

## Simplified Technical Information – SSNAP Key Indicators

### Introduction

The purpose of this simplified technical information document is to explain in easy-to-follow steps how each of the Key Indicators is calculated. It is hoped that this document will better enable teams to understand how each of the Key Indicators is derived and help empower individuals to understand where performance could be improved.

#### Layout of this document:

**Inclusion criteria:** Outlines which patients are applicable for the key indicator.

**Exclusion criteria:** The patients for whom the key indicator does not apply are noted in a red box to help identify which patients are applicable for each standard.

A description of how to calculate the key indicator is given.

For team-centred Which patients are included in the team centred key indicator performance	For patient-centred Which patients are included in the patient centred key indicator performance
--	--

## Contents

Simplified Technical Information – SSNAP Key Indicators.....	0
Introduction .....	0
Definitions.....	4
1. Hyperacute assessment Key Indicators: .....	7
1.1 Percentage of patients scanned within 20 minutes of clock start.....	7
1.2 Median time between clock start and scan (hours:mins).....	8
1.3 Percentage of patients given CTA on first imaging visit.....	9
1.4 Percentage of wake-up strokes and strokes with unknown onset time given CTA, CTP or MRI on first imaging visit .....	10
1.5 Percentage of patients assessed by a stroke-skilled clinician (including consultant) within 1 hour of clock start .....	11
1.6 Percentage of patients assessed by a nurse trained in stroke management within 4 hours of clock start.....	12
1.7 Percentage of applicable patients who were given a swallow screen within 4 hours of clock start .....	13
2. Specialist Pathway Key Indicators.....	14
2.1 Percentage of patients directly admitted to a stroke unit within 4 hours of clock start .....	14
2.2 Median time between clock start and arrival on stroke unit (hours:mins) .....	15
2.3 Percentage of patients who spent at least 90% of their stay on stroke unit.....	16
2.4 Percentage of patients treated by a stroke specialist community rehabilitation team (ESD, CRT or combined).....	19
3. Reperfusion Key Indicators .....	20
3.1 Percentage of all stroke patients given thrombolysis.....	20
3.2 Percentage of stroke patients with extended indications for thrombolysis given thrombolysis.....	21
3.3 Percentage of stroke patients given thrombolysis (within 4h) compared with bespoke site-specific target.....	22
3.4 Median time between clock start and thrombolysis (hours:mins).....	23
3.5 Percentage of all patients given thrombectomy.....	24
3.6 Median time between arrival and discharge at first admitting team (door-in-door-out) for patients receiving thrombectomy .....	25
3.7 Median time between arrival at thrombectomy centre and arterial puncture (door to puncture).....	26
4. Specialist assessment Key Indicators .....	27
4.1 Percentage of patients assessed by a stroke specialist consultant within 14 hours of clock start .....	27

4.2 Percentage of applicable patients who were given a formal swallow assessment within 24 hours of clock start .....	28
4.3 Percentage of applicable patients who were assessed by an occupational therapist within 24 hours of clock start.....	29
4.4 Percentage of applicable patients who were assessed by a physiotherapist within 24 hours of clock start.....	30
4.5 Percentage of applicable patients who were assessed by a speech and language therapist within 72 hours of clock start .....	31
5. Therapy intensity Key Indicators.....	32
5.1 Percentage of applicable patients who are assessed by a nurse within 4 hours AND occupational therapist and physiotherapist within 24 hours AND speech and language therapist within 72 hours AND have rehab goals agreed within 5 days.....	32
5.2 Percentage of patients achieving the NICE target for total therapy dose received .....	34
5.3 Median number of minutes of total therapy received per day the patient is an inpatient .....	36
6. Therapy frequency Key Indicators .....	38
6.1 Percentage of patients receiving 3 hours of motor therapy per day motor therapy received .....	38
6.2 Median percentage of days as an inpatient on which motor function therapy is received .....	40
6.3 Percentage of patients receiving 45 minutes of psychological therapy per day psychological therapy received.....	42
6.4 Median percentage of days as an inpatient on which psychological therapy is received .....	44
6.5 Percentage of patients receiving 45 minutes of communication/swallowing therapy per day communication/swallowing therapy received .....	46
6.6 Median percentage of days as an inpatient on which communication/swallowing is received .....	48
7. Standards by discharge Key Indicators .....	50
7.1 Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge (or seen by a dietitian before screening).....	50
7.2 Infection rate: percentage of patients with a urinary tract infection in the first 7 days and percentage of patients given antibiotics for newly acquired pneumonia in the first 7 days .....	51
7.3 Percentage of applicable patients who have mood screening by discharge.....	52
7.4 Percentage of applicable patients who have cognition screening by discharge .....	53
7.5 Percentage of applicable patients assessed by a psychologist by discharge.....	54
7.6 Percentage of applicable patients who have vision screening by discharge.....	55
7.7 Percentage of applicable patients assessed by an orthoptist by discharge (or have an orthoptic outpatient appointment scheduled by discharge).....	56

7.8 Percentage of those patients discharged alive who are given a named contact for information, support and advice.....	57
Audit Compliance .....	58
Case Ascertainment .....	60

## Definitions

### **Cohorts of patients**

In SSNAP reporting, the processes of care and patient outcomes are reported in two ways – patient-centred and team-centred.

### **Patient-centred**

Patient-centred attribute the results to every team which treated the patient at any point in their care. This recognises that the stroke care pathway usually involves many teams treating the patient at different points. This holistic approach is aimed at encouraging teams to work closely together to ensure consistency of care. It is 'patient-centred', because it describes the care and outcomes from the patient perspective, regardless of which team treated the patient.

### **Team-centred**

Team-centred attribute the results to the team considered to be most appropriate to assign the responsibility for the measure to. It is recognised that it is useful to provide results on a team-centred basis so that teams can see the results for the interventions delivered.

### **Patient-centred 72h cohort**

This section shows the patient-centred results for the first 72 hours of care and is based on records locked to 72h for patients who arrived at hospital (or had their stroke in hospital) in the respective reporting period.

### **Team-centred 72h cohort**

The team-centred results for the first 72 hours of care are based on records locked to 72h for patients who arrived at hospital (or had their stroke in hospital) in the respective reporting period, and attributed to the first team which treated the patient, regardless of which team locked the record to 72h (i.e. the second team may have locked the record to 72h, but results are attributed to first team).

Please note: For the team-centred 72h results, all measures are attributed to the first team which treated the patient. Although this does not take account of the very small number of patients transferred within 72h, it ensures that the results are as simple as possible to follow.

### **Patient-centred post-72h cohort**

This section shows the patient-centred results between 72 hours and discharge from inpatient care and is based on records locked to discharge for patients who were discharged from inpatient care in the respective reporting period.

It is attributed to all teams which treated the patient at any point in their care.

