belarus	Germany	Malta	Serbia
Belgium	Greece	Mexico	Singapore
Bolivia	Guatemala	Rep of Moldova	Slovakia
Bosnia and Herzegovina	Honduras	Morocco	Slovenia
Brazil	Hong Kong	Netherlands	Spain
Bulgaria	Hungary	New Zealand	Sri Lanka
Chile	Iceland	Nicaragua	Sweden
China	India	Nigeria	Switzerland
Colombia	Iran	Norway	Thailand
Costa Rica	Ireland	Oman	Tunis
Croatia	Israel	Pakistan	Turkey
Czech Republic	Italy	Panama	Ukraine
Denmark	Japan	Paraguay	United Arab Emirates
Dominican Rep	Kazakhstan	Peru	United Kingdom
Ecuador	Rep of Korea	Philippines	Uruguay
Egypt	Kuwait	Poland	Venezuela
			Vietnam

General SITS data overview

Data presented in this general overview is based on all patient files entered in the SITS registries between December 25, 2002 and December 31, 2017. Patient recruitment is calculated using files with both confirmed and unconfirmed data.

Figure 1.Cumulative patient recruitment in SITS



*See the Appendix for patient recruitment per country

Table 1. Top 20 recruiting countries

Country	Patients	Country	Patients
Italy	39896	Spain	4496
Czech Republic	26263	Australia	3979
United Kingdom	24508	Finland	3973
Sweden	9837	Russian Federation	3569
Germany	6862	Estonia	3256
India	5967	Tunis	3189
Poland	5948	Bulgaria	2722
Belgium	4862	Denmark	2375
Slovakia	4722	Egypt	2349
Portugal	4695	Peru	2290

Table 2. Number of patients registered using SITS data entry forms

Data entry forms	Number of patients
IVT standard	144889
IVT minimal	4511
APP minimal	34539
APP standard	5424
Thrombectomy + IVT	5111
Thrombectomy	2924

SITS Thrombolysis Registry

Data based on all patient files entered between December 25, 2002 and December 31, 2017 using the standard and minimal SITS IV Thrombolysis protocols. Patient recruitment is calculated using files with both confirmed and unconfirmed data.

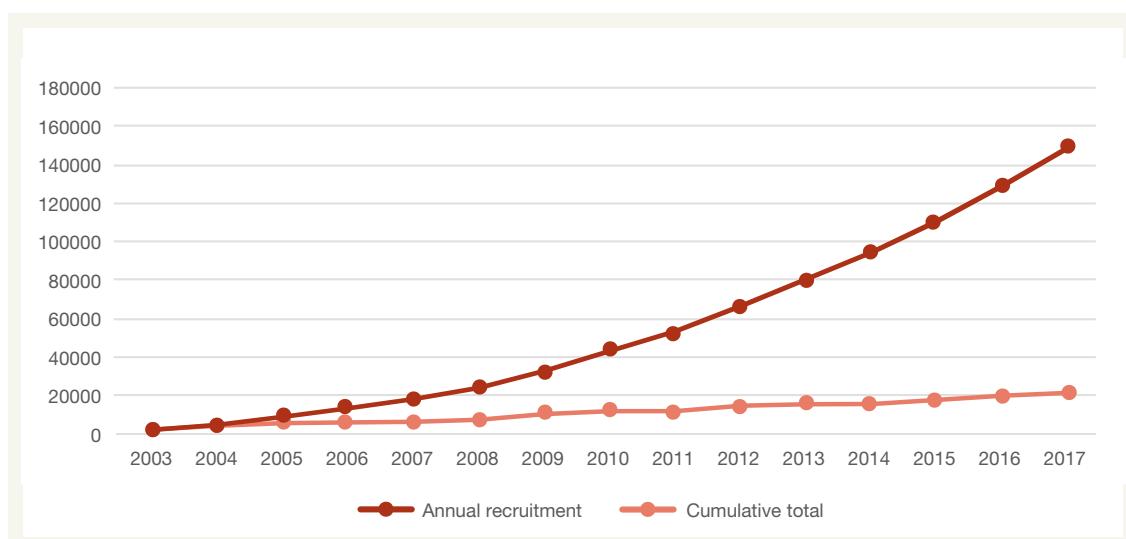
Figure 2. Cumulative and annual registration of patients using IV thrombolysis data forms

Table 3. Demographic and baseline clinical characteristics in IV thrombolysis treated patients with confirmed data

Characteristic	Median	Characteristic	Proportion
Age, years	71	Female	45%
NIHSS Baseline	11	Atrial fibrillation	23%
Systolic BP, mmHg	150	Hypertension	66%
Diastolic BP, mmHg	81	Diabetes	19%
Glucose, mmol/L	6,6	Hyperlipidemia	32%
Cholesterol, mmol/L	4,8	Heart failure	8%
Weight, kg	75	Smoker, current	19%
Dose Of Actilyse, mg	68	Smoker, previous	17%
		Previous stroke	8%
Time logistics, minutes	Median	Previous TIA	7%
		Pre-stroke mRS 0-1	88%
Onset To Door	75	Aspirin	32%
Door To Imaging	25	Clopidogrel	5%
Door To Treatment	65	Oral anticoagulant	3%
Onset To Treatment	150	Statin	28%
		Antihypertensive	56%

Outcome data

Intracerebral hemorrhage in patients treated with IV thrombolysis

Table 4. Proportions of patients with intracerebral hemorrhage

ICH	Proportion	SICH	Proportion
HI1	4,5%	SITS-MOST	1,7%
HI2	3,1%	ECASS II	4,5%
PH1	2,6%	NINDS	6,3%
PH2	2,7%		
PHr1	1,9%		
PHr2	1,0%		

In this table, we present the frequency of intracerebral hemorrhage (ICH) of various types, and of symptomatic intracerebral haemorrhage (SICH) by three definitions, in patients treated with IV thrombolysis.

ICH Definitions

Hemorrhagic infarction type 1

(HI1): small petechiae along the margins of the infarct.

Hemorrhagic infarction type 2

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

Parenchymal hemorrhage type 1 (PH1)

(PH1): local, or intra-ischemic confluent hematoma in $\leq 30\%$ of the infarcted area with at the most some slight space-occupying effect.

Parenchymal hemorrhage type 2 (PH2)

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

Remote parenchymal hemorrhage type 1(PHr1)

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

Remote parenchymal hemorrhage type 2(PHr2)

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

SICH Definitions

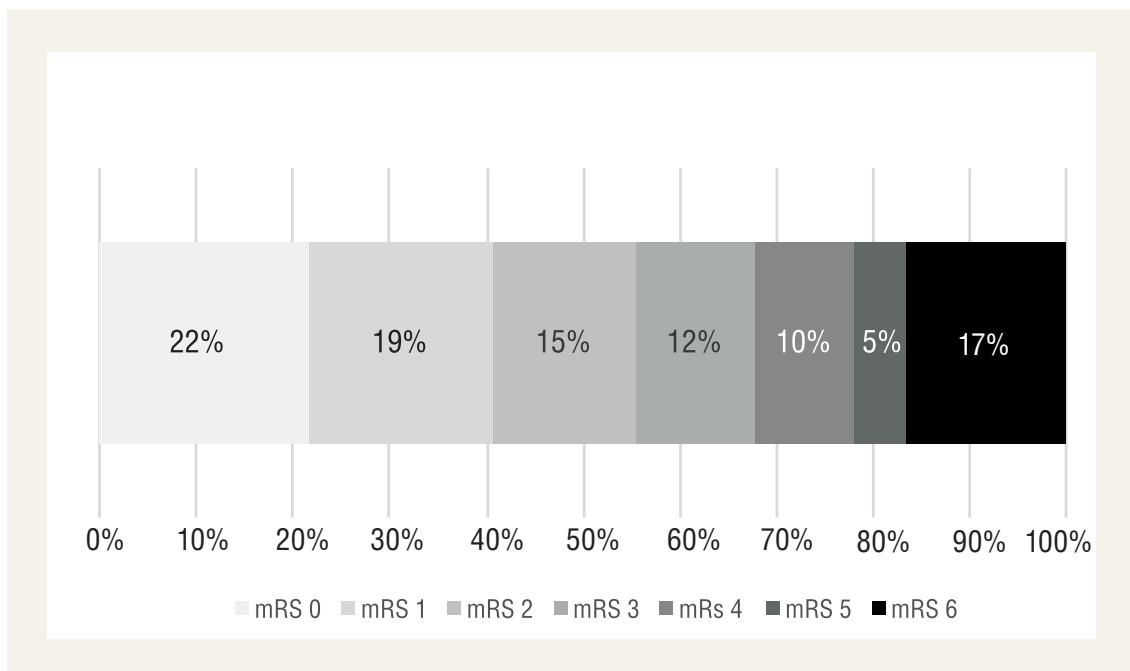
SICH per SITS-MOST: Local or remote parenchymal haemorrhage type 2 on the 22-36 h post-treatment imaging scan, combined with a neurologic deterioration of 4 points or more compared to baseline NIHSS or the lowest NIHSS value between baseline and 24 h or death within 24 h. Type 2 indicates a hematoma exceeding 30% of the infarct, with substantial space-occupying effect.

SICH per ECASS II:

Any haemorrhage with neurologic deterioration as indicated by an increase in NIHSS ≥ 4 compared to baseline or the lowest value within 7 days, or any haemorrhage 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 3. Outcome at 3 months in IV thrombolysis treated patients

Data show 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 IV thrombolysis treated patients

Outcome within 3 months	Proportion
Excellent outcome (mRS 0-1)	41%
Functional independence (mRS 0-2)	56%
Death	17%

SITS Thrombectomy Registry

Data based on all patient files entered between December 25, 2002 and December 31, 2017 using the SITS protocols for thrombectomy and bridging of thrombectomy with IV thrombolysis. Patient recruitment is calculated using files with both confirmed and unconfirmed data. Data collection using the thrombectomy protocols is ongoing and will be used in upcoming studies.

Figure 4. Cumulative registering of patients using thrombectomy data forms

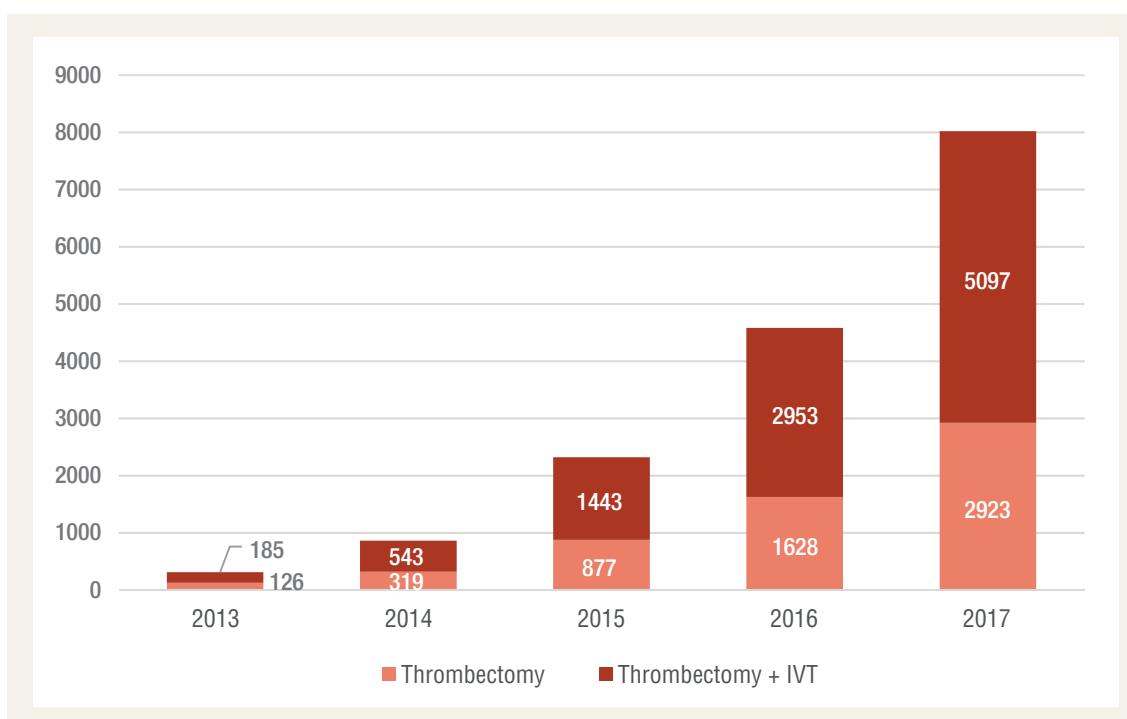


Table 6. Patient recruitment by country, Thrombectomy protocols

Country	Patients	Country	Patients
Czech Republic	1868	Germany	85
Italy	1350	India	67
Portugal	657	Norway	36
Finland	637	Thailand	22
Sweden	585	Slovenia	21
Slovakia	497	Hungary	21
Spain	480	Greece	19
United Kingdom	431	Japan	18
Lithuania	396	United Arab Emirates	13
Belgium	328	Egypt	13
Estonia	279	Croatia	3
Poland	111	Australia	1
Turkey	97		

SITS General Stroke Registry

The SITS general registry is aimed at registering all stroke and TIA patients. Recruitment numbers presented are based on patient files with confirmed and unconfirmed data, entered until December 31, 2017.

Figure 5. Cumulative and annual recruitment

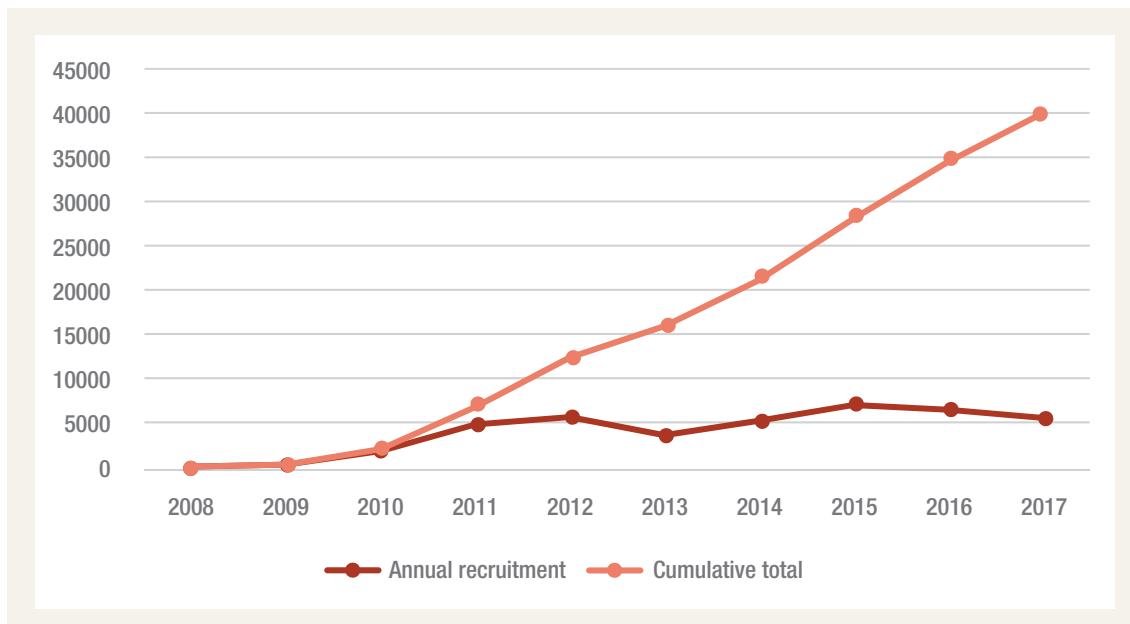


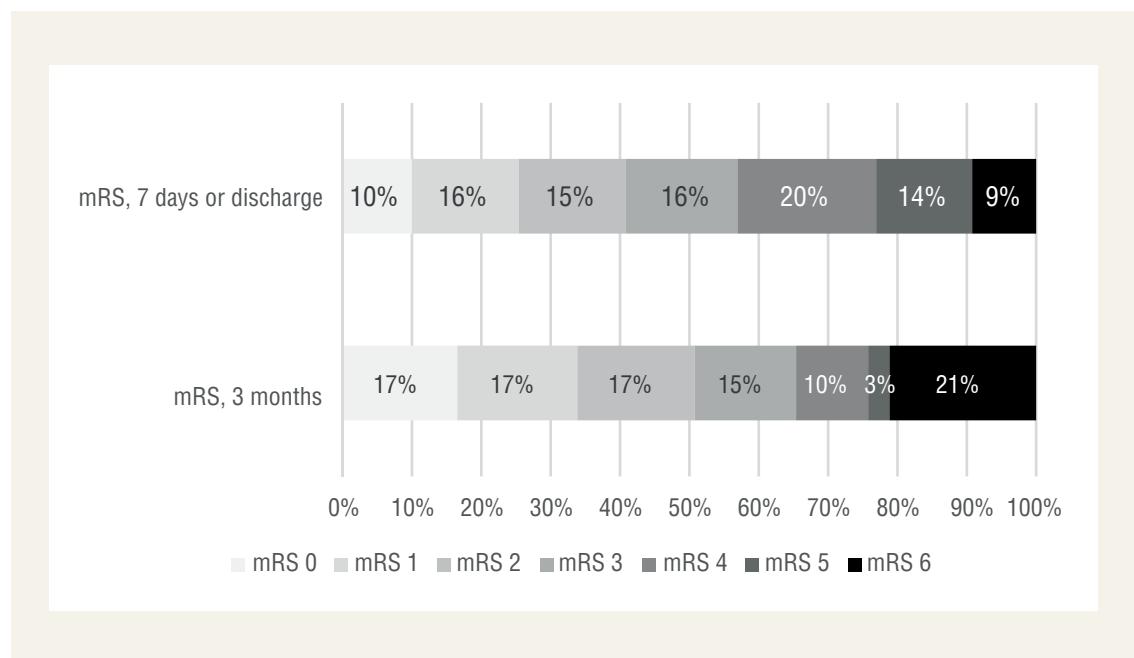
Table 7. Top 30 recruiting countries, General stroke protocols

Country	Patients	Country	Patients
India	5268	Australia	1012
Tunis	3187	Mexico	975
Russian Federation	2660	Turkey	963
Peru	2283	Morocco	917
Bulgaria	2180	Thailand	655
Egypt	2066	Sri Lanka	517
Venezuela	2059	Czech Republic	457
Italy	1861	Dominican Rep	448
United Arab Emirates	1504	Ecuador	418
Chile	1418	Poland	350
Brazil	1405	Slovakia	307
Sweden	1269	Germany	266
Belgium	1134	Hungary	221
Argentina	1130	Spain	166
Kyrgyzstan	1035	Paraguay	164

Table 8. Demographic and baseline clinical characteristics for patients with confirmed data in the SITS general stroke registry

Parameter	Median or proportion (%)
Age, years	66
NIHSS Baseline	7
Onset To Door Time, min	334
Female	43%
Atrial fibrillation	15%
Hypertension	72%
Diabetes	27%
Hyperlipidemia	26%
Heart failure	13%
Smoker, current	16%
Smoker, previous	12%
Previous stroke	16%
Previous TIA	5%
Pre-stroke mRS 0-1	84%

Figure 6. mRS outcomes at 7 days or discharge, and 3 months for patients in the SITS general stroke registry



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. The registry was initiated in autumn 2007 with the support of a European Union grant. It is now an on-going registry for the documentation and statistical evaluation of stroke management in Eastern Europe.

