

وبینار: تازه های درمان سکته حاد مغزی

شبکه داده ها و ثبت اطلاعات بیماران مبتلا به سکته مغزی  
و  
مشکلات مراکز در درمان سکته مغزی حاد

---

دکتر الیار صادقی – دانشیار دانشگاه علوم پزشکی تبریز – نورولوژیست

۲۷ بهمن ماه ۱۴۰۱

# Disclosure

---

None

---



# Outline...

---

1. SITS introduction
2. SITS last Report
3. Patient recruitment report in IRAN
4. Ongoing studies (National and regional studies)
5. Discuss on barriers of IVT in Iranian Centers.

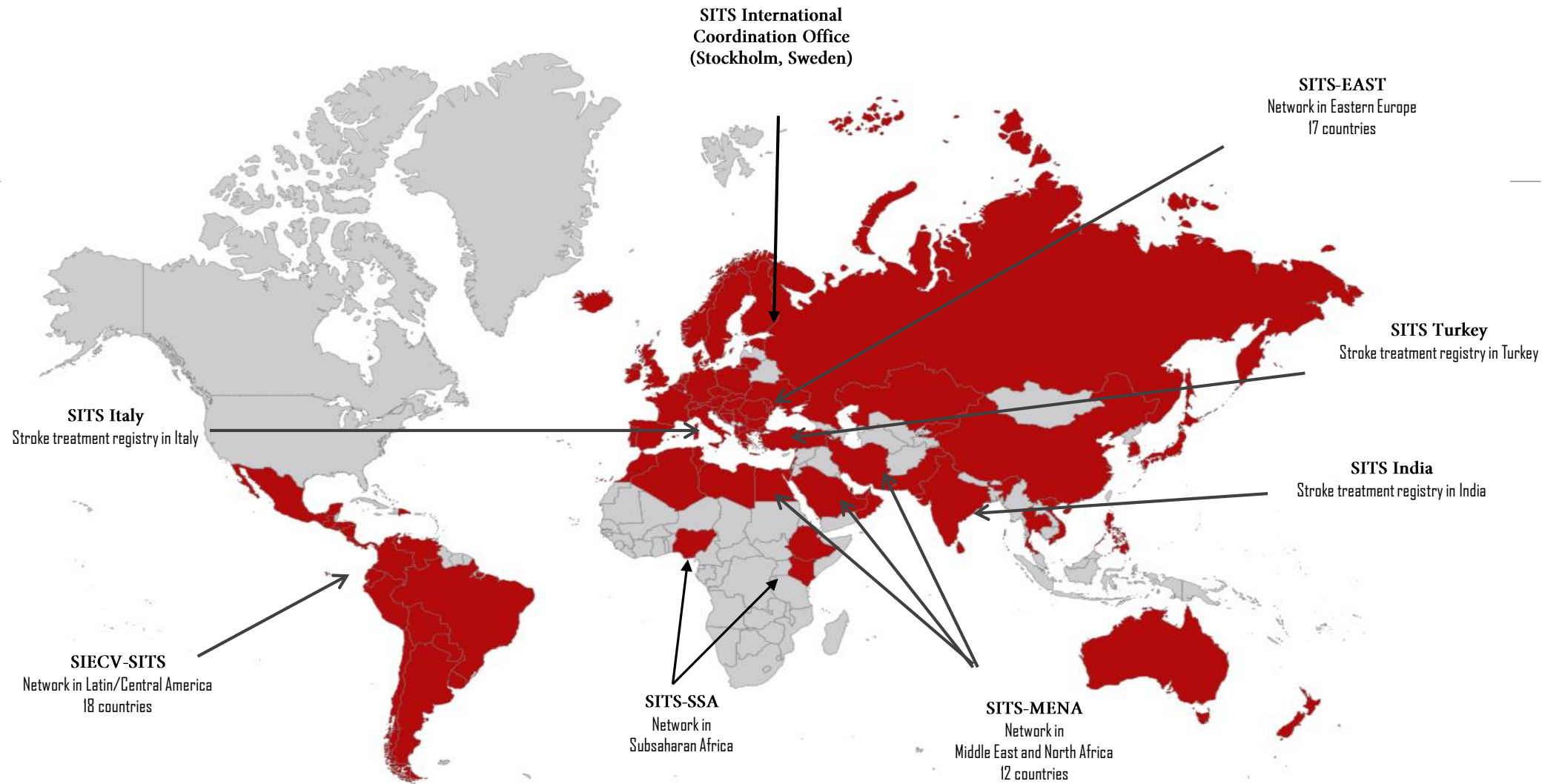
# Stroke Registry

---

# SITS:

- **Safe Implementation of Treatments in Stroke**

- It's an initiative to assure excellence in acute treatment and secondary prevention of stroke, as well as to facilitate clinical trials (Based at **Karolinska** University Hospital in Sweden).
