

# European Stroke Organisation EAST project (ESO EAST) 2020

## Improve and Optimize the Management of Stroke in Central and Eastern Europe

Robert Mikulik

**STROKE ACTION PLAN EUROPE**  
**Online Kick-off Meeting**  
**8 September 2020**



# About ESO-EAST Project

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## Goals

The ESO's major objective is to improve and optimise the management of stroke in Europe, including the provision of medical education to healthcare professionals and the lay public in Europe, and offering best practice approaches.

ESO projects are targeted to achieve the following purposes:

- To promote awareness, management, teaching and research in all aspects of stroke;
- To develop and promote public policies to reduce the number of deaths by stroke and to improve the care of stroke victims and the quality of life of stroke victims.
- To reduce the global burden of stroke throughout Europe
- To develop and promote professional and public education;
- To develop and promote other appropriate activities such as fundraising and prevention programs;
- To develop, promote, and coordinate international teaching programs through national/regional organisations;
- To advise and guide on fundraising skills in order to enable national foundations and societies to finance a greater level and range of activities;
- To foster the development of an international communications system by encouraging the regional activities of organisations, stroke networks, foundations as they operate within the goals and objectives of the organisation.

In April 2015, the first meeting of ESO EAST collaborators took place at the ESOC in Glasgow.

# Actions of ESO-EAST

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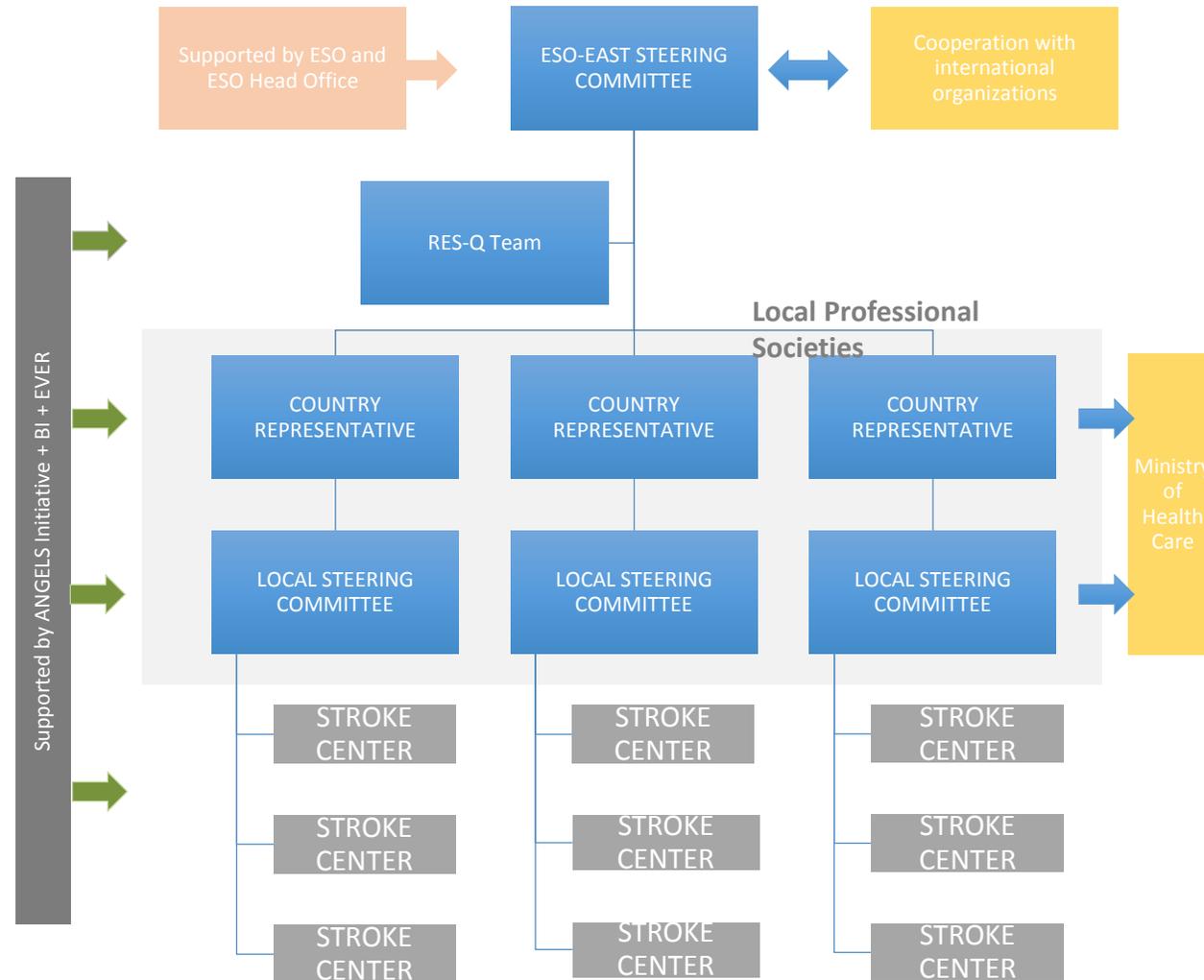


## A) Project management infrastructure

- *Leadership*
- *Human infrastructure*
- *Communication*

## B) Platform for quality metrics collection

## C) Education



# Network of collaborators

- **0 ESO-EAST Meeting**
- Vravrona, Greece – Oct 2015
- **1<sup>st</sup> Annual ESO-EAST Meeting**
- Glasgow, UK – Apr 2015
- **2<sup>nd</sup> Annual ESO-EAST Meeting**
- Barcelona, Spain – May 2016
- **3<sup>rd</sup> Annual ESO-EAST Meeting**
- Prague, Czech R. – May 2017
- **4<sup>th</sup> Annual ESO-EAST Meeting**
- Gothenburg, Sweden – May 2018
- **5<sup>th</sup> Annual ESO-EAST Meeting**
- Milano, Italy – May 2019



<b>Country</b>	<b>Number of Steering committee members</b>
Albania	Not established
Armenia	7
Azerbaijan	13
Bosnia	
Bulgaria	5
Croatia	5
Czech Rep.	13
Estonia	9
Georgia	8
Kazakhstan	3
Kyrgyzstan	In process
Lithuania	5
Macedonia	5
Moldova	12
Poland	6
Romania	4
Russia	
Serbia	11
Slovakia	13
Tajikistan	dropped
Ukraine	11
Uzbekistan	3

# Actions of ESO-EAST

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## A) Project management infrastructure

- *Leadership*
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## B) Platform for quality metrics collection