Participating countries*:

Albania, Belarus**, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Kazakhstan, Kyrgyzstan, Lithuania, Macedonia, Moldova, Poland, Romania, Russian Federation, Slovakia, Slovenia, Turkey, Ukraine.

*See the Appendix for participating centres.

** Not yet recruiting patients.

SITS-EAST meeting, December 14-15 2017, Stockholm Sweden

Just before the end of last year we had a very successful meeting here in Stockholm Sweden, with representatives from 16 SITS-EAST countries. The purpose of the meeting was to discuss the current situation on reperfusion treatments in each country, receive feedback on how SITS Coordination Office can assist its users, and encourage scientific research on data in the SITS Registry.



Representatives at the SITS-EAST meeting:

Bulgaria	Radina Fuchidzhieva
Czech Republic	Lubomir Jurak
Croatia	Branko Malojcic
Estonia	Janika Körv
Hungary	Attila Ferenc Csanyi
Kyrgyzstan	Inna Lutsenko
Lithuania	Dalius Jatuzis
Lithuania	Alexandras Vilionskis
Macedonia	Anita Arsovska
Moldova	Stanislav Groppa
Poland	Michal Karlinski
Poland	Adam Kobayashi
Romania	Stan Adina Dora
Russia	Alfia Godunova
Slovakia	Zuzana Gdovinova
Slovenia	Viktor Svilgelj
Ukraine	Sergii Moskovsko
Turkey	Yakup Kresbi
Turkey	Atilla Ozcan Ozdemir
Turkey	Mehmet Akif Topcuoglu

Announcement of top SITS EAST centres

Top 10 centres with regard to confirmed data:

1. Memorial Hizmet (Turkey); B Koyuncu, Y Kresbi
2. FN u sv Anny v Brne (Czech Rep); L Kounlova, R Mikulik
3. North Estonia MC (Estonia); V-M Rand
4. Univ MC Ljubljana (Slovenia); S Frol, V Svilgelj
5. Krajska nemoc Liberec (Czech Rep); L Jurak
6. Faculty Hosp Nitra (Slovakia); M Brozman
7. Tartu Univ Hosp (Estonia); J Körv
8. Pomorskie Centrum Kopernika (Poland); W Fryze
9. FN Ostrava (Czech Rep); D Skoloudik
10. Faculty Hosp Trnava (Slovakia), G Krastrev

Top 10 centres with regard to number of recruited patients:

1. Naberezhnye Chelny BSMP Tartarstan (Russia); S Musin
2. FN Plzen (Czech Rep); P Sevcik
3. FNu sv Anny v Berne (Czech Rep); L Kounlova, R Mikulik
4. Faculty Hosp Nitra (Slovakia); M Brozman
5. Nemocnice Ceske Budejovice (Czech Rep); M Nevsimaslova
6. Memorial Hizmet (Turkey); B Koyuncu, Y Kresbi
7. FN Brno (Czech Rep); S Peska
8. North Estonia MC (Estonia); V-M Rand
9. Tartu Univ Hosp (Estonia); J Körv
10. Univ MC Ljubljana (Slovenia); S Frol, V Svigelj

Top 10 centres on the weighed list, in which confirmed data was given slightly more weight than number of recruited patients, was finally announced:

1. FNu sv Anny v Berne (Czech Rep); L Kounlova, R Mikulik
2. Memorial Hizmet (Turkey); B Koyuncu, Y Kresbi
3. Faculty Hosp Nitra (Slovakia); M Brozman
4. North Estonia MC (Estonia); V-M Rand
5. Univ MC Ljubljana (Slovenia); S Frol, V Svigelj
6. Tartu Univ Hosp (Estonia); J Körv
7. Krajska nemoc Liberec (Czech Rep); L Jurak
8. Naberezhnye Chelny BSMP Tartarstan (Russia); S Musin
9. FN Plzen (Czech Rep); P Sevcik
10. Pomorskie Centrum Kopernika (Poland); W Fryze

Figure 7. Cumulative recruitment, SITS-EAST – all protocols

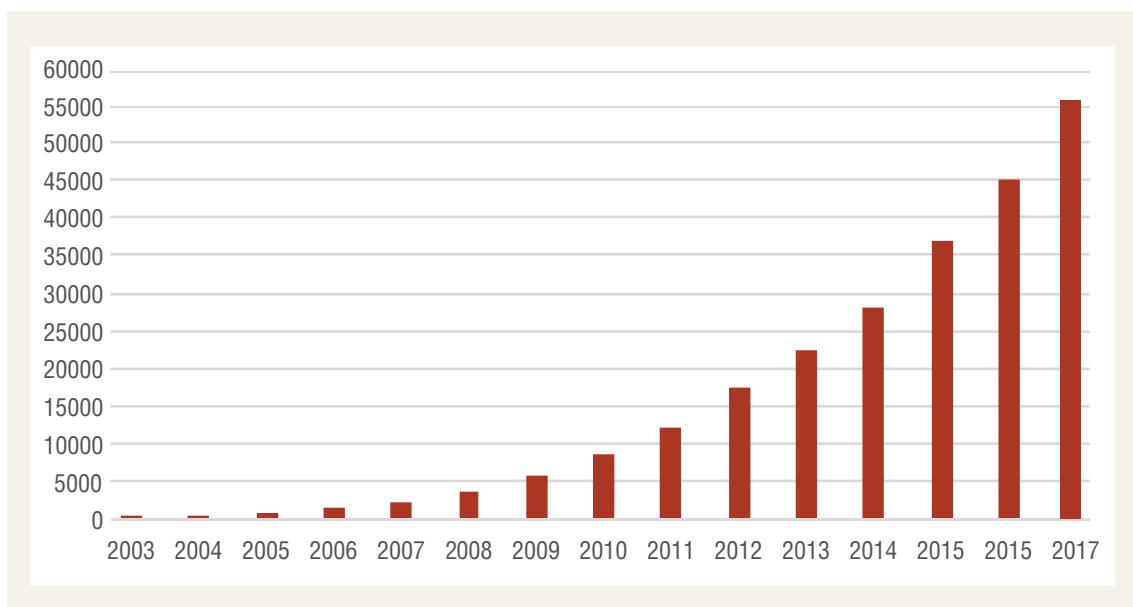


Table 9. Number of patients registered using SITS data entry forms in SITS-EAST

Data entry forms	Number of patients
IVT Protocols	43692
APP Protocols	8415
Thrombectomy Protocols	3291
Total	55398

National Stroke Meeting Istanbul, Turkey September 2017

SITS representatives participated at the 1st Turkish Annual Summit on Thrombolysis and Neurorevascularization in Istanbul 8-10 September 2017. During a meeting with the Turkish Neurological Society, it was agreed that SITS should form the platform for stroke documentation in Turkey. A National Steering Committee was formed, with the aim to further implement the plans during 2018 and 2019. The plans were further discussed at the SITS-EAST meeting in Stockholm in December (above). The members of the Steering committee are:

Mehmet Akif Topcuoglu (National Coordinator)
 Seref nur Ozturk (President Turkish Neurological Society)
 Atilla Ozcan Ozdemir
 Yacup Krespi

SIECV-SITS

The SIECV-SITS registry was initiated through a joint venture by Sociedad Iberoamericana de Enfermedades Cerebrovasculares (SIECV) and SITS. The SIECV-SITS Stroke Registry is a database for documentation and statistical evaluation of stroke management in Central and Latin America. Recruitment numbers presented are based on patient files with confirmed and unconfirmed data, entered until December 31, 2017.

Participating 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 participating centres.

Figure 8. Cumulative recruitment, SIECV-SITS – all protocols

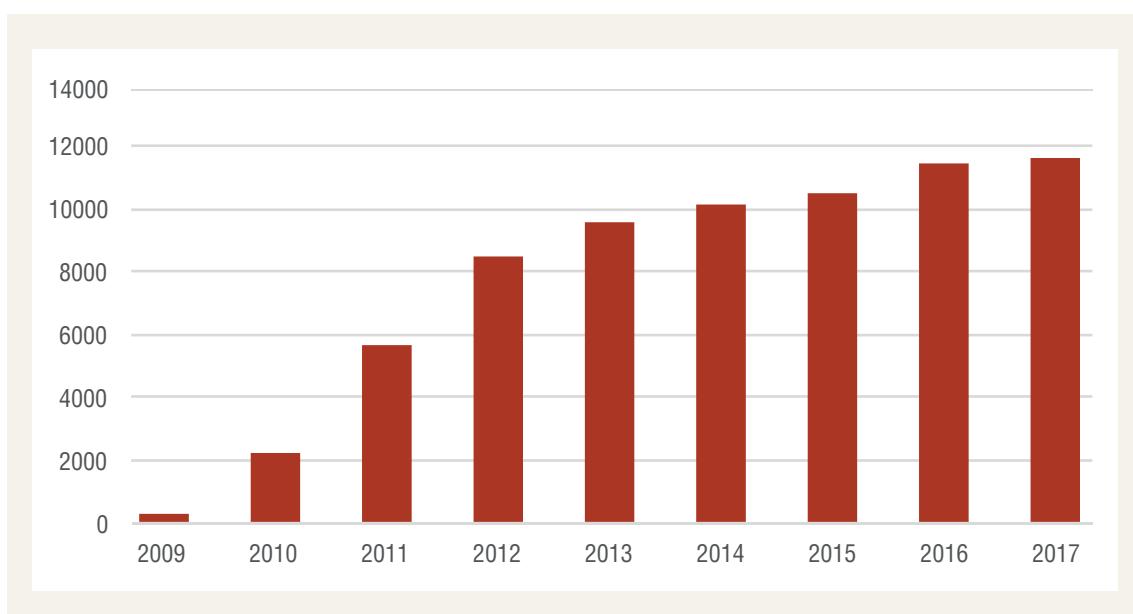


Table 10. Number of patients registered using SITS data entry forms in SIECV-SITS

Data entry forms	Number of patients
APP Protocols	10594
IVT Protocols	1118
Total	11712

SITS-MENA

The SITS-MENA Registry was initiated in 2013 as part of the SITS Regional Network in the Middle East and North Africa. Several countries and centres in the Regional Network are also participating in a prospective observational study of ischemic stroke in the region. Recruitment numbers presented are based on patient files with confirmed and unconfirmed data, entered until December 31, 2017.

Participating countries*:

Algeria, Egypt, Iran, Kuwait**, Lebanon, Libya, Morocco, Oman**, Qatar, Saudi Arabia, Tunisia, United Arab Emirates

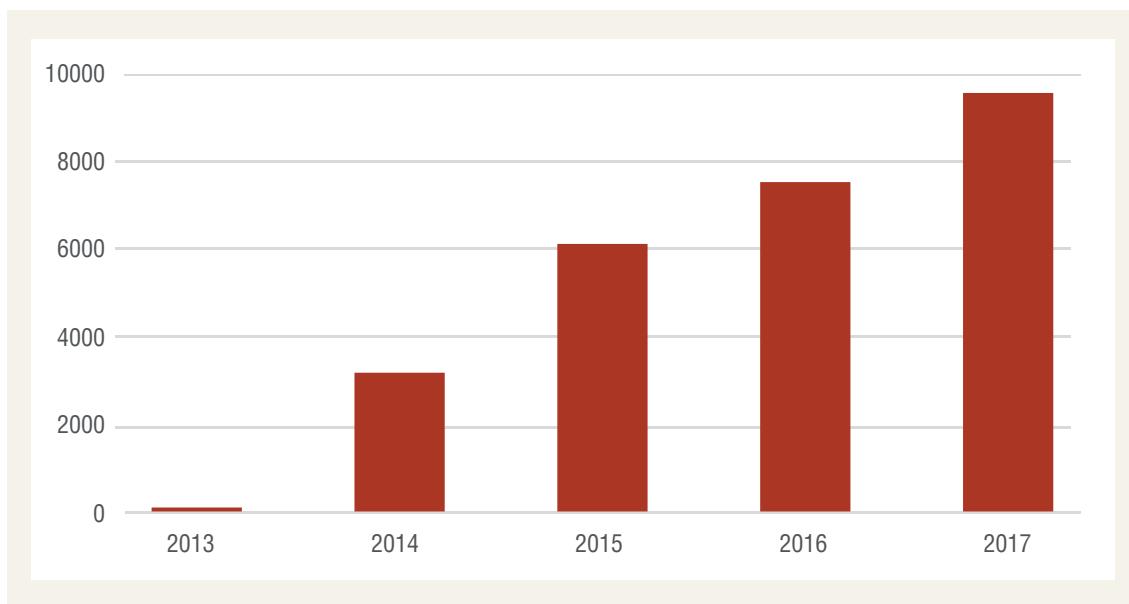
*See the Appendix for participating centres.

** Not yet recruiting patients

SITS-MENA meeting 2017

On October 18th, SITS-MENA had a successful meeting in Egypt. The purpose of the meeting was to present an overview of the SITS-MENA achievements and the results of the first years of documentation in SITS, to discuss how registration in SITS can support improvement of AIS management and how to overcome recruitment challenges. The Minister of Health in Egypt informed that SITS will be designated national stroke registry in the country. In addition, future plans for the SITS-MENA region was discussed and developed.



Figure 9. Cumulative recruitment, SITS-MENA – all protocols**Table 11. Number of patients registered using SITS data entry forms in SITS-MENA**

Data entry forms	Number of patients
APP Protocols	8096
IVT Protocols	1598
Thrombectomy Protocols	26
Total	9720

What is new in SITS – current and future

The number of centres and countries participating in SITS has increased since 2016. Patient input into the registries has continued to reach all time high levels. We believe this is a strong indicator that SITS remains highly relevant for centres treating acute stroke patients worldwide.

SITS is increasingly focusing on data quality and completeness. In December 2016, we implemented a new visualisation tool, the Dashboard, for all registry users. We are planning to send regular periodical report to centres with some key parameters such as recruitment status, data completeness, number of patients with overdue three month follow-up, and number of patients with entered data waiting to be confirmed, among other items.

We are also planning to initiate source data monitoring activities on a continuous basis in randomly selected centres, in collaboration with SITS National Coordinators.

SITS implemented a thrombectomy registry in 2013. Here, patient recruitment has seen a continued strong increase during 2017, doubling the number of recruited patients over the last year. Its current recruitment status is presented in this report. The preliminary results of the SITS thrombectomy analysis have been accepted as oral presentation at ESOC 2018. The primary and main secondary results of the SITS thrombectomy registry are expected to be submitted for publication in 2018. We encourage SITS centres to submit project proposal for further analysis of the thrombectomy dataset.

