

Cerebral Infarction

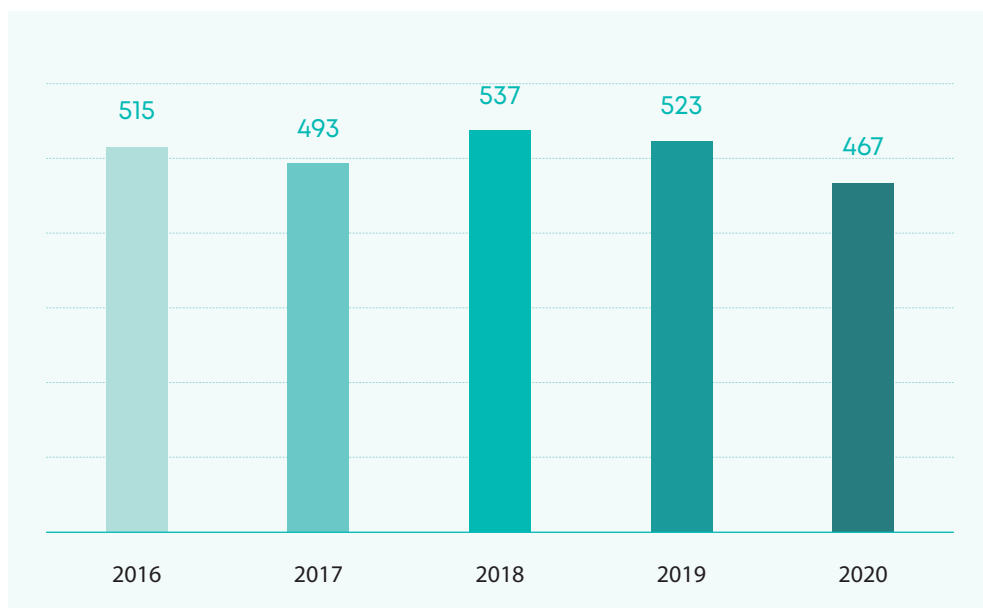
1

Annual number of acute ischemic stroke admissions

Index definition The annual number of admitted patients with acute ischemic stroke and transient ischemic attack

Description The number of admitted patients with acute ischemic stroke and transient ischemic attack in a year.

(Unit: procedures)



Calculation **Numerator** Number of acute ischemic stroke admissions registered in the Stroke registry for the year

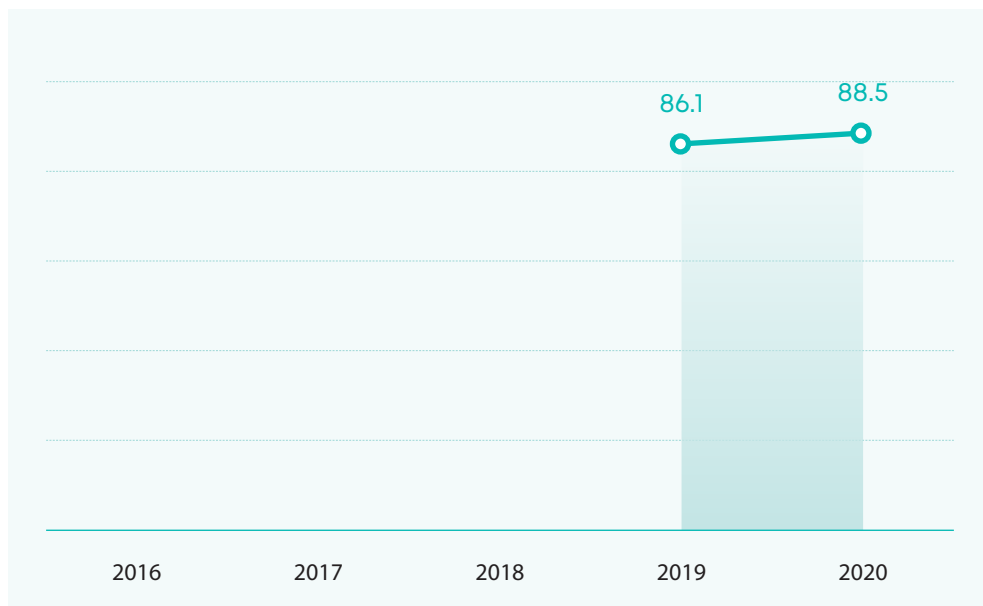
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Proportion of Door-to-Imaging time within 1-hour of acute ischemic stroke admissions