- Financed by unrestricted grants from **Boehringer-Ingelheim** (BI) and other direct sponsorships.
- A collaborator of **ESO** (European Stroke Organisation) and **WSO** (World Stroke **ANGELS Award** program).



# Why use the SITS Registry?

---

SITS is a world-leading platform for **high quality stroke data**.

SITS has **internet-based interactive protocols** – this means that when you enter a patient into SITS QR, immediate copy will be made into other protocols depending on the choice of treatment,

SITS protocols are all **free of charge** to use,

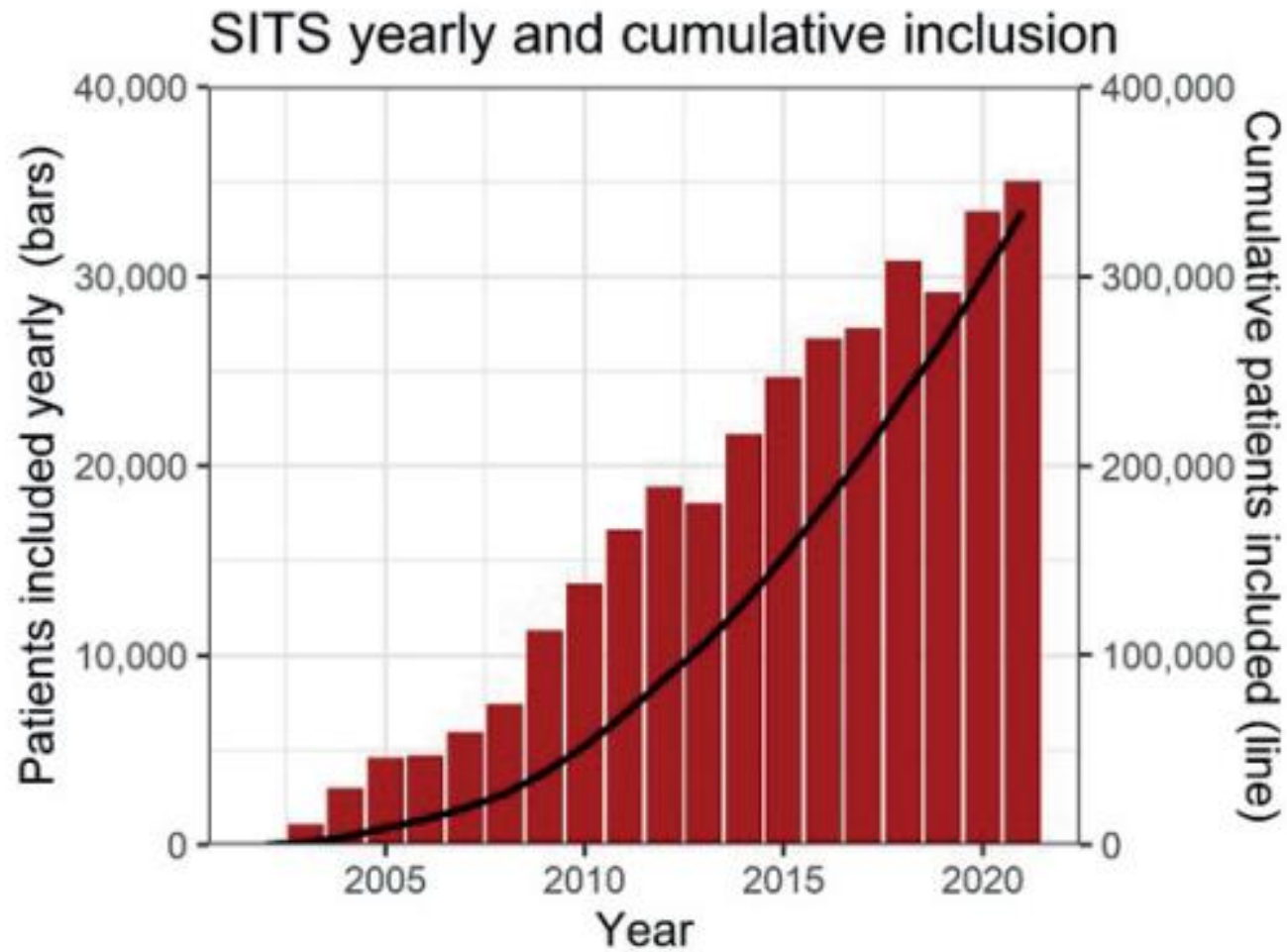
You can be **part of high-impact studies** & **conduct your own studies** through SITS.