This means that a team which only treated the patient during the first 72 hours will still have the results for this patient's care between 72 hours and discharge from inpatient care. We hope that this will encourage an open dialogue between teams treating patients along a care pathway and that teams treating the patient initially reflect on the continuing care they receive, as this will also impact upon the initial team's longer term outcome results.

**Team-centred post-72h cohort: 7 day team**

For the team-centred post-72h results, measures are attributed to teams depending on the point at which they treated the patient along the inpatient pathway.

Results attributed to the '7 day team' are attributed to the team which had the patient in their care at 7 days following clock start (or, if the length of stay as an inpatient was less than 7 days, the team which discharged the patient from inpatient care).

These results include measures which are considered to be most appropriately designated to the team which had the patient in their care at 7 days, but does not necessarily indicate that the care was received within 7 days.

For instance, one measure in this section is whether the patient had a urinary continence plan by discharge. It is attributed to the team which had the patient at 7 days, but the measure is whether the patient had the plan by discharge, regardless of which team provided the plan.

The team-centred post-72h results are based on records locked to discharge for patients who were discharged from inpatient care in the respective reporting period.

**Team-centred post-72h cohort: inpatient discharge team**

Results attributed to discharging team are attributed to the team which discharged the patient from inpatient care.

The team-centred post-72h results are based on records locked to discharge for patients who were discharged from inpatient care in the respective reporting period.

**Team-centred post-72h cohort: all teams**

Results attributed to all teams are for measures which are answered for every patient by every team along the pathway (therapy intensity, rehab goal setting, length of stay in hospital and on stroke unit and the discharge/transfer destination).

These results are based only on what the team provided rather than what the patient received across the whole pathway, e.g. the team-centred length of stay is the length of stay at each particular team compared to the patient-centred length of stay which is the length of stay the patient had across all teams.

The team-centred post-72h all teams results are based on records locked to discharge or where a transfer to another team has been actioned in the respective reporting period. This includes all records which have either been discharged out of inpatient care or transferred to another inpatient team.

**Thrombectomy cohort**

Results attributed to the thrombectomy centre that performed the thrombectomy, irrespective of if they were directly admitted to the thrombectomy centre or transferred from the first admitting hospital.

The thrombectomy cohort is based on records locked to 72 hours for patients who arrived at hospital (or had their stroke in hospital) in the respective reporting period.

**Clock start**

The term 'Clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset if patient already in hospital at the time of their stroke.

i.e. the date and time of first arrival at hospital (Q1.13) for newly arrived patients (Q1.10 is "No"), or the date and time of onset/awareness of symptoms (Q1.11) if patient was already an inpatient at the time of stroke (Q1.10 is "Yes").

### **Proportion**

The number of patients who achieved the indicator (numerator) over the number of applicable patients (if it is expressed as a percentage then this number is multiplied by 100).

$$\text{Proportion} = \frac{\text{numerator}}{\text{denominator}}$$

### **Percentage**

The number of patients who achieved the indicator (numerator) multiplied by 100 over the number of applicable patients.

$$\text{Percentage} = 100 * \frac{\text{numerator}}{\text{denominator}}$$

## 1. Hyperacute assessment Key Indicators:

### 1.1 Percentage of patients scanned within 20 minutes of clock start

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were scanned in 20 minutes or less.

**Denominator** = all the patients in the cohort. Patients who are not scanned are included in the denominator.

To calculate whether a patient is included in the numerator:

For patients newly arriving at hospital, the difference between the date and time of arrival (Q 1.13) and the date and time of scan (Q 2.4) must be less than or equal to 20 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of symptom onset (Q 1.11) and the date and time of scan (Q 2.4) must be less than or equal to 20 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort

For patient-centred

All patients in the patient-centred 72h cohort

## 1.2 Median time between clock start and scan (hours:mins)

**Included:** all patients who were scanned are included in this indicator.

**Excluded:** patients who were not scanned are excluded from this indicator

For patients newly arriving at hospital, the time between clock start and scan is the difference between the date and time of arrival (Q 1.13) and the date and time of scan (Q 2.4).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the time between clock start and scan is the difference between the date and time of symptom onset (Q 1.11) and the date and time of scan (Q 2.4).

Cohort median: To find the median time, all the times between clock start and scan need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred 72h cohort who receive a scan

For patient-centred

All patients in the patient-centred 72h cohort who receive a scan

### 1.3 Percentage of patients given CTA on first imaging visit

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were given a CTA on first imaging visit.

**Denominator** = all the patients in the cohort. Patients who are not scanned are included in the denominator.

To calculate the numerator, count the number of patients who were given a CTA on first imaging visit (Q 2.4a is 'CT Intracranial angiogram')

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort

For patient-centred

All patients in the patient-centred 72h cohort

## 1.4 Percentage of wake-up strokes and strokes with unknown onset time given CTA, CTP or MRI on first imaging visit

**Included:** all patients with wake-up stroke and/or unknown onset time are included in this indicator

**Excluded:** patients who did not have a stroke during sleep and/or have a known onset time are excluded from this indicator

**Numerator** = the number of patients who were given a CTA, CTP or MRI on first imaging visit.

**Denominator** = all the patients in the cohort (apart from the patients who did not have a stroke during sleep and/or have a known onset time). Patients who are not scanned are included in the denominator.

To calculate the numerator, count the number of patients who were given a CTA, CTP or MRI on first imaging visit (Q 2.4a is 'CT Intracranial angiogram', 'CT Perfusion' or 'Plain/non-contrast MRI')

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those that did not have a stroke during sleep and/or have a known onset time

For patient-centred

All patients in the patient-centred 72h cohort except those that did not have a stroke during sleep and/or have a known onset time

## 1.5 Percentage of patients assessed by a stroke-skilled clinician (including consultant) within 1 hour of clock start

**Included:** all patients are included in this indicator

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were assessed by a stroke-skilled clinician within 1 hour of clock start.

**Denominator** = all the patients in the cohort. Patients who are not assessed by a stroke-skilled clinician are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time of assessment by stroke skilled clinician (Q 3.2.0) and date and time of arrival (Q 1.13) must be greater than or equal to 0 minutes and less than or equal to 60 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of assessment by stroke skilled clinician (Q 3.2.0) and the date and time of symptom onset (Q 1.11) must be greater or equal to 0 minutes and less than or equal to 60 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred All patients in the team-centred 72h cohort	For patient-centred All patients in the patient-centred 72h cohort
---	---

## 1.6 Percentage of patients assessed by a nurse trained in stroke management within 4 hours of clock start

**Included:** all patients are included in this indicator

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were assessed by a nurse trained in stroke management within 4 hours of clock start

**Denominator** = all the patients in the cohort. Patients who are not assessed by a nurse trained in stroke management are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time of assessment by stroke nurse (Q 3.2) and date and time of arrival (Q 1.13) must be greater than or equal to 0 minutes and less than or equal to 240 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of assessment by stroke nurse (Q 3.2) and the date and time of symptom onset (Q 1.11) must be greater or equal to 0 minutes and less than or equal to 240 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred All patients in the team-centred 72h cohort	For patient-centred All patients in the patient-centred 72h cohort
---	---

## 1.7 Percentage of applicable patients who were given a swallow screen within 4 hours of clock start

**Included:** all patients are included in this indicator, except those who are either medically unwell until time of screening or refused to be screened.

