ICHOM
International Consortium for Health Outcomes Measurement

STROKE
DATA COLLECTION
REFERENCE GUIDE

Version 2.0.1
Revised: June 21st, 2018

Measuring results that matter

Ability to communicate

Stroke
We are thrilled that you are interested in measuring outcomes for your stroke patients according to ICHOM standards. It is our hope that this Reference Guide will facilitate the process of implementing our Standard Set and ensure collection of comparable data for global benchmarking and learning.
Introducing ICHOM and the Reference Guide

ICHOM brings together patient representatives, clinician leaders, and registry leaders from all over the world to develop Standard Sets, comprehensive yet parsimonious sets of outcomes and case-mix variables we recommend all providers track.

Each Standard Set focuses on patient-centered results, and provides an internationally-agreed upon method for measuring each of these outcomes. We do this because we believe that standardized outcomes measurement will open up new possibilities to compare performance globally, allow clinicians to learn from each other, and rapidly improve the care we provide our patients.

Our Standard Sets include initial conditions and risk factors to enable meaningful case-mix adjustment globally, ensuring that comparisons of outcomes will take into account the differences in patient populations across not just providers, but also countries and regions. We also include high-level treatment variables to allow stratification of outcomes by major treatment types. A comprehensive data dictionary is included in the appendix.

Our aim is to make Standard Sets freely accessible to healthcare institutions worldwide to begin measuring, and ultimately benchmark the outcomes they achieve. In order to have a guide from which we can benchmark outcomes, we require feedback from initial implementation efforts. As such, this Reference Guide may undergo revisions on a regular basis. If you have any suggestions or would like to provide feedback, please contact implement@ichom.org

Working Group Members for Stroke

The following individuals dedicated both time and expertise to develop the ICHOM Standard Set for Stroke in partnership with ICHOM, under the leadership of Dr. Lee Schwamm, Professor of Neurology at Harvard Medical School and Vice Chairman of Neurology at Massachusetts General Hospital in Boston.

<table>
<thead>
<tr>
<th>Australia</th>
<th>Canada</th>
<th>Netherlands</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julie Bernhardt</td>
<td>Patrice Lindsay</td>
<td>Gerard Ribbers</td>
<td>Teri Ackerson</td>
</tr>
<tr>
<td>Brazil</td>
<td>Frank Silver</td>
<td>Bo Norrving</td>
<td>Mary George</td>
</tr>
<tr>
<td>Sheila Martins</td>
<td>Eric Smith</td>
<td></td>
<td>Adam Kelly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Louise Morgan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Joel Salinas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lee Schwamm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Linda Williams</td>
</tr>
<tr>
<td>China</td>
<td>Liping Liu</td>
<td>Stephanie Gething</td>
<td></td>
</tr>
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</tr>
</tbody>
</table>
Supporting Organizations

The Stroke Standard Set is made possible only through the support of the American Heart Association and American Stroke Association.

Thank you.

Conditions and Treatment Approaches Covered for Stroke

For stroke, the following conditions and treatment approaches (or interventions) are covered by our Standard Set.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Treatment Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients who have been hospitalized for an index ischemic stroke (IS) or</td>
<td>IV Thrombolysis</td>
</tr>
<tr>
<td>intracerebral hemorrhage (ICH). Patients with subarachnoid hemorrhage (SAH)</td>
<td>Thrombectomy</td>
</tr>
<tr>
<td>are excluded. Inclusion of transient ischemic attack (TIA) or patients</td>
<td>Hemicraniectomy</td>
</tr>
<tr>
<td>with IS or ICH who are evaluated but not hospitalized is not required.</td>
<td></td>
</tr>
</tbody>
</table>

A Note on Patient-Reported Questions in the Stroke Standard Set

ICHOM's work focuses on health outcomes and the measurement of what matters most to patients. A large component of all our Standard Sets, therefore, is the collection of patient-reported outcomes.

All patient-reported forms in the Stroke Standard Set are designed to be completed by the patient. However, for some stroke patients, answering questions and/or completing questionnaires can be challenging. If a patient is unable to respond to parts or all of a survey, answers should be provided by a proxy, his or her clinician, or abstracted from medical records.
**ICHOM Standard Set for Stroke**

**Case-Mix Variables**

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Measure</th>
<th>Supporting Information</th>
<th>Timing</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All patients</td>
<td>Age</td>
<td>Date of birth</td>
<td>Admission for index stroke event</td>
<td>Administrative data</td>
</tr>
<tr>
<td></td>
<td>Sex</td>
<td>Sex at birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Date of birth</td>
<td>Note that regulations on reporting ethnicity may differ per country</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Living location</td>
<td>Most recent place of residence pre stroke and 90 days post admission</td>
<td>Admission for index stroke event; 90 days + 7 days post admission for index event</td>
<td>Patient-reported</td>
</tr>
<tr>
<td></td>
<td>Living alone</td>
<td>Living situation pre stroke and 90 days post admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stroke Type and Severity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All patients</td>
<td>Stroke type</td>
<td>Response options: IS; ICH; TIA</td>
<td>Admission for index stroke event</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td>Stroke severity</td>
<td>Measured by NIHSS &amp; Level of consciousness</td>
<td></td>
<td>Patient-reported</td>
</tr>
<tr>
<td></td>
<td>Duration of symptoms</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vascular and Systemic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All patients</td>
<td>Prior Stroke</td>
<td>N/A</td>
<td>Admission for index stroke event</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td>Prior TIA</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prior MI</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coronary artery disease</td>
<td>N/A</td>
<td></td>
<td>Patient-reported</td>
</tr>
<tr>
<td></td>
<td>Atrial fibrillation</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hypertension</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hyperlipidemia</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smoking status (current or in past year)</td>
<td>N/A</td>
<td></td>
<td>Patient-reported</td>
</tr>
<tr>
<td></td>
<td>Alcohol use (&gt;1 drink a day)</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Treatment/Care Related</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All patients</td>
<td>Length of stay</td>
<td>Date of index admission and date of discharge from acute care hospital</td>
<td>Discharge + 7 days</td>
<td>Administrative data</td>
</tr>
<tr>
<td></td>
<td>Diagnostic evidence base</td>
<td>N/A</td>
<td>Admission for index stroke event</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation</td>
<td>Dedicated stroke rehabilitation during acute or post-acute care</td>
<td>Discharge + 7 days</td>
<td>Administrative data</td>
</tr>
<tr>
<td></td>
<td>Discharge destination</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Treatment Variables