# SITS Report (2021)

---



Figure 1. Yearly and cumulative patient recruitment in SITS: line is showing cumulative inclusion, bars are yearly inclusion



---

**Table 2. Number of patients registered as per SITS data entry forms / protocols**

<b>Protocol</b>	<b>Paients</b>
IVT	205 965
IVT + TBY treated	13 226
TBY	9 865
APP	100 909
QR	61 702
<b>Total</b>	<b>391 667</b>

---

## SITS Publications

96. Feil K, Matusevicius M, Herzberg M, Tiedt S, Küpper C, Wischmann J, Schönecker S, Mengel A, Sartor-Pfeiffer J, Berger K, Dimitriadis K, Liebig T, Dieterich M, Mazya M, Ahmed N, Kellert L. **Minor stroke in large vessel occlusion: A matched analysis of patients from the German Stroke Registry-Endovascular Treatment (GSR-ET) and patients from the Safe Implementation of Treatments in Stroke-International StrokeThrombolysis Register (SITS-ISTR).** Eur J Neurol. 2022 Feb 4. doi: 10.1111/ene.15272. Epub ahead of print. PMID: 35122371.
95. Janssen PM, van Overhagen K, Vinklársek J, Roozenbeek B, van der Worp HB, Majoie CB, Bar M, Černík D, Herzig R, Jurák L, Ostrý S, Mikulík R, Lingsma HF, Dippel WJ; **MR CLEAN Registry investigators and the SITS TBY Registry investigators from the Czech Republic. Between-Center Variation in Outcome After Endovascular Treatment of Acute Stroke: Analysis of Two Nationwide Registries.** Circ Cardiovasc Qual Outcomes. 2022 Mar;15(3):e008180. doi: 10.1161/CIRCOUTCOMES.121.008180. Epub 2022 Jan 31. PMID: 35094522; PMCID: PMC8920023.
94. Aref H, Zakaria M, Shokri H, Roushdy T, El Basiouny A, El Nahas N. **Changing the landscape of stroke in Egypt.** Cerebrovasc Dis Extra. 2021 Dec 3. doi: 10.1159/000521271. Online ahead of print. PMID: 34864736. [PubMed]
-

---

**Table 1. Top 20 recruiting countries**

<b>Rank</b>	<b>Country</b>	<b>Patients</b>	<b>Rank</b>	<b>Country</b>	<b>Patients</b>
<b>1</b>	Italy	91 395	<b>11</b>	Germany	8 198
<b>2</b>	Czech Republic	33 093	<b>12</b>	Slovakia	7 155
<b>3</b>	United Kingdom	28 638	<b>13</b>	Portugal	6 755
<b>4</b>	Brazil	17 360	<b>14</b>	Estonia	5 643
<b>5</b>	Sweden	12 256	<b>15</b>	Qatar	5 293
<b>6</b>	Iran	11 570	<b>16</b>	Spain	5 143
<b>7</b>	Poland	9 571	<b>17</b>	Bulgaria	5 064
<b>8</b>	Belgium	9 157	<b>18</b>	Russian Federation	4 446
<b>9</b>	India	8 824	<b>19</b>	Lithuania	4 241
<b>10</b>	Egypt	8 798	<b>20</b>	Finland	4 086