**Excluded:** patients who are medically unwell until time of screening or refused to be screened (i.e. patients where Q 2.10.1 is answered 'Patient refused' or 'Patient medically unwell until time of screening') are excluded from this indicator

**Numerator** = the number of patients who were given a swallow screen within 4 hours of clock start.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but not given a swallow screen are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time of first swallow screen (Q 2.10) and date and time of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 240 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of first swallow screen (Q 2.10) and the date and time of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 240 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who are medically unwell until time of screening or refused to be screened

For patient-centred

All patients in the patient-centred 72h cohort except those who are medically unwell until time of screening or refused to be screened

## 2. Specialist Pathway Key Indicators

### 2.1 Percentage of patients directly admitted to a stroke unit within 4 hours of clock start

**Included:** all patients who were admitted to hospital are included apart from patients whose first ward they were admitted to was Intensive Therapy Unit (ITU) / Coronary Care Unit (CCU) / High Dependency Unit (HDU) or patients who received a thrombectomy.

**Excluded:** patients who were first admitted to an ITU/CCU/HDU ward or patients who received a thrombectomy are excluded from this indicator

**Numerator** = the number of patients who were admitted to a stroke unit within and including 4 hours of clock start.

**Denominator** = all the patients in the cohort (excluding the patients who were admitted to ITU/CCU/HDU or patients who received a thrombectomy).

To calculate whether a patient is included in the numerator:

- Firstly, identify the number of patients where “Stroke Unit” is the first ward the patient was admitted to at the first hospital (Q 1.14) and who did not receive a thrombectomy (Q2.11 is “No”).
- Then identify the number of these patients:
  - newly arriving at hospital where the difference between the date and time of arrival (Q 1.13) and the date and time the patient first arrived on the stroke unit (Q 1.15) is less than or equal to 240 minutes
  - already in hospital where the difference between the date and time of symptom onset (Q 1.11) and the date and time the patient first arrived on the stroke unit (Q 1.15) is less than or equal to 240 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who went to ITU/CCU/HDU or received a thrombectomy

For patient-centred

All patients in the patient-centred 72h cohort except those who went to ITU/CCU/HDU or received a thrombectomy

## 2.2 Median time between clock start and arrival on stroke unit (hours:mins)

**Included:** all patients who were admitted to a stroke unit at the first hospital they were admitted to are included in this indicator.

**Excluded:** patients who were not admitted to a stroke unit at the team the patient was first admitted are excluded from this indicator

For patients newly arriving at hospital, the time between clock start and scan is the difference between the date and time of arrival (Q 1.13) and the date and time the patient first arrived on the stroke unit (Q 1.15).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the time between clock start and scan is the difference between the date and time of symptom onset (Q 1.11) and the date and time the patient first arrived on the stroke unit (Q 1.15).

Cohort median: To find the median time, all the times between clock start and arrival on stroke unit need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred 72h cohort who went to a stroke unit at the team the patient was first admitted to

For patient-centred

All patients in the patient-centred 72h cohort who went to a stroke unit at the team the patient was first admitted to

### 2.3 Percentage of patients who spent at least 90% of their stay on stroke unit

**Included:** all patients are included in this indicator, except those who went directly to ITU/CCU/HDU during their stay in hospital, those who received thrombectomy and those who died on the same day as arrival/onset of symptoms.

**Excluded:** patients who were admitted to ITU/CCU/HDU those who received thrombectomy and those who died on the same day as arrival/onset of symptoms are excluded from this indicator

**Numerator** = patients who spent at least 90% of their stay on a stroke unit.

**Denominator** = all patients in the cohort (apart from the patients who were admitted to ITU/CCU/HDU and those who received thrombectomy and those who died on the same day as arrival/onset of symptoms).

To calculate the number of patients who spent at least 90% of their stay on a stroke unit, the length of stay must first be calculated.

The length of stay is calculated as the difference between the date and time of discharge/death and either date and time of arrival for newly arrived patients or onset of symptoms for inpatient strokes.

To identify date and time of discharge/death for patients:

who were discharged alive, use:

- **Q 7.3** Date and time of discharge/ transfer from team

who died on a stroke unit (Q 7.1.2 is Yes), use:

- **Q 7.1.1** What was the date of death? with an assumed time component of 23:59

who died in hospital but not on a stroke unit (Q 7.1.2 is “No”) and were discharged from the stroke unit on the same day as death (Q 7.2 and Q 7.1.1 is the same date), use:

- **Q 7.2** Date and time of discharge from stroke unit

who died in hospital but not on a stroke unit either because they were not admitted to a stroke unit at that team (Q 4.3 is Did not stay on a stroke unit) or because they were discharged from the stroke unit before the date of death (Q 7.1.2 is “No” and Q 7.2 is before Q 7.1.1), use:

- **Q 7.1.1** What was the date of death? with an assumed time component of 00:00

who were transferred to another inpatient team (Q 7.1 is “Was transferred to another inpatient care team”), use:

- **Q 7.3** Date and time of discharge/ transfer from team

For team-centred The length of stay at each team is the difference between the date and time of	For patient-centred The length of stay across the whole inpatient stay is the difference between the
---	--

team discharge/death as calculated above and either the date and time patient arrived at this hospital team (Q 4.1), or the date and time of symptom onset (Q 1.11) for patients already in hospital (Q 1.11 is only used for the first team).	date and time of final inpatient discharge for each patient and either date and time of arrival (Q 1.13), or date and time of symptom onset (Q 1.11) for patients already in hospital.
--	--

4 hours is then taken away from the length of stay, as this makes the inclusion of patients with short lengths of stay feasible for this indicator.

Next, the length of stay on a stroke unit must be calculated.

To identify the length of stay on a stroke unit for patients:

discharged/transferred alive:

- the length of stay on a stroke unit is the difference between Q 4.3 (the date and time the patient arrived on stroke unit at this hospital) and Q 7.2 (date and time of discharge from stroke unit)

who die on a stroke unit (Q 7.1.2 is “Yes”):

- the length of stay on a stroke unit is the difference between Q 4.3 (date and time the patient arrived on stroke unit at this hospital) and the date component given in Q 7.1.1 (What was the date of death?) with a time component of 23:59

who die in hospital but not on a stroke unit (Q 7.1.2 is “No”):

- the length of stay on a stroke unit is the difference between Q 4.3 (date and time the patient arrived on stroke unit at this hospital) and Q7.2 (date and time of discharge from stroke unit)

who did not stay on a stroke unit at a given team (Q 4.3 is “Did not stay on a stroke unit”):

- the length of stay on the stroke unit is **0 min**

For team-centred As calculated above	For patient-centred overall length of stay is calculated by adding length of stay on the stroke unit per team as calculated above
---	--

To calculate the percentage of a patient’s stay on a stroke unit:

$$\frac{\text{overall length of stay on a stroke unit}}{\text{length of stay in hospital}} * 100$$

If the percentage of a patient’s stay on a stroke unit is **greater than or equal to 90%** the patient has achieved this indicator.