Additional new data entry options appearing in April 2018 are related to IV thrombolysis treatment. The option to record Tenecteplase treatment in the SITS thrombolysis data entry forms has been added for centres using the drug. This does not mean that we recommend the use of Tenecteplase instead of Alteplase in acute ischemic stroke, but if centres are already using Tenecteplase off label, we believe monitoring of this treatment is all the more important. Collection of sufficient amount of data will enable comparison of Tenecteplase with Alteplase in a retrospective study.

Recruitment from the SITS-MENA (Middle East and North Africa) network has seen strong progress. Selected centres from the SITS-MENA countries are currently participating in a two-year observational study where risk factors and treatment outcomes will be compared between thrombolysed and non-thrombolysed patients. The preliminary results of the study have been accepted for a presentation at ESOC 2018. The SITS-MENA thrombolysis results have been submitted in an abstract to WSC 2018.

In 2014, we developed a new online reporting tool for descriptive patient statistics. With this tool, SITS users can select and obtain pre-designed reports, where standard variables are already chosen, or can create custom-made reports. The output can be downloaded either as raw data presented in an excel file structured on an individual patient level, or as a summary with calculated descriptive statistics.

GDPR: On May 25th, a new General Data Protection Policy (GDPR) comes into effect. GDPR implies new obligations and sharpened requirements to be imposed on organisations which process personal data, including SITS International. However, GDPR does not intend to hinder scientific research. SITS International has requested legal advice on how to handle the new legislation, and what it entails for organisations such as ours. During April and May 2018, SITS is distributing information to all SITS users on the new rules, including updated terms and conditions for those using the registry, in order to comply with the GDPR by May 25, 2018.

SITS is planning to reduce the amount of data entry in the SITS registry. A working group will be set up for this purpose. Prof. Danilo Toni, the Italian National Coordinator, will engage younger colleagues from Italy to suggest variables for removal, which are currently considered of low priority.

Our intention with this report is to give the reader an update on SITS patient and centre recruitment status, as well as ongoing and planned activities since the publication of the first SITS International Report in 2014. We plan to publish the next report in spring 2019. We would be delighted to receive feedback on the current report, as well as suggestions for future report contents. Any views and ideas on all matters concerning SITS are welcomed by the International Coordinating Office.

SITS Publications

- 64.** Vaclavik D, Vilionskis A, Jatuzis D, Karlinski MA, Gdovinova Z, Körv J, Tsivgoulis G, Mikulik R. **Clinical outcome of cardioembolic stroke treated by intravenous thrombolysis.** Acta Neurol Scand. 2018 Mar;137(3):347-355.
- 63.** Cappellari M, Turcato G, Forlivesi S, Zivelonghi C, Bovi P, Bonetti B, Toni D. **TARTING-SICH Nomogram to Predict Symptomatic Intracerebral Hemorrhage After Intravenous Thrombolysis for Stroke.** Stroke. 2018 Feb;49(2):397-404.
- 62.** Mundiyapurath S, Hees K, Ahmed N, Wahlgren N, Uhlmann L, Kieser M, Ringleb PA, Hacke W, Nagel S. **Predictors of symptomatic intracranial haemorrhage in off-label thrombolysis: an analysis of the Safe Implementation of Treatments in Stroke registry.** Eur J Neurol. 2018 Feb;25(2):340-e11.
- 61.** Ahmed N, Lees KR, Ringleb PA, Bladin C, Collas D, Toni D, Ford GA; The SITS Investigators. **Outcome after stroke thrombolysis in patients >80 years treated within 3 hours vs >3-4.5 hours.** Neurology. 2017 Oct 10;89(15):1561-1568.
- 60.** Thorén M, Azevedo E, Dawson J, Egido JA, Falcou A, Ford GA, Holmin S, Mikulik R, Ollikainen J, Wahlgren N, Ahmed N. **Predictors for Cerebral Edema in Acute Ischemic Stroke Treated With Intravenous Thrombolysis.** Stroke. 2017 Sep;48(9):2464-2471.
- 59.** Kellert L, Hametner C, Ahmed N, Rauch G, MacLeod MJ, Perini F, Lees KR, Ringleb PA; SITS Investigators. **Reciprocal Interaction of 24-Hour Blood Pressure Variability and Systolic Blood Pressure on Outcome in Stroke Thrombolysis.** Stroke. 2017 Jul;48(7):1827-1834.
- 58.** Tsivgoulis G, Katsanos AH, Kadlecová P, Czlonkowska A, Kobayashi A, Brozman M, Švigelj V, Csiba L, Fekete K, Körv J, Demarin V, Vilionskis A, Jatuzis D, Krespi Y, Liantinoti C, Giannopoulos S, Mikulik R. **Intravenous thrombolysis for ischemic stroke in the golden hour: propensity-matched analysis from the SITS-EAST registry.** J Neurol. 2017 May;264(5):912-920.
- 57.** Dorado L, Ahmed N, Thomalla G, Lozano M, Malojcic B, Wani M, Millán M, Tomek A, Dávalos A. **Intravenous Thrombolysis in Unknown-Onset Stroke: Results From the Safe Implementation of Treatment in Stroke-International Stroke Thrombolysis Registry.** Stroke. 2017 Mar;48(3):720-725.
- 56.** Anani N, Mazya MV, Chen R, Prazeres Moreira T, Bill O, Ahmed N, Wahlgren N, Koch S. **Applying open EHR's Guideline Definition Language to the SITS international stroke treatment registry: a European retrospective observational study.** BMC Med Inform Decis Mak. 2017 Jan 10;17(1):7.
- 55.** Scheitz JF, Abdul-Rahim AH, MacIsaac RL, Cooray C, Sucharew H, Kleindorfer D, Khatri, P, Broderick JP, Audebert HJ, Ahmed N, Wahlgren N, Endres M, Nolte CH, Lees KR. **Clinical selection strategies to identify stroke patients with large anterior vessel occlusion-Results from SITS-ISTR.** (Stroke, In press December 2016)
- 54.** Cooray C, Mazya M, Bottai M, Dorado L, Skoda O, Toni D, Ford GA, Wahlgren N, Ahmed N. **External Validation of the ASTRAL and DRAGON Scores for Prediction of Functional Outcome in Stroke.** Stroke. 2016 Jun;47(6):1493-9.

- 53.** Ahmed N, Hermansson K, Bluhmki E, Danays T, Nunes AP, Kenton A, Lakshmanan S, Toni D, Mikulik R, Ford GA, Lees KR and Wahlgren N. **The SITS-UTMOST: A registry-based prospective study in Europe investigating the impact of regulatory approval of intravenous Actilyse in the extended time window (3–4.5 h) in acute ischaemic stroke.** European Stroke Journal, first published on July 29, 2016 doi:10.1177/2396987316661890
- 52.** Lundström E, Zini A, Wahlgren N, Ahmed N. **How common is isolated dysphasia among patients with stroke treated with intravenous thrombolysis, and what is their outcome? Results from the SITS-ISTR.** BMJ Open. 2015 Nov 25;5(11):e009109. doi: 10.1136/bmjopen-2015-009109. PMID: 26608637
- 51.** Anani N, Mazya MV, Bill O, Chen R, Koch S, Ahmed N, Wahlgren N, Prazeres Moreira T. **Changes in European Label and Guideline Adherence After Updated Recommendations for Stroke Thrombolysis: Results From the Safe Implementation of Treatments in Stroke Registry.** Circ Cardiovasc Qual Outcomes. 2015 Oct;8(6 Suppl 3):S155-62. doi: 10.1161/CIRCOUTCOMES.115.002097. PMID: 26515204
- 50.** Mazya MV, Lees KR, Collas D, Rand VM, Mikulik R, Toni D, Wahlgren N, Ahmed N. **IV thrombolysis in very severe and severe ischemic stroke: Results from the SITS-ISTR Registry.** Neurology. 2015 Nov 6. pii: 10.1212/WNL.0000000000002199.
- 49.** Karlinski M, Kobayashi A, Czlonkowska A, Mikulik R, Vaclavik D, Brozman M, Gdovinova Z, Švigelj V, Csiba L, Fekete K, Körv J, Demarin V, Bašić-Kes V, Vilionskis A, Jatuzis D, Krespi Y, Shamalov N, Andonova S, Ahmed N, Wahlgren N; **Safe Implementation of Treatments in Stroke–East Registry (SITS-EAST) Investigators.** **Intravenous Thrombolysis for Stroke Recurring Within 3 Months From the Previous Event.** Stroke. 2015 Oct 8. pii: STROKEAHA.115.010420.
- 48.** Abdul-Rahim AH, Fulton RL, Sucharew H, Kleindorfer D, Khatri P, Broderick JP, Lees KR; SITS-MOST Steering Committee. **National Institutes of Health Stroke Scale Item Profiles as Predictor of Patient Outcome: External Validation on Safe Implementation of Thrombolysis in Stroke-Monitoring Study Data.** Stroke. 2015 Oct;46(10):2779-85. doi: 10.1161/STROKEAHA.115.010380.
- 47.** Tsivgoulis G, Kadlecová P, Kobayashi A, Czlonkowska A, Brozman M, Švigelj V, Csiba L, Körv J, Demarin V, Vilionskis A, Jatuzis D, Katsanos AH, Rudolf J, Krespi Y, Mikulik R. **Safety of Statin Pretreatment in Intravenous Thrombolysis for Acute Ischemic Stroke.** Stroke. 2015 Sep;46(9):2681-4. doi: 10.1161/STROKEAHA.115.010244.
- 46.** Flint AC, Rao VA, Chan SL, Cullen SP, Faigeles BS, Smith WS, Bath PM, Wahlgren N, Ahmed N, Donnan GA, Johnston SC; SITS International and VISTA-plus investigators. **Improved ischemic stroke outcome prediction using model estimation of outcome probability: the THRIVE-c calculation.** Int J Stroke. 2015 Aug;10(6):815-21. doi: 10.1111/ijs.12529.
- 45.** Cooray C, Fekete K, Mikulik R, Lees KR, Wahlgren N, Ahmed N. **Threshold for NIH stroke scale in predicting vessel occlusion and functional outcome after stroke thrombolysis.** Int J Stroke. 2015 Aug;10(6):822-9. doi: 10.1111/ijs.12451.
- 44.** Strbian D, Ahmed N, Wahlgren N, Lees KR, Toni D, Roffe C, Surakka IL, Tatlisumak T; SITS Investigators. **Trends in Door-to-Thrombolysis Time in the Safe Implementation of Stroke Thrombolysis Registry: Effect of Center Volume and Duration of Registry Membership.** Stroke. 2015 May;46(5):1275-80. doi: 10.1161/STROKEAHA.114.007170.
- 43.** Novotná J, Kadlecová P, Czlonkowska A, Brozman M, Švigelj V, Csiba L, Körv J, Demarin V, Vilionskis A, Mikulík R; SITS-EAST Investigators. **Hyperdense cerebral artery computed tomography sign is associated with stroke severity rather than stroke subtype.** J Stroke Cerebrovasc Dis. 2014 Nov-Dec;23(10):2533-9. doi:10.1016/j.jstrokecerebrovasdis.2014.04.034.

- 42.** Haršány M, Kadlecová P, Švigelj V, Körv J, Kes VB, Vilionskis A, Krespi Y, Mikulík R; SITS-EAST Investigators. **Factors influencing door-to-imaging time: analysis of the safe implementation of treatments in Stroke-EAST registry.** *J Stroke Cerebrovasc Dis.* 2014 Sep;23(8):2122-9. doi: 10.1016/j.jstrokecerebrovasdis.2014.03.019.
- 41.** Flint AC, Gupta R, Smith WS, Kamel H, Faigeles BS, Cullen SP, Rao VA, Bath PM, Wahlgren N, Ahmed N, Donnan GA; SITS International and VISTA-plus investigators. **The THRIVE score predicts symptomatic intracerebral hemorrhage after intravenous tPA administration in SITS-MOST.** *Int J Stroke.* 2014 Aug;9(6):705-10. doi: 10.1111/ij.s.12335.
- 40.** Mazya MV, Ahmed N, Ford GA, Hobohm C, Mikulík R, Nunes AP, Wahlgren N; **Remote or extraischemic intracerebral hemorrhage—an uncommon complication of stroke thrombolysis: results from the Safe Implementation of Treatments in Stroke-International stroke thrombolysis register.** *Stroke.* 2014 Jun;45(6):1657-63. doi: 10.1161/STROKEAHA.114.004923.
- 39.** Karlinski M, Kobayashi A, Czlonkowska A, Mikulík R, Vaclavik D, Brozman M, Švigelj V, Csiba L, Fekete K, Körv J, Demarin V, Vilionskis A, Jatuzis D, Krespi Y, Ahmed N, Wahlgren N; **Safe Implementation of Treatments in Stroke-Eastern Europe (SITS-EAST) Investigators. Role of preexisting disability in patients treated with intravenous thrombolysis for ischemic stroke.** *Stroke.* 2014 Feb 4.
- 38.** Lorenzano S, Ahmed N, Tatlisumak T, Gomis M, Dávalos A, Mikulík R, Sevcik P, Ollikainen J, Wahlgren N, Toni D; **SITS Investigators Within-day and weekly variations of thrombolysis in acute Ischemic stroke: results from Safe Implementation of Treatments in Stroke-International stroke thrombolysis register.** *Stroke.* 2014 Jan;45(1):176-84. doi: 10.1161/STROKEAHA.113.002133.
- 37.** Lorenzano S, Ahmed N, Falcou A, Mikulík R, Tatlisumak T, Roffe C, Wahlgren N, Toni D; SITS Investigators. **Does sex influence the response to Intravenous Thrombolysis in ischemic stroke?: Answers from Safe Implementation of Treatments in Stroke-International Stroke Thrombolysis Register.** *Stroke.* 2013 Dec;44(12):3401-6. doi: 10.1161/STROKEAHA.113.002908.
- 36.** Körv J, Vibo R, Kadlecová P, Kobayashi A, Czlonkowska A, Brozman M, Švigelj V, Csiba L, Fekete K, Demarin V, Vilionskis A, Jatuzis D, Krespi Y, Ahmed N, Mikulík R; for the Safe Implementation of Treatments in Stroke – East (SITS-EAST) Registry Investigators. **Benefit of thrombolysis for stroke is maintained around the clock: results from the SITS-EAST Registry** *Eur J Neurol.* 2013 Sep 16. doi: 10.1111/ene.12257.
- 35.** Kharitonova TV, Castillo J, Wahlgren N; SITS investigators. **Importance of cerebral artery recanalization in patients with stroke with and without neurological improvement after Intravenous Thrombolysis Stroke.** *2013 Sep;44(9):2513-8.* doi: 10.1161/STROKEAHA.111.000048.
- 34.** Mazya MV, Lees KR, Markus R, Roine RO, Seet RC, Wahlgren N, Ahmed N; for the SITS investigators. **Safety of IV thrombolysis for ischemic stroke in patients treated with Warfarin.** *Ann Neurol.* 2013 Jun 6. doi: 10.1002/ana.23924.
- 33.** Ahmed N, Kellert L, Lees KR, Mikulík R, Tatlisumak T, Toni D; for the SITS Investigators. **Results of Intravenous Thrombolysis Within 4.5 to 6 Hours and Updated Results Within 3 to 4.5 Hours of Onset of Acute Ischemic Stroke Recorded in the Safe Implementation of Treatment in Stroke International Stroke Thrombolysis Register (SITS-ISTR): An Observational Study.** *JAMA Neurol.* 2013 May 20:1-8. doi: 10.1001/jamaneurol.2013.406.
- 32.** Mazya MV, Bovi P, Castillo J, Jatuzis D, Kobayashi A, Wahlgren N, Ahmed N; **External Validation of the SEDAN Score for Prediction of Intracerebral Hemorrhage in Stroke Thrombolysis.** *Stroke.* 2013 Jun;44(6):1595-600. doi: 10.1161/STROKEAHA.113.000794. Epub 2013 Apr 30. PMID: 23632975