---

## SITS-MENA

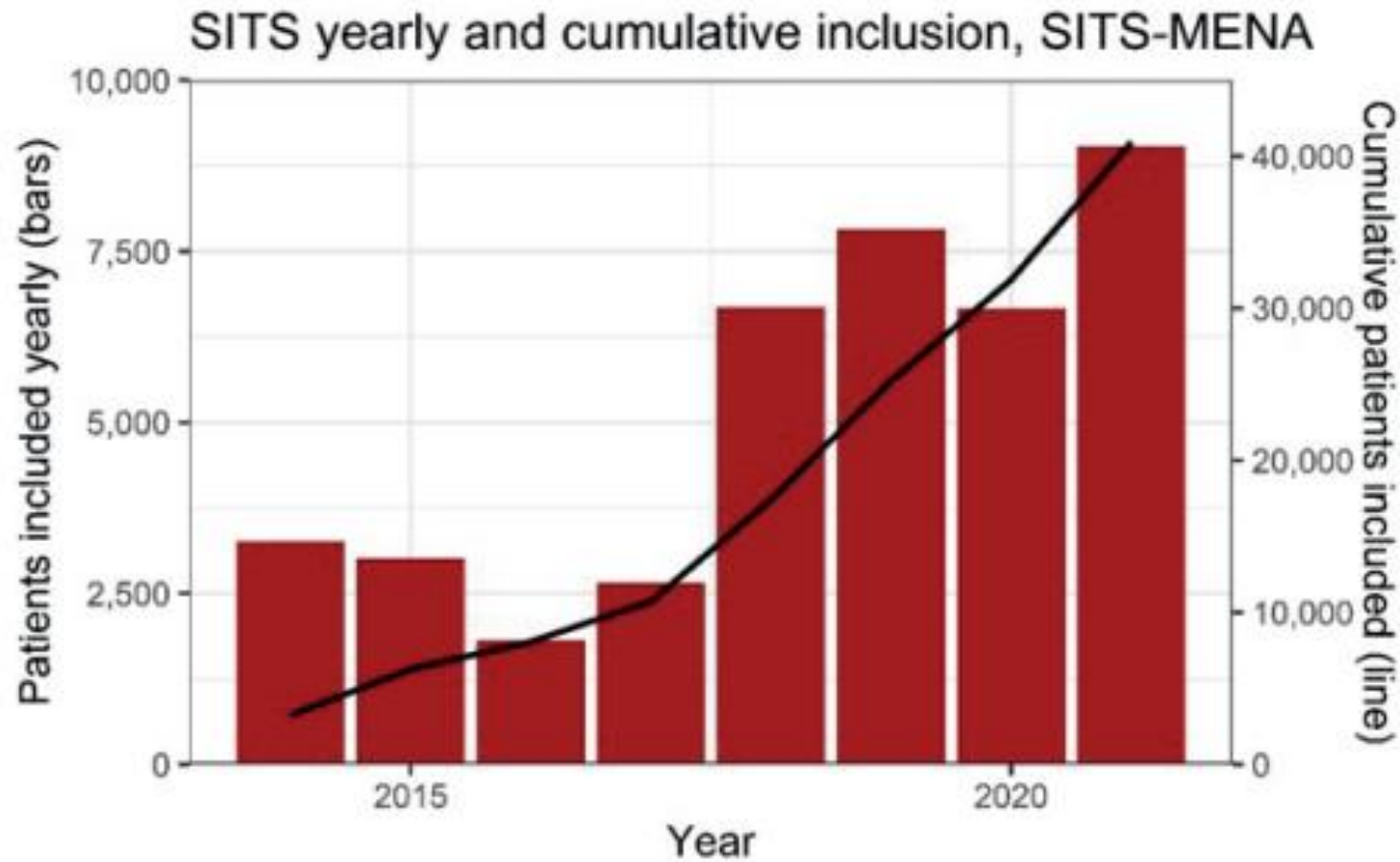
The SITS-MENA Registry was initiated in 2013 as part of the SITS Regional Network in the Middle East and North Africa. Several countries and centres in the Regional Network are also participating in a prospective observational study of ischemic stroke in the region. Recruitment numbers presented are based on patient files with confirmed and unconfirmed data, entered until December 31, 2021. Since 2018, Suhail Al Rukn functions as the International Regional Coordinator for the SITS MENA region. The SITS MENA group started during 2021 and 2022 three studies based on IVT, TBY and CVT data in SITS.