If the patient’s length of stay on the stroke unit is less than 4 hours and the patient went to the stroke unit at any time during those 4 hours, the patient is counted as having achieved the indicator.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

## 2.4 Percentage of patients treated by a stroke specialist community rehabilitation team (ESD, CRT or combined)

**Included:** all patients discharged alive from inpatient care are included in this indicator.

**Excluded:** patients who died in inpatient care or who were transferred to another inpatient team are excluded from this indicator

**Numerator** = the number of patients who were treated by a stroke specialist community rehabilitation team (ESD, CRT or combined)

**Denominator** = all the discharged alive patients in the cohort. Patients who were not treated by a stroke specialist community rehabilitation team are included in the denominator.

To calculate the numerator, count the number of patients who were discharged with a stroke/neurology specific Early Supported Discharge multidisciplinary team (Q 7.7 is 'Yes, stroke/neurology specific') OR stroke/neurology specific community rehabilitation team (Q 7.8 is 'Yes, stroke/neurology specific') OR stroke/neurology specific combined ESD-CRT service (Q 7.8.1 is 'Yes, stroke/neurology specific').

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (inpatient discharge) who were discharged alive from inpatient care

For patient-centred

All patients in the patient-centred post-72h cohort who were discharged alive from inpatient care

### 3. Reperfusion Key Indicators

#### 3.1 Percentage of all stroke patients given thrombolysis

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator.

**Numerator** = the number of patients who were given thrombolysis.

**Denominator** = all the patients in the cohort. Patients who were not thrombolysed are included in the denominator, regardless of the reason why thrombolysis was not provided.

To calculate the numerator, count the number of patients who were given thrombolysis (Q2.6 is "Yes")

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort

For patient-centred

All patients in the patient-centred 72h cohort

### 3.2 Percentage of stroke patients with extended indications for thrombolysis given thrombolysis

**Included:** patients are included in this indicator where:

1. already in hospital at the time of stroke
2. newly arrived patient with a known onset time, and arrived within 8.5 hours of onset
3. newly arrived patient with an unknown onset time
4. newly arrived patient with a wake-up stroke

**Excluded:** newly arrived patients with a known onset time and arrived after 8.5 hours of onset are excluded from this indicator

**Numerator** = the number of patients who were given thrombolysis.

**Denominator** = all the patients in the cohort meeting the inclusion criteria. Patients who meet the inclusion criteria but are not given thrombolysis are included in the denominator.

To calculate the numerator, count the number of patients who were given thrombolysis (Q2.6 = "Yes")

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except newly arrived patients with a known onset time and arrived after 8.5 hours of onset

For patient-centred

All patients in the patient-centred 72h cohort except newly arrived patients with a known onset time and arrived after 8.5 hours of onset

### 3.3 Percentage of stroke patients given thrombolysis (within 4h) compared with bespoke site-specific target

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

This indicator compares the team-centred thrombolysis rate for those arriving within 4 hours with a bespoke site-specific target derived using the methodology from SAMueL 2.

To calculate performance against the target:

- Firstly, 100 is divided by the bespoke target to produce **X**.
- Then **X** is multiplied by the team-centred thrombolysis rate for those arriving within 4 hours
- The resulting percentage is the Key Indicator score.

For team-centred All patients in the team-centred 72h cohort	For patient-centred N/A
---	----------------------------

### 3.4 Median time between clock start and thrombolysis (hours:mins)

**Included:** all patients who were thrombolysed are included in this indicator.

**Excluded:** all patients who were not thrombolysed are excluded from this indicator

For patients newly arriving at hospital, the time between clock start and thrombolysis is the difference between the date and time of arrival (Q 1.13) and the date and time patient was thrombolysed (Q 2.7).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the time between clock start and thrombolysis is the difference between the date and time of symptom onset (Q 1.11) and the date and time patient was thrombolysed (Q 2.7).

Cohort median: To find the median time, all the times between clock start and thrombolysis need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred

All patients who were thrombolysed in the team-centred 72h cohort

For patient-centred

All patients who were thrombolysed in the patient-centred 72h cohort

### 3.5 Percentage of all patients given thrombectomy

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were given thrombectomy

**Denominator** = all patients in the cohort. Patients who were not given thrombectomy are included in the denominator.

To calculate the numerator, count the number of patients who were given thrombectomy (Q2.11 is “Yes”).

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort

For patient-centred

All patients in the patient-centred 72h cohort

### 3.6 Median time between arrival and discharge at first admitting team (door-in-door-out) for patients receiving thrombectomy

**Included:** all patients referred for thrombectomy are included in this indicator.

**Excluded:** patients that were not referred for thrombectomy are excluded from this indicator

For patients newly arriving at hospital, the door in door out time is the difference between the date and time of arrival (Q 1.13) and the date and time of discharge (Q 7.3).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the door in door out time is the difference between the date and time of symptom onset (Q 1.11) and the date and time of discharge (Q 7.3).

Cohort median: To find the median time, all the door in door out times need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred  
All patients who were referred for  
thrombectomy in the team-centred 72h  
cohort

For patient-centred  
All patients who were referred for  
thrombectomy in the patient-centred 72h  
cohort

### 3.7 Median time between arrival at thrombectomy centre and arterial puncture (door to puncture)

**Included:** all patients that were given thrombectomy are included in this indicator.

**Excluded:** patients that were not given thrombectomy are excluded from this indicator

Directly admitted patients:

For patients newly arriving at hospital, the door to puncture time is the difference between the date and time of arrival (Q 1.13) and the date and time of arterial puncture (Q 2.11.6a).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the door to puncture time is the difference between the date and time of symptom onset (Q 1.11) and the date and time of arterial puncture (Q 2.11.6a).

For transferred patients:

The door to puncture time is the difference between the date and time of arrival at thrombectomy centre (Q 4.1) and the date and time of arterial puncture (Q 2.11.6a).

Cohort median: To find the median time, all the door to puncture times need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred

All patients in the thrombectomy cohort

For patient-centred

All patients who were given thrombectomy in the patient-centred 72h cohort

## 4. Specialist assessment Key Indicators

### 4.1 Percentage of patients assessed by a stroke specialist consultant within 14 hours of clock start

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients who were assessed by a stroke specialist consultant within 14 hours of clock start.