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Measure</th>
<th>Supporting Information</th>
<th>Timing</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ischemic stroke patients</strong></td>
<td>Thrombolytic therapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ischemic stroke patients</strong></td>
<td>Thrombectomy</td>
<td>N/A</td>
<td>Discharge + 7 days</td>
<td>Clinical</td>
</tr>
<tr>
<td><strong>Intracerebral hemorrhage patients</strong></td>
<td>Hemicraniectomy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Outcomes

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Measure</th>
<th>Supporting Information</th>
<th>Timing</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Complications of Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients who received thrombolytic therapy or thrombectomy</td>
<td>Symptomatic intracranial hemorrhage after thrombolysis or thrombectomy</td>
<td>N/A</td>
<td>Discharge + 7 days</td>
<td>Clinical</td>
</tr>
</tbody>
</table>

### Survival and Disease Control

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Measure</th>
<th>Supporting Information</th>
<th>Timing</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>Overall survival</td>
<td>All-cause mortality</td>
<td>Discharge + 7 days; 90 days +/- 7 days post admission for index event; Annually</td>
<td>Administrative data</td>
</tr>
<tr>
<td></td>
<td>Ability to return to usual activities</td>
<td>Tracked via smRSq</td>
<td>Discharge + 7 days; 90 days +/- 7 days post discharge</td>
<td>Clinical</td>
</tr>
</tbody>
</table>
### Patient-Reported Outcomes

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Measure</th>
<th>Supporting Information</th>
<th>Timing</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient-Reported Health Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All patients</td>
<td>Overall mental wellbeing (including cognitive and psychiatric functioning, social functioning)</td>
<td>Tracked via PROMIS Global Health</td>
<td>90 days + 7 days post admission for index event</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall physical wellbeing (including pain, fatigue, and general health status)</td>
<td>Tracked via PROMIS Global Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mobility</td>
<td>Tracked via single item</td>
<td></td>
<td>Patient-reported</td>
</tr>
<tr>
<td></td>
<td>Feeding</td>
<td>Tracked via single item</td>
<td>Discharge + 7 days; 90 days +/- 7 days post-discharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ability to communicate</td>
<td>Tracked via single item</td>
<td>Discharge + 7 days; 90 days +/- 7 days post-discharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self care (including grooming, toileting &amp; dressing)</td>
<td>Tracked via RIKS stroke functional items</td>
<td>Admission for index stroke event: Discharge + 7 days; 90 days +/- 7 days post-discharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-reported new stroke</td>
<td>Tracked via single item</td>
<td>90 days + 7 days post admission for index event</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smoking cessation</td>
<td>Adherence to smoking cessation advise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Follow-Up Timeline

The following timeline illustrates when Standard Set variables should be collected from patients, clinicians, and administrative sources. Links to the sample questionnaires may be found in the legend below.

- Entrance into outcome tracking system for Stroke
- Discharge +7 days
- 90 days post index
- Annually post index event

If a second stroke occurs between discharge and the "90 day post index" collection, you should reset the measurement scale, treating them as a new patient.

Collecting Patient- and Clinician-Reported Outcome Measures

<table>
<thead>
<tr>
<th>Survey(s) Used</th>
<th>Licensing Information</th>
<th>Scoring Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Reported Outcomes Measurement Information</td>
<td>The PROMIS-10 is free for all health care organizations, and a license is not needed.</td>
<td>The scoring guide may be found on page 9, as well as at <a href="https://www.assessmentcenter.net/documents/Scoring%20PROMIS%20Global%20short%20form.pdf">https://www.assessmentcenter.net/documents/Scoring%20PROMIS%20Global%20short%20form.pdf</a></td>
</tr>
<tr>
<td>System Short Form version 1.1 Global Health (PROMIS-10) - Patient/Proxy</td>
<td>There is no patent on the smRSq or fee for using it in clinical practice; however Lippincott Williams &amp; Wilkins (LWW) own the rights to the published article where the smRSq is introduced. There is a cost of USD700 to use the flow chart diagram from within this article but permission is not needed for the assessment of the questions in patients. The smRSq is also a sub-section of the regular smRSq, which is also without license fee. The smRSq flow chart can be found at <a href="http://stroke.ahajournals.org/content/42/8/2276">http://stroke.ahajournals.org/content/42/8/2276</a> “Simplified Modified Rankin Scale Questionnaire Reproducibility Over the Telephone and Validation With Quality of Life” Stroke 2011; 42: 2276-2279 © 2011 American Heart Association, Inc. Wolters Kluwer Health</td>
<td>To facilitate the use of the smRSq, instructions are provided in the Appendix on page 11.</td>
</tr>
<tr>
<td>Simplified Modified Rankin Scale Questionnaire (smRSq) - Clinician</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Growing ICHOM Community