Index definition Proportion of neuroimaging (CT and MRI) conducted within 1 hour of admission among patients with transient ischemic attack/acute ischemic stroke admitted within 6 hours from the last normal time

Description The proportion of neuroimaging performed within 1 hour of arriving at the ER among patients with acute ischemic stroke and transient ischemic attack admitted to the ER within 6 hours from the last normal time.

(Unit: %)



- Calculation**
- Numerator** Number of neuroimaging (CT and MRI) performed within 1 hour of being admitted
 - Denominator**
 - Number of acute ischemic stroke admissions registered in the Stroke registry (based on procedure date; duplicate patients included)
 - Transient ischemic attack and acute ischemic stroke admitted within 6 hours from the last normal time
 - Includes patients with acute ischemic stroke that were diagnosed during hospitalization (based on the time Neurology team was informed)
- Exclusion**
- Denominator**
 - Hopeless discharge or discharge against medical advice without neuroimaging
 - Neuroimaging performed at another hospital after the last normal time
 - Neuroimaging not performed due to CPR within 1 hour of admission
 - Neuroimaging not performed due to no longer having symptoms within 1 hour of admission
 - Transferred after admitted to ER

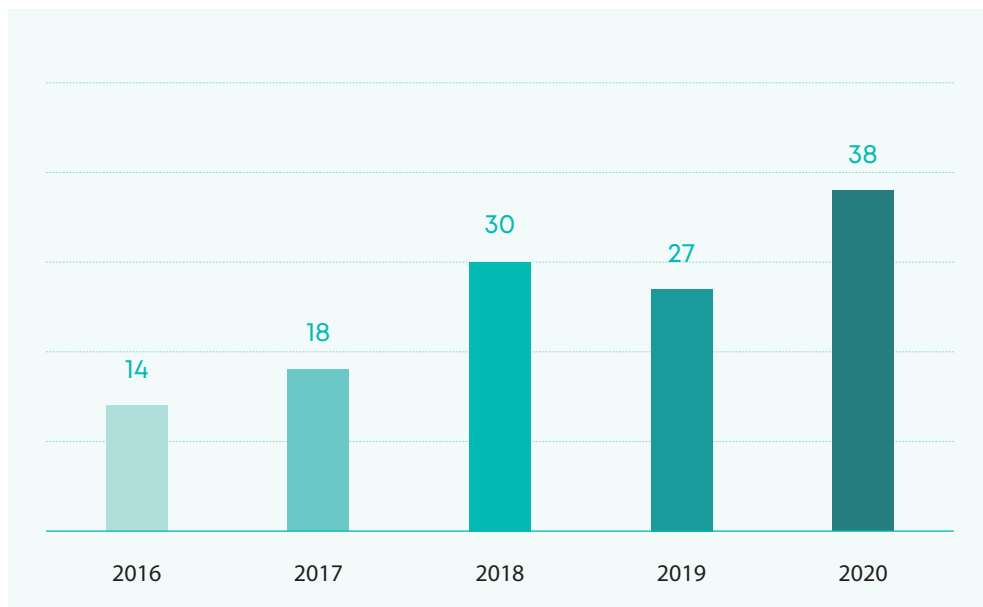
3

Annual number of IV thrombolysis for acute ischemic stroke admissions

Index definition The annual number of IV thrombolysis for acute ischemic stroke/transient ischemic attack admissions

Description The annual number of IV thrombolysis administered to patients admitted for acute ischemic stroke.