- 31.** Rha JH, Shrivastava VP, Wang Y, Lee KE, Ahmed N, Bluhmki E, Hermansson K, Wahlgren N; for the SITS investigators. **Thrombolysis for acute ischemic stroke with alteplase in an Asian population: results of the multicenter, multinational, Safe Implementation of Thrombolysis in Stroke-Non European Union World (SITS-NEW).** In J Stroke 2012, Epub 2012 Sep 18
- 30.** Strbian D, Ahmed N, Wahlgren N, Kaste M, Tatlisumak T; for SITS investigators. **Intravenous thrombolysis in ischemic stroke patients with isolated homonymous hemianopia: analysis of Safe Implementation of Thrombolysis in Stroke - International Stroke Thrombolysis Register (SITS-ISTR).** Stroke 2012; 43: 2695-2698, Epub 2012 Jul 17
- 29.** Mazya M, Egido J, Ford G, Lees K, Mikulík R, Toni D, Wahlgren N, Ahmed N; For the SITS investigators. **Predicting the Risk of Symptomatic Intracerebral Hemorrhage in Ischemic Stroke Treated With Intravenous Alteplase: Safe Implementation of Treatments in Stroke (SITS) Symptomatic Intracerebral Hemorrhage Risk Score.** Stroke 2012; 43:1524-1531, Epub 2012 March 22
- 28.** Mikulík R, Kadlecová P, Czlonkowska A, Kobayashi A, Brozman M, Svilgelj V, Csiba L, Fekete K, Körv J, Demarin V, Vilionskis A, Jatuzis D, Krespi Y, Ahmed N; for the Safe Implementation of Treatments in Stroke-East Registry (SITS-EAST) Investigators. **Factors Influencing In-Hospital Delay in Treatment With Intravenous Thrombolysis.** Stroke. 2012 Mar 15 [Epub ahead of print]
- 27.** Karlinski M, Kobayashi A, Mikulík R, Sanak D, Wahlgren N, Czlonkowska A. **Intravenous alteplase in ischemic stroke patients not fully adhering to the current drug license in Central and Eastern Europe.** Int J Stroke. 2012 Feb 7.
- 26.** Toni D, Ahmed N, Anzini A, Lorenzano S, Brozman M, Kaste M, Mikulík R, Putala J, Wahlgren N; For the SITS investigators. **Intravenous thrombolysis in young stroke patients: Results from the SITS-ISTR.** Neurology. 2012 Mar 7.
- 25.** Mishra NK, Ahmed N, Davalos A, Iversen HK, Melo T, Soinne L, Wahlgren N, Lees KR; SITS and VISTA collaborators. **Thrombolysis outcomes in acute ischemic stroke patients with prior stroke and diabetes mellitus.** Neurology. 2011 Nov 22;77(21):1866-72. Epub 2011 Nov 16. PMID: 22094479
- 24.** Zinkstok SM, Vergouwen MD, Engelter ST, Lyrer PA, Bonati LH, Arnold M, Mattle HP, Fischer U, Sarikaya H, Baumgartner RW, Georgiadis D, Odier C, Michel P, Putala J, Griebe M, Wahlgren N, Ahmed N, van Geloven N, de Haan RJ, Nederkoorn PJ. **Safety and functional outcome of thrombolysis in dissection-related ischemic stroke: a meta-analysis of individual patient data.** Stroke. 2011 Sep;42(9):2515-20. Epub 2011 Jul 28. Review.
- 23.** Kharitonova T, Mikulík R, Roine RO, Soinne L, Ahmed N, Wahlgren N; for the Safe Implementation of Thrombolysis in Stroke (SITS) Investigators. **Association of Early National Institutes of Health Stroke Scale Improvement With Vessel Recanalization and Functional Outcome After Intravenous Thrombolysis in Ischemic Stroke.** Stroke. 2011 Jun;42(6):1638-43. Epub 2011 Apr 21
- 22.** Diedler J, Ahmed N, Glahn J, Grond M, Lorenzano S, Brozman M, Sykora M, Ringleb P; **Is the Maximum Dose of 90 mg Alteplase Sufficient for Patients With Ischemic Stroke Weighing > 100 kg?** Stroke. 2011 Jun;42(6):1615-20. Epub 2011 Apr
- 21.** Topakian R, Brainin M, Eckhardt R, Kiechl S, Ahmed N, Ferrari J, Iglseder B, Wahlgren NG, Lang W, Fazekas F, Willeit J, Aichner FT; for the SITS-Austria group. **Thrombolytic therapy for acute stroke in Austria: data from the Safe Implementation of Thrombolysis in Stroke (SITS) register.** Eur J Neurol. 2011 Feb;18(2):306-11.

- 20.** Mishra, NK, Ahmed N, Andersen G, Egido J, Lindsberg P, Ringleb PA, Wahlgren N, Lees KR; for the VISTA and SITS collaborators. **Thrombolysis in the very elderly: controlled comparison of SITS International Stroke Thrombolysis Registry and Virtual International Stroke Trials Archive.** BMJ. 2010 Nov 23;341:c6046.
- 19.** Ford GA, Ahmed N, Azevedo E, Grond M, Larrue V, Lindsberg P, Toni D, Wahlgren N. **Intravenous alteplase for stroke in those older than 80 years old.** Stroke. 2010 Nov;41(11):2568-74. Epub 2010 Oct 7
- 18.** Ahmed N, Wahlgren N, Grond M, Hennerici M, Lees KR, Mikulík R, Parsons M, Roine RO, Toni D, Ringleb P; for the SITS Investigators. **Implementation and outcome of thrombolysis with alteplase 3-4.5 h after an acute stroke: an updated analysis from SITS-ISTR.** Lancet Neurol 2010; 9; 866-74
- 17.** Ahmed N, Dávalos A, Eriksson N, Ford GA, Glahn J, Hennerici M, Mikulík R, Kaste M, Lees KR, Lindsberg P, Toni D; for the SITS Investigators. **Association of admission blood glucose and outcome in patients treated with intravenous thrombolysis** Arch Neurol 2011; 67(9): 1123-1130.
- 16.** Diedler J, Ahmed N, Sykora M, Uyttenboogaart M, Overgaard K, Luijckx G-J, Soinne L, Ford GA, Lees KR, Wahlgren N, Ringleb P; **Safety of intravenous thrombolysis for acute ischemic stroke in patients receiving antiplatelet therapy at stroke onset.** Stroke. 2010 Feb;41(2):288-94. Epub 2010 Jan 7.
- 15.** Simpson MA, Dewey HM, Churilov L, Ahmed N, Bladin CF, Schultz D, Mrkus R, Stur JW, Levi CR, Blacker DJ, Jannes J, Lindley RI, Parsons MW; **Thrombolysis for acute stroke in Australia: outcomes from the Safe Implementation of Thrombolysis in Stroke registry (2002-2008).** Med J Aust 2010 Oct 18;193(8):439-43.
- 14.** Vanacker P, Thijs V, Peeters A, Bruneel B, Laloux P, Druwé P, De Deyn P, Ahmed N, Wahlgren N, Vanhooren G; Belgian SITS-collaboration group. **The Belgian experience with intravenous thrombolysis for acute ischemic stroke.** Acta Neurol Belg. 2010 Jun;110(2):157-62. Epub 2010 May 1.
- 13.** Wahlgren N; **Systemic thrombolysis in clinical practice: what have we learned after the Safe Implementation of Thrombolysis in Stroke Monitoring Study?** Cerebrovasc Dis. 2009;27 Suppl 1:168-76. Epub 2009 Apr 3. Review.
- 12.** Kharitonova T, Ahmed N, Thoren M, et al. **Hyperdense middle cerebral artery sign on admission CT scan - prognostic significance for ischaemic stroke patients treated with intravenous thrombolysis in the safe implementation of thrombolysis in Stroke.** International Stroke Thrombolysis Register. Cerebrovasc Dis. 2009;27(1):51-9.
- 11.** Mikulík R, Václavík D, Sanák D, Bar M, Sevcík P, Kalita Z, Wahlgren N; **A nationwide study on topography and efficacy of the stroke treatment network in the Czech republic.** J Neurol. 2010 Jan;257(1):31-7. Epub 2009 Jul 23.
- 10.** Kharitonova T, Thorén M, Ahmed N, Wardlaw JM, von Kummer R, Thomassen L, Wahlgren N; for the SITS investigators. **Disappearing Hyperdense Middle Cerebral Artery Sign in ischemic stroke patients treated.** J Neurol Neurosurg Psychiatry. 2009 Mar;80(3):248. Epub 2008 Oct 17.
- 09.** Kobayashi A, Czlonkowska A, Ahmed N, Romanowicz S, Glonek M, Nyka WM, Opala G, Wahlgren N; for the SITS Poland Collaborative Group. **Intravenous recombinant tissue plasminogen activator for acute stroke in Poland: an analysis based on the Safe Implementation of Thrombolysis in Stroke (SITS) Registry.** Acta Neurol Scand. 2010 Oct;122(4):229-36.

- 08.** Roje-Bedeković M, Vargek-Solter V, Corić L, Sabolek K, Breitenfeld T, Supanc V, Demarin V; **Thrombolysis for acute ischemic stroke-our experiences as part of SITS-MOST.** Acta Clin Croat. 2009 Sep;48(3):287-93.
- 07.** Ahmed N, Wahlgren N, Brainin M, et al. **Relationship of blood pressure, antihypertensive therapy, and outcome in ischemic stroke treated with intravenous thrombolysis: retrospective analysis from Safe Implementation of Thrombolysis in Stroke – International Stroke Thrombolysis Register (SITS-ISTR).** 2009 Jul;40(7):2442-9. Epub 2009 May 21.
- 06.** Rodríguez-Yáñez M, Alvarez-Sabín J, Dávalos A, Díez-Tejedor E, Castillo J; **Thromolytic therapy for acute ischemic stroke. Experience of SITS (Safe Implementation of Thrombolysis in Stroke) register.** Neurologia. 2009 Jun;24(5):288-91. Spanish.*
- 05.** Lorenzano S, Ahmed N, Rosselli A, Marcello N, Inzitari D, Sterzi R, Wahlgren N, Prencipe M, Toni D; **Safe implementation of thrombolysis in stroke-monitoring study in Italy.** Eur J Neurol. 2010 Jan;17(1):163-7.Jun 15.
- 04.** Wahlgren N, Ahmed N, Dávalos A, Hacke W, Millán M, Muir K, Roine RO, Toni D, Lees KR; **Thrombolysis with alteplase 3-4.5 h after acute ischaemic stroke (SITS-ISTR): an observational study.** Lancet 2008; 372: 1303-1309.
- 03.** Lees KR, Ford GA, Muir KW, Ahmed N, Dyker AG, Atula S, Kalra L, Warburton EA, Baron JC, Jenkinson DF, Wahlgren NG, Walters MR; SITS-UK Group. **Thromolytic therapy for acute stroke in the United Kingdom: experience from the safe implementation of thrombolysis in stroke (SITS) register.** QJM. 2008 Nov;101(11):863-9. Epub 2008 Aug 11
- 02.** Wahlgren N, Ahmed A, Eriksson N, Aichner F, Bluhmki E, Dávalos A, Erilä T, Ford GA, Grond M, Hacke W, Hennerici M, Kaste M, Köhrmann M, Larrue V, Lees KR, Machnig T, Roine RO, Toni D, Vanhooren G; for the SITS-MOST investigators. **Multivariable analysis of outcome predictors and adjustment of main outcome results to baseline data profile in randomized controlled trials; Safe Implementation of Thrombolysis in Stroke Monitoring Study (SITS-MOST).** Stroke 2008; 39: 3316-3322.
- 01.** Wahlgren N, Ahmed N, Dávalos A, Ford GA, Grond M, Hacke W, Hennerici MG, Kaste M, Külkens S, Larrue V, Lees KR, Roine RO, Soinne L, Toni D, Vanhooren G; **Thrombolysis with alteplase for acute ischaemic stroke in the Safe Implementation of Thrombolysis in Stroke-Monitoring Study (SITS-MOST): an observational study.** Lancet 2007;369:275-282.

List with centres contributing data between December 25 2002 and December 31, 2017.

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Albania	9		Australia	3 979	
National Coordinator: To be appointed			National Coordinators: Mark Parsons & Romesh Markus		
Mother Teresa University Hospital Center		Olsi Taka	Austin Health		Helen Dewey
			Ballarat Base Hospital		Thomas Kraemer
			Bankstown-Lidcombe Hospital		Fintan O'Rourke
			Bendigo Health		Peter Disler
			Box Hill Hospital		Christopher Bladin
			Central Gippsland Health Service		Krishna Mandaleson
			Flinders Medical Centre		Andrew Lee
			Gold Coast University Hospital		Peter Bailey
			Gosford Hospital		Jonathon Sturm
			Lyell McEwin Hospital		Jordie Caulfield
			Monash Medical Centre		Thanh Phan
			Nambour General Hospital		Rohan Grimley
			Northern Health		Douglas Crompton
			Royal Adelaide Hospital		
			Royal Brisbane and Women's Hospital		Andrew Wong
			St Vincent's Hospital		Romesh Markus
			Tamworth Hospital		James Hughes
			The Queen Elizabeth Hospital		Jim Jannes
			The Townsville Hospital		Richard White
			Westmead Hospital		Andrew Evans
			Whyalla Hospital		Peter Landau
					Boon Yau Woo
Argentina	1 172		Austria	1146	
National Coordinator: Sebastian Ameriso			National Coordinator: Raoul Eckhardt		
CEMIC		Marina Romano	Christian-Doppler-Klinik Salzburg		Johannes Sebastian Mutzenbach
Centro Gallego de Buenos Aires		Claudia Gandolfo			Milan Vosko
Clinica La Sagrada Familia		Ricardo Romero			Gerhard Traxler
HIGA Eva Perón		Ferrari Jorge			Birgit Hoermanseder
HIGA Evita, Lanús		Gustavo Compte			Christof Bocksrucker
HIGA Dr. Juan A. Fernández		Ignacio Previgliano			Peter Bosak
Hospital Aleman de Buenos Aires		Alejandro Caride			Elke Gizewski
Hospital Central		Andres Barboza			
Hospital Dr.Cesar Milstein		María Martha Esnaola	Kepler University Hospital, Med Campus III		
Hospital Churruca-Visca		Guillermo Povedano	Kepler Universitätsklinikum Neuromed Campus		
Hospital Cordoba		Maria Elena Masih	Klinikum Wels-Grieskirchen		
Hospital Espanol de Buenos Aires		María Fabiana Huerta	Krankenhaus der Barmherzigen Brüder Linz		
Hospital Privado de Comunidad		Pablo Ioli	Landesklinikum Tulln		
Hospital Privado Santa Clara de Asís		Facundo Enrique Tomas	University Hospital Innsbruck		
		Gustavo Herrera			
		Raul Rey			
Hospital Ramos Mejía		Hernan Gomez			
Instituto Cardiovascular de Rosario		Elsa Pérez			
Policlinico Neuquén		Juan Jose Martin			
Sanatorio Allende		Pablo Enrique Pardo			
Sanatorio de La Trinidad Palermo		Gustavo Domeniconi			
Sanatorio de la Trinidad San Isidro		Pablo Clementti			
Sanatorio Nuestra Señora del Rosario		Alejandro Giacchino			
Sanatorio Otamendi y Mirolí		Lorena Jure			
Sanatorio Parque					
Belarus	0				
National Coordinator: Sergey Kulesh					
Belgium	4 862				
National Coordinators: Geert Vanhooren & Patrice Laloux					
ASZ Geraardsbergen					Michiel Marchau
AZ Algemeen Ziekenhuis - Aalst					Wim Wissaert
AZ Alma - Eeklo/Sijsele					Danny Decoo

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
AZ Damiaan - Oostende		Nathalie Baillieul	Bolivia	14	
AZ Delta		Marie-Christine Hasenbroekx	National Coordinator: Juan Carlos Duran		
AZ Groeninge		Bart Bruneel	Hospital de Clinicas		Oriana Melendres
AZ Heilige Familie - Reet			Hospital Materno Infantil		Omar Victor Ramos Valencia
AZ Jan Portaels		Laurence Peeters	Prosalud		Samuel Padilla
AZ Jan Ypermanziekenhuis - Ieper		Johan Van Cauwenbergh	Univalle		Lucio Oscar Gonzales
AZ Klina - Brasschaat		Fran Couvreur			
AZ Maria Middelares - Gent			Bosnia And Herzegovina	2	
AZ Middelheim - Antwerpen			National Coordinator: Sinisa Miljkovic		
AZ Monica		Yannick Van Ael	University Hospital Mostar		Sandra Lakicevic
AZ Nikolaas		Bart Siau			
AZ Onze-Lieve-Vrouw - Aalst		Miriam Bouckaert	Brazil	2 133	
AZ Sint Blasius - Dendermonde		Sabine Magerman	National Coordinators: Gabriel de Freitas, Jamary Oliveira-Filho, Octávio Pontes Neto & Sheila Martins		
AZ Sint Jan Brugge-Oostende		Geert Vanhooren	Centro Hospitalar Unimed		Norberto Cabral
AZ Sint Jozef - Malle		Patrick De Wit	Fundacao Hospitalar Getulio Vargas		Rafael Ramon Da Rosa
AZ Sint Lucas - Brugge		Peter Vanacker	Grupo Hospitalar Conceição		Rodrigo Targa Martins
AZ Sint Maarten - Duffel			Hospital Barra D'Or		Marcus Adriano
AZ Sint Rembert - Torhout		Jen Maes	Hospital Espanhol		Jamary Oliveira-Filho
AZ Sint-Lucas - Gent		Robert De Potter	Hospital da Restauracao		Alvaro Moreira
AZ Sint-Maria Halle		Elke Haest	Hospital das Clinicas da Faculdade de Medicina da Universidade de Sao Paulo		Eli Evaristo
AZ Turnhout		Sylvie Antoine			
AZ Vezalius - Tongeren		Katreine Dierckx	Hospital de Clínicas		Li Min Li
AZ West			Hospital de Clinicas da UFPR		Viviane Flumignan Zetola
CHU Brugmann		Penka Kirilova			
CHU St. Luc - Woluwe		Raphael Hourez	Hospital de Clínicas de Porto Alegre		Sheila Martins
CHU Tivoli		Andre Peeters	Hospital das Clinicas de Ribeirao Preto		Octávio Pontes Neto
Clinique St. Joseph - St. Vith		Patricia Redondo			
Clinique St. Pierre, Ottignies		Peter Heinen	Hospital de Pronto Socorro de Canoas		Luiz Carlos Brasiliano Ferreira
Cliniques Saint-Joseph Arlon		Jean-Marc Raymackers			
Ghent University Hospital		Sabina Boangher	Hospital do Servidor Público Estadual de São Paulo		Nelson Rodrigues
GZA hospital		Dimitri Hemelsoet			
Heilig Hartziekenhuis Mol		William Van Landegem	Hospital Estadual Central		Rubia Rasseli Sfalsini
Imeldaziekenhuis - Bonheiden		Charlotte Swinnen	Hospital Governador Celso Ramos		Gladys Lentz Martins
Jessa Hospital		Patrick Vermeylen	Hospital Governador João Alves Filho		Marcelo De Oliveira Ribeiro Paixão
Mariaziekenhuis - Overpelt		Nina De Klippe	Hospital Israelita Albert Einstein		Monique Bueno Alves
RZ Tienen		Cosmin Cojocaru	Hospital Lucio Rebelo		Luiz Antonio Freitas De Oliveira
Sint Vincentiusziekenhuis		Elke Peeters			Marco Túlio Araujo Pedatella
Sint-Andriesziekenhuis		Jozef De Koninck	Hospital Mãe de Deus		Maurício Andre Gheller Friedrich
Sint-Trudo		Philippe Tack			
UZ Antwerpen		Wouter De Vooght	Hospital Meridional (IVT)		Jose Antonio Fiorot
UZ Gent - Gent		Laetitia Yperzeele	Hospital Meridional Intercath		Elcio Machado
UZ Brussel		Raf Brouns	Hospital Moinhos de Vento		Alexandre Maulaz
			Hospital Municipal de Pronto Socorro Dep Nelson Marchezan		Luiz Carlos Ferreira