By implementing the ICHOM Standard Sets, you become part of an expanding, international community of innovative health care providers dedicated to improving value for patients. To learn more about how ICHOM can assist your organization in implementing outcome measurement, contact us at [implement@ichom.org](mailto:implement@ichom.org), or visit [http://www.ichom.org/measure](http://www.ichom.org/measure).
Appendix
Scoring Guide for the PROMIS Short Form version 1.1 Global Health (PROMIS-10)

**Scoring:** The PROMIS Global Health short form is a 10-item instrument representing multiple domains. It can be scored into a Global Physical Health component and Global Mental Health component using the tables below. Because a scoring table is prepared for a fixed set of items, it can only be used when an examinee responds to all of the items in the set. *One or more missing responses will render such scoring tables unusable.*

The Global scores require re-coding of three items so that high scores reflect better functioning.

### Global07
**In the past 7 days**

How would you rate your pain on average?

- 5=0 No pain
- 4=1
- 4=2
- 4=3
- 3=4
- 3=5
- 3=6
- 2=7
- 2=8
- 2=9
- 1=10 Worst pain imaginable

### Global08
**In the past 7 days**

How would you rate your fatigue on average?

- 5=None
- 4=Mild
- 3=Moderate
- 2=Severe
- 1=Very severe

### Global10
**In the past 7 days**

How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?

- 5=Never
- 4=Rarely
- 3=Sometimes
- 2=Often
- 1=Always

After re-coding, the Global Physical Health score is generated by summing responses to Global03, Global06, Global07rescored, and Global08rescored. The Global Mental Health score is generated by summing responses to Global02, Global04, Global05, and Global10rescored.

**Raw score to T-score conversion tables:** The following conversion tables allow a user to convert simple summed raw scores from PROMIS global into T-score values on an individual respondent or group of respondents. In all cases, these conversions only work accurately when all questions on the short form have been answered. T-score distributions are standardized such that a 50 represents the average (mean) for the US general population, and the standard deviation around that mean is 10 points. *A high score always represents more of the concept being measured.* Thus, a person who has T-scores of 60 for the Global Physical Health or Global Mental Health scales is one standard deviation better (more healthy) than the general population.
<table>
<thead>
<tr>
<th>Raw.Score</th>
<th>T.Score</th>
<th>SE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>16.2</td>
<td>4.8</td>
</tr>
<tr>
<td>5</td>
<td>19.9</td>
<td>4.7</td>
</tr>
<tr>
<td>6</td>
<td>23.5</td>
<td>4.5</td>
</tr>
<tr>
<td>7</td>
<td>26.7</td>
<td>4.3</td>
</tr>
<tr>
<td>8</td>
<td>29.6</td>
<td>4.2</td>
</tr>
<tr>
<td>9</td>
<td>32.4</td>
<td>4.2</td>
</tr>
<tr>
<td>10</td>
<td>34.9</td>
<td>4.1</td>
</tr>
<tr>
<td>11</td>
<td>37.4</td>
<td>4.1</td>
</tr>
<tr>
<td>12</td>
<td>39.8</td>
<td>4.1</td>
</tr>
<tr>
<td>13</td>
<td>42.3</td>
<td>4.2</td>
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<tr>
<td>14</td>
<td>44.9</td>
<td>4.3</td>
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<tr>
<td>15</td>
<td>47.7</td>
<td>4.4</td>
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<td>16</td>
<td>50.8</td>
<td>4.6</td>
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<td>17</td>
<td>54.1</td>
<td>4.7</td>
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<tr>
<td>18</td>
<td>57.7</td>
<td>4.9</td>
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<tr>
<td>19</td>
<td>61.9</td>
<td>5.2</td>
</tr>
<tr>
<td>20</td>
<td>67.7</td>
<td>5.9</td>
</tr>
</tbody>
</table>

*SE = Standard Error

Conversion Table applies only when ALL questions on the subdomain have been answered


Estimating EuroQoL (EQ-5D) index scores: Revicki et al (2009) outlined how to use the PROMIS Global Health short form to calculate a EuroQoL (EQ-5D) index score. To begin, use the instructions on page 1 to re-score Global07, Global08, and Global10. Then, use the following formula:

\[
\text{EQ5D score} = 0.19123 + (0.00672 \times \text{Global2}) + (0.00527 \times \text{Global3}) + (0.00830 \times \text{Global4}) + (0.04550 \times \text{Global6}) + (0.02713 \times \text{Global7rescored}) + (0.01305 \times \text{Global8rescored}) + (0.00613 \times \text{Global9}) + (0.02502 \times \text{Global10rescored})
\]

Instructions for the simplified modified Rankin Scale questionnaire (smRSq)

**Simplified modified Rankin Scale questionnaire:** The simplified modified Rankin questionnaire (smRSq) was developed as a tool to improve the assessment of the modified Ranking scale [1]. An updated version of the smRSq was published in 2011 [2]. The smRSq flow chart can be found at [http://stroke.ahajournals.org/content/42/8/2276](http://stroke.ahajournals.org/content/42/8/2276) to provide the interview procedure for clinicians.

**Assessment recommendations:** The assessment time with the smRSq is relatively short, less than 2 minutes. The smRSq has been validated for phone assessment [2] and with quality of life [2], stroke severity [3, 4], and stroke size [5].

**Instructions for using the smRSq:**
1. Ask each question in order from top to bottom following the arrows in the flow chart in the link above.
2. One may repeat and clarify the questions if needed, but to maintain consistency across raters do not elaborate or provide examples or guide the interviewee.
3. To enhance accuracy, use all available sources of information, especially caregivers when available.
4. When the answer is not clear (falls between two scores), use the higher score.