## C) Education

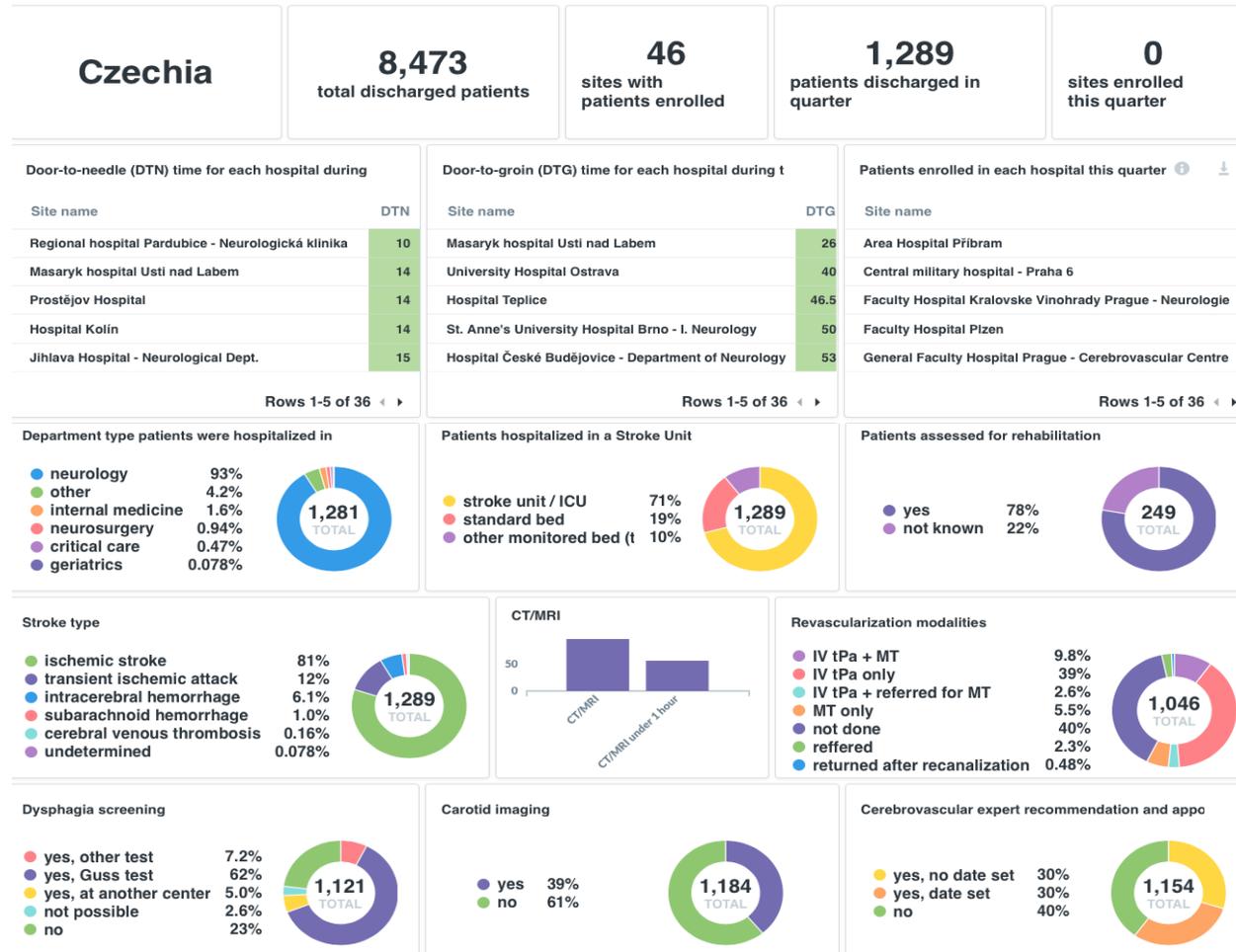


# Online National Audit Tool



## Country Coordinator Dashboard (updated every hour)

Quarter and Year  
Q1, 2019



# Hospital benchmarking against national data, Angels award criteria etc.



## Local Coordinator Dashboard (updated every hour)

Q1, 2019

**St. Anne's University  
Hospital Brno - I.  
Neurology**

**308**  
total discharged patients

**54**  
patients discharged in  
quarter

**9**  
patients with incorrect  
dates

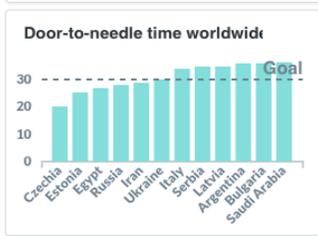
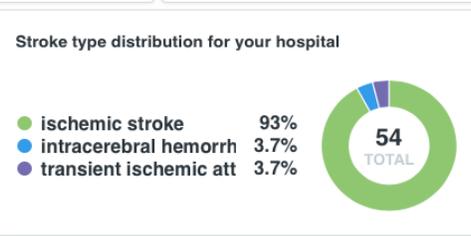
Performance metrics at a glance

Metric	Site	Country
Antihypertensive medication at discharge	90%	82%
Statins prescribed at discharge	65%	74%
Anticoagulants for AFib+ patients	91%	67%
Antiplatelets for AFib- patients	92%	87%
Carotid imaging	29%	39%
Assessed for rehabilitation	62%	78%
Cerebrovascular expert recommended	6%	60%
CT/MRI	89%	96%
CT/MRI under 1 hour	41%	57%

Median time of treatment perf

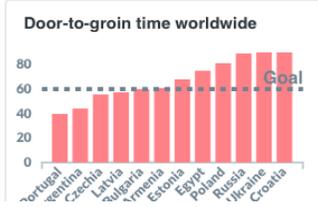
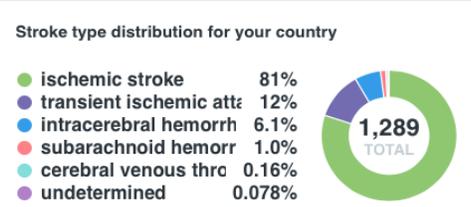
Metric	Time
Door-to-needle	25
Door-to-groin	50

Rows 1-2 of 3



List of patients with incorrect

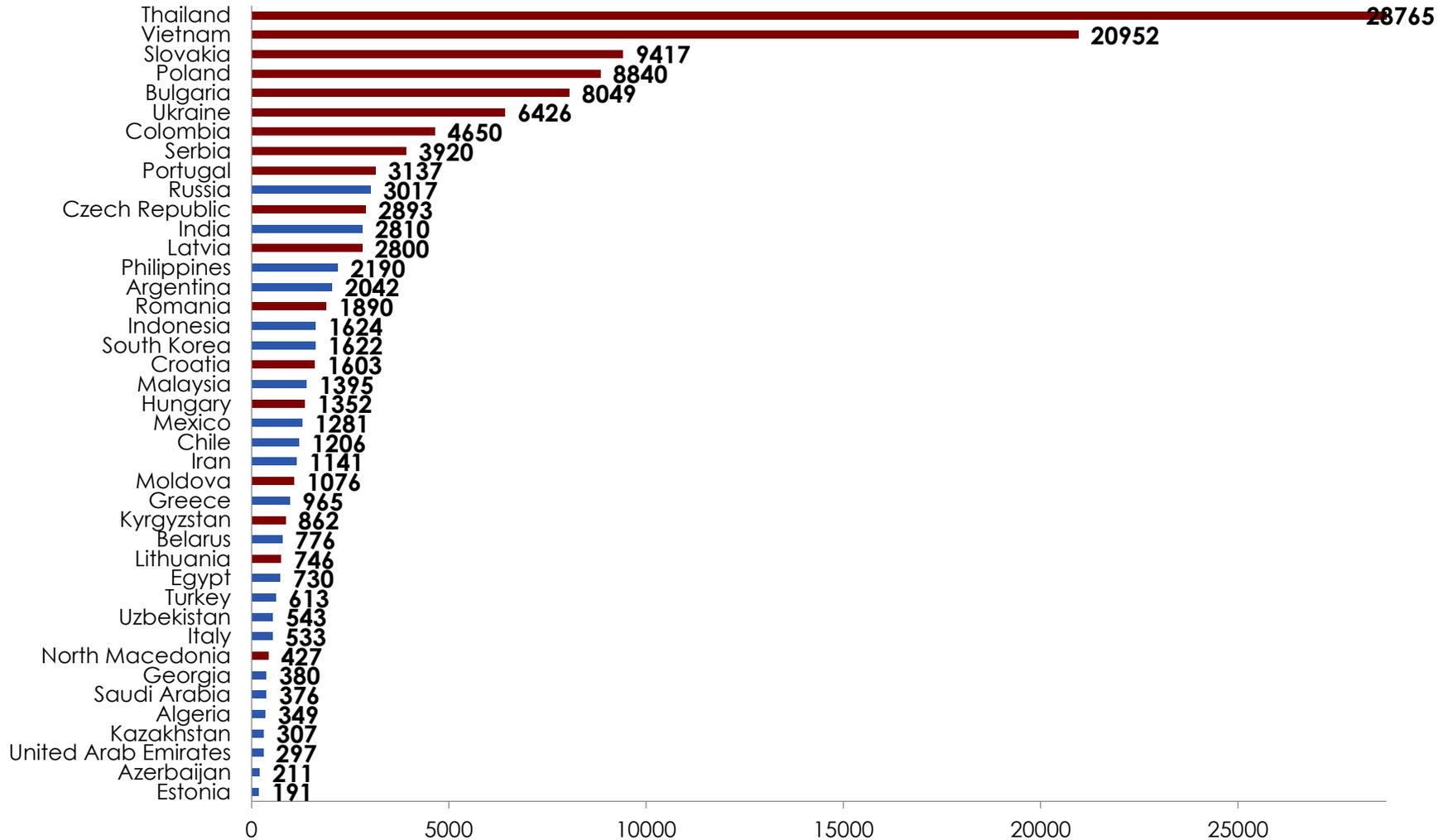
label	Hospitalized days
2014192406	-82
1614722737	-26