(Unit: procedures)



Calculation **Numerator** Total number of IV thrombolysis administered for acute ischemic stroke/transient ischemic attack admissions registered in the Stroke registry

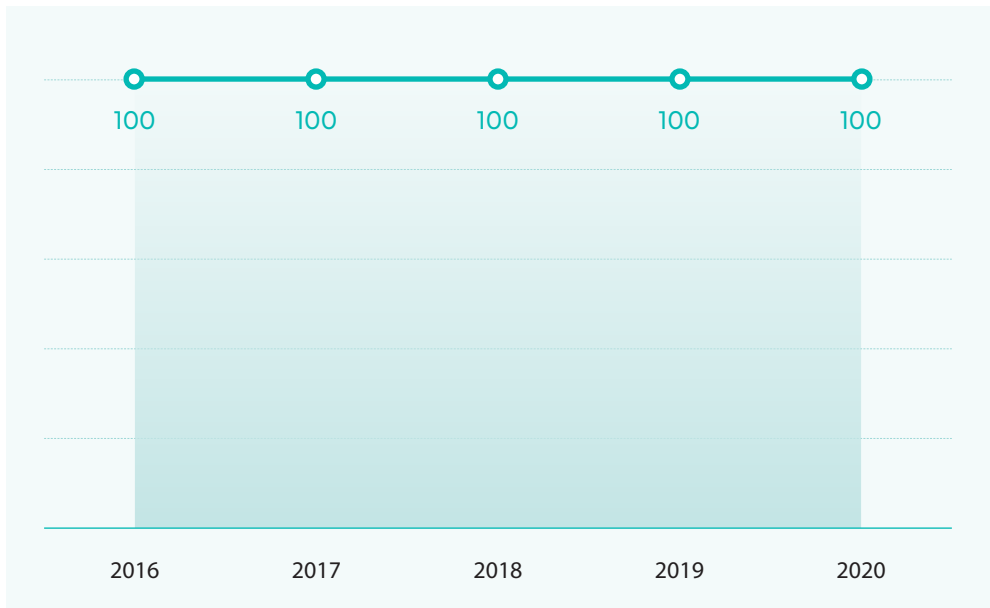
4

Proportion of IV thrombolysis for acute ischemic stroke admissions

Index definition Proportion of IV thrombolysis administered within 4.5 hours from the last normal time among patients admitted with acute ischemic stroke/transient ischemic attack admitted within 4.5 hours from the last normal time

Description The proportion of IV thrombolysis administered to patients with acute ischemic stroke admitted within 4.5 hours from the last normal time.

(Unit: %)



Calculation

Numerator Number of IV thrombolysis administered within 4.5 hours from the first abnormal symptom detection time

- Denominator**
- ❶ Number of acute ischemic stroke admissions registered in the Stroke registry
 - ❷ Transient ischemic attack and acute ischemic stroke admitted within 4.5 hours from the last normal time
 - ❸ Includes patients that had an acute ischemic stroke while hospitalized in another department

Exclusion

- Denominator**
- ❶ Last normal time is unknown
 - ❷ Documented reasons for unable to administer IV thrombolysis