**Translations:** The smRSq was originally developed in English. The smRSq has been translated and validated in Chinese stroke patients versus the standard mRS interview and stroke severity [6].

**smRSq contact information:**
Dr. Askiel Bruno [abruno@gru.edu](mailto:abruno@gru.edu)

Department of Neurology
Medical College of Georgia
1120 15th St Bl 3076,
Augusta, GA 30912
USA

**References**


[6] Yuan JL; Bruno A; Li T; Li SJ; Zhang XD; Li HY; Jia K; Qin W; Chen AC; Hu WL. Replication and extension of the simplified modified Rankin scale in 150 Chinese stroke patients. European Neurology, 2012; Vol. 67 (4), pp. 206-10.
Introduction to the Data Dictionary

This data dictionary is designed to help you measure the ICHOM Stroke Standard Set as consistently as possible to the Working Group recommendation. ICHOM is actively preparing for benchmarking efforts based on this data, and all data submitted for comparisons will need to be transformed into the following data structure if not already structured as such. **We are happy to provide an Excel version of this data dictionary for technical use.**

Please timestamp all variables. Some Standard Set variables are collected at multiple timepoints, and we will ask you to submit these variables in a concatenated VARIABLEID_TIMESTAMP form for future analyses. For example, VARIABLEID_BASE (baseline); VARIABLEID_6MO (6 month follow-up); VARIABLEID_1YR (1 year follow-up), etc.

### Case-Mix Variables

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable:</th>
<th>Definition</th>
<th>Supporting Definition</th>
<th>Inclusion Criteria</th>
<th>Timing</th>
<th>Data Source</th>
<th>Type</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Patient ID</td>
<td>Create a unique patient identifier (e.g. medical record number)</td>
<td>This number will not be shared with ICHOM. In the case patient-level data is submitted to ICHOM for benchmarking or research purposes, a separate ICHOM Patient Identifier will be created and cross-linking between the ICHOM Patient Identifier and the medical record number will only be known at the treating institution</td>
<td>All patients</td>
<td>On all forms</td>
<td>Administrative or clinical</td>
<td>Numerical</td>
<td>According to institution</td>
</tr>
</tbody>
</table>

### Demographic Factors

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable:</th>
<th>Definition</th>
<th>Supporting Definition</th>
<th>Inclusion Criteria</th>
<th>Timing</th>
<th>Data Source</th>
<th>Type</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>Age</td>
<td>Date of birth</td>
<td>N/A</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Clinical, patient-reported, or administrative data</td>
<td>Date by DD/MM/YYYY</td>
<td>According to institution</td>
</tr>
<tr>
<td>SEX</td>
<td>Sex</td>
<td>Please indicate the patient's sex at birth</td>
<td>N/A</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Clinical, patient-reported, or administrative data</td>
<td>Single answer</td>
<td>0 = Male, 1 = Female, 999 = Undisclosed</td>
</tr>
<tr>
<td>ETHNIC</td>
<td>Ethnicity</td>
<td>Varies by country and should be determined by country (not for cross country comparison)</td>
<td>N/A</td>
<td>All patients</td>
<td>Admission for index event</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable ID</td>
<td>Variable Description</td>
<td>Data Source</td>
<td>Type</td>
<td>Response Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------</td>
<td>-------------</td>
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<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIVINGLOCPRE</td>
<td>Living location pre index event</td>
<td>Patient-reported</td>
<td>Single answer</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIVINGLOCPOST</td>
<td>Living location post index event</td>
<td>Patient-reported</td>
<td>Single answer</td>
<td>1 = At home, with no community support 2 = At home with community support 3 = In an assisting living home in the community (senior's home) 4 = In a rehabilitation hospital or skilled care facilities (SNIF, IRF, LTACH) 5 = In long term care (nursing home, chronic care hospital) 888 = Other 999 = Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIVEALONEPRE</td>
<td>Living alone pre-index event</td>
<td>Patient-reported</td>
<td>Single answer</td>
<td>1 = Yes, I lived alone 2 = No, I shared my household with spouse/partner or other person (e.g. sibling, children, parents) 999 = Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIVEALONEPOST</td>
<td>Living alone post-index event</td>
<td>Patient-reported</td>
<td>Single answer</td>
<td>1 = Yes, I live alone 2 = No, I share my household with spouse/partner or other person (e.g. sibling, children, parents) 999 = Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Variable ID: PRESTROKEAMB
**Variable:** Prestroke functional status - Ambulation  
**Definition:** Were you able to walk prior to your stroke or transient ischaemic attack (TIA)?

**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1. Able to walk without help from another person with or without a device  
2. Able to walk with help from another person  
3. Unable to walk

### Variable ID: PRESTROKETOILET
**Variable:** Prestroke functional status - Toileting  
**Definition:** Did you need help from anybody to go to the toilet prior to your stroke or transient ischaemic attack (TIA)?

**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1. I could manage going to the toilet without assistance  
2. I needed help to go to the toilet

### Variable ID: PRESTROKEDRESS
**Variable:** Prestroke functional status - Dressing  
**Definition:** Did you need help with dressing/undressing prior to your stroke or transient ischaemic attack (TIA)?