ESO Angels Awards performance level in the current quarter

Criteria	Patients	Award
Patients treated with door to recanalization therapy time <= 60 minutes	95 %	diamond
Patients treated with door to recanalization therapy <= 45 minutes	85 %	diamond
Recanalization rate out of total ischemic incidence	48 %	diamond
Suspected stroke patients undergoing CT/MRI	89 %	platinum
Stroke patients undergoing dysphagia screening	65 %	none
Ischemic stroke patients discharged with antiplatelets	96 %	diamond
Atrial fibrillation patients discharged with anticoagulants	100 %	diamond
Stroke patients hospitalized in a dedicated stroke unit / ICU	72 %	diamond
Final award		none

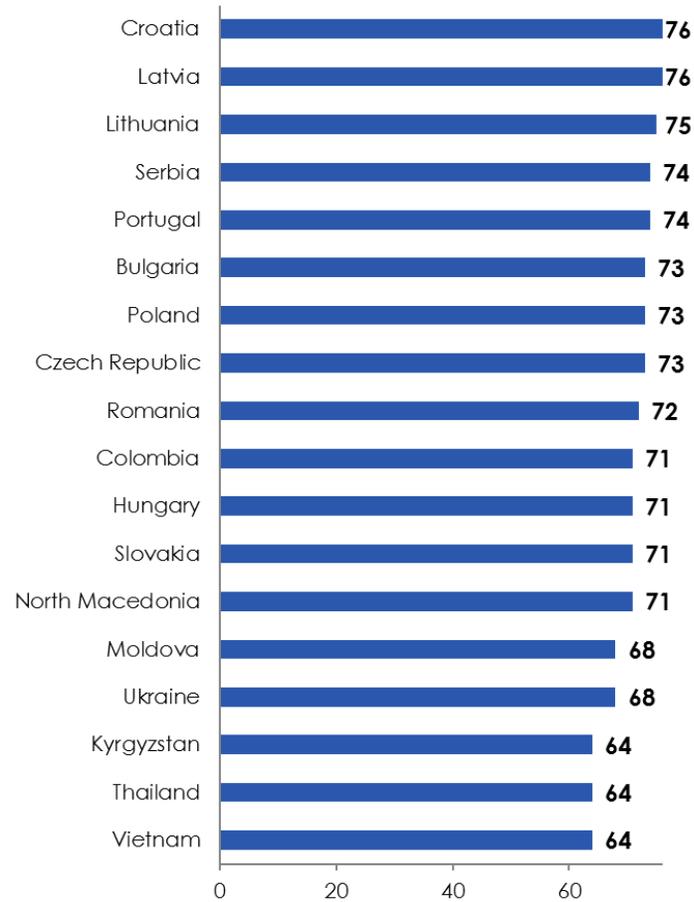
# Total number of cases - admission date in 2019-04-01\_2020-06-30