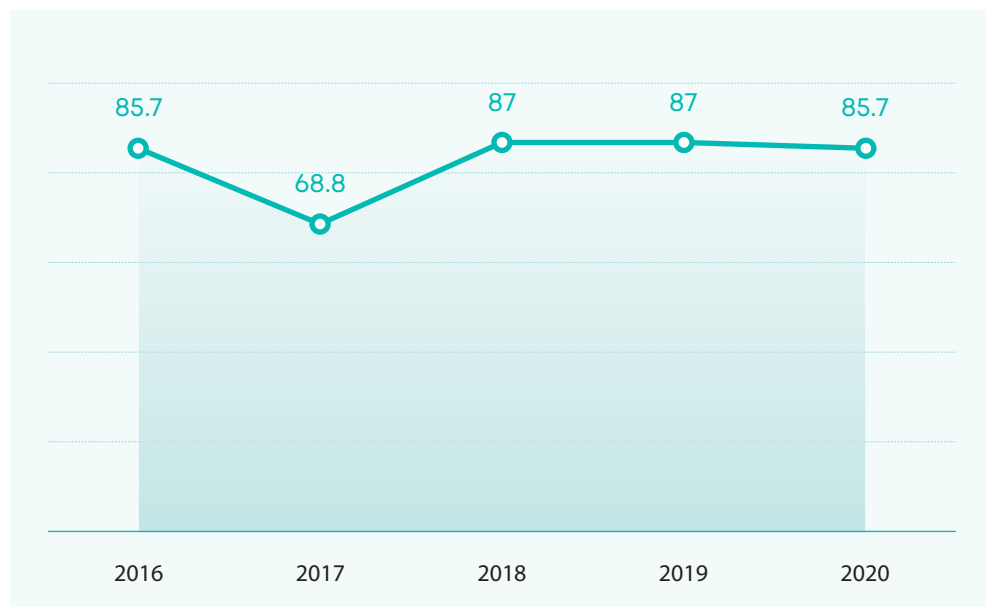
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Proportion of Door-to-Needle time within 60-minutes of acute ischemic stroke admissions

Index definition Proportion of IV thrombolysis administered within 1 hour among patients with transient ischemic attack/acute ischemic stroke admitted within 4.5 hours from the last normal time

Description The proportion of IV thrombolysis administered within 1 hour of arrival among patients with acute ischemic stroke admitted within 4.5 hours from the last normal time.

(Unit: %)



Calculation

Numerator Number of IV thrombolysis administered within 1 hour of admission (In-hospital case: the time Neurology team was contacted)

Denominator ① Number of acute ischemic stroke admissions registered in the Stroke registry
 ② Number of IV thrombolysis administered within 4.5 hours from the last normal time
 ③ Includes patients that had an acute ischemic stroke while hospitalized in another department

Exclusion

Denominator ① Cases of worsened symptoms after improvement (NIHSS score increases by over 2 when compare to the most improved)
 ② Cases where treatment for low blood pressure was prioritized
 ③ Cases where tracheal intubation was prioritized

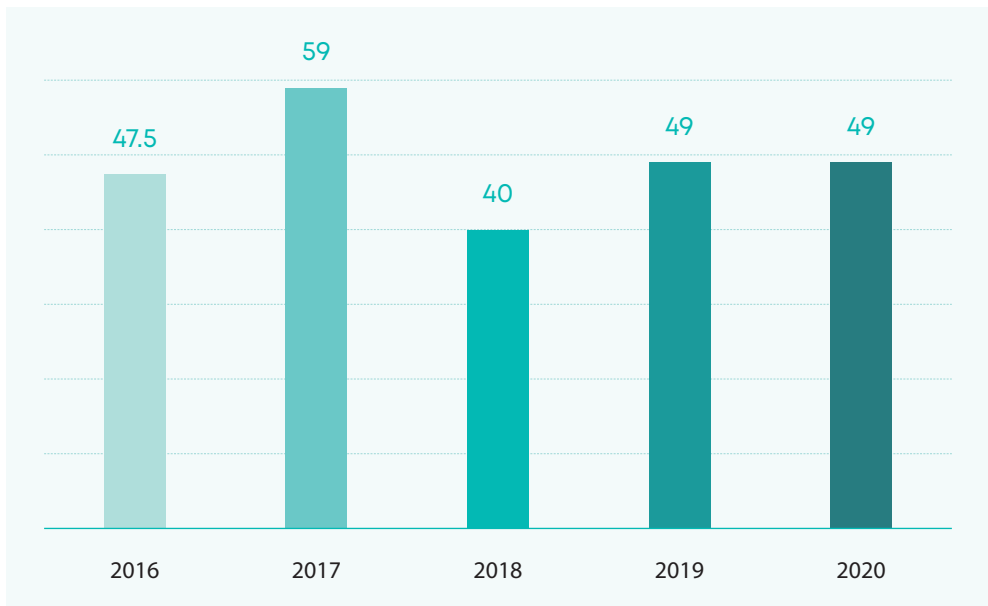
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Door-to-Needle time of acute ischemic stroke admissions (median)