**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1. I could manage dressing/undressing without help  
2. I needed help dressing/undressing

### Stroke Type and Severity

#### Variable ID: STROKETYPE
**Variable:** Stroke type  
**Definition:** Indicate stroke type

**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Admission for index event  
**Data Source:** Clinical  
**Type:** Single answer  
**Response Options:**  
1. Ischemic stroke (IS)  
2. Intracerebral hemorrhage (ICH)  
3. Transient ischemic attack (TIA)  
999 = Stroke of unknown type

#### Variable ID: STROKESEV_NIHSS
**Variable:** Stroke severity: score  
**Definition:** Stroke severity as measured by the NIH Stroke Scale (NIHSS)

**Supporting Definition:** Report the raw (uncategorized) NIHSS score  
**Inclusion Criteria:** All patients  
**Timing:** Admission for index event  
**Data Source:** Clinical  
**Type:** Numeric value  
**Response Options:** Numeric value of the NIHSS score between 1 and 42
Variable ID: EST_STROKESEV_NIHSS_CAT
Variable: Estimated stroke severity: category
Definition: Indicate the estimated stroke severity category by the NIH Stroke Scale (NIHSS)
Supporting Definition: NIHSS categories:
- NIHSS score 0 = Category 1: No stroke symptoms
- NIHSS score 1-4 = Category 2: Minor
- NIHSS score 5-15 = Category 3: Moderate
- NIHSS score 16-20 = Category 4: Moderate to severe
- NIHSS score 21-42 = Category 5: Severe
Note: if no NIHSS score was recorded and/or insufficient documentation exists to abstract the full score, then indicate a category based on symptom severity.

Inclusion Criteria: All patients
Timing: Admission for index event
Data Source: Clinical
Type: Single answer
Response Options:
1 = No stroke symptoms
2 = Minor
3 = Moderate
4 = Moderate to severe
5 = Severe
999 = Unknown

Variable ID: STROKESEV_LOC
Variable: Stroke severity: consciousness
Definition: Indicate the patient’s level of consciousness measured on hospital arrival
Supporting Definition: N/A

Inclusion Criteria: All patients
Timing: Admission for index event
Data Source: Clinical
Type: Single answer
Response Options:
0 = Fully awake
1 = Somnolent
2 = Coma
999 = Unknown

Variable ID: SYMPTDUR
Variable: Duration of symptoms
Definition: Indicate the duration of the symptoms measured on hospital arrival
Supporting Definition: N/A

Inclusion Criteria: All patients
Timing: Admission for index event
Data Source: Clinical
Type: Single answer
Response Options:
0 = Less than 4.5 hours
1 = More than 4.5 hours
999 = Unknown

Vascular and Systemic
Variable ID: PRIORSTROKE
Variable: Prior Stroke
Definition: Prior to this hospitalization, have you ever been told by a doctor that you have had a stroke?
Supporting Definition: Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

Inclusion Criteria: All patients
Timing: Admission for index event
Data Source: Patient-reported, clinical, or administrative
Type: Single answer
<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
<th>Supporting Definition</th>
<th>Inclusion Criteria</th>
<th>Timing</th>
<th>Data Source</th>
<th>Type</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIORTIA</td>
<td>Prior TIA</td>
<td>Have you ever been told by a doctor that you have had a transient ischemic attack (this is sometimes called a TIA or mini-stroke)?</td>
<td>Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Patient-reported, clinical, or administrative</td>
<td>Single answer</td>
<td>0 = No, 1 = Yes, 999 = Unknown</td>
</tr>
<tr>
<td>PRIORMI</td>
<td>Prior MI</td>
<td>Have you ever been told by your doctor that you've had a heart attack (this is sometimes called a myocardial infarction, or MI)?</td>
<td>Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Patient-reported, clinical, or administrative</td>
<td>Single answer</td>
<td>0 = No, 1 = Yes, 999 = Unknown</td>
</tr>
<tr>
<td>CAD</td>
<td>Coronary artery disease</td>
<td>Have you ever been told by your doctor that you have coronary artery disease?</td>
<td>Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Patient-reported, clinical, or administrative</td>
<td>Single answer</td>
<td>0 = No, 1 = Yes, 999 = Unknown</td>
</tr>
<tr>
<td>AFIB</td>
<td>Atrial fibrillation</td>
<td>Have you ever been told by your doctor that you have atrial fibrillation?</td>
<td>Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.</td>
<td>All patients</td>
<td>Admission for index event</td>
<td>Patient-reported, clinical, or administrative</td>
<td>Single answer</td>
<td>0 = No, 1 = Yes, 999 = Unknown</td>
</tr>
<tr>
<td>DIAB</td>
<td>Diabetes mellitus</td>
<td>Have you ever been told by your doctor that you have diabetes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0 = No, 1 = Yes, 999 = Unknown</td>
</tr>
</tbody>
</table>
### Supporting Definition:
Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

### Inclusion Criteria:
All patients

### Timing:
Admission for index event

### Data Source:
Patient-reported, clinical, or administrative

### Type:
Single answer

### Response Options:
- **0** = No
- **1** = Yes
- **999** = Unknown

### Variable ID:
**HYPERTENS**

### Variable:
Hypertension

### Definition:
Have you ever been told by a doctor that you have high blood pressure (this is sometimes called hypertension)?

### Supporting Definition:
Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

### Inclusion Criteria:
All patients

### Timing:
Admission for index event

### Data Source:
Patient-reported, clinical, or administrative

### Type:
Single answer

### Response Options:
- **0** = No
- **1** = Yes
- **999** = Unknown

### Variable ID:
**HYPERLIP**

### Variable:
Hyperlipidemia

### Definition:
Have you ever been told by your doctor that you have high cholesterol (this is sometimes called hyperlipidemia or dyslipidemia)?