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Hospital Municipal do Campo Limpo		Vinicius Garcia De Vitro	University Hospital St. Marina – Varna		Evgeniya Kalevska
Hospital Municipal Dr Arthur de Riberiro Saboya		José Ferrero	University Multiprofile Hospital for Active Treatment "St. Anna" Sofia		Rosen Kalpachki
Hospital Municipal São José		Carla Moro	Chile	1 594	
Hospital Municipal Souza Aguiar		Simone Lindemayer Fernandes	National Coordinators: Arnold Hoppe & Claudio Sacks		
Hospital Nossa Senhora dos Navegantes		Mery Martins Neto	Clinica Alemana de Santiago		Arnold Hoppe
Hospital Odilon Behrens		Leonardo Cunha	Clinica Alemana de Temuco		Rodrigo Rivas
Hospital Parque Belém		Marjeane Hockmuller	Clinica Davila		Jorge Gaston Villacura Avendaño
Hospital Paulistano		Luciano Magalhaes Melo	Clinica Las Condes		Esteban Basaez
Hospital Professor Dr Alípio Correa Netto		Ana Claudia Piccolo	Clinica Renaca		Ludwig Codjambassis
Hospital Santa Isabel		Fabio Siquineli	Hospital Carlos Van Buren		Juan P. Gigoux
Hospital Santa Marcelina		Raul Valiente	Hospital Clínico de Magallanes		Javier Gaete
Hospital Totalcor		Valter Furlan	Hospital Clinico Pontificia Universidad Católica de Chile		Patricio Sandoval
Hospital Universitário de Santa Maria		Fábio Pascotto De Oliveira	Hospital Dipreca		Roberto Maturana
Hospital Vera Cruz		Gustavo Daher Vieira De Moraes Barros	Hospital Dr. Hernán Henríquez Aravena		Alvaro Soto Venegas
Hospital Vita		Hudson Fameli	Hospital Fach		Carlos Aguilera
Instituto Cardiopulmonar		Murilo Souza	Hospital Naval Almirante Nef		Pablo Araya
Instituto de Neurologia de Goiania		Marco Aurelio Fraga Borges	Hospital San Pablo de Coquimbo		Fernando Molt
Irmandade Nossa Senhora das Mercês - Santa Casa de Montes Claros		Marcílio Catarino Monteiro	Hospital Santiago Oriente Dr. Luis Tisne		Alberto Mario Vargas Cañas
Santa Casa de Fernandópolis		Francisca Fantini	China	107	
Santa Casa de Misericordia de Porto Alegre		Liselotte Barea	National Coordinator: Yongjun Wang		
São Francisco Hospital		Roberto Cardoso	2nd Hospital of Hebei Medical University		Mei Dong
São Lucas Hospital		Andrea Garcia De Almeida	Beijing Tsinghua Changgung Hospital		Jian Wu
UNESP – Botucatu		Rodrigo Bazan	Da Ping Hospital		Ye Wang
Bulgaria	2 722		Hainan Provincial People's Hospital		Jing Mei
National Coordinator: Silva Andonova			Hubei Zhongshan Hospital		Yan-Jiang Wang
"St. Anna" University Medical Center		Tania Miteva	Jinling Hospital		Tao Liu
MBAL "Dr Dobri Berov"		Hamdi Avdzha	No. 411 Hospital		Du Min
MBAL "St.Anna"		Gabriela Antonova	Shanxi Dayi Hospital		Xinfeng Liu
MHAT "St. Panteleimon"		Veselina Andonova	The First Affiliated Hospital of GuangZhou University of Chinese Medicine		Yingqi Zhou
MHAT "Tokuda Hospital Sofia"		Ivan Staikov	The First Affiliated Hospital of Zhengzhou University		Xinyi Li
MHAT Medika		Iskra Ivanova-Ezhova	Tianjin First Center Hospital		Yaqin Yu
MHAT-Dobrich		Boryana Ilcheva	Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine		Zhibing Wu
MHAT-Plovdiv		Alexandar Geritliev	Xinjiang Medical University		Bo Song
MHAT-Shumen		Nikolai Nikolov			Jie Guo
MHAT-Silistra		Rusanka Slavova			Jiafu Liu
University Hospital - Pleven		Maya Danovska			Xiaoning Zhang
University Hospital "Prof. Stoyan Kirkovich"		Yovchev Yovchev			

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Xuanwu Hospital Capital Medical University		Haiqing Song	FN Olomouc		Daniel Sanak
Zhongshan Hospital, Fudan University		Wei Fan	FN Ostrava		David Skoloudik
Colombia	71		FN Plzeň		Petr Sevcík
National Coordinator: To be appointed			FN u sv Anny v Brně		Lenka Kouřilová
Hospital Departamental to Villavicencio		Renzo Gomez Mariño	Jicin nemocnice		
Clinica Cardiovascular Santa Maria		Jorge Celis	Karvinska Hornicka Nemocnice		Henryk Brzeżański
Clínica de la Costa Barranquilla		Osvaldo Lara Sarabia	Krajska nemocnice Liberec		Lubomir Jurák
Clinica de Marly		Mario Munoz	Kyjov nemocnice		Pavel Zichacek
Fundación Oftalmologica de Santander Clinica Carlos Ardila Lule		Ignacio Abello	Nemocnice Benesov		Zdenek Waller
Hospital El Tunal		Juan Camilo Vargas	Nemocnice Blansko		Jana Jankovych
Hospital Universitario San Ignacio		Juliana Coral	Nemocnice Breclav		Zdena Bajková
Organizacion Clinica Central del Norte		Eduardo Usta	Nemocnice Ceske Budejovice		Miroslava Nevšímalová
Costa Rica	38		Nemocnice Ceska Lipa		Alan Treuchel
National Coordinator: To be appointed			Nemocnice Jihlava		Ondrej Koci
Hospital San Juan de Dios		Monica Garro	Nemocnice Jindrichuv Hradec		Jiri Neumann
Croatia	1 548		Nemocnice Kladno		Jan Novák
National Coordinator: Bašić Kes Vanja			Nemocnice Havlickuv Brod		Jaroslav Říman
General Hospital Dr. Josip Benčević		Marinko Dikanovic	Nemocnice Jihlava		Marek Pernicka
General Hospital Dubrovnik		Maro Vodopić	Nemocnice Jindrichuv Hradec		Jiri Loucka
General Hospital Vukovar		Sanja Svalina	Nemocnice Kladno		Petra Kešnerová
KBC Rijeka		Sinisa Dunatov	Nemocnice Kolin		Richard Brzezny
Opća Bolinca Bjelovar		Borislav Šarko	Nemocnice Litomerice		Ludmila Bláhová
Opća Bolnica Karlovac		Jasna Bozic	Nemocnice Litomysl		Zdenek Novotny
Opća Bolnica Šibenik		Anka Aleksić Shihabi	Nemocnice Melnik		Barbora Křiváková
Osijek Clinical Hospital Centre		Mihail Mišir	Nemocnice Mlada Boleslav		Martin Koutny
Sestre Milosrdnice University Hospital		Vesna Vargek Solter	Nemocnice Most		Stanislav Slavík
University Hospital Center Split		Ivo Lusic	Nemocnice Na Homolce		Martin Kovar
University Hospital Center Zagreb		Branko Malojcic	Nemocnice Nachod		Petr Stepan
University Hospital Dubrava		Vladimira Vuletic	Nemocnice Nove Mesto na Morave		Květoslava Večeřová
University Hospital Sveti Duh		Hrvoje Budincevic	Nemocnice Opava		Martin Krobot
Virovitica General Hospital		Boris Bencina	Nemocnice Ostrava		Lukas Klecka
Czech Republic	26 263		Nemocnice Pardubice		Petr Geier
National Coordinator: Robert Mikulik			Nemocnice Pisek		Robert Rezek
Fakultni Thomayerova nemocnice		David Hlinovsky	Nemocnice Pribram		Jan Kábrt
FN Brno		Stanislav Peska	Nemocnice Prostejov		Bohdan Krupka
FN Bulovka		Peter Vasko	Nemocnice Rychnov nad Kneznou		Jan Fajstauer
FN Hradec Králové		Eva Vitkova	Nemocnice Sokolov		Aleš Novák
FN Královské Vinohrady		Tomas Peisker	Nemocnice Strakonice		Pavel Houška
FN Motol		Ivana Šarbochová	Nemocnice Teplice		Martin Vančura
			Nemocnice Trinec Sosna		Mateusz Mrózek
			Nemocnice Trutnov		Michal Bednar
			Nemocnice Uherske Hradiste		Emanuela Habrovanská
			Nemocnice Usti nad Labem		Alena Lapáčková
			Nemocnice Usti nad Orlici		Květa Chotěnovská

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Nemocnice v Karlových Varech		Igor Karpowicz	Alexandria University (Louran Stroke Center)		Ossama Mansour
Nemocnice Vítkovice		Katerina Blejcharova	Assiut University Hospital		Mohamed Ahmed
Nemocnice Vyskov		Jana Kadlcikova	Aswan University Hospitals		Ahmed Abdelwarith
Nemocnice Zlín		Petr Procházka	Beni Suef University Hospital		Mohammed Oraby
Nemocnice Znojmo		Vladislav Kopecky	Cairo University Hospitals		Husam Mourad
Neurologická klinika - 1. lékařská fakulta UK a VFN		Ctirad Lakomy	Mansoura University Hospital		Mohammad Farrag
SZZ Krnov		Jan Fiksa	Menofia University Hospital		Hossam Egila
Ústřední vojenská nemocnice		Vladimir Sigut	Nasser Institute Hospital		Khaled Afifi
Vojenska nemocnice Brno		Roman Havlíček	Tanta University Hospital		Tarik Ibrahim Menecie
		Jiri Stehlík	Zagazig University		Azza Ghali
Denmark	2 375				Tamer Elserafy
National Coordinator:					
Grethe Andersen & Karsten Overgaard					
Aalborg Hospital		Karsten Vestergaard	El Salvador	39	
Holstebro		Karin Geisler	National Coordinator: William Arias Sifontes		
Odense University Hospital		Elzbieta Bjerager	HMQ ISSS		Hector Orrego Castellanos
Roskilde Sygehus		Troels Wienecke	Hospital Militar Central		Samuel Ayala
University Hospital of Copenhagen at Glostrup		Helle Klingenbergs Iversen	Hospital Nacional Rosales		Ericka Lopez
Århus Hospital, Århus University Hospital		Grethe Andersen	Estonia	3 256	
			National Coordinator: Janika Körv		
			Pärnu Hospital		Svea Reim
			East-Tallinn Central Hospital		Viktor Jefremov
			LTKH		Katrin Gross-Paju
Dominican Rep	448		North Estonia Medical Centre		Viiu-Marika Rand
National Coordinator: Margarita Cerdá			Tartu University Hospital		Janika Körv
Centro Medico Real		Rosa Cornelio	Finland	3 973	
Juan Pablo Pina		Margarita Cerdá	National Coordinator: Risto Roine		
			Helsinki University Central Hospital		Daniel Strbian
Ecuador	424				Lauri Soinne
National Coordinator: Patricio Abad		Braulio Martínez Burbano			Pekka Jäkälä
Carlos Andrade Marín Hospital		Estuardo Salgado	Kuopio University Hospital		Vesa Karttunen
Clinica La Merced		Jorge Moncayo Gaete	Oulu University Hospital		Jyrki Ollikainen
Eugenio Espejo Hospital		Patricio Abad	Tampere University Hospital		Susanna Roine
Hospital Metropolitano		Tomas Alarcon G	Turku University Central Hospital		
Hospital Teodoro Maldonado Carbo		Oscar Del Brutto	France	354	
Hospital-Clinica Kennedy			National Coordinator: Didier Leys		
			Centre Hospitalier Universitaire de Caen		Fausto Viader
Egypt	2 349				
National Coordinator: Hany Aref			Hopital Neurologique Pierre Wertheimer		Nazyad Huguet
Regional Coordinators: Hussam Salah, Mohamed Abdel Rahman & Saed Tag		Ahmed Hazzou			Francis Turjman
Abour Ain shams Specialized Hospital		Mohamed Fouad	Germany	6 862	
Ain Shams Specialized Hospital		Ramez Moustafa	National Coordinator: Peter Ringleb		
Ain Shams Universities		Ramez Reda	Asklepios Klinikum Teupitz		Peter Wienecke
Al-azhar University Hospitals		Ahmed Essmat			

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Carl-Thiem-Klinikum		Antje Herwig	Metropolitan Hospital		Eleftherios Staboulis
Diakonissenkrankenhaus Flensburg		Stefan Müller-Hülsbeck	Papageorgiou General Hospital		Jobst Rudolf
Johannes Wesling Klinikum Minden		Joerg Glahn	St. Panaleimon General State Hospital of Piraeus		Ioannis Markakis
Katharinenhospital		Marta Aguilar-Perez	University Hospital of Alexandroupolis		Georgios Tsivgoulis
Klinikum Dortmund		Axel Hamann	University Hospital of Heraklion		Panayiotis Mitsias
Klinikum Frankfurt (Oder)		Andreas Hartmann	University Hospital of Ioannina		Sotirios Giannopoulos
Klinikum Ludwigsburg		Georg Pawlik	University Hospital of Larissa		Efthimios Dardiotis
Klinikum Osnabrueck		Frauke Schnieder	University Hospital of Patras		Yiannis Ellul
Klinikum Vest Recklinghausen		Lars Krause			
St. Josefs Hospital		Jan Oliver Kuhnt			
University Clinic Essen		Stephan Lüders			
University Hospital Düsseldorf		Christian Weimar			
University Hospital of Heidelberg		Dorothea Reichelt			
University Hospital Jena		Bastian Kraus	Hospital Herrera Llerandi		Luis Salguero
University Medicine Greifswald		Peter Ringleb	Hospital Modular		Julio Hernandez
University of Leipzig		Albrecht Guenther	Hospital Roosevelt		Ligia Rodas
University Tübingen		Soenke Langner			
Universitätsklinik Knappschaftskrankenhaus		Dominik Michalski			
Universitätsklinikum Bonn		Till-Karsten Hauser			
Universitätsklinikum Schleswig-Holstein - Lübeck		Sven Poli			
Universitätsklinikum Schleswig-Holstein Campus Kiel		Jens Eyding			
Westpfalz-Klinikum GmbH		Gabor Petzold			
		Georg Royl			
		Olav Jansen			
		Martin Morgenthaler			
Greece	604				
National Coordinators: Jobst Rudolf, Kostas Vemmos, Georgios Tsivgoulis					
AHEPA University Hospital		Theodoros Karapanayiotides			
Athens Medical Center		Klimentini Karageorgiou			
Athens Naval Hospital		Triantafyllos Doskas			
Attikon University Hospital		Konstantinos Voumvarakis			
Evaggelismos General Hospital		Antonios Tavernarakis			
General Hospital of Athens		Maria Gryllia			
George Papanikolaou General Hospital		Georgios Tagaris			
IASO General Hospital		Ourania Argyropoulou-Raka			
Larisa Regional General Hospital		Vaso Zisimopoulou			
Mediterraneo Hospital		Nikolaos Tsamopoulos			
Guatemala	89				
National Coordinator: Luis Salguero					
Hospital General San Juan de Dios					
Honduras	19				
National Coordinator: Marco T. Medina					
Hospital Escuela					
Hong Kong	24				
National Coordinator: Thomas Wai Hong Leung					
Prince of Wales Hospital					
Hungary	1 992				
National Coordinator: László Csiba					
Aladar Petz County Hospital					
Bajcsy Zsilinszky Korhaz					
B.A.Z County Hospital					
Dr Kenessey Albert Hospital					
Fejer Megyei Szent Gyorgy Korhaz					
Felso Szabolcsi Korhaz					
Javorszky Odon					
Josa Andras Oktatokorhaz Egeszsegugyi Szolgaltato Nonprofit Kft.					
Kanizsai Dorottya Korhaz					
Peterfy Sandor u. Korhaz					
Szent Borbala					
University of Debrecen					