Index definition Median door-to-needle time (minutes) for IV thrombolysis among patients with transient ischemic attack / acute ischemic stroke admitted within 4.5 hours from the last normal time

Description The median door-to-needle time (minutes) for IV thrombolysis among patients with acute ischemic stroke admitted to the ER within 4.5 hours from the last normal time.

(Unit: Minutes)



Calculation

Numerator Door-to-needle time for IV thrombolysis (In-hospital case: the time Neurology team was contacted)

Denominator ① Number of acute ischemic stroke admissions registered in the Stroke registry
 ② Number of IV thrombolysis administered for transient ischemic track and acute ischemic stroke admissions within 4.5 hours from the last normal time

Exclusion

Denominator ① Cases of worsened symptoms after improvement (NIHSS score increases by over 2 when compare to the most improved)

② Cases where treatment for low blood pressure was prioritized

③ Cases where tracheal intubation was prioritized

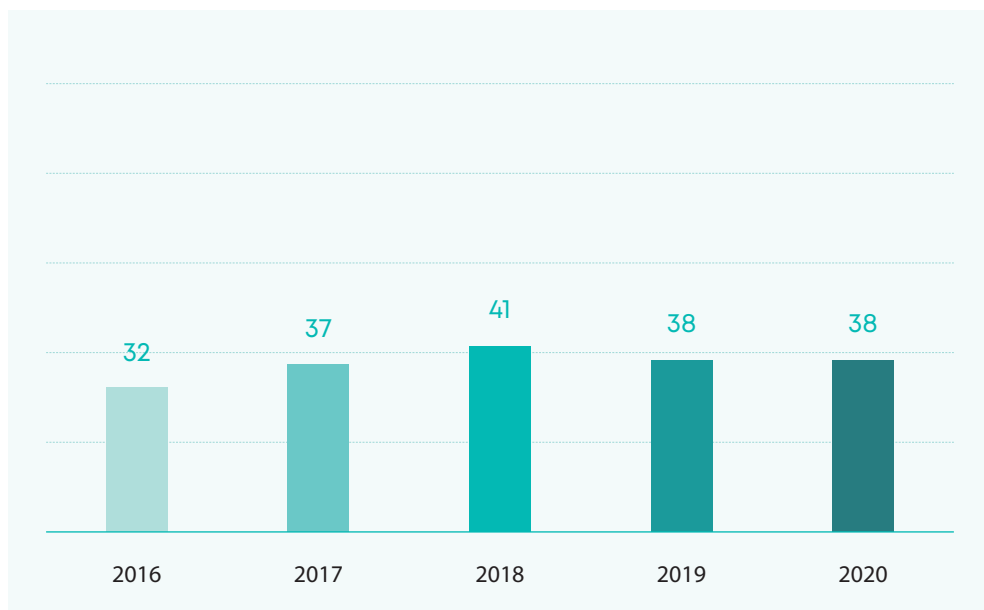
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Annual number of IA thrombectomy for acute ischemic stroke admissions

Index definition Annual number of IA thrombectomy for acute ischemic stroke / transient ischemic attack admissions

Description The number of IA thrombectomy performed for patients admitted with cerebral infarction.