### Supporting Definition:
Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

### Inclusion Criteria:
All patients

### Timing:
Admission for index event

### Data Source:
Patient-reported, clinical, or administrative

### Type:
Single answer

### Response Options:
- **0** = No
- **1** = Yes
- **999** = Unknown

### Variable ID:
**SMOKE**

### Variable:
Smoking status

### Definition:
Do you currently smoke, or have you smoked cigarettes or tobacco over the past year?

### Supporting Definition:
Smoking status (of cigarettes or tobacco). Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

### Inclusion Criteria:
All patients

### Timing:
Admission for index event

### Data Source:
Patient-reported

### Type:
Single answer

### Response Options:
- **0** = No
- **1** = Yes
- **999** = Unknown

### Variable ID:
**ALCOHOL**

### Variable:
Alcohol use

### Definition:
Do you drink more than one alcoholic drink a day?

### Supporting Definition:
One standard alcoholic drink is:
- 12 ounces of regular beer (about 5% alcohol)
- 5 ounces of wine (about 12% alcohol)
- 1.5 ounces of distilled spirits (about 40% alcohol)
Item is phrased as a patient reported measure. However, if the patient is unable to answer, this information can be abstracted from the medical records.

**Inclusion Criteria:**
- All patients

**Timing:**
- Admission for index event

**Data Source:**
- Patient-reported, clinical, or administrative

**Type:**
- Single answer

**Response Options:**
- 0 = No
- 1 = Yes
- 999 = Unknown

### Treatment/Care Related

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAGNOSIS</td>
<td>Diagnostic evidence base</td>
<td>Indicate how the diagnosis was made</td>
</tr>
</tbody>
</table>

**Supporting Definition:** N/A

### Inclusion Criteria:
- All patients

### Timing:
- Admission for index event

### Data Source:
- Clinical

### Type:
- Single answer

### Response Options:
- 0 = Clinical symptoms alone
- 1 = Clinical + CT
- 2 = Clinical + MRI

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMDATE</td>
<td>Date of index admission</td>
<td>Date of admission for index event</td>
</tr>
</tbody>
</table>

**Supporting Definition:** N/A

### Inclusion Criteria:
- All patients

### Timing:
- Admission for index event

### Data Source:
- Administrative data

### Type:
- Date by DD/MM/YYYY

### Response Options:
- DD/MM/YYYY

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCHDATE</td>
<td>Date of discharge</td>
<td>Date of discharge from acute care hospital</td>
</tr>
</tbody>
</table>

**Supporting Definition:** N/A

### Inclusion Criteria:
- All patients

### Timing:
- Discharge

### Data Source:
- Administrative data

### Type:
- Date by DD/MM/YYYY

### Response Options:
- DD/MM/YYYY

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>REHAB_IN</td>
<td>Rehabilitation inpatient acute care</td>
<td>Did the acute inpatient care include dedicated stroke rehabilitation?</td>
</tr>
</tbody>
</table>

**Supporting Definition:** Dedicated stroke rehabilitation during acute care

### Inclusion Criteria:
- All patients

### Timing:
- Discharge

### Data Source:
- Administrative or clinical

### Type:
- Single answer

### Response Options:
- 0 = No
- 1 = Yes
- 999 = Unknown

<table>
<thead>
<tr>
<th>Variable ID</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>REHAB_OUT</td>
<td>Rehabilitation post acute care</td>
<td>Did the post-acute care include dedicated stroke rehabilitation?</td>
</tr>
</tbody>
</table>

**Supporting Definition:** Dedicated stroke rehabilitation during post-acute care, either hospital based or outpatient/home based
Inclusion Criteria: All patients
Timing: Discharge
Data Source: Administrative data
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Variable ID: DISCHDEST
Variable: Discharge destination following acute care hospitalization
Definition: What type of place was the patient discharged to?
Supporting Definition: Indicate the patient’s discharge destination from acute care hospital
Inclusion Criteria: All patients
Timing: Discharge
Data Source: Administrative data
Type: Single answer
Response Options: 1 = Home or community dwelling (not home hospice)
2 = Residential facility
3 = Dedicated inpatient rehabilitation facility
4 = Another acute care hospital
5 = Patient died in hospital
888 = Other
999 = Unknown

Treatment Variables

Variable ID: THROMBOLYTICTX
Variable: Thrombolytic therapy
Definition: Indicate if the patient received intravenous thrombolytic therapy
Supporting Definition: Intravenous tissue plasminogen activator
Inclusion Criteria: Ischemic stroke patients
Timing: Discharge
Data Source: Clinical
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Variable ID: THROMBOLYTICTXDATE
Variable: Date of thrombolytic therapy
Definition: Indicate the date of thrombolytic therapy
Supporting Definition: N/A
Inclusion Criteria: If "1 = Yes" to THROMBOLYTICTX
Timing: Discharge
Data Source: Clinical
Type: Date by DD/MM/YYYY
Response Options: DD/MM/YYYY

Variable ID: THROMBECTTX
Variable: Thrombectomy
Definition: Indicate if the patient underwent thrombectomy
Supporting Definition: Endovascular mechanical clot removal
Inclusion Criteria: Ischemic stroke patients
Timing: Discharge
Data Source: Clinical
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Variable ID: THROMBECTTXDATE
Variable: Date of thrombectomy
Definition: Indicate the date of thrombectomy
**Definition:** Indicate the date of thrombectomy
**Supporting Definition:** N/A
**Inclusion Criteria:** If "1 = Yes" to THROMBOLYTICTX
**Timing:** Discharge
**Data Source:** Clinical
**Type:** Date by DD/MM/YYYY
**Response Options:** DD/MM/YYYY

**Variable ID:** HEMICRANITX
**Variable:** Hemicraniectomy
**Definition:** Indicate if the patient underwent hemicraniectomy
**Supporting Definition:** N/A
**Inclusion Criteria:** All patients
**Timing:** Discharge
**Data Source:** Clinical
**Type:** Single answer
**Response Options:** 0 = No, 1 = Yes, 999 = Unknown