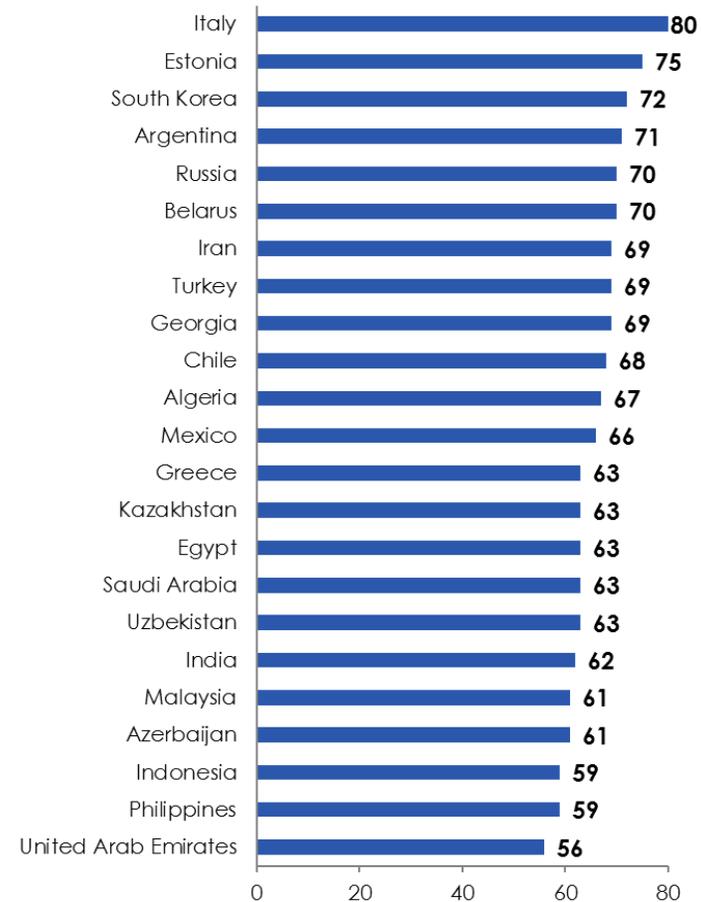
# Median patient age



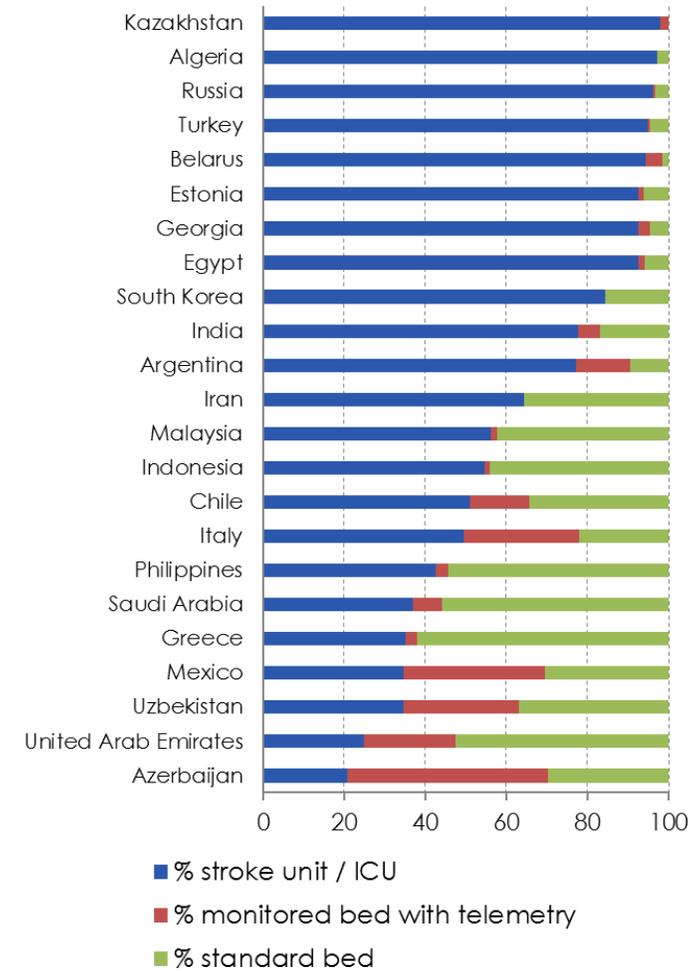
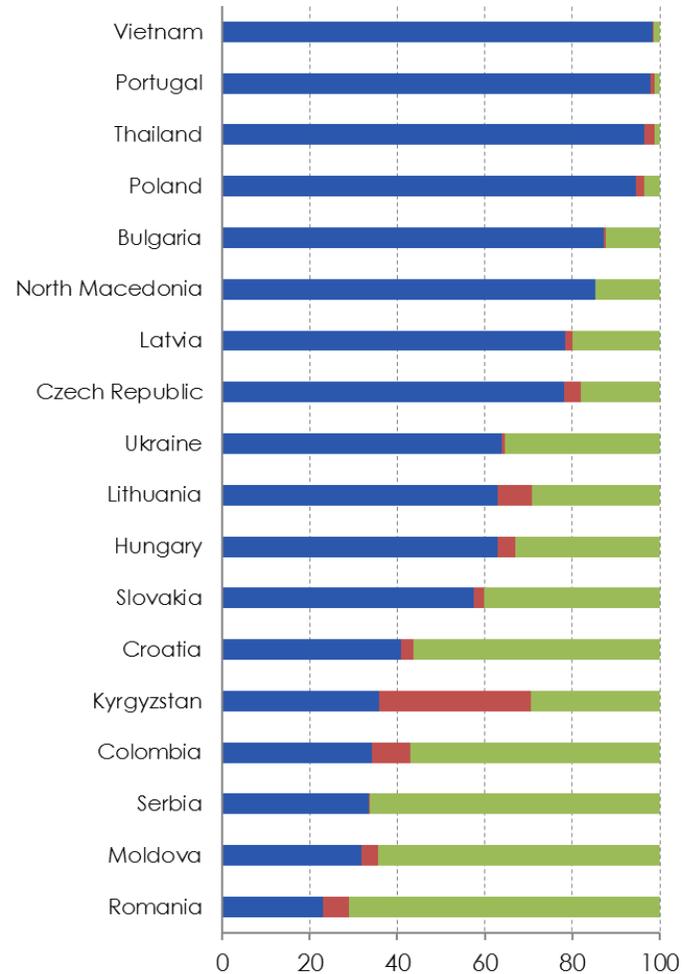
Nationally representative sample



Site-level representative sample

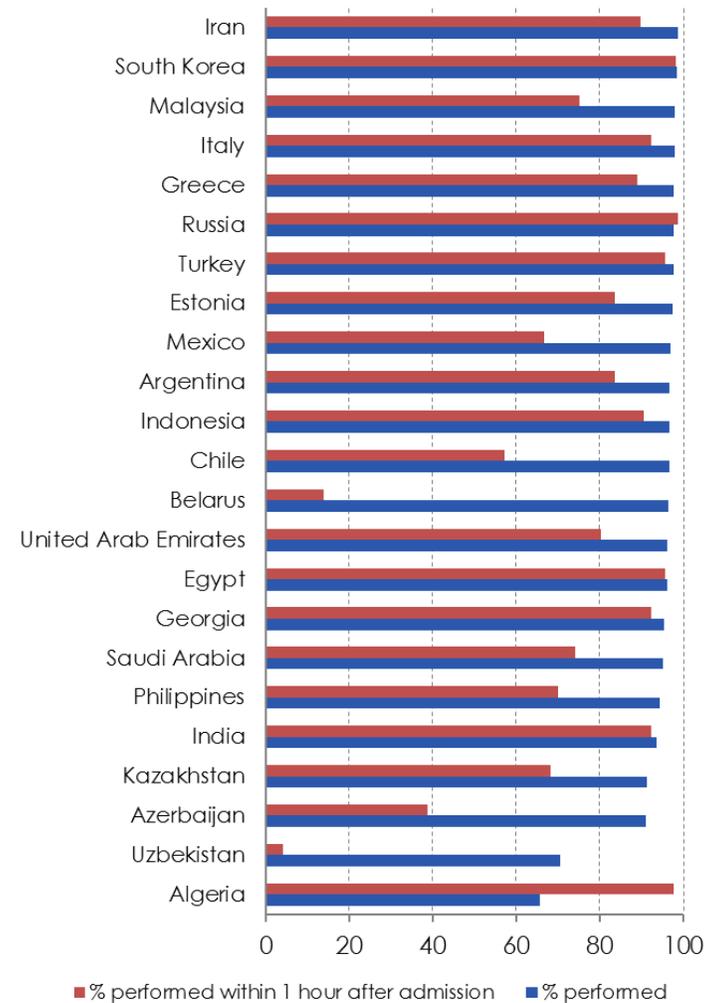
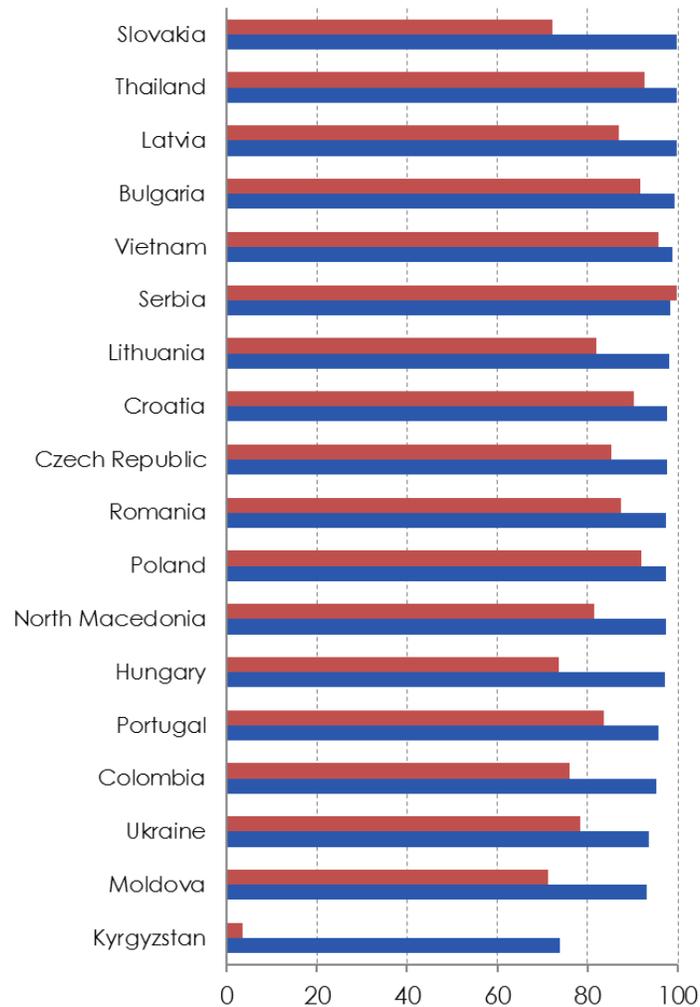