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
India	5 967		Zydus Hospital, Ahmedabad		Arvind Sharma
National Coordinators: Dheeraj Khurana & M.V.PADMA					
All India Institute of Medical Sciences		Rohit Bhatia			
AMRI Hospitals, Institute of Neurosciences, Mukundapur		Jayanta Roy			
Apollo Gleneagles Hospitals					
Christian Medical College Hospital		Sanjith Aaron			
Civil Hospital Fazilka		Anmol Nagpal			
Civil Hospital Jalandhar		Tarsem Lal			
Civil Hospital Sangrur		Rahul Gupta Rahul Gupta			
Civil Hospital Ludhiana		Gurmeet Singh Purba	Ireland	57	
Fortis Hospital		Neetu Ramrakhiani	National Coordinators: Peter Kelly & Killian O'Rourke		
Gleneagles Global Health City		Halprashanth D.S.			
Government Medical College, Patiala		Khushvinder Sherry	Letterkenny General		Jose Miranda
Guru Gobind Singh Medical College, Faridkot		Sulena Sulena	Mater Misericordiae University Hospital		
Hiranandani Hospital		Pawan Ojha	Sligo General Hospital		Paula Hickey
Institute of Human Behaviour & Allied Sciences - Delhi		Suman Kushwaha	St Vincent's University Hospital		Tim Cassidy
Kokilaben Dhirubhai Ambani Hospital and Medical Research Institute		Shirish Hastak			
Lilavati Hospital and Research Centre		Amrita Kiki	National Coordinator: Roni Eichel	286	
Maharishi Markandeshwar Institute of Medical Sciences and Research		Ankush Sharma	Hadassah University Hospital		Roni Eichel
Mahatma Gandhi Mission Kamothe		Aloke Banerjee	Hillel Yaffe Medical Center Makassed		Sergiu Sabetay
Max Hospital Shalimar Bagh		Manoj Khanal	Islamic Charitable Hospital Ziv		Anis Naser
Max Superspecialty Hospital, Saket, N.Delhi		Puneet Agarwal	Medical Center		Galina Keigler
Medanta the Medicity		Arun Garg			
N. M. Virani Wockhardt Hospital		Nirav Sanghani	National Coordinator: Danilo Toni	39 896	
NH Mazumdar Shaw Medical Center		Vikram Huded	Regional Coordinators: Domenico Inzitari, Marcello Naccarato & Domenico Consoli		
Pondicherry Institute of Medical Sciences		Venugopalan Vishnu	A.O.U. San Giovanni di Dio e Ruggi d'Aragona		Rosa Napoletano
Postgraduate Institute of Medical Education & Research		Dheeraj Khurana	A.S.O. S. Croce e carle		Piero Meineri
Psg Hospitals		Ramadoss Kalidoss	AOR San Carlo Potenza		Antonio Matera
Ruby Hall Clinic		Kapil Zirpe	Arcispedale Santa Maria Nuova		Norina Marcello
Satara Diagnostic Center & Multispeciality Hospital		Pradip Ghadge	ARNAS Garibaldi		Antonino Pavone
Shalby Hospitals		Arvind Sharma	Azienda Ospedaliera "Bianchi-Melacrino-Morelli"		Luciano Arcudi
Shree Krishna Hospital		Soaham Desai	Azienda Ospedaliera "Card. G. Panico"		Gerardo Ciardo
Unispital Healthcare		Vinit Gupta	Azienda Ospedaliera "Maggiore della Carità" di Novara		Lorenzo Coppo
Wockhardt Hospital Nagpur		Ankur Jain	Azienda Ospedaliera Cannizzaro		Pennisi Maria Giovanna
Wockhardt Hospital Nashik		Dhananjay Duberkar	Azienda Ospedaliera di Cosenza		Alfredo Petrone
Wockhardt Hospitals Ltd, Unit- Adams Wylie Memorial		Shirish Madhav Hastak	Azienda Ospedaliera G. Rummo		Michele Feleppa
Wockhardt Hospitals, Umrao Unit		Dr Khursheed Ansari Kanhaiyalal Trivedi	Azienda Ospedaliera G.Salvini Azienda Ospedaliera Pugliese-Ciaccio		Marco Mattioli Umberto Cannistrà

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Azienda Ospedaliera s. Maria Degli Angeli Pordenone		Paolo Passadore	Istituto Nazionale Tumori Regina Elena		Emanuele Medici
Azienda Ospedaliera S. Maria Terni		Franco Costantini			Elvio Giaccaglini
Azienda Ospedaliera San Camillo-Forlanini		Claudio Pozzessere	Istituto Neurologico Casimiromondino		Anna Cavallini
Azienda Ospedaliera Sant'Anna e San Sebastiano di Caserta		Gioacchino Martusciello	Istituto Scientifico Ospedale San Luca (Istituto Auxologico Italiano)		Laura Adobbati
Azienda Socio Sanitaria Territoriale di Lodi		Maurizio Riva	Jazzolino		Domenico Consoli
Azienda Ospedaliera Spedali Civili di Brescia		Mauro Magoni	L'Istituto Neurologico Mediterraneo Neuromed		Antonio Sparano
Azienda Ospedaliera Universitaria Integrata Verona		Giuseppe Moretto	Madonna del Soccorso Hospital		Roberto Gobbato
		Paolo Bovi	Mater Salutis Hospital		Michelangelo Turazzini
Azienda Ospedaliera Universitaria Policlinico Paolo Giaccone di Palermo		Paolo Aridon	Ospedale Antonio Cardarelli		Vincenzo Andreone
Azienda Ospedaliera Universitaria Senese		Tassi Rossana	Ospedale Riuniti Ancona		Leandro Provinciali
Azienda Ospedaliera Valtellina e Valchiavenna		Salvatore Creta	Ospedale "S. Maria delle Croci"		Gabriele Ciucci
Azienda Ospedaliero - Universitaria di Parma		Umberto Scoditti	Ospedale "San Pio da Pietrelcina"		Stefano Viola
Azienda Ospedaliero-Universitaria "Ospedali Riuniti" di Foggia		Giuseppe Rinaldi	Ospedale "Vito Fazzi"		Leonardo Barbarini
Bentivoglio Hospital		Marco Masina	Ospedale A Manzoni Lecco		Elio Agostoni
Careggi		Domenico Inzitari	Ospedale Antonio Perrino		Cecilia Nozzoli
Cattinara		Marcello Naccarato	Ospedale B. Ramazzini di Carpi		Mario Baratti
Civil Hospital, Macerata		Katiuscia Nardi	Ospedale Bassa Val di Cecina		Paolo Pennati
Civil Hospital SS. Annunziata		Mara Rosso	Ospedale Belcolle		Nicola Falcone
		Antonio Manca	Ospedale Buccheri La Ferla		Armando Bilello
E.O. Ospedali Galliera		Maria De Angelis	Ospedale Ca' Foncello		Bruno Giometto
Fond Poliambulanza Brescia		Daria Bianchini	Ospedale Cardinal Massaia		Marco Aguggia
Fondazione Ca' Granda Maggiore Milano		Edoardo Donati	Ospedale Casa Sollievo della Sofferenza		Alessandra Lentini
		Giuseppe Torgano	Ospedale Cazzavillan		Pietro Di Viesti
Generall Hospital		Manrico Gentile	Ospedale Centrale di Bolzano		Michele Morra
Gradenigo Hospital		Pietro Pignatta	Ospedale Circolo Busto Arsizio		Roberto Currò Dossi
Hospital ASST West Milanese		Maria Vittoria Calloni	Ospedale Ciriè		Luigia Irene Neromante
Hospital Carlo Poma		Giorgio Silvestrelli	Ospedale Civile "S.Agostino-Estense" - Azienda Ospedaliera Universitaria di Modena		Diego Maria Papurello
Hospital of Crema		Tommaso Riccardi	Ospedale Civile Cittadella		Serena Monaco
Hospital Villa Sofia		Antonio Gasparro	Ospedale Civile di Conegliano Treviso)		Paolo Nichelli
Hospital Riccardo Guzzardi Victory		Francesco Iemolo	Ospedale Civile Mirano		Giulio Bozzato
INRCA		Giuseppe Pelliccioni	Ospedale Civile SAN Camillo DE Lellis		Sandro Bruno
		Maurizio Del Gobbo	Ospedale Civile Santi Antonio e Biagio e Cesare Arrigo		Carlo Fattorello Salimbeni
IRCCS Centro Neurolesi Bonino Pulejo Ospedale Piemonte		Osvaldo Scarpino	Ospedale Civile Spirito Santo Pescara		Alessandro Stefanini
Istituto Clinico Città Studi		Paola Santalucia	Ospedale Civile Venezia, U.O.C.		Luigi Ruiz
		Carlo Sebastiani Tadeo	Neurologia		Francesco Di Blasio
Istituto Clinico Humanitas		Simona Marcheselli	Ospedale Degli Infermi		Francesco Paladin
					Graziano Gusmaroli

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Ospedale del Ceppo		Stefano Bartolini	Ospedale Regionale della valle d'Aosta		Giuseppe D'Alessandro
Ospedale del Mugello		Maria Ciliberti	Ospedale Regionale Miulli		Giovanni Manobianca
Ospedale dell'Angelo		Adriana Critelli	Ospedale S. Donato Arezzo		Giovanni Iannelli
Ospedale della Misericordia		Roberto Marconi	Ospedale S. Eugenio		Letizia Maria Cupini
Ospedale della Versilia		Paolo Del Dotto	Ospedale S. Maria del Prato		Giorgio Caneve
Ospedale delle Apuane		Giovanni Orlandi	Ospedale S. Maria della Scaletta		Tiziano Lenzi
Ospedale Desio		Bianca Maria Bordo	Ospedale S. Maria Misericordia Udine		Roberto Eleopra
		Ignazio Michele Santilli	Ospedale San Bassiano		Emanuele Turinese
Ospedale di Circolo e Fondazione Macchi Varese		Maria Luisa Delodovici	Ospedale San Biagio		Angelo Villani
Ospedale di Città di Castello		Silvia Cenciarelli	Ospedale San Bortolo		Francesco Perini
Ospedale di Fidenza Parma		Claudio Grassa	Ospedale San Carlo Borromeo		Patrizia Lattuada
Ospedale di Rivoli		Salvatore Amarù	Ospedale San Filippo Neri		Maria Concetta Altavista
Ospedale di Saronno			Ospedale San Gerardo		Simone Beretta
Ospedale di Stato		Mirco Volpini	Ospedale San Giacomo Apostolo		Marzia Ottina
Ospedale di Treviglio		Edgard Matta	Ospedale San Giacomo, Novi Ligure		Silvia Cattaneo
Ospedale di Vimercate		Vittorio Crespi	Ospedale San Giovanni Battista		Pierluigi Brustenghi
Ospedale Edoardo Agnelli		Carmela Palmieri	Ospedale San Giovanni Bosco		Roberto Cavallo
Ospedale Fabrizio Spaziani		Antonia Nucera	Ospedale San Giovanni di Dio		Gabriele Nenci
Ospedale Felice Lotti		Gianna Gambaccini			Alberto Fortini
Ospedale G B Morgagni L Pierantoni Forli		Giampiero Galletti	Ospedale San Giuseppe		Pietro Bassi
Ospedale GB Grassi		Giovanni Pauletti	Ospedale San Lazzaro - Alba		Marco Giraudo
Ospedale Generale Pronvinciale S. Andrea		Franco Coppo	Ospedale San Leopoldo Mandic		Manuela Vaccaro
Ospedale Giuseppe Mazzini di Teramo		Maurizio Assetta	Ospedale San Luca		Alessandro Napolitano
Ospedale Imperia		Mauro Furlan	Ospedale San Luigi Gonzaga		Rossella Sciolla
Ospedale Infermi		Marco Galletti	Ospedale San Martino		Laura Malfatto
Ospedale Lavagna		Rinaldo Colombo	Ospedale San Paolo		Fabio Bandini
Ospedale Livorno		Paolo Pennati	Ospedale San Salvatore-L'Aquila		Carmine Marini
		Mauro Pratesi	Ospedale Sant'Andrea		Maurizia Rasura
		Alessio Bertini	Ospedale Sant'Anna		Lucia Tancredi
Ospedale Maggiore		Gaetano Procaccianti	Ospedale Sant'Antonio Abate		Luigi Sicurella
Ospedale Maria Vittoria Torino		Carlo Buffa			Franca Mazzucchelli
Ospedale Martini Torino		Maria Roberta Bongioanni	Ospedale Santa Corona		Tiziana Tassinari
Ospedale Mauriziano Torino		Carmelo Labate	Ospedale Santa Croce Moncalieri		Marco De Mattei
Ospedale Maurizio Bufalini		Simonetta Morresi	Maggiore di Chier		
		Anna Maria Mauro	Ospedale Santa Maria alla Gruccia		Alberto Cuccini
Ospedale Morelli Sondalo		Giacomo Giuseppe Bezzi	Ospedale Santa Maria Annunziata		Maddalena Bruscoli
		Davide Ferrazzoli	Firenze		
Ospedale Moriggia-Pelascini		Ignazio Santilli	Ospedale Santa Maria della Misericordia di Rovigo		Monia Russo
Ospedale Niguarda Ca' Granda		Eugenio Rota	Ospedale Santo Spirito - Rome		Monica Carfora
Ospedale Novi Ligure		Bruno Censori	Ospedale Santo Spirito Casale Monferrato		Eugenio Rota
Ospedale Papa Giovanni XXIII		Domenico Idone			Mauro Galletti
Ospedale P. Pedrazzoli Casa di Cura		Vincenzo Lucivero	Ospedale San Tommaso dei Battuti		Federica Orlando
Ospedale R. Dimiccoli			Ospedale SS. Annunziata - Taranto		Angelica Tinelli
			Ospedale SS. Cosma e Damiano di Pescia		Grazia Panigada

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Ospedale Valduce Como					
Ospedale Umberto I Siracusa		Giuseppe Cascone			
Ospedaliera Luigo Sacco - Polo Universitario		Paola Gambaro			
			Kazakhstan		
Ospedaliero Santa Croce di Fano		Giancarlo Francolini	National Coordinator: Sholpan Nurmanova		
Ospedale Sacro Cuore Don Calabria		Alessandro Adami	GKP na PKHV Gorodskaya bol'nitsa №1		Aygul Kaysarbekova
P.O. San Francesco		Maria Valeria Saddi	Regional Hospital Atyrau city		Marta Ismailova
P.O.M Villa Scassi ASL3 Genova		Paola Perfumo	Shymkent City Regional Hospital		Nazira Zharkinbekova
Policlinico Gemelli		Vincenzo Di Lazzaro			
Policlinico San Marco		Massimo Camerlingo	Korea	665	
Policlinico San Matteo		Alessandra Martignoni	National Coordinator: Joung-Ho Rha		
Policlinico Sant'Orsola-Malpighi		Maria Guarino	Ajou University Hospital		
Policlinico tor Vergata		Fabrizio Sallustio	Asan Medical Center		
		Paolo Stanzione	Bundang Seoul National Uni Hospital		
Policlinico Umberto I - University La Sapienza		Danilo Toni	Cheju National University Hospital		
Policlinico Universitario Padova		Claudio Baracchini	Chonbuk National University Hospital		
Neurol			Chonnam National University Hospital		
Presidio Ospedaliero Sant'Andrea La Spezia		Antonio Mannironi	Chungnam National University Hospital		
Presidio Ospedaliero Cremona		Maria Sessa	Dong-A University Hospital		
Presidio Ospedaliero S. Elia		Maria Giovanna Randisi	Dongguk Uni International Hospital		
Renzetti Lanciano Hospital		Antonio Giusti	Dongsan Medical Center Keimyung Uni		
Rivoli Hospital		Emilio Luda	Eulji General Hospital		
S.Anna Hospital		Maria Rosaria Tola	Eulji University Hospital		
		Alessandro De Vito	Gil Medical Center Gachon University		
San Giovanni Addolorato Hospital		Antonio Salerno	Hallym University Sacred Heart Hospital		
San Giovanni di Dio Hospital. ASP Crotone		Demetrio Messina	Ilsan Paik Hospital		
Sant'Antonio Hospital		Anna Maria Basile	Inha University Hospital		Joung-Ho Rha
Santa Chiara Hospital		Laura Cucurachi	Kangbuk Samsung Hospital		
		Michelangelo Mancuso	Konkuk University Hospital		
Santa Maria Nuova Hospital		Mauro Pratesi	Nat Health Insurance Corp Ilsan Hospital		
Santo Stefano Prato		Alba Caruso	Paik Hospital Pusan		
Santoro Alto Vicentino		Flavio Sanson	Samsung Medical Center		
Scientific Institute San Raffaele Hospital		Luisa Roveri	Seoul National Uni Boramae Hospital		
The Hospital of Gubbio and Gualdo Tadino		Tatiana Mazzoli	Seoul National University Hospital		
ULSS17 - Monselice Hospital		Sandro Guzzon	Soonchunhyang University Hospital		
Università degli Studi di Perugia		Maurizio Paciaroni	Ulsan University Hospital		
		Giancarlo Agnelli	Wonju Christian Hospital		
			Yeungnam University Medical Center		
			Yonsei University College of Medicine		
Japan	75				
National Coordinator: To be appointed			Kuwait	0	
Shonan Kamakura General Hospital		Takahisa Mori	National Coordinator: Kahalid Al Hassan		