(Unit: procedures)



Calculation

Numerator

Total number of IA thrombectomy for acute ischemic stroke / transient ischemic attack admissions registered in the Neurology team registry

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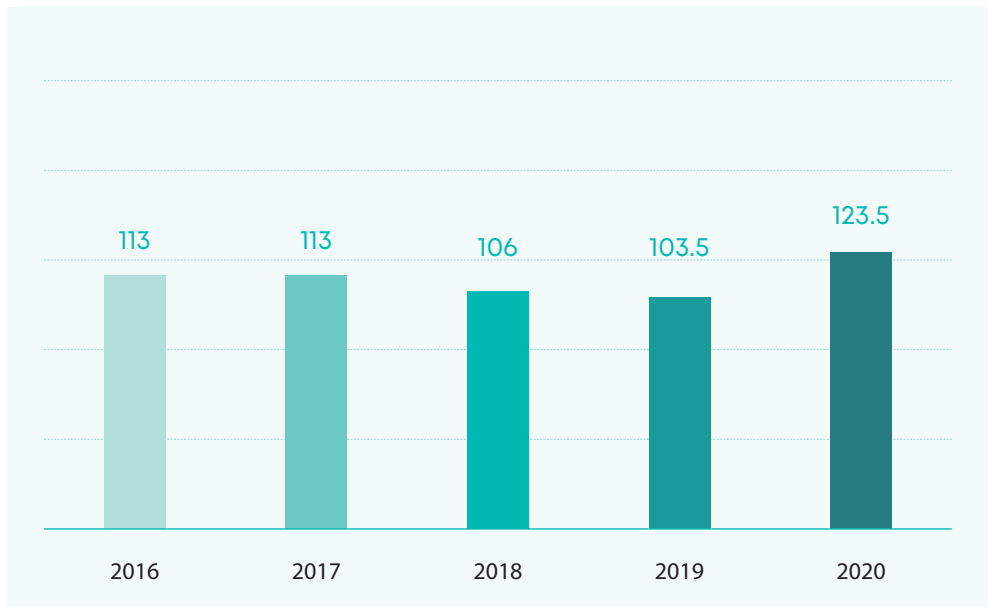
Door-to-Puncture time of acute ischemic stroke admissions (median)

Index definition The median time from the time of admission to the time of arterial puncture(minutes) among patients with transient ischemic attack/acute ischemic stroke admitted within 24 hours from the last normal time and received IA thrombectomy

Description The median time from the time of admission to the time of arterial puncture(minutes) among patients with acute ischemic stroke admitted within 24 hours from the last normal time and received IA thrombectomy

* According to changes in the SNUH stroke CP protocol, the standard time has changed since 2020.

(Unit: Minutes)



Calculation

Numerator Door-to-puncture time after IA thrombectomy (In-hospital case: the time Neurology team was contacted)

- Denominator**
- ❶ Number of acute ischemic stroke admissions registered in the Stroke registry (based on procedure date; duplicate patients included)
 - ❷ Number of IA thrombectomy for transient ischemic track/acute ischemic stroke admissions within 24 hours from the last normal time
 - ❸ Includes patients with acute ischemic stroke that were diagnosed during hospitalization (based on the time Neurology team was informed)