### Contributing countries\*:

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

*\*See the Appendix for contributing centres.*

Figure 15. Annual recruitment SITS-MENA – all Protocols, line is showing cumulative inclusion, bars are yearly inclusion



## Iran

- There are **18 centers**, 9 centers actively entering their data
- Until now more than **13100** pts registered.





Dr. Mehdi Farhodi,  
SITS National  
Coordinator

---

IRANIAN SITS CENTERS

---



## Centre Administration

Country name	Centre name	Local Coordinator
Iran	Razi Hospital (IRRHT)	Mazyar Hashemliar
Iran	Bou-Ali Sina (IRBAL)	Athena Sharifi-Razavi
Iran	Golestan hospital (IRGOH)	shahram rafie
Iran	Imam Reza (IRREZ)	Elyar Sadeghi-Hokmabadi , Mehdi Farhoudi
Iran	Ali-Ebn-Abitalib Hospital (IRAEA)	Alireza Vakilian
Iran	Imam Reza Kermanshah (IRIRK)	Payam Sarlasani
Iran	Alzahra (IRAZH)	Mohammad Saadatnia
Iran	Tohid Hospital (IRTHN)	Parya Hossainpanahi
Iran	Shohada Tajrish (IRTAJ)	Soroosh Advani
Iran	Vallaar (IRVAL)	Abdoreza Ghoreishi
Iran	shahid Beheshti (IRSHB)	Ehsan Sharifpour
Iran	Kowsar (IRKOW)	Parya Hossainpanahi
Iran	Arak Vallaar Hospital (IRAVH)	Lelia Poorsaadat
Iran	Firoozgar general Hospital (IRFRZ)	Masoud Mehrpour
Iran	Golestan (IRGOL)	Bahador Asadi Khansari
Iran	Imam Husain Hospital (IRHUS)	Behnam Mansouri
Iran	Nemazee Hospital (IRNMH)	Afshin Borhani-Haghighi
Iran	Ghaem (IRGHA)	Kavlan Ghandehari
Iran	Sina (IRSME)	Mojtaba Khazael

# How to become a member?

## sitsinternational.org



[Menu](#) ▾ [Help](#) [Contact](#) [Login](#) [Q](#)

### REGISTRY

**Our protocols are interactive, internet-based stroke data entry forms in standard and minimal versions.**

[Read more](#)



## SITS Report

Read the annual report from SITS International.

[Read more](#)



## Become a member

Become a part of the SITS global network.

[Read more](#)



## Support

Get help with your SITS related questions.

[Read more](#)

Search Site



ADMINISTRATION

My country  
My centres  
Imam Reza (IRREZ)

PATIENT

- Dashboard
- My patients
- Add new patient
- My SITS-QR Patients
- Add new SITS-QR patient

DOCUMENTS

- Data Form download
- Users guide
- Patient information
- Study protocols

TOOLS

- Reports (beta)
- Reports
- Download tool
- Download SITS-QR Result
- Data Transfer Request
- Submit a Project proposal
- What's new
- Apply as Local Coordinator

Dashboard

Imam Reza (IRREZ)

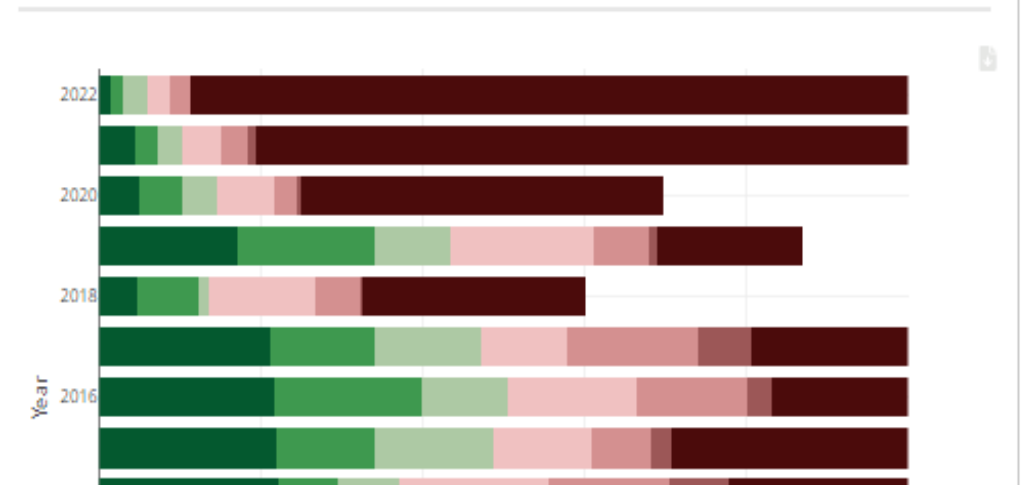
Total patients <b>5317</b>	Data completeness <b>92.8%</b>	Next 3m follow-up <b>none</b>	Overdue 3 months <b>2</b>	Ready for confirmation <b>3020</b>
-------------------------------	-----------------------------------	----------------------------------	------------------------------	---------------------------------------