**Denominator** = all the patients in the cohort. Patients who are not assessed by a stroke consultant are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time of assessment by stroke consultant (Q 3.3) and date and time of arrival (Q 1.13) must be greater than or equal to 0 minutes and less than or equal to 840 minutes.

For patients already in hospital stroke (Q 1.10 is 'Yes'), the difference between the date and time of assessment by stroke consultant (Q 3.3) and the date and time of symptom onset (Q 1.11) must be greater or equal to 0 minutes and less than or equal to 840 minutes.

The times used to calculate this Key Indicator are: for patients whose first contact (Q3.3b) is "In person" or "Telemedicine", the time contact first made with a stroke specialist consultant is used (Q3.3a), and for patients whose first contact (Q3.3b) is "By telephone", the time first assessed by stroke specialist consultant in person (Q3.3c) is used.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort

For patient-centred

All patients in the patient-centred 72h cohort

## 4.2 Percentage of applicable patients who were given a formal swallow assessment within 24 hours of clock start

**Included:** all patients are included in this indicator, except those who are either medically unwell, refused to be assessed or passed swallow screening.

**Excluded:** patients who are medically unwell, refused to be assessed or passed swallow screening (i.e. patients where Q 3.8.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient passed swallow screening') are excluded from this indicator

**Numerator** = the number of patients who were given a formal swallow assessment within 24 hours of clock start

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but not given a formal swallow assessment are included in the denominator.

For newly arrived patients, the difference between the date and time of formal swallow assessment by a Speech and Language Therapist or another professional trained in dysphagia assessment (Q 3.8) and date and time of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 1440 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of formal swallow assessment by a Speech and Language Therapist or another professional trained in dysphagia assessment (Q 3.8) and the date and time of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 1440 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who are medically unwell, refused to be assessed or passed swallow screening

For patient-centred

All patients in the patient-centred 72h cohort except those who are medically unwell, refused to be assessed or passed swallow screening

### 4.3 Percentage of applicable patients who were assessed by an occupational therapist within 24 hours of clock start

**Included:** all patients are included in this indicator, except those who are either medically unwell, refused to be assessed or had no relevant deficit.

**Excluded:** patients who are medically unwell, refused to be assessed or had no relevant deficit (i.e. patients where Q 3.5.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient had no relevant deficit') are excluded from this indicator

**Numerator** = the number of patients who were assessed by an occupational therapist within 24 hours of clock start.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but not assessed by an occupational therapist are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time first assessed by an occupational therapist (Q 3.5) and date and time of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 1440 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time first assessed by an occupational therapist (Q 3.5) and the date and time of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 1440 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

For patient-centred

All patients in the patient-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

#### 4.4 Percentage of applicable patients who were assessed by a physiotherapist within 24 hours of clock start

**Included:** all patients are included in this indicator, except those who are either medically unwell, refused to be assessed or had no relevant deficit.

**Excluded:** patients who are medically unwell, refused to be assessed or had no relevant deficit (i.e. patients where Q 3.6.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient had no relevant deficit') are excluded from this indicator

**Numerator** = the number of patients who were assessed by a physiotherapist within 24 hours of clock start.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but not assessed by a physiotherapist are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time first assessed by a physiotherapist (Q 3.6) and date and time of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 1440 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time first assessed by a physiotherapist (Q 3.6) and the date and time of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 1440 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

For patient-centred

All patients in the patient-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

#### 4.5 Percentage of applicable patients who were assessed by a speech and language therapist within 72 hours of clock start

**Included:** all patients are included in this indicator, except those who are either medically unwell, refused to be assessed or had no relevant deficit.

**Excluded:** patients who are medically unwell, refused to be assessed or had no relevant deficit (i.e. patients where Q 3.7.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient had no relevant deficit') are excluded from this indicator

**Numerator** = the number of patients who were assessed by a speech and language therapist within 72 hours of clock start.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but not assessed by a speech and language therapist are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date and time first assessed by a speech and language therapist (Q 3.7) and date and time of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 4320 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time first assessed by a speech and language therapist (Q 3.7) and the date and time of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 4320 minutes.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

For patient-centred

All patients in the patient-centred 72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

## 5. Therapy intensity Key Indicators

### 5.1 Percentage of applicable patients who are assessed by a nurse within 4 hours AND occupational therapist and physiotherapist within 24 hours AND speech and language therapist within 72 hours AND have rehab goals agreed within 5 days

This Key Indicator can be broken down into four components

1. assessment by a nurse within 4 hours
2. assessment by occupational therapist and physiotherapist within 24 hours
3. assessment by speech and language therapist within 72 hours
4. have rehabilitation goals agreed within 5 days

Patients included if eligible for all four components:

1. as in **Key Indicator 1.6 (all patients)**
2. all patients are included except those who are either medically unwell, refused to be assessed or had no relevant deficit for OT and PT
3. all patients are included except those who are either medically unwell, refused to be assessed or had no relevant deficit for SLT
4. All patients are including except those who refused rehab goals, have no impairments, medically unwell for entire admission OR decided palliative at any stage.

Patients must be eligible for all four parts to be deemed eligible for this Key Indicator

#### Excluded:

1. no patients are excluded
2. patients who either refused, are medically unwell, or had no relevant deficit for OT and PT
3. patients who either refused, are medically unwell, or had no relevant deficit for SLT
4. patients who refused, have no impairments or are medically unwell for the entire admission are excluded. Patients where it has been decided either in the first 72 hours or by discharge that the patient is for palliative care are also excluded.

**Numerator** = the number of patients who achieve all 4 components of the indicator.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable for all four components but did not achieve all four components are included in the denominator.

To calculate the numerator:

Part 1)

For newly arrived patients, the difference between the date and time of assessment by stroke nurse (Q 3.2) and date and time of arrival (Q 1.13) must be greater than or equal to 0 minutes and less than or equal to 240 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time of assessment by stroke nurse (Q 3.2) and the date and time of symptom onset (Q 1.11) must be greater or equal to 0 minutes and less than or equal to 240 minutes.

AND

Part 2)

For newly arrived patients, the difference between the date and time first assessed by an occupational therapist and a physiotherapist (Q 3.5, 3.6) if required, and the date of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 1440 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date and time first assessed by an occupational therapist and a physiotherapist (Q 3.5, 3.6) if required, and the date of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 1440 minutes.

If a patient is only applicable to be assessed by either a physiotherapist or an occupational therapist, part 2 will only consider the applicable therapy assessment.

AND

Part 3)

For newly arrived patients, the difference between the date and time communication first assessed by speech and language therapist (Q 3.7) and the date of arrival (Q 1.13) must be greater than 0 minutes and less than or equal to 4320 minutes.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), difference between the date and time communication first assessed by speech and language therapist (Q 3.7) (Q 3.7) and the date of symptom onset (Q 1.11) must be greater than 0 minutes and less than or equal to 4320 minutes.