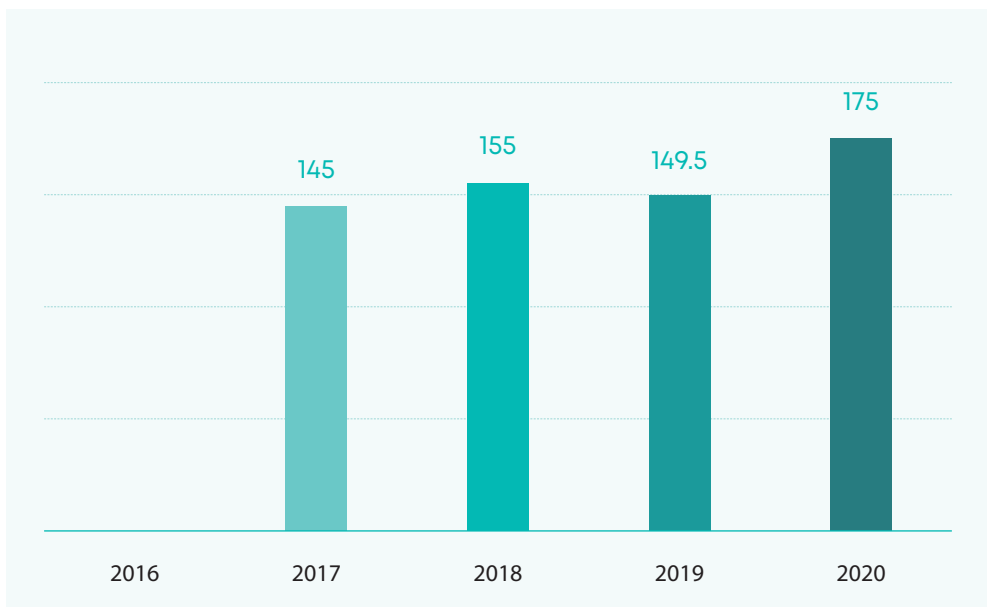
Door-to-Reperfusion time of acute ischemic stroke admissions (median)

Index definition The median time from the time of admission to the time of reperfusion(minutes) among patients with transient ischemic attack/acute ischemic stroke admitted within 24 hours from the last normal time and received IA thrombectomy

Description The median time from the time of admission to the time of reperfusion(minutes) among patients with acute ischemic stroke admitted within 24 hours from the last normal time and received IA thrombectomy

* According to changes in the SNUH stroke CP protocol, it was changed to "admission within 24 hours" starting from 2020.

(Unit: Minutes)



Calculation

Numerator Door-to-reperfusion time after IA thrombectomy (In-hospital case: the time Neurology team was contacted)

Denominator

- ① Number of acute ischemic stroke admissions registered in the Stroke registry (based on procedure date; duplicate patients included)
- ② Number of IA thrombectomy for transient ischemic track and acute ischemic stroke admissions within 24 hours from the last normal time
- ③ Includes patients with acute ischemic stroke that were diagnosed during hospitalization (based on the time Neurology team was informed)

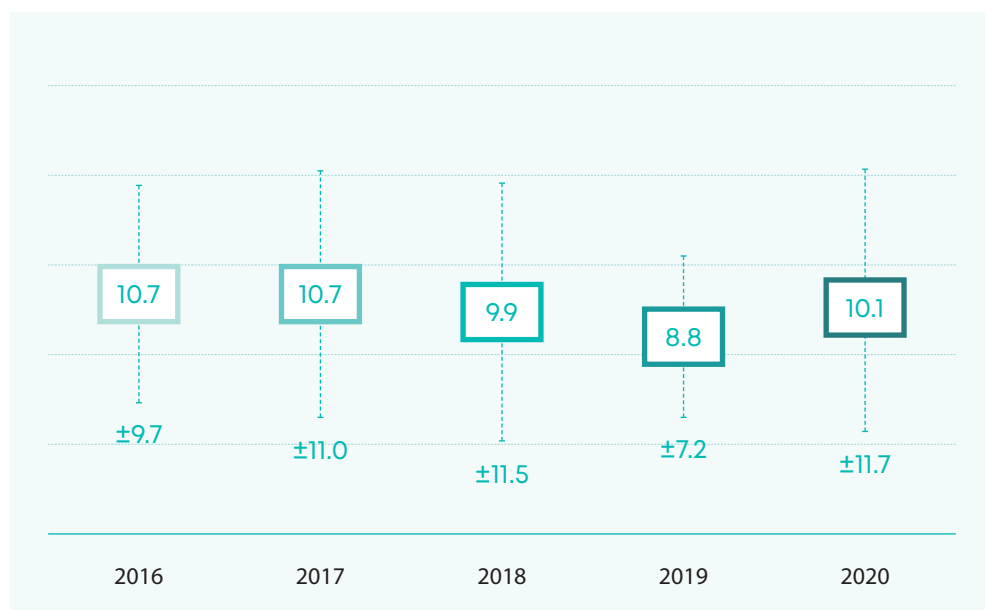
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Length-of-Stay of acute ischemic stroke admissions (mean and SD)