General **SITS-QR** Filter by Time period (based on Stroke onset)

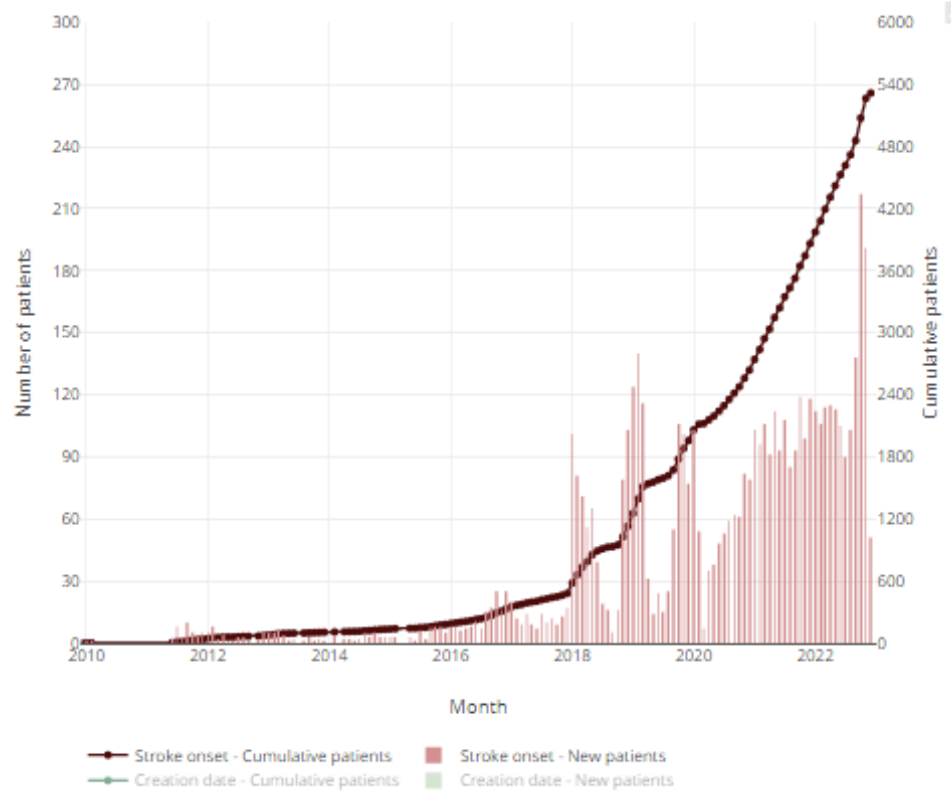
Patient recruitment (per month)