**Variable ID:** HEMICRANITXDATE
**Variable:** Date of hemicraniectomy
**Definition:** Indicate the date of hemicraniectomy
**Supporting Definition:** N/A
**Inclusion Criteria:** If "1 = Yes" to HEMICRANITX
**Timing:** Discharge
**Data Source:** Clinical
**Type:** Date by DD/MM/YYYY
**Response Options:** DD/MM/YYYY

### Acute Complications of Treatment

**Variable ID:** SYMPICHTHROMBOLYSIS
**Variable:** Symptomatic intracranial hemorrhage after IV thrombolysis
**Definition:** Indicate if the patient developed symptomatic intracerebral hemorrhage after treatment of ischemic stroke with intravenous thrombolysis?
**Supporting Definition:** N/A
**Inclusion Criteria:** If "1 = Yes" to THROMBOLYTICTX
**Timing:** Discharge
**Data Source:** Clinical
**Type:** Single answer
**Response Options:** 0 = No, 1 = Yes

**Variable ID:** SYMPICHTHROMBECTOMY
**Variable:** Symptomatic intracranial hemorrhage after thrombectomy
**Definition:** Indicate if the patient developed symptomatic intracerebral hemorrhage after treatment of ischemic stroke with thrombectomy?
**Supporting Definition:** N/A
**Inclusion Criteria:** If "1 = Yes" to THROMBOLYTICTX
**Timing:** Discharge
**Data Source:** Clinical
**Type:** Single answer
**Response Options:** 0 = No, 1 = Yes

### Survival and Disease Control

**Variable ID:** OVERALLSURV
**Variable:** Overall survival
**Definition:** Indicate if the patient has died
**Supporting Definition:** All cause mortality
Inclusion Criteria: All patients
Timing: Discharge; 90 days post admission for index event; One year after index event; Tracked ongoing annually for 5 years (when hospital is able to track this ongoing)
Data Source: Administrative data (e.g. death registry)
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Variable ID: DATEOFDEATH
Variable: Date of death
Definition: Indicate date of death
Supporting Definition: N/A
Inclusion Criteria: If "1 = Yes" to OVERALLSURV
Timing: Discharge; 90 days post admission for index event; One year after index event; Tracked ongoing annually for 5 years (when hospital is able to track this ongoing)
Data Source: Administrative data (e.g. death registry)
Type: Date by DD/MM/YYYY
Response Options: DD/MM/YYYY
99/99/9999 = Unknown

Variable ID: STROKERECUR
Variable: Report of new stroke within 90 days after admission for stroke
Definition: After your hospitalization for stroke, have you been told by a doctor that you have had a new stroke?
Supporting Definition: New stroke within 90 days of stroke
Inclusion Criteria: All patients
Timing: Admission for index event
Data Source: Patient-reported or administrative data
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Variable ID: SMOKECESS
Variable: Smoking cessation
Definition: Since your hospitalization for stroke, have you smoked tobacco or cigarettes?
Supporting Definition: N/A
Inclusion Criteria: If "1 = Yes" to SMOKE
Timing: 90 days post admission for index event
Data Source: Patient-reported
Type: Single answer
Response Options: 0 = No
1 = Yes
999 = Unknown

Patient-Reported Health Status

Variable ID: POSTSTROKEAMB
Variable: Poststroke functional status - Ambulation
Definition: Are you able to walk?
Supporting Definition: This item is also measured at baseline, as PRESTROKEAMB
Inclusion Criteria: All patients
Timing: Discharge + 7 days; 90 days post admission for index event
**Variable ID:** POSTSTROKETOILET  
**Variable:** Poststroke functional status - Toileting  
**Definition:** Do you need help from anybody to go to the toilet?  
**Supporting Definition:** This item is also measured at baseline, as PRESTROKETOILET  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days;  
90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1 = I can manage going to the toilet without assistance  
2 = I need help to go to the toilet

**Variable ID:** POSTSTROKEDRESS  
**Variable:** Poststroke functional status - Dressing  
**Definition:** Do you need help with dressing/undressing?  
**Supporting Definition:** This item is also measured at baseline, as PRESTROKEDRESS  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days;  
90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1 = I can manage dressing/undressing without help  
2 = I need help dressing/undressing

**Variable ID:** FEEDING  
**Variable:** Feeding  
**Definition:** Do you need a tube for feeding?  
**Supporting Definition:** For example: a nasogastric tube or a gastrostomy tube  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days;  
90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
0 = No  
1 = Yes

**Variable ID:** PROMIS-10_Q01  
**Variable:** Global01  
**Definition:** In general, would you say your health is:  
**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days;  
90 days post admission for index event  
**Data Source:** Patient-reported
<table>
<thead>
<tr>
<th>Type</th>
<th>Single answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable ID</strong></td>
<td>PROMIS-10_Q02</td>
</tr>
<tr>
<td><strong>Variable</strong></td>
<td>Global02</td>
</tr>
<tr>
<td><strong>Definition</strong></td>
<td>In general, would you say your quality of life is:</td>
</tr>
<tr>
<td><strong>Supporting Definition</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Inclusion Criteria</strong></td>
<td>All patients</td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>Discharge + 7 days; 90 days post admission for index event</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
<td>Patient-reported</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Single answer</td>
</tr>
<tr>
<td><strong>Response Options</strong></td>
<td>5 = Excellent; 4 = Very good; 3 = Good; 2 = Fair; 1 = Poor</td>
</tr>
</tbody>
</table>