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Kyrgyzstan	1 035		Hospital Angeles Metropolitano		Jefferson Voltaire Proano Narvaez
National Coordinators: Tynar Musabekova & Inna Lutsenko			Hospital Central "Dr. Ignacio Morones Prieto"		Claudio Alberto García Perales
Bishkek City Civil Clinic 1		Inna Lutsenko	Hospital Central Universitario		Sandra Silva
Chui Regional Clinic		Alybek Apyshev	Hospital Christus Muguerza Sur		Romulo Ramirez-Gutierrez
Lebanon	142		Hospital Civil de Guadalajara		Jose Luis Ruiz-Sandoval
National Coordinator: To be appointed			Hospital Dr. Juan Graham Casasus		Jose Luiz Sosa Hernandez
Bellevue Medical Center		Ghassan Kiwan			
Libya	6		Hospital General de Culiacan		Jorge Villarreal
National Coordinator: Husen Abdulrahman			Hospital General de Mexico O.D.		Rosalia Vazquez
Benghazi Medical Centre		Husen Abdulrahman	Hospital General De Zona (HGZ)- 1		Millan-Guerrero Rebeca
Lithuania	2 183		Hospital General Dr. Miguel Silva SSM		Octavio Ibarra
National Coordinators: Aleksandras Vilionskis & Dalius Jatuzis			Hospital General ISSSTE Veracruz		Hector Colorado
Hospital of Lithuanian University of Health Sciences Kaunas Clinics		Antanas Vaitkus	Hospital Guadalupe de Puebla		Luis Felipe Loria Rosado
Klaipeda Seamen's Hospital		Egle Martinkute	Hospital Juarez de México		Antonio Fernandez
Klaipeda University Hospital		Olga Knokneriené	Hospital Metropolitano		Armendariz Immer
Regional Hospital of Panevezys		Henrikas Kazlauskas	Hospital Real San Jose		Hector Gomez Rodriguez
Republican Siauliai Hospital		Linas Masiliūnas	Hospital Regional de alta especialidad "ciudad salud"		Gerardo Vicente Grajales Yuca
Republican Vilnius University Hospital		Sigla Scepaviciute	Hospital Regional de Ciudad Madero		Ricardo Estrada
Telsiu Hospital		Aleksandras Vilionskis	Hospital Regional ISSSTE Monterrey		Francisco Flores
Vilnius Uni Hospital Santariskiu Clinics		Saulius Taroza	Hospital Universitario UANL		Fernando Gongora-Rivera
		Dalius Jatuzis	Imss Cmn Mac Umae He		Guillermo Enriquez
Macedonia, Republic Of	173		Instituto Nacional de Cardiologia Ignacio Chavez		Mendez Aurelio
National Coordinator: Anita Arsovská			Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán		Carlos Cantú-Brito
Clinical Hospital Tetovo		Danijela Vojtikiv Samoilovska	Instituto Nacional de Neurología y Neurocirugía		Antonio Arauz Gongora
General City Hospital "8 Septemvri"		Ana Doneva	Instituto Panvascular de Occidente		Luis Murillo-Bonilla
Malta	0		Médica Sur		Juan Alberto Nader Kawachi
National Coordinator: Maria Mallia					Carlos Pla
Mexico	1 033		Regional de ISSSTE "Dr. Valentín Gómez Farías"		Carolina León Jiménez
National Coordinators: Fernando Gongora-Rivera & Antonio Arauz Gongora			San José/Zambrano Helion		Luis Espinosa Primo Delgado
Centro Médico ABC		Marco A. Alegría-Loyola			
Centro Medico Adolfo Lopez Mateos		Zoara Valladares			
Centro Medico de Occidente		Jose Guzman			
Centro Médico ISSEMyM		Carlos Espinoza			
Hospital Angeles de Queretaro		Fernando Barinagarrementeria			
Morocco	1 067				
National Coordinator: Belahsen Faouzi					
Hôpital des Spécialités					
Ibn Rochd University Hospital					

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Netherlands	215		Complejo Hospitalario Metropolitano Dr. Arnulfo Arias/ Caja de Seguro Social		Arón Benzadón
National Coordinator: Maarten Uyttenboogaart			Hospital Anita Moreno		Mario Larriategui
Atrium Medical Center			Hospital Dr Luis Chicho Fabrega		Jose Escartin
Groningen University Medical Centre			Hospital Dr. Gustavo Nelson Collado		Jose Escartin
University Hospital Maastricht			Hospital Nacional		David Dondis
Sint Anna			Hospital Santo Tomas		Donna Chen De Lee
New Zealand	175		Paraguay	167	
National Coordinator: John Fink			National Coordinator: Gloria Meza Rojas		
Palmerston North Hospital		Annemarei Ranta	Hospital Central del Instituto de Prevision Social		Aurora Olmedo
Wellington Regional Hospital		Jeremiah Lanford	Hospital Regional nuestra señora del Rosario		Margarita Elizabeth Paredes Britez
Nicaragua	25		Peru	2 290	
National Coordinator: Jorge Martinez Cerrato			National Coordinator: Carlos Abanto		
Hospital Metropolitano		Jorge Martinez Cerrato	Clinica Ricardo Palma		Jaime Eskenazi
			Hospital Alberto Sabogal Sologuren		Luis Alberto Huaroto Casquillas
Norway	2 143		Hospital Belen de Trujillo		Isolina Villanueva Pomacónedor
National Coordinators: Anne Hege Aamodt, Titto Idicula & Arnstein Tveiten			Hospital G. Almenara		Miguel Quiñones
Akershus University Hospital		Ole Morten Ronning	Hospital II Angamos Essalud		Luis Miguel Uchuya Cornejo
Buskerud Hospital		Karl-Friedrich Amthor	Hospital Jorge Reategui Delgado		Jose Cruz
Haukeland University Hospital		Titto Idicula	Hospital Maria Auxiliadora		Marcos Aguilar
Haugesund Sjukehus		Piotr Burzynski	Hospital Nacional Adolfo Guevara Velasco-essalud Cusco		Eliseo Villagaray
Hospital of Asker and Bærum		Gro Vik Knutsen	Hospital Nacional Almanzor Aguinaga Asenjo		Luis Sandoval
Molde Hospital		Åse Hagen Morsund	Hospital Nacional Arzobispo Loayza		Juan Barreto- Montalvo
Rikshospitalet, Oslo University Hospital		Anne Hege Aamodt	Hospital Nacional Carlos Alberto Seguin Escobedo		Antero Peralta
Sentralsjukehuset i Rogaland		Stein Roalsø	Hospital Nacional Edgardo Rebagliati Martins		Jorge Martín Gavidia Chucán
Sykehuset i Vestfold		Reidar Kloster	Hospital Regional de Ica		Angel Anicama Hernandez
Sykehuset Namsos		Stephan Schuler	Hospital Santa rosa		Herberth Valdivia
Sykehuset Østfold		Trine Almås	Instituto Nacional de Ciencias Neurológicas		Carlos Abanto
Sørlandet Sykehus Kristiansand		Arnstein Tveiten			
Trondheim University Hospital		Titto Idicula			
Ullevål University Hospital Neurology		Antje Reichenbach			
		Kristin Gran Olsen			
Oman			Philippines	87	
National Coordinator: Amal Hashimi			National Coordinator: To be appointed		
Royal Hospital Muscat		Amal Al-Hashmi	Community General Hospital of San Pablo City, Inc.		Allan Belen
			Davao Regional Medical Center		Dorotheo Jr. Floresca
Pakistan	0		Las Pinas Doctors Hospital		Celeste Pena
National Coordinator: Mohammad Wasay			Mt. Carmel Diocesan General Hospital		Grace Joy Arceo
Panama	78				
National Coordinator: Nelson Novarro					
San Fernando		Fernando Gracia			
Centro Medico Paitilla					

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
New Sinai MDI Hospital		Arman Oronce	Szpital Specjalistyczny Jasło		Paweł Jarosz
Perpetual Succour Hospital		Jarungchai Vatanagul	Szpital Specjalistyczny w Końskich		Małgorzata Fudala
Poland	5 948		Szpital Wojewódzki nr 2		Edward Filip
National Coordinators: Michał Karliński, Adam Kobayashi & Anna Czlonkowska			Szpital Wolski		Arleta Kuczyńska-Zardziewała
107th Military Hospital with Polyclinic		Marcin Rogoziński	Szpitalny Oddział Ratunkowy		Małgorzata Wiszniewska
Bizieli's Hospital		Violetta Palacz-Duda	Univeristy Hospital No 1 Bydgoszcz A. Jurasza		Grzegorz Kozera
Centralny Szpital Kliniczny MSWiA		Małgorzata Dobroń	University Hospital		Agnieszka Słowiak
Clinical Hospital Nr 4 w Lublinie		Piotr Luchowski	Uniwersytecki Szpital Kliniczny		Alina Kułakowska
Copernicus Hospital		Bożena Adamkiewicz	Wojewódzki Specjalistyczny Zespół Neuropsychiatryczny		Slawomir Romanowicz
Hospital in Radzyń Podlaski		Daniel Bzowski	Wojewódzki Szpital Specjalistyczny		Monika Pędracka
Hospital of Florian Ceynowy in Wejherowo		Agnieszka Wysocka			Paweł Kwiatkowski
Institute of Psychiatry and Neurology		Anna Czlonkowska			Grzegorz Dalek
L. Bierkowski Hospital		Michał Karliński	Wojewódzki Szpital Specjalistyczny Megrez Sp. z o.o.		Danuta Szewczyk-Urgacz
Medical Centre of Silesia		Radosław Kazmierski	Wojewódzki Szpital Zespolony w Koninie		Adrian Filipczak
Military Medical Institute		Anetta Bal			
Pomorskie Centrum Traumatologii im.M.Kopernika		Jacek Staszewski	Portugal	4 695	
Poviat Hospital		Waldemar Fryze	National Coordinators: Teresa Pinho e Melo & Maria Antónia Ferro		
PSZOZ Inowrocław		Artur Węsek	Centro Hospitalar de Gaia		Luis Miguel Galo Veloso
Radomsko Szpital Powiatowy		Elżbieta Koczab	Centro Hospitalar de Setúbal		Rui Guerreiro
Samodzielny Publiczny Szpital Wojewódzki im. Papieża Jana Pawła II		Jacek Hubner	Centro Hospitalar de Tras-os-montes e Alto Douro		Andreia Veiga
Specialist Hospital in Jasło		Kajetan Mazurek	Centro Hospitalar Lisboa Ocidental		Miguel Viana Baptista
SPZOZ Działdowo		Stanisław Kosiek	Centro Hospitalar Tondela-Viseu		Ana Gomes
SPZOZ Lubartów		Marek Zalisz	Centro Hospitalar Universitário do Algarve - Hospital de Faro		Giovanni Cerullo
SPZZOZ Sandomierz		Mirosław Miazga	Hospitais da Universidade de Coimbra		Cristina Machado
St. Adalbert Hospital, Copernicus		Piotr Sobolewski	Hospital de Braga		Carla Ferreira
St. Queen Jadwiga Clinical Regional Hospital no. 2 in Rzeszów		Wiesława Holub-Kucharska	Hospital de Faro		Sílvia Castro
Szpital Kliniczny CMKP im. Orłowskiego		Edward Filip	Hospital de São Sebastião		José Mário Roriz
Szpital Kolejowy SP ZOZ		Witold Palasiak	Hospital Dr. Nélio Mendonça, Funchal		Rafael Freitas
Szpital Kolejowy w Pruszkowie Sp. z o.o.		Jarosław Pniewski	Hospital Garcia de Orta		Miguel Rodrigues
Szpital Krośno		Aleksandra Nabialek	Hospital Geral do Centro Hospitalar e Universitário de Coimbra		José Grilo Gonçalves
Szpital Powiatowy Skarżysko-Kamienna		Rafał Jucha	Hospital Pedro Hispano, Unidade Local de Saúde de Matosinhos		Vitor Tedim Cruz
Szpital Powiatowy w Kraśniku		Jan Stoiński	Hospital Prof Dr Fernando Fonseca		Amélia Nogueira Pinto
Szpital Powiatowy w Sedziszowie Małopolskim		Hanna Basista	Hospital Santo António		Rui Felgueiras
Szpital Powiatowy Zespół Opieki Zdrowotnej w Przeworsku		Marcin Zieba	Hospital São João		Elsa Azevedo
Szpital Specjalistyczny 7		Anna Kozak-Sykała	Hospital São José - CHLC		Ana Paiva Nunes
Szpital Specjalistyczny im. H. Klimontowicza w Gorlicach		Anna Smołka	HPP Hospital de Cascais - Dr. José de Almeida		Cátia Carmona
		Jarosław Borowicz	Santa Maria		Teresa Pinho e Melo

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Qatar	304		Regional vascular centre of Karelia		Anna Novitskaya
National Coordinator: To be appointed			Research Center of Neurology of Russian Academy of Medical Sciences		Maxim Domashenko
Hamad General Hospital		Naveed Akhtar	Research Institute Of Emergency Medicine Saint-Petersburg		Igor Voznjouk
Romania			Rostov District Clinical Hospital		Aleksey Hripun
National Coordinator: Dafin Fior Muresanu			Russian State Medical University		Nikolay Shamalov
Clinical Emergency County Hospital Oradea		Monica Sabau	SPb GBUZ «Gorodskaya bolnitsa № 26»		Aleksei Shmonin
County Emergency Hospital Timisoara		Dragos Catalin Jianu	St-Petersburg "Elizavetinskaya" Hospital		Tatyana Sergeeva
County Emergency Hospital Arad		Nelu-Mihai Trefenciuc	State Healthcare Institution of Kaluga Region «City Clinical Hospital #2»		Maksim Holopov
Emergency County Hospital		Adina Dora Stan	Sverdlovsk Clinical Regional Hospital #1		Elena Prazdnichkova
Emergency hospital "Dr. N. Oblu" Lasi		Dan Iulia Cuciureanu	The First City Clinic Hospital		Nina Khasanova
Mures County Clinical Emergency Hospital		Rodica Bălașa	The First Medical Care named by Volosevitch E.E.		
University Hospital for Neuropsychiatry Craiova		Valerica Tudorica	The first Republican Clinical Hospital		Yuriy Kulkov
Russian Federation	3 569		Vladivostok Hospital №1		Evgeny Shestopalov
National Coordinator: Nikolay Shamalov			Yekaterinburg City Hospital #23		Vadim Gusev
"BTRB" Hospital		Dmitriy Podshivalov	Saudi Arabia	37	
Alexandrovskaya Hospital		Vitaliy Novikov	National Coordinator: Mohammed Almekhlafi		
Buz ur "1 RCB MZ UR"		Nataliya Komissarova	Jedda National Hospital		Saifudheen Kondanath
Citi Clinical Hospital #20 named after A.K. Ermishancev		Ketevana Meshkova	International Extended Care Center		Omar Ayoub.
City Clinical Hospital № 67 named L.A.Vorohobova Moscow Health Department		Mark Loskutnikov	King Abdulaziz University Hospital		Abdulrahman Almalki
City Clinical Hospital No.20 DM		Artem Tolmachev			Mohammed Almekhlafi
GBUZ "City Clinical Hospital №52 DMD"		Irina Ivanovna Yakovleva			Omar Ayoub
Interregional Clinical and Diagnostic Center (ICDC)		Timur Demin	King Fahad Medical City		Nof Mansour
Krasnodar City Clinical Emergency Hospital		Nadezhda Ermachenko	Serbia	0	
Krasnoyarsk Regional Hospital		Nataliya Halo	National Coordinator: Lilijana Beslac-Bumbasirevic		
Mariinsky Hospital		Tatiana Kharitonova	Singapore	325	
Medical Military Academy		Alexey Polushin	National Coordinator: Kim En-Lee		
Military Hospital 3		Ketevana Meshkova	National Neuroscience Institute-TTSH campus		Rajinder Singh
MMBU GKB № 1 Pirogov		Tatiana Lokshanova	Singapore General Hospital		Deidre De Silva
Murmansk Regional Clinical Hospital P.A.Bajdin		Artem Timofeev	Slovakia	4 722	
Naberezhnye Chelny BSMP Tatarstan		Shamil Musin	National Coordinator: Zuzana Gdovinova		
National Pirogov Centre		Oleg Vinogradov	Faculty Hospital Banska Bystrica		Dusan Kanat
Nikolaevskaya Hospital		Liudmila Roshkovskaya	Faculty Hospital J.A.Reimana		Adrian Rynik
Novokuznetsk Municipal Clinical Hospital #1		Sergey Borzykin	Faculty Hospital Nitra		Miroslav Brozman
Orenburg City Clinical Hospital		Vadim Ershov	Faculty Hospital Trnava		Georgi Krastev
Regional Clinic Hospital		Anton Bort	Fakultna Nemocnica Trencin		Marek Bojda
Regional Clinic of Khanty-Mansiysk		Ljudmila Anischenko	FNsP Nove Zamky		Adriana Horvathova
					Igor Polak