# Hospitalization type, ordered by % stroke unit



# % patients receiving CT / MRI

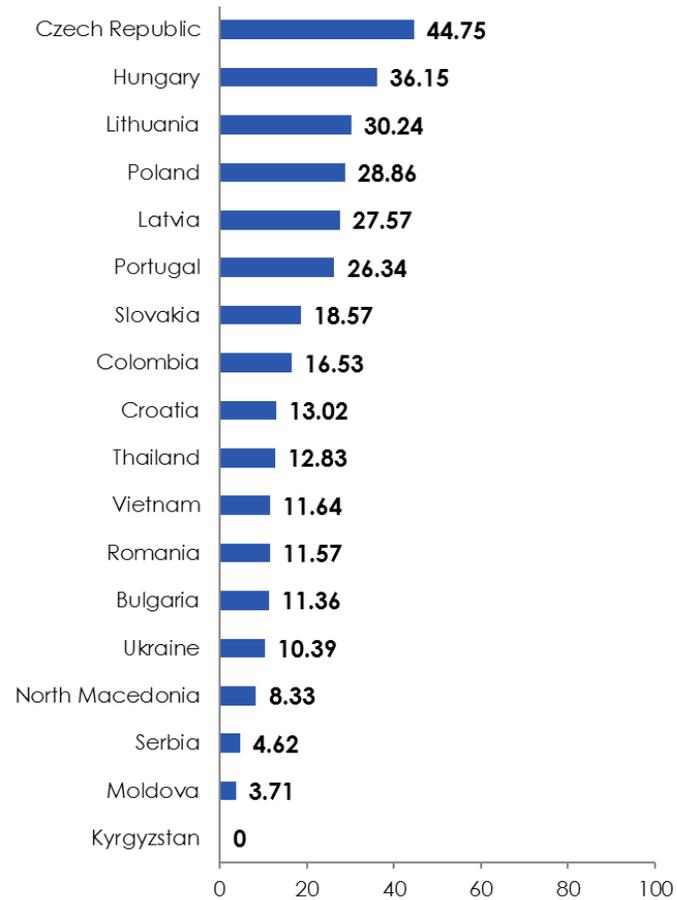
- Calculated out of number of IS + ICH + TIA + CVT -