AND

Part 4)

For newly arrived patients, the difference between the first date rehabilitation goals agreed (Q 6.10) and the date of arrival (Q 1.13) must be greater than or equal to 0 days and less than or equal to 5 days.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between first date rehabilitation goals agreed (Q 6.10) and the date of symptom onset (Q 1.11) must be greater or equal to 0 days and less than or equal to 5 days.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred N/A	For patient-centred All patients eligible in the patient-centred post-72hr cohort
-------------------------	---

## 5.2 Percentage of patients achieving the NICE target for total therapy dose received

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

**Numerator** = the number of patients achieving 128 minutes of therapy per day.

**Denominator** = all the patients in the cohort. Patients who are not considered to require any therapy are included in the denominator.

To calculate the length of stay at an inpatient team:

**The team centred length of stay at a team if team was the first team the patient was seen by:**

For newly arrived patients, the difference between:

- a. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- b. and date and time of arrival (Q 1.13).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between:

- a. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- b. and date and time of symptom onset (Q 1.11).

**The team centred length of stay at a team if the team was NOT the first team the patient was seen by:**

The difference between:

- a. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- b. and: date and time of arrival at this hospital (Q 4.1).

**Team-centred:** The length of stay at that team is the patient's length of stay minus 1 day. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

**Patient centred:** The length of stay at each team the patient was seen by are summed together to give the patient's total length of stay. 1 day is subtracted from the total length

of stay. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

To calculate the total number of minutes the patient received therapy:

For **team-centred**: the number of minutes the patient received Motor (Q 4.6.1), Psychological (Q 4.6.2), Communication/swallowing (Q 4.6.3) and Other (Q 4.6.4) therapy at the specific team are summed together to give the total number of therapy minutes at the specific team.

For **patient-centred**: the number of minutes the patient received Motor (Q 4.6.1), Psychological (Q 4.6.2), Communication/swallowing (Q 4.6.3) and Other (Q 4.6.4) therapy at each inpatient team the patient was seen by are summed together to give the total number of therapy minutes across the patient stay.

To calculate the number of therapy minutes received per day:

Divide the total number of therapy minutes by the patient's length of stay.

To calculate the percentage of patients achieving the target of 128 minutes of therapy per day:

Count the number of patients achieving 128 minutes of therapy per day.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred	For patient-centred
All patients in the team-centred post-72h cohort (all-teams)	All patients in the patient-centred post-72h cohort

### 5.3 Median number of minutes of total therapy received per day the patient is an inpatient

**Included:** all patients who are considered to require motor therapy, psychological therapy AND communication/swallowing therapy are included in this indicator.

**Excluded:** patients who are not considered to require motor therapy, psychological therapy AND communication/swallowing therapy are excluded from this indicator

To calculate the length of stay at an inpatient team:

**The team centred length of stay at a team if team was the first team the patient was seen by:**

For newly arrived patients, the difference between:

- b. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- c. and date and time of arrival (Q 1.13).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between:

- b. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- c. and date and time of symptom onset (Q 1.11).

**The team centred length of stay at a team if the team was NOT the first team the patient was seen by:**

The difference between:

- b. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- c. and: date and time of arrival at this hospital (Q 4.1).

**Team-centred:** The length of stay at that team (if the patient was considered to require motor, psychological AND communication/swallowing therapy) is the patient's length of stay minus 1 day. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

**Patient-centred:** The length of stay at each team where the patient is considered to require motor, psychological AND communication/swallowing therapy are summed together to give the patient's total length of stay. 1 day is subtracted from the total length of stay. The

shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

To calculate the total number of minutes the patient received therapy:

For **team-centred**: the number of minutes the patient received Motor (Q 4.6.1), Psychological (Q 4.6.2), Communication/swallowing (Q 4.6.3) and Other (Q 4.6.4) therapy at the specific team are summed together to give the total number of therapy minutes at the specific team.

For **patient-centred**: the number of minutes the patient received Motor (Q 4.6.1), Psychological (Q 4.6.2), Communication/swallowing (Q 4.6.3) and Other (Q 4.6.4) therapy at each inpatient team the patient was considered to require motor, psychological AND communication/swallowing therapy are summed together to give the total number of therapy minutes across the patient stay.

To calculate the number of therapy minutes received per day:

Divide the total number of therapy minutes by the length of stay.

Cohort median:

To find the median number of minutes per day received, all numbers for each patient need to be listed from smallest to largest. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred post-72hr cohort (all-teams) who are considered to require motor, psychological AND communication/swallowing therapy by the specific team.

For patient-centred

All patients in the patient-centred post-72hr cohort who are considered to require motor, psychological AND communication/swallowing therapy by at least one inpatient that the patient has been seen by.

## 6. Therapy frequency Key Indicators

### 6.1 Percentage of patients receiving 3 hours of motor therapy per day motor therapy received

**Included:** all patients considered to require motor therapy are included in this indicator.

**Excluded:** patients who are considered to not require motor therapy are excluded from this indicator

**Numerator** = the number of patients receiving 3 hours of motor therapy per day motor therapy was received.

**Denominator** = all the patient in the cohort considered to require motor therapy. Patients who are considered to require motor therapy but do not receive any motor therapy are included in the denominator.

The number of minutes of motor therapy received per team is given in Q 4.6.1

The number of days on which motor therapy is received per team is given in Q 4.5.1

Please note that SSNAP only records the **total** number of minutes of motor therapy per team (Q 4.6.1) and the total number of days on which motor therapy is received and does not take into account the number of therapy sessions or the length of the individual sessions. If a patient received therapy on 3 days and they received 15 minutes on the first day of therapy, 10 minutes on the second day of therapy and 25 minutes -split into two sessions of 10 and 15 minutes- on the third day of therapy then the total number of minutes entered on to SSNAP would be 50 minutes.

#### For team-centred results:

Divide the number of minutes of motor therapy received at an individual team by the number of days the patient received motor therapy at that team.

To calculate the percentage of patients achieving the target of 180 minutes of motor therapy per day:

Count the number of patients achieving 180 minutes of motor therapy per day.

#### For patient-centred results:

First, calculate the total number of minutes of motor therapy each patient received by adding together the minutes of motor therapy the patient received at each of the inpatient teams the patient was seen by.

Then, divide by the total number of days of motor therapy the patient received across all inpatient teams.

To calculate the percentage of patients achieving the target of 180 minutes of motor therapy per day:

Count the number of patients achieving 180 minutes of motor therapy per day.

For team-centred

For patient-centred

All patients in the team-centred post-72 cohort (all teams) who are considered to require motor therapy by the specific team

All patients in the patient-centred post-72h cohort who are considered to require motor therapy by at least one inpatient team that the patient has been seen by.