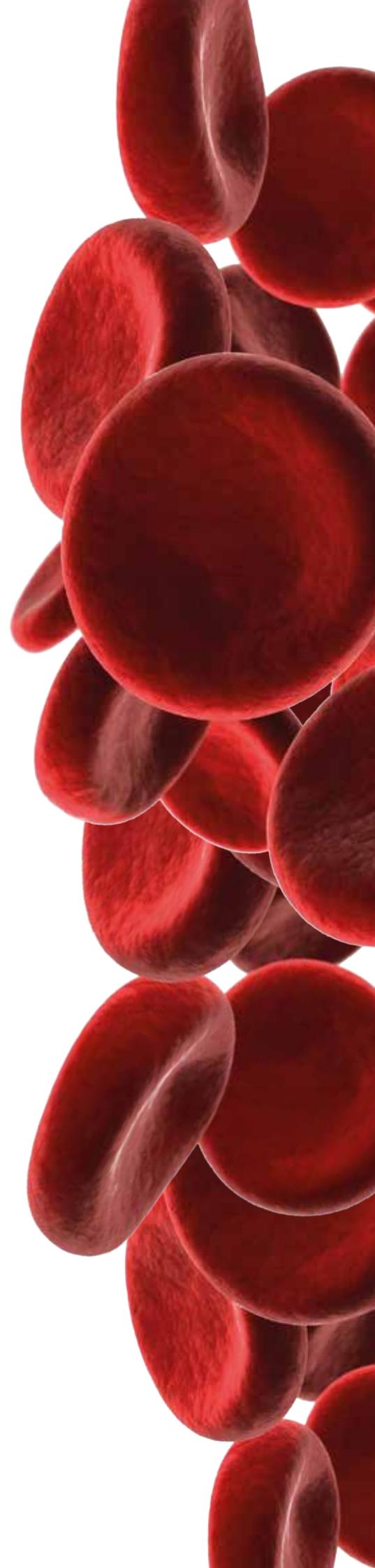
Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Lasarettet i Enköping		Mikael Wiklund	Istanbul University Faculty of Medicine		Nilufer Yesilot Barlas
Lund - Skånes Universitetssjukhus		Per Undréen	İstinye University Liv Hospital		Pelin Nar Senol
Mora Lasarett		Gunnar Andsberg	Memorial Atasehir Hospital		Zeynep Aydin Özemir
Mälarsjukhuset		Jörg Teichert	Memorial Hizmet Hospital		Bahar Koyuncu
Norrlands Universitetssjukhus		Bo Danielsson	Mersin University Medical Hospital		Gulcan Gocmez
Nyköpings lasarett		Anna UM Sjöström	VM Medicalpark Pendik Hospital		Ahmet Yabalak
Oskarshamns Sjukhus		Jonas Lindeberg			
Sahlgrenska Universitetssjukhus		Elmar Keppel			
Södersjukhuset		Jan-Erik Karlsson			
Universitetssjukhuset Linköping		Sara Garcia-Ptacek			
Uppsala Akademiska Sjukhus		Margarita Callander			
		Erik Lundström			
Switzerland	57		Ukraine	27	
National Coordinator:			National Coordinator: Sergey Moskovko		
Hansjoerg Hungerbuehler			Central Clinical Hospital of Ukrzaliznytsya		Dmytro Lebedynets
GHOL		Olivier Bill	Feofaniya Clinical Hospital		Gennadiy Pasichnyk
			Hersonskaya Gorodskaya Kliniceskaya Hospital		Anna Gosteva
			Ivano-Frankivsk Regional Clinical Hospital		Marta Grynovska
Thailand	882		Kiev City Clinical Hospital #18		Victor Kirjan
National Coordinator: Yongchai Nilanont			Kiev Regional Clinical Hospital		Victoria Teshchuk
King Chulalongkorn Memorial Hospital		Aurauma Chutinet	Kyiv Citi Hospital #9		Tetiana Riabichenko
Phyathai 1 Hospital		Surat Boonyakarnkul	Kyiv Region Hospital		Olga Klyuchnykova
			MC Universal Clinic 'Oberig'		Natalia Chemer
Tunis	3 189		Municipal City Clinical Hospital of the Emergency Medical Care		Yuriy Flomin
National Coordinator: Faycal Bentati			Odessa City Hospital		Ivanna Melnichek
Polyclinique Errachid		Siwar Triki	Odessa Regional Medical Hospital		Serhii Fernandez De Rives
			Ukrainian State Institute of Medical and Social Problems of Disability		Iryna Khubetova
Turkey	1 696		Vinnitsa Regional Psychoneurological Hospital name academician of O.I. Yshenko		Tatiana Pashkovskaya
National Coordinator: Mehmet Akif Topcuoglu					Sergey Moskovko
Members of National Steering Committee:					
Yakup Krespi, Serefnr Özturk & Atilla Özcan Özdemir					
Ankara Numune Education and Research Hospital		Erdem Gurkas	United Arab Emirates	1 672	
Antalya Education and Research Hospital		Elif Sarıönder Gencer	National Coordinator: Mari Khan		
Baskent University Hospital		Ufuk Can	Al Ain Hospital		Nagi Moussa
Bezmialem Vakif University Medicine Faculty Hospital		Talip Asil	Dubai Telemedicine		Viveck Baluja
Eskişehir Osmangazi University Medical Faculty		Ozcan Ozdemir	Rashid Hospital		
GOP Medical Park Hospital		Aysenur Onalan	Sheikh Khalifa Medical City		Isam Salih
Inonu University, Turgut Ozal Medical Center		Yuksel Kablan			
Istanbul Aydin University Florya Medicalpark Hospital		Arsida Bajrami	United Kingdom	24 508	
Istanbul Florence Nightingale Hospital		Özlem Tuncer	National Coordinators: Gary Ford & Kennedy Lees		
Istanbul University Cerrahpasa School of Medicine		Fethiye Dilek Orken	Regional Coordinators:		
		Derya Uğurlu Uludüz	Angela Welch, Azmil Abdul-Rahim, Belinda Manak,		
			Keith Muir, Matthew Walters & Sally Baird		
			Aberdeen Royal Infirmary		Mary Joan Macleod
			Addenbrookes Hospital		Liz Warburton

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Aintree University Hospital			Glasgow Royal Infirmary		Peter Langhorne
Airedale General Hospital		Matthew Smith	Gloucestershire Royal Hospital		Dipankar Dutta
Altnagelvin Area Hospital		Andrew Catto	Harrogate District Hospital		Sean Brotheridge
Antrim Area Hospital		John Charles	Hull Royal Infirmary		Ahmed Abdul-Hamid
Arrowe Park Hospital		Djamil Vahidassr	Imperial College Healthcare NHS Trust		Kyriakos Lobotesis
Ashford and St Peters NHS Trust		Bhaskar Mandal	Ipswich Hospital NHS Trust		Arindam Kar
Barking Havering and Redbridge university hospital nhs trust		Sreeman Andole	James Cook University Hospital		Peter Phillips
Barnsley Hospital NHS Foundation Trust		Mohammad Albazzaz	James Paget University Hospital		Gavin Young
Basildon Hospital		Udayaraj Umasankar	John Radcliffe Hospital		Alastair Buchan
Bedford Hospital		Abdul Elmarimi	Kent and Canterbury Hospital		Ilse Burger
Belfast HSC Trust		Ivan Wiggam	Leeds General Infirmary		Peter Wanklyn
Blackpool Victoria Hospital		Jim Mcilmoyle	Lincoln County Hospital		Simon Leach
Bradford Royal Infirmary		Chris Patterson	Luton & Dunstable NHSFT Hospital		Lakshmanan Sekaran
Bristol Royal Infirmary		Peter Murphy	Macclesfield Districe General Hospital		Moe Sein
Bronglais Hospital		Claire West	Mater Hospital		Mark Magorrian
Broomfield Hospital		Philip Jones	Medical specialist Group		Steve Evans
Calderdale and Huddersfield NHS Foundation Trust		George Zachariah	Medway Maritime Hospital		Maam Mamun
Causeway Hospital		Anand Nair	Mid Yorkshire Hospitals NHS Trust		Michael Carpenter
City Hospital, Birmingham		Fergal Tracey	Morriston Hospital		Manju Krishnan
Colchester Hospital University NHS Foundation Trust		Shahid Kausar			Chris Hudson
Conquest Hospital		Rajesh Saksena			Lynne Dacey
Countess of Chester Hospital		Mjh Rahmani	Musgrove Park Hospital		Mushtaq Wani
Craigavon Area Hospital		Kausik Chatterjee	National Hospital for Neurology		Robert Whiting
Cumberland Infirmary		Patricia Mccaffrey	Nevill Hall Hospital		Bella Richard
Daisy Hill Hospital		David Paul Davies	Newcastle upon Tyne Hospitals NHS Foundation Trust		Anand Dixit
Darent Valley Hospital		Michael McCormick	Ninewells Hospital Dundee		Ronald Macwalter
Derriford Hospital		Senussi Hussein	Nobles Hospital		John Thomas
Diana Princess of Wales Hospital		Azlisham Mohd Nor	Norfolk and norwich University Hospital		Nisal Gange
Doncaster Royal Infirmary		Asem Ali	North Hampshire Hospital		Elio Giallombardo
Dorset County Hospital		Dinesh Chadha	North Tyneside General Hospital		Richard Curless
East and north hertfordshire nhs trust Lister		Harald Proschel	Northampton General Hospital		Angela Kannan
East Surrey Hospital		Aparna Pusalkar	Northwick Park Hospital		David Cohen
Eastbourne District General Hospital		Youssif Abousleiman	Peterborough City Hospital		Peter Owusu-Agyei
Epsom General Hospital		Conrad Athulathmudali	Pilgrim Hospital		David Mangion
SWAH/ERN		Brendan Affley	Poole Hospital		Suzanne Ragab
Fairfield General Hospital		James Kelly	Prince Philip Hospital		Granville Morris
Forth Valley Royal Hospital		Khalil Kawafi	Princess of Wales Hospital		Harish Bhat
Glan Clwyd Hospital, BCULHB-central		Anthony Byrne	Princess Royal Hospital Haywards Heath		Khalid Ali
Glangwili General Hospital		Malcolm Macleod	QEQM Hospital		George Thomas
		Krishnamurthy Ganeshram	Queen Alexandra Hospital		David Jarrett
		Surendra Gupta	Queen Elizabeth Hospital, Birmingham		Don Sims

Country and hospital	Patients	Local Coordinator	Country and hospital	Patients	Local Coordinator
Queen Elizabeth Hospital, Gateshead			The Great Western Hospital NHS Foundation Trust		Shivaprasad Arekalludoddi Siddegowda
Rotherham General Hospital		James Okwera			
Royal Berkshire Hospital		Jeanette Harris	The Maidstone Hospital		Christine Wright
Royal Blackburn Hospital		Enrico Flossmann	The Princess Alexandra Hospital		Syed Mansoor
Royal Bournemouth and Christchurch Hospital		Nicholas Roberts	The Queen Elizabeth Hospital Kings Lynn NHS TRUST		Raj Shekhar
Royal Cornwall Hospital		Damian Jenkinson	The Royal Wolverhampton Hospital Trust		Kenneth Fotherby
Royal Derby Hospital		Katja Adie	Torbay Hospital		Biju Bhaskaran
Royal Glamorgan Hospital		Peter Gorman	Tunbridge Wells Hospital in Pembury		Mahendra Pattanshetti
Royal Hallamshire Hospital		Richard Dewar	Ulster Hospital Belfast		Kevin Dynan
Royal Hampshire County Hospital		Catrin Blank	University Hospital Coventry		Anthony Kenton
Royal Liverpool & Broadgreen University Hospital NHS Trust		Nigel Smyth	University Hospital of North Durham		
Royal London Hospital		Shankar Loharuka	University Hospital North Staffordshire		Christine Roffe
Royal Preston Hospital		Patrick Gompertz	University Hospital of Wales		
Royal Surrey County Hospital		Hedley Emsley	University Hospital Southampton		Yogish Joshi
Royal Sussex County Hospital		Kath Pasco	University Hospitals Leicester NHS Trust		Thomas Hughes
Royal United Hospital Bath		Nicola Gainsborough	University Hospitals of North Tees & Hartlepool		Nicolas Weir
Salford Royal Foundation Trust		Louise Shaw	Victoria Hospital Kirkcaldy		David Eveson
Salisbury District Hospital		Jane Wainwright	Walton Centre NHS Foundation Trust		
Scunthorpe General Hospital		David Walters	Warrington and Halton Hospitals		Debra Magorian
Shrewsbury and Telford Hospital Trust		Anwer Qureshi	Watford General Hospital		Helen Skinner
South Glasgow University Hospital		Amit Banerjee	West Cumberland Hospital		
		Robert Campbell	Western Infirmary		Vera Cvoro
		Kennedy Lees	William Harvey Hospital		Alakendu Sekhar
		Angela Welch	Wirral University Teaching Hospital NHS Foundation Trust		Olayiwola Otaiku
		Azmil Abdul-Rahim	Withybush General Hospital		David Collas
		Belinda Manak	Worcestershire Acute Hospital		Enoch Orugun
		Keith Muir	Worthing Hospital		Kennedy Lees
		Matthew Walters	Wrexham maelor Hospital		David Hargroves
		Sally Baird	Yeovil District Hospital		Valerie Gott
		Tracey Baird	York Hospital		
		Jon Scott	Ysbyty Gwynedd Hospital		Kanthaya Mohanaruban
South Tyneside NHS Foundation Trust		Paul Christopher Guyler			
Southend Hospital		Philip Clatworthy			Ana Garcia
Southern General Hospital		Patrick McDonald			
Southmead Hospital		Scott Ramsay			Emad Abood
Southport and Ormskirk NHS Trust		Liqun Zhang			Khalid Rashed
St John's Hospital		Anthony Pereira			John Coyle
St. George's Hospital		Simone Ivatts			Salah Elghenzai
St. Richard's Hospital		Shivakumar Krishnamoorthy			
Stockport NHS Foundation trust		Min Myint			
Sunderland Royal Hospital		Richard O'Brien			
			Uruguay	18	
			National Coordinator: Claudia Camejo		
			Hospital de Clínicas		Andrés Gaye Saavedra
			Medica Uuguaya		Roberto Crosa

Country and hospital	Patients	Local Coordinator
Venezuela	2 060	
National Coordinator: Mario De Bastos		
Clinica La Piramide		Negman Alvarado
Hospital Dr. Domingo Luciani		Carmen Zambrano
Hospital Universitario de Caracas		
Hospital Univ de Maracaibo		Digna Parra
Instituto Autonomo Hospital Universitario de Los Andes		Gabriela Molina
Vietnam	2	
National Coordinator: Luc Tran Viet		
Cho Ray Hospital		Tai Nguyen Anh
108 Military Central Hospital Stroke Unit		Ngoc Nguyen Hoang
108 Military Hospital ICU		Le Viet Hoa
Bach Mai Emergency		Anh Nguyen Dat
Bach Mai Neurology		Thinh Le Van
Benh vien da khoa huu nghi Viet Tiep		Huyen Nguyen Thi Thu
Benh vien Thong Nhat		Thanh Le Dinh
Benh vien Trung Uong Hue		Nguyen Tran Thua
General Friendship Hospital of Nghe An		Thanh Long Nguyen
Hanoi Medical University Hospital		Hanh Bui My
HCMC University Medical Center		Thang Ba Nguyen
Military Hospital 103		Nguyen Minh Hien
National Hospital of Geriatry		Luc Tran Viet
Nhan Dan Gia Dinh		Van Tan Vo
Thai Nguyen General Hospital		Nga Truong Thu
Thanh Nhan Hospital		Tuan Tran Van
Thanhhoa General Hospital		Thang Dinh
The People' 115 Hospital		Sam Nguyenhoanh
Trung Vuong Hospital		Thang Huy Nguyen
		Minh Nguyen

*Some of these names are user admitted



SITS International Coordination Team
Karolinska University Hospital
Department of Neurology, R2:03
SE-17176 Stockholm, Sweden

Phone: +46 8 517 756 06
E-mail: info@sitsinternational.org
www.sitsinternational.org