Index definition Average length-of-stay of patients with transient ischemic attack/acute ischemic stroke

Description The average length-of-stay of patients with transient ischemic attack and acute ischemic stroke.

(Unit: days)



Calculation

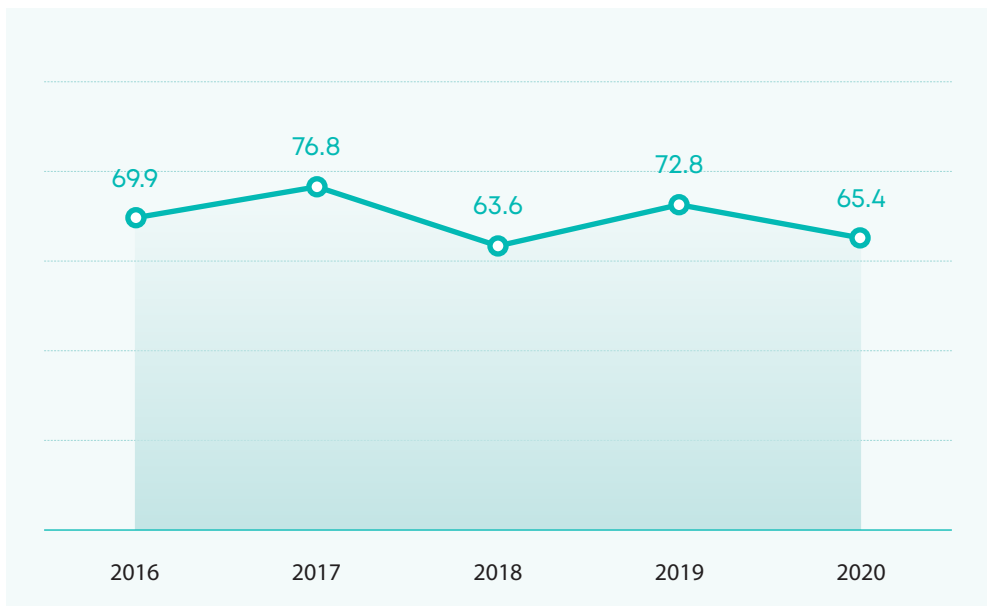
Numerator Length-of-stay of acute ischemic stroke admissions (Discharge date-Admission date)
Denominator ❶ Number of acute ischemic stroke admissions registered in the Stroke registry (based on procedure date; duplicate patients included)
 ❷ Includes patients with acute ischemic stroke that were diagnosed during hospitalization (based on the time Neurology was informed)

3-months standardized rate of favorable neurological recovery for acute ischemic stroke admissions

Index definition Proportion of patients with the modified ranking scale of below 2 after 3 months from onset date among acute ischemic stroke / transient ischemic attack admissions (standardized by age and sex based on all admissions of acute ischemic stroke in 2015)

Description The proportion of patients with the modified ranking scale of less than 2 after 3 months from onset date among patients admitted for acute ischemic stroke and transient ischemic attack.

(Unit: %)



Calculation

- Numerator** Patients with the modified ranking scale of less than 2 after 3 months from first onset date among acute ischemic stroke admissions
- Denominator**
- ① Number of acute ischemic stroke admissions registered in the Stroke registry (based on procedure date; duplicate patients included)
 - ② Includes patients with acute ischemic stroke that were diagnosed during hospitalization (based on the time Neurology team was informed)