## 6.2 Median percentage of days as an inpatient on which motor function therapy is received

**Included:** all patients who are considered to require motor therapy are included in this indicator.

**Excluded:** patients who are considered to not require motor therapy are excluded from this indicator

To calculate the length of stay at an inpatient team:

**The team centred length of stay at a team if team was the first team the patient was seen by:**

For newly arrived patients, the difference between:

- c. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- d. and date and time of arrival (Q 1.13).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between:

- c. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- d. and date and time of symptom onset (Q 1.11).

**The team centred length of stay at a team if the team was NOT the first team the patient was seen by:**

The difference between:

- c. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- d. and: date and time of arrival at this hospital (Q 4.1).

**Team-centred:** The length of stay at that team (if the patient was considered to require motor therapy) is the patient's length of stay minus 1 day. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

**Patient-centred:** The length of stay at each team where the patient is considered to require motor therapy are summed together to give the patient's total length of stay. 1 day is

subtracted from the total length of stay. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

To calculate the number of days on which a patient received motor therapy:

For **team-centred**: the number of days of motor therapy the patient received (Q 4.5.1) at the specific team.

For **patient-centred**: the number of days of motor therapy the patient received (Q 4.5.1) at each inpatient team the patient was considered to require motor therapy are summed together to give the total number of days on which motor therapy was received.

To calculate the percentage of patient's days in hospital on which motor therapy is received: Divide the total number of days on which motor therapy was received by the patients' length of stay.

Due to the way length of stay is calculated some patients' percentages may be over 100%. This is capped at 100%.

Cohort median:

To find the median percentage, all percentages for each patient need to be listed in numerical order. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred post-72h cohort (all teams) who are considered to require motor therapy by the specific team

For patient-centred

All patients in the patient-centred post-72h cohort who are considered to require motor therapy by at least one inpatient team that the patient has been seen by.

### 6.3 Percentage of patients receiving 45 minutes of psychological therapy per day psychological therapy received

**Included:** all patients who are considered to require psychological therapy are included in this indicator.

**Excluded:** patients who are considered to not require psychological therapy are excluded from this indicator

**Numerator** = the number of patients receiving 45 minutes of psychological therapy per day psychological therapy was received.

**Denominator** = all the patient in the cohort considered to require psychological therapy. Patients who are considered to require psychological therapy but do not receive any psychological therapy are included in the denominator.

The number of minutes of psychological therapy received per team is given in Q 4.6.2  
The number of days on which psychological therapy is received per team is given in Q 4.5.2

Please note that SSNAP only records the **total** number of minutes of psychological therapy per team (Q 4.6.2) and the total number of days on which psychological therapy is received and does not take into account the number of therapy sessions or the length of the individual sessions. If a patient received therapy on 3 days and they received 15 minutes on the first day of therapy, 10 minutes on the second day of therapy and 25 minutes -split into two sessions of 10 and 15 minutes- on the third day of therapy then the total number of minutes entered on to SSNAP would be 50 minutes.

#### For team-centred results:

Divide the number of minutes of psychological therapy received at an individual team by the number of days the patient received psychological therapy at that team.

To calculate the percentage of patients achieving the target of 45 minutes of psychological therapy per day:

Count the number of patients achieving 45 minutes of psychological therapy per day.

#### For patient-centred results:

First, calculate the total number of minutes of psychological therapy each patient received by adding together the minutes of psychological therapy the patient received at each of the inpatient teams the patient was seen by.

Then, divide by the total number of days of psychological therapy the patient received across all inpatient teams.

To calculate the percentage of patients achieving the target of 45 minutes of psychological therapy per day:

Count the number of patients achieving 45 minutes of psychological therapy per day.

For team-centred	For patient-centred
------------------	---------------------

All patients in the team-centred post-72 cohort (all teams) who are considered to require psychological therapy by the specific team

All patients in the patient-centred post-72h cohort who are considered to require psychological therapy by at least one inpatient team that the patient has been seen by.

## 6.4 Median percentage of days as an inpatient on which psychological therapy is received

**Included:** all patients considered to require psychological therapy are included in this indicator.

**Excluded:** patients considered to not require psychological therapy are excluded from this indicator

To calculate the length of stay at an inpatient team:

**The team centred length of stay at a team if team was the first team the patient was seen by:**

For newly arrived patients, the difference between:

- d. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- e. and date and time of arrival (Q 1.13).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between:

- d. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- e. and date and time of symptom onset (Q 1.11).

**The team centred length of stay at a team if the team was NOT the first team the patient was seen by:**

The difference between:

- d. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- e. and: date and time of arrival at this hospital (Q 4.1).

**Team-centred:** The length of stay at that team (if the patient was considered to require psychological therapy) is the patient's length of stay minus 1 day. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

**Patient-centred:** The length of stay at each team where the patient is considered to require psychological therapy are summed together to give the patient's total length of stay. 1 day

is subtracted from the total length of stay. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

To calculate the number of days on which a patient received psychological therapy:

For **team-centred**: the number of days of psychological therapy the patient received (Q 4.5.2) at the specific team.

For **patient-centred**: the number of days of psychological therapy the patient received (Q 4.5.2) at each inpatient team the patient was considered to require psychological therapy are summed together to give the total number of days on which psychological therapy was received.

To calculate the percentage of patient's days in hospital on which psychological therapy is received:

Divide the total number of days on which psychological therapy was received by the patients' length of stay.

Due to the way length of stay is calculated some patients' percentages may be over 100%. This is capped at 100%.

Cohort median:

To find the median percentage, all percentages for each patient need to be listed in numerical order. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred post-72 cohort (all teams) who are considered to require psychological therapy by the specific team

For patient-centred

All patients in the patient-centred post-72h cohort who are considered to require psychological therapy by at least one inpatient team that the patient has been seen by.

## 6.5 Percentage of patients receiving 45 minutes of communication/swallowing therapy per day communication/swallowing therapy received

**Included:** all patients considered to require communication/swallowing therapy are included in this indicator.

**Excluded:** patients considered to not require communication/swallowing therapy are excluded from this indicator

**Numerator** = the number of patients receiving 45 minutes of communication/swallowing therapy per day communication/swallowing therapy was received.

**Denominator** = all the patient in the cohort considered to require communication/swallowing therapy. Patients who are considered to require communication/swallowing therapy but do not receive any motor therapy are included in the denominator.

The number of minutes of communication/swallowing therapy received per team is given in Q 4.6.3

The number of days on which communication/swallowing therapy is received per team is given in Q 4.5.3

Please note that SSNAP only records the **total** number of minutes of communication/swallowing therapy per team (Q 4.6.3) and the total number of days on which communication/swallowing therapy is received and does not take into account the number of therapy sessions or the length of the individual sessions. If a patient received therapy on 3 days and they received 15 minutes on the first day of therapy, 10 minutes on the second day of therapy and 25 minutes -split into two sessions of 10 and 15 minutes- on the third day of therapy then the total number of minutes entered on to SSNAP would be 50 minutes.