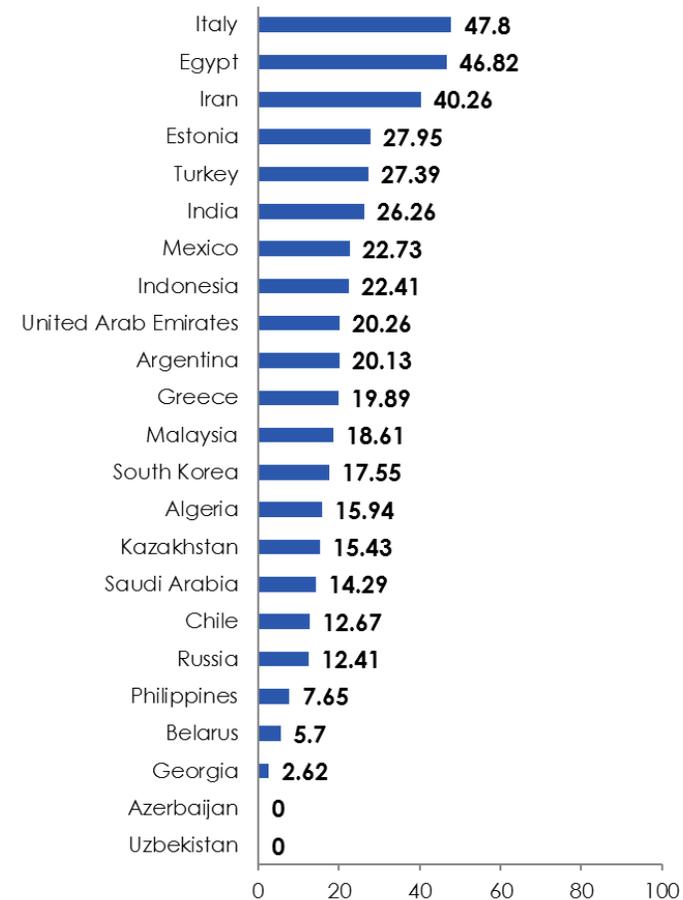
# % patients receiving thrombolysis



### Nationally representative sample



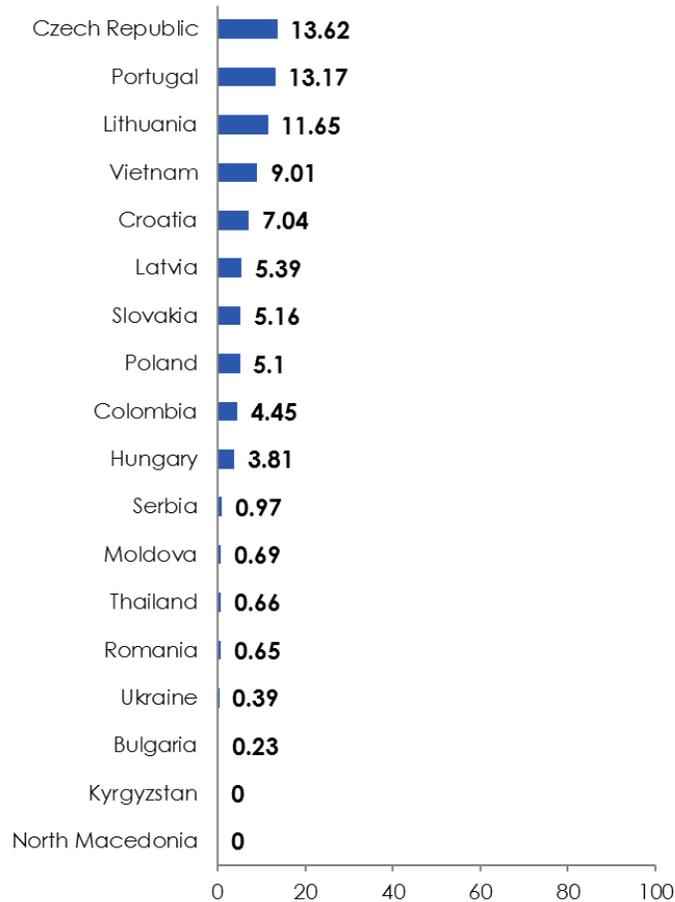
### Site-level representative sample



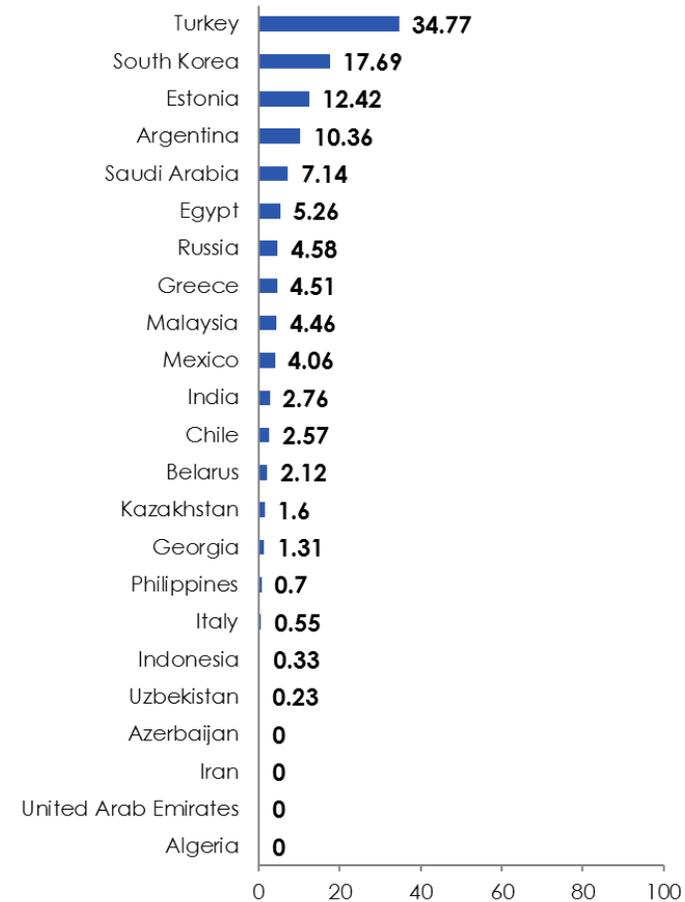
# % patients receiving mechanical thrombectomy