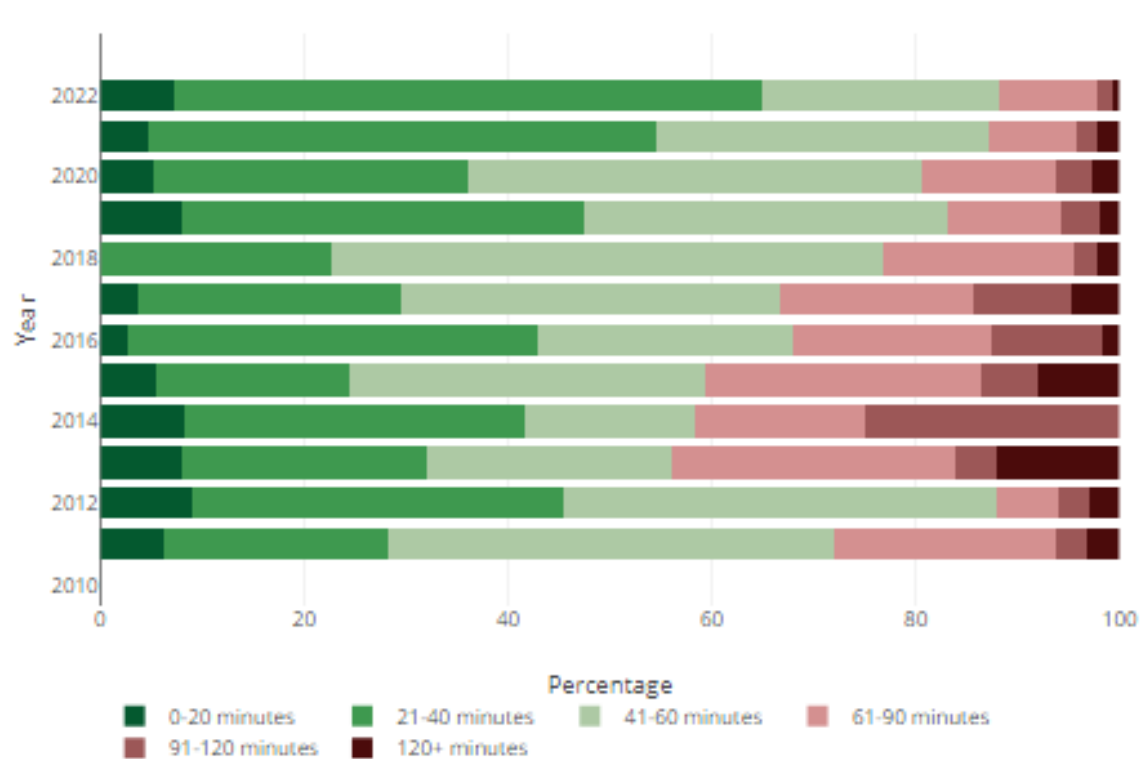
Functional outcome (mRS 3m)



Patient recruitment (per month)



Door to needle time (IVT)





# Upcoming regional studies (SITS-MENA)

---

# regional studies (SITS-MENA)

- 1. MENA IVT Study**
- 2. MENA – Thrombectomy study**
- 3. CVT-study**



# National studies (SITS-Iran)

---



## Low dose study

Low dose vs. standard dose Alteplase for intravenous thrombolysis in acute ischemic stroke patients in Iran: Results from the Safe Implementation of Treatments in Stroke (SITS) registry (low dose study)

## Participating Iranian Centers:

1. Sadeghi-Hokmabadi, Elyar; Tabriz. **coordinator**
2. Ghoreishi , abdoreza ; Zanzan
3. Sariaslani, Payam; Kermanshah
4. Rafie, Shahram ; Ahvaz
5. Vakilian, Alireza; Rafsanjan
6. Sharifipour, Ehsan; Qom
7. Mehrpour, Masoud; Tehran
8. Saadatnia, Mohammad; Isfahan

DOI: <http://dx.doi.org/10.18502/cjn.v20i4.8346>

**Current Journal  
of Neurology**

**Original Paper**

Curr J Neurol 2021; 20(4): 208-13

---

# **Low-dose versus standard-dose alteplase for intravenous thrombolysis in patients with acute ischemic stroke in Iran: Results from the safe implementation of treatments in stroke registry**

Received: 06 June 2021  
Accepted: 11 Aug. 2021

Elyar Sadeghi-Hokmabadi<sup>1</sup>, Abdoreza Ghoreishi<sup>2</sup>, Reza Rikhtegar<sup>3</sup>, Payam Sariaslani<sup>4</sup>, Shahram Rafie<sup>5</sup>,  
Alireza Vakilian<sup>6,7</sup>, Ehsan Sharifipour<sup>8</sup>, Masoud Mehrpour<sup>9</sup>, Mohammad Saadatnia<sup>10</sup>,  
Mohammad Mirza-Aghazadeh-Attari<sup>11</sup>, Mehdi Farhoudi<sup>1</sup>