| **Variable ID**      | PROMIS-10_Q03 |
| **Variable**         | Global03      |
| **Definition**       | In general, how would you rate your physical health? |
| **Supporting Definition** | N/A           |
| **Inclusion Criteria** | All patients |
| **Timing**           | Discharge + 7 days; 90 days post admission for index event |
| **Data Source**      | Patient-reported |
| **Type**             | Single answer |
| **Response Options** | 5 = Excellent; 4 = Very good; 3 = Good; 2 = Fair; 1 = Poor |

| **Variable ID**      | PROMIS-10_Q04 |
| **Variable**         | Global04      |
| **Definition**       | In general, how would you rate your mental health, including your mood and your ability to think? |
| **Supporting Definition** | N/A           |
| **Inclusion Criteria** | All patients |
| **Timing**           | Discharge + 7 days; 90 days post admission for index event |
| **Data Source**      | Patient-reported |
| **Type**             | Single answer |
| **Response Options** | 5 = Excellent; 4 = Very good; 3 = Good; 2 = Fair; 1 = Poor |

| **Variable ID**      | PROMIS-10_Q05 |
| **Variable**         | Global05      |
| **Definition**       | In general, how would you rate your satisfaction with your social activities and relationships? |
| **Supporting Definition** | N/A           |
| **Inclusion Criteria** | All patients |
| **Timing**           | Discharge + 7 days; 90 days post admission for index event |
**Variable ID:** PROMIS-10_Q06  
**Variable:** Global09  
**Definition:** In general, please rate how well you carry out your usual social activities and roles. (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.)  
**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days; 90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
5 = Excellent  
4 = Very good  
3 = Good  
2 = Fair  
1 = Poor

**Variable ID:** PROMIS-10_Q07  
**Variable:** Global06  
**Definition:** To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?  
**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days; 90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
5 = Completely  
4 = Mostly  
3 = Moderately  
2 = A little  
1 = Not at all

**Variable ID:** PROMIS-10_Q08  
**Variable:** Global10  
**Definition:** In the past 7 days, how often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?  
**Supporting Definition:** N/A  
**Inclusion Criteria:** All patients  
**Timing:** Discharge + 7 days; 90 days post admission for index event  
**Data Source:** Patient-reported  
**Type:** Single answer  
**Response Options:**  
1 = Never  
2 = Rarely  
3 = Sometimes  
4 = Often  
5 = Always
### Inclusion Criteria:
- **All patients**

### Timing:
- Discharge + 7 days;
- 90 days post admission for index event

### Data Source:
- Patient-reported

### Type:
- Single answer

### Response Options:
- 1 = None
- 2 = Mild
- 3 = Moderate
- 4 = Severe
- 5 = Very severe

### Variable ID:
- PROMIS-10 Q10

### Variable:
- Global07

### Definition:
In the past 7 days, how would you rate your pain on average?

### Supporting Definition:
Indicate pain level on a scale of 0-10, where 0 = No pain, and 10 = Worst imaginable pain

---

### Clinician-Reported Health Status

### Inclusion Criteria:
- **All patients**

### Timing:
- Discharge + 7 days;
- 90 days post admission for index event

### Data Source:
- Clinical

### Type:
- Single answer

### Response Options:
- 0 = No symptoms at all
- 1 = No significant disability despite symptoms; able to carry out all usual duties and activities
- 2 = Slight disability; unable to carry out all previous activities but able to look after own affairs without assistance
- 3 = Moderate disability; requiring some help, but able to walk without assistance
- 4 = Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
- 5 = Severe disability; bedridden, incontinent and requiring constant nursing care and attention

---

### Variable ID:
- smRSq

### Variable:
- Simplified modified Rankin Scale Questionnaire (smRSq)

### Definition:
Indicate the degree of disability or dependence by obtaining the smRSq

### Supporting Definition:
The link to the smRSq flow chart and instructions for use can be found in this Reference Guide on page 11
### ICHOM Contact Information

<table>
<thead>
<tr>
<th>Website</th>
<th><a href="http://www.ichom.org">http://www.ichom.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Address</strong></td>
<td>14 Arrow Street, Suite #11</td>
</tr>
<tr>
<td></td>
<td>Cambridge, MA 02138</td>
</tr>
</tbody>
</table>
## Reference Guide Revisions

<table>
<thead>
<tr>
<th>Reference Guide Version</th>
<th>Location within Reference Guide</th>
<th>Content Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0.1</td>
<td>Contact Information</td>
<td>Removed inactive email address: <a href="mailto:ichomteam@ichom.org">ichomteam@ichom.org</a></td>
</tr>
<tr>
<td>1.0.1</td>
<td>Collecting Patient- and Clinician-Reported Outcome Measures</td>
<td>Changed licensing information for smRSq</td>
</tr>
<tr>
<td>2.0.0</td>
<td>Follow-Up Timeline</td>
<td>Time point definitions changed</td>
</tr>
<tr>
<td>2.0.0</td>
<td>Data Dictionary</td>
<td>Changes were made to the following variables: LIVINGLOCPOST, LIVEALONEPRE, LIVEALONEPOST, PRESTROKEAMB, PRESTROKETOILET, PRESTROKEDERESS, EST_STROKESEV_NIHSS_CAT, STROKESEV_LOC, SYMPTDUR, CAD, REHAB_IN, DISCHDEST, THROMBOLYTICX, OVERALLSURV, STROKERECUR, SMOKECESS. COMFCARE was removed.</td>
</tr>
<tr>
<td>2.0.1</td>
<td>Data Dictionary</td>
<td>Amended response option for PROMIS-10_Q10</td>
</tr>
</tbody>
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