Nationally representative sample

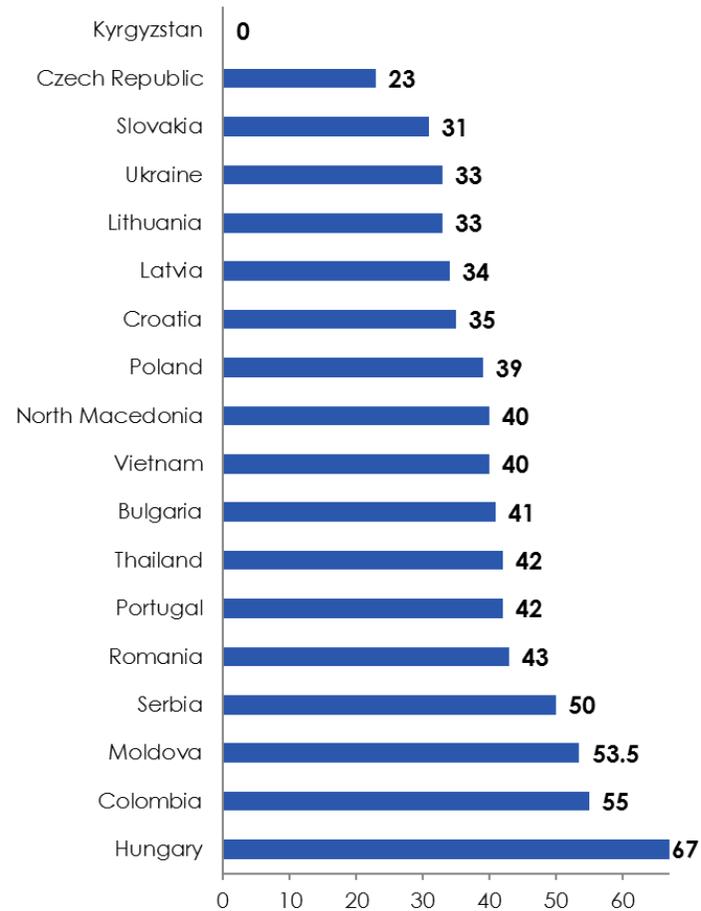


Site-level representative sample

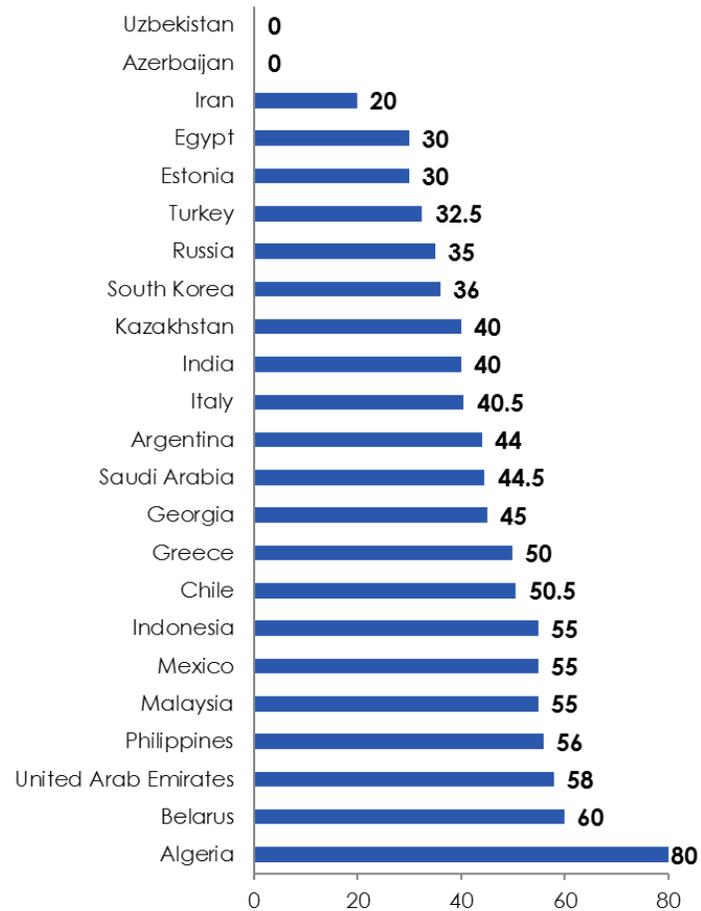


# Median Door-to-Needle Time (DTN), in minutes

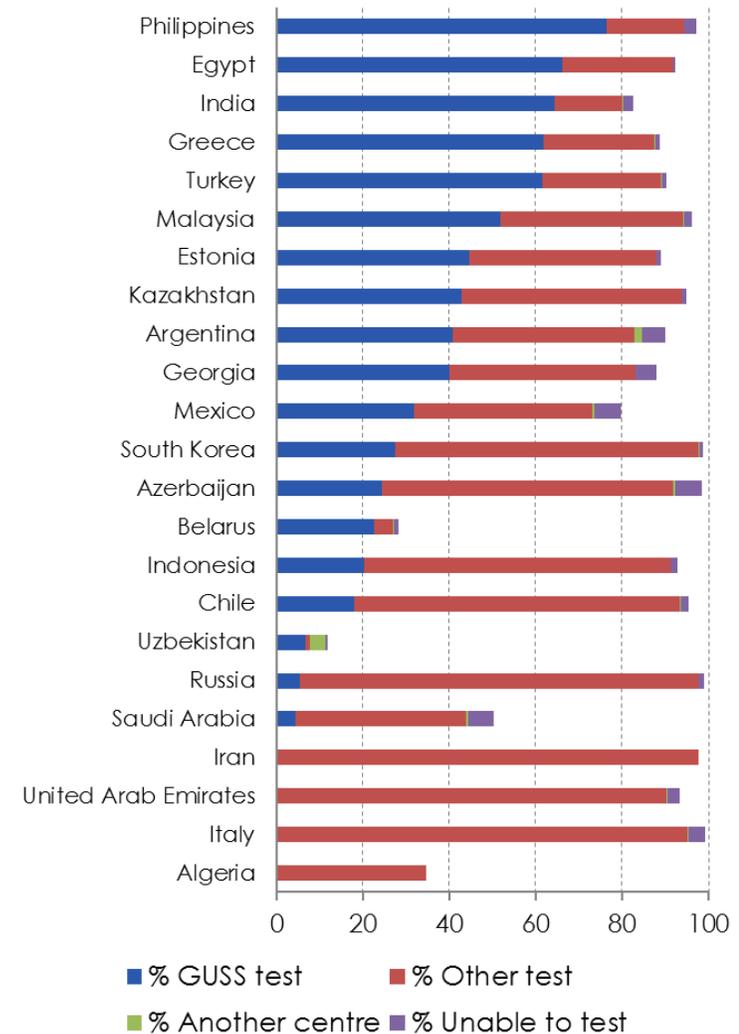
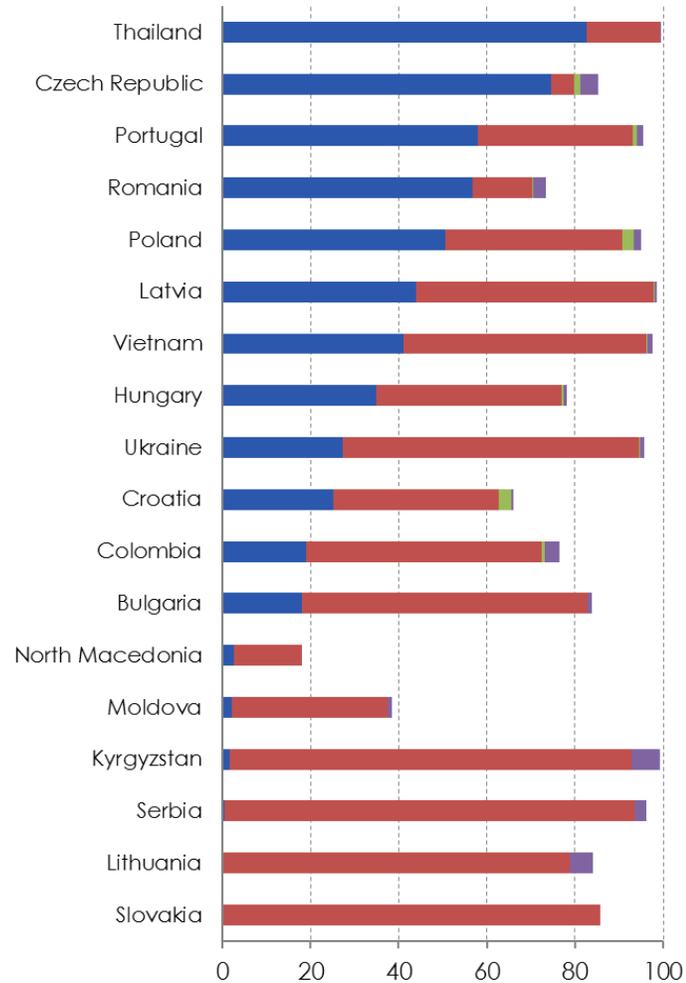
Nationally representative sample



Site-level representative sample



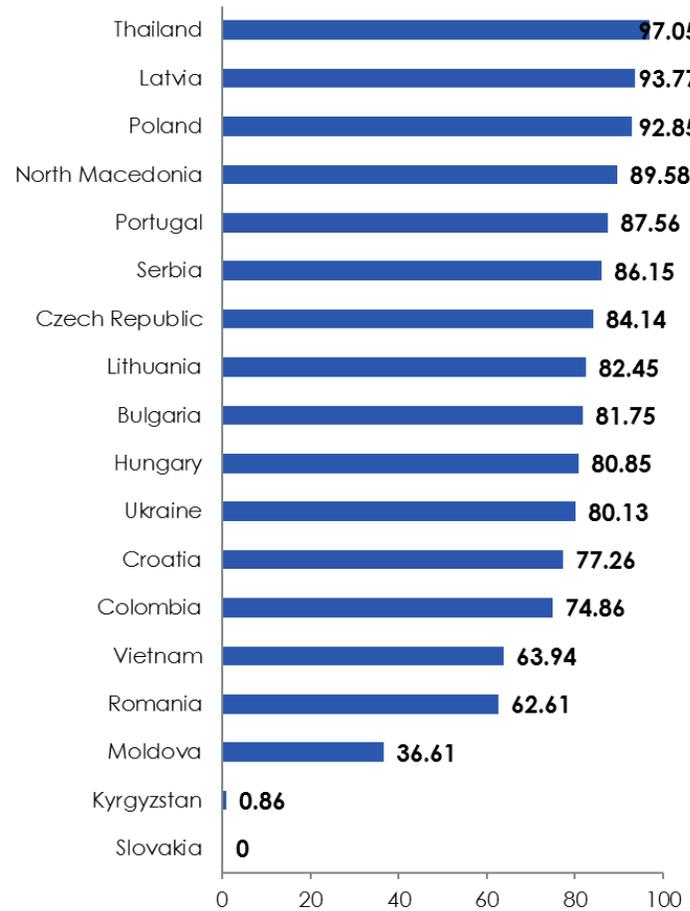
# % patients screened for dysphagia, ordered by % GUSS test - Calculated out of number of IS + ICH + CVT -



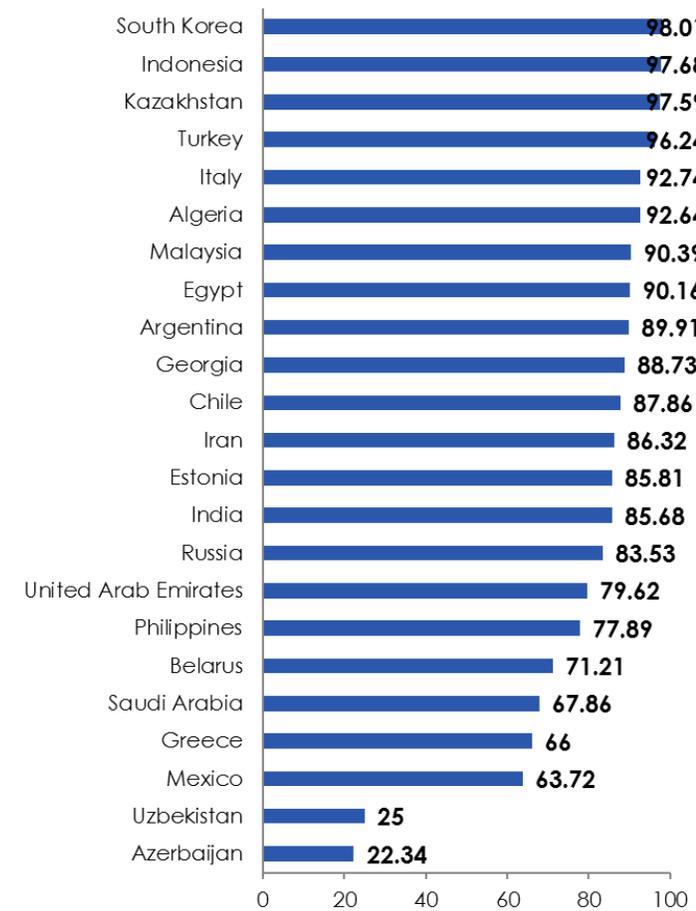
# % patients assessed for rehabilitation within 72 hrs after admission