93. El Nahas NM, Shokri HM, Roushdy TM, Dawood NL, Abushady EM, Georgy SS, Zaki AS, Bedros RV, Aref HM. **Door to Needle Count Down: A 3 Years Experience in an Egyptian University Stroke Center.** Neurologist. 2021 Nov 30. doi: 10.1097/NRL.0000000000000372. Online ahead of print. PMID: 34855665. [PubMed]

92. Sadeghi-Hokmabadi E, Ghoreishi A, Rikhtegar R, Sariaslani P, Rafie S, Vakilian A, Sharifipour E, Mehrpour M, Saadatnia M, Mirza-Aghazadeh-Attari M, Farhoudi M. **Low-dose versus standard-dose alteplase for intravenous thrombolysis in patients with acute ischemic stroke in Iran: Results from the safe implementation of treatments in stroke registry.** Curr J Neurol. 2021 Oct 7. doi: <http://dx.doi.org/10.18502/cjn.v20i4.8346>. [Current Journal of Neurology]

91. Matusevicius M, Cooray C, Rand VM, Nunes AP, Moreira T, Tassi R, Egido JA, Ollikainen JP, Bigliardi G, Holmin S, Ahmed N. **Stroke Etiology and Outcomes after Endovascular Thrombectomy: Results from the SITS Registry and a Meta-Analysis.** J Stroke. 2021 Sep;23(3):388-400. doi: 10.5853/jos.2021.00850. Epub 2021 Sep 30. PMID: 34649383. [PubMed]

90. Ahmed N, Mazya M, Nunes AP, Moreira T, Ollikainen JP, Escudero-Martinez I, Bigliardi G, Dorado L, Dávalos A, Egido JA, Tassi R, Strbian D, Zini A, Nichelli P, Herzig R, Jurák L, Hurtikova E, Tsivgoulis G, Peeters A, Nevšimalová M, Brozman M, Cavallo R, Lees KR, Mikulik R, Toni D, Holmin S. **Safety and Outcomes of Thrombectomy in Ischemic Stroke With vs Without Intravenous Thrombolysis.** Neurology. 2021 Jun 4:10.1212/WNL.0000000000012327. doi: 0.121WNL.0000000000012327. Epub ahead of print. PMID: 34088873. [PubMed]

## Circulation study

Safety and functional outcome of alteplase in posterior vs. anterior circulation ischemic stroke: Results from the Safe Implementation of Treatments in Stroke (SITS) registry (Circulation study)

# scientific reports



OPEN

## Outcome predictors in anterior and posterior ischemic strokes: a study based on the Iranian SITS registry

Nazanin Jalali<sup>1</sup>, Elyar Sadeghi Hokmabadi<sup>2</sup>, Abdoreza Ghoreishi<sup>3</sup>, Payam Sariaslan<sup>4</sup>, Shahram Rafie<sup>5</sup>, Afshin Borhani-Haghighi<sup>6</sup>, Amir Moghadam Ahmadi<sup>1</sup>, Hossein Azin<sup>1</sup>, Alireza Vakilian<sup>1✉</sup>, Parvin Khalili<sup>7</sup> & Mehdi Farhoudi<sup>2</sup>

## Elderly study

Safety and efficacy of alteplase in >80 years old Iranian ischemic stroke patients: Results from the Safe Implementation of Treatments in Stroke (SITS) registry (elderly study)

# Elderly study

- **Study coordinator: Mehdi Farhoudi, Elyar Sadeghi Hokmabadi, Imam Reza Hospital, Tabriz**
- Over 80's with or without IVT
- Efficacy: favorable 3-month outcome (mRS 0-2)
- Safety: SICH and systemic bleedings
- Centers with more than 20 (\*) patients will be included (with or without SCU)
- Data extraction re-scheduled to **31 December 2021**.



# SITS (\*)

---

If you have any research idea in your mind, you can use SITS registry like thesis.

# Why to have registry:

---

1. Promote quality of care for stroke patients
2. Multicenter studies (high quality high power manuscripts, better acceptance)
3. Needed for certifications

Panel discussion:

---

Barriers of IVT in Iranian Centers

---

Thank you