Nationally representative sample



Site-level representative sample

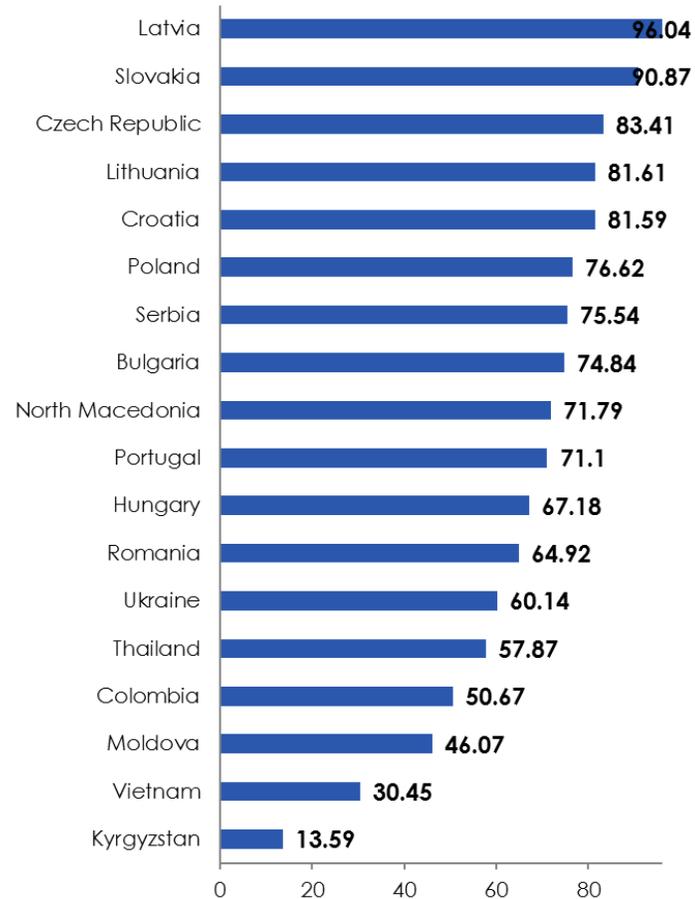


# Prescription of anticoagulants for patients with AF

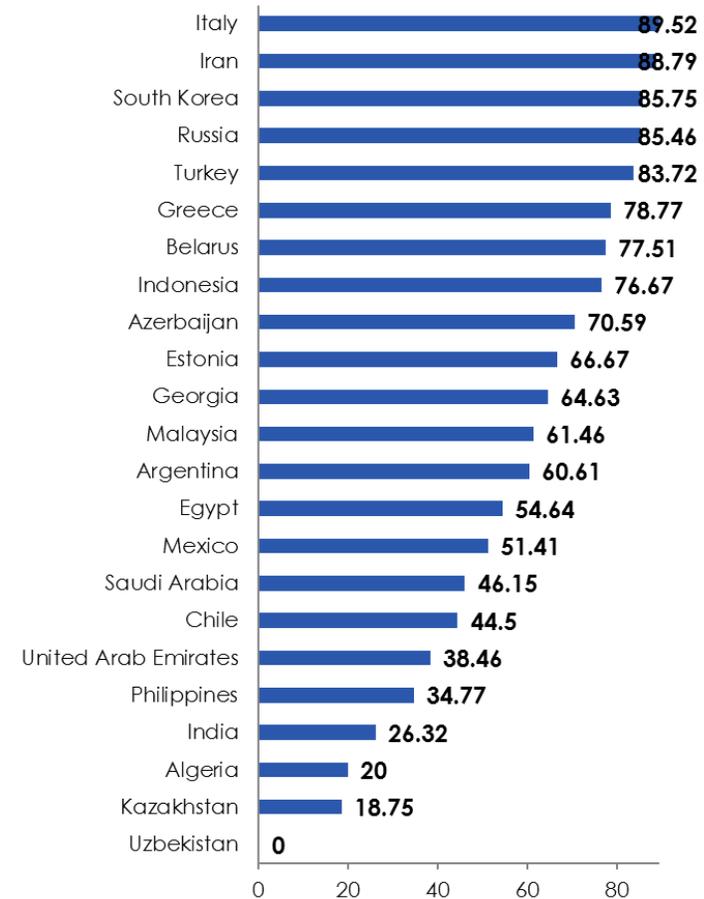
- Calculated out of number of patients with atrial fibrillation discharge alive -



Nationally representative sample



Site-level representative sample



# Conclusions

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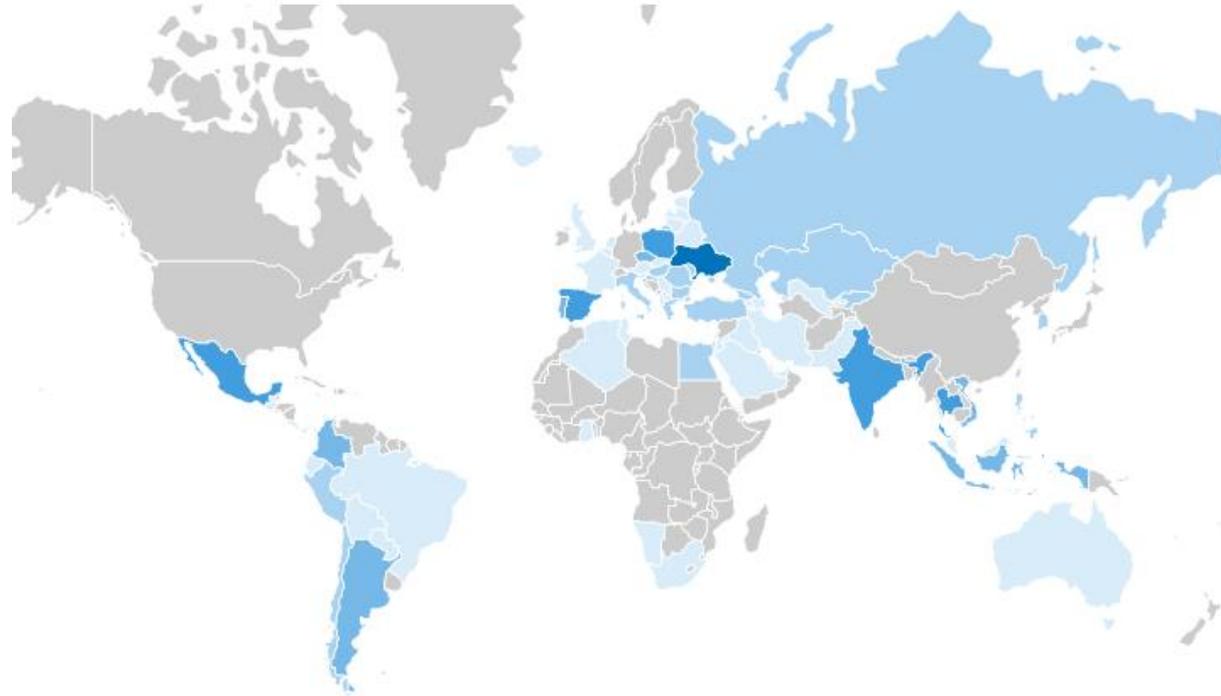
- we succeeded to establish management structure for international quality improvement program
- developed and implemented platform for quality monitoring and feedback
- measure stroke care quality with varying representativeness in 70 countries
- we laid foundations for implementation of European Stroke Action Plan

# BIG THANK YOU

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Everybody who contributed  
.....there are many here and around the world



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Thank you for your attention!

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