### For team-centred results:

Divide the number of minutes of communication/swallowing therapy received at an individual team by the number of days the patient received communication/swallowing therapy at that team.

To calculate the percentage of patients achieving the target of 45 minutes of communication/swallowing therapy per day:

Count the number of patients achieving 45 minutes of communication/swallowing therapy per day.

### For patient-centred results:

First, calculate the total number of minutes of communication/swallowing therapy each patient received by adding together the minutes of communication/swallowing therapy the patient received at each of the inpatient teams the patient was seen by.

Then, divide by the total number of days of communication/swallowing therapy the patient received across all inpatient teams.

To calculate the percentage of patients achieving the target of 45 minutes of communication/swallowing therapy per day:

Count the number of patients achieving 45 minutes of communication/swallowing therapy per day.

For team-centred

All patients in the team-centred post-72 cohort (all teams) who are considered to require communication/swallowing therapy by the specific team

For patient-centred

All patients in the patient-centred post-72h cohort who are considered to require communication/swallowing therapy by at least one inpatient team that the patient has been seen by.

## 6.6 Median percentage of days as an inpatient on which communication/swallowing is received

**Included:** all patients considered to require communication/swallowing therapy are included in this indicator.

**Excluded:** patients considered to not require communication/swallowing therapy are excluded from this indicator

To calculate the length of stay at an inpatient team:

**The team centred length of stay at a team if team was the first team the patient was seen by:**

For newly arrived patients, the difference between:

- e. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- f. and date and time of arrival (Q 1.13).

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between:

- e. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- f. and date and time of symptom onset (Q 1.11).

**The team centred length of stay at a team if the team was NOT the first team the patient was seen by:**

The difference between:

- e. either: the date the patient died (Q7.1.1), the date the patient was discharged from the team (Q7.3) or the date the patient was considered by the MDT to no longer require inpatient care (Q7.3.1), whichever is earliest, with a time component of 00:00.
- f. and: date and time of arrival at this hospital (Q 4.1).

**Team-centred:** The length of stay at that team (if the patient was considered to require communication/swallowing therapy) is the patient's length of stay minus 1 day. The shortest length of stay in a given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

**Patient-centred:** The length of stay at each team where the patient is considered to require communication/swallowing therapy are summed together to give the patient's total length of stay. 1 day is subtracted from the total length of stay. The shortest length of stay in a

given team is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

To calculate the number of days on which a patient received communication/swallowing therapy:

For **team-centred**: the number of days of communication/swallowing therapy the patient received (Q 4.5.3) at the specific team.

For **patient-centred**: the number of days of communication/swallowing therapy the patient received (Q 4.5.3) at each inpatient team the patient was considered to require communication/swallowing therapy are summed together to give the total number of days on which communication/swallowing therapy was received.

To calculate the percentage of patient's days in hospital on which communication/swallowing therapy is received:

Divide the total number of days on which communication/swallowing therapy was received by the patients' length of stay.

Due to the way length of stay is calculated some patients' percentages may be over 100%. This is capped at 100%.

Cohort median:

To find the median percentage, all percentages for each patient need to be listed in numerical order. The median is then the number in the middle of this list.

For team-centred

All patients in the team-centred post-72 cohort (all teams) who are considered to require communication/swallowing therapy by the specific team

For patient-centred

All patients in the patient-centred post-72h cohort who are considered to require communication/swallowing therapy by at least one inpatient team that the patient has been seen by.

## 7. Standards by discharge Key Indicators

### 7.1 Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge (or seen by a dietitian before screening)

**Included:** all patients who were identified as high risk of malnutrition following nutritional screening or not screened are included, except those who are for palliative care at any point.

**Excluded:** patients who were identified to not be high risk of malnutrition following nutritional screening and patients where it is decided they are for palliative care at any point (either within 72h or by discharge) are excluded from this indicator

**Numerator** = the number of patients who were seen by a dietitian by discharge.

**Denominator** = all the applicable patients in the cohort. Patients who were applicable but did not see a dietitian are included in the denominator.

To calculate the numerator, count the number of patients for whom a date is given for when they saw a dietitian (Q 6.6.1).

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (7 day) who were identified as high risk of malnutrition following nutritional screening or not screened, except those for palliative care

For patient-centred

All patients in the patient-centred post-72h cohort who were identified as high risk of malnutrition following nutritional screening or not screened, except those for palliative care

## 7.2 Infection rate: percentage of patients with a urinary tract infection in the first 7 days and percentage of patients given antibiotics for newly acquired pneumonia in the first 7 days

**Included:** all patients are included in this indicator.

**Excluded:** no patients are excluded from this indicator

Urinary tract infection:

**Numerator:** the number of patients who have a urinary tract infection in the first 7 days.

**Denominator:** all the patients in the cohort. Patients where it is not known if the patient had a urinary tract infection in the first 7 days are included in the denominator.

To calculate the numerator, count the number of patients who develop a urinary tract infection in the first 7 days (Q 5.2).

Antibiotics for newly acquired pneumonia:

**Numerator:** the number of patients who receive antibiotics for newly acquired pneumonia in the first 7 days

**Denominator:** all the patients in the cohort. Patients where it is not known if the patient received antibiotics for newly acquired pneumonia in the first in the first 7 days are included in the denominator.

To calculate the numerator, count the number of patients who receive antibiotics for newly acquired pneumonia in the first 7 days (Q 5.3).

To calculate the indicator, the two percentages are added together.

For team-centred	For patient-centred
All patients in the team-centred post-72h cohort (7 day)	All patients in the patient-centred post-72h cohort

≡

### 7.3 Percentage of applicable patients who have mood screening by discharge

**Included:** all patients are included, except those who either refused or were medically unwell for entire admission and those who are discharged from inpatient care within 7 days of clock start without receiving a mood screen.

**Excluded:** patients who refused a mood screen, patients who were medically unwell for entire admission (i.e. patients where Q 6.7.1 is answered 'Patient refused' or 'Patient medically unwell for entire admission'), and patients who were discharged from inpatient care within 7 days of clock start without receiving mood screening are excluded from this indicator.

**Numerator** = the number of patients who have mood screening by discharge.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but did not have mood screening by discharge are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date patient screened for mood using a validated tool (Q 6.7) and date of arrival (Q 1.13) must be greater than or equal to 0 weeks and less than or equal to 6 weeks.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date patient screened for mood using a validated tool (Q 6.7) and the date of symptom onset (Q 1.11) must be greater than or equal to 0 weeks and less than or equal to 6 weeks.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred  
All patients in the team-centred post-72h cohort (inpatient discharge) who were applicable for mood screening, except where the patient's length of stay in inpatient care is less than 7 days

For patient-centred  
All patients in the patient-centred post-72h cohort who were applicable for mood screening, except where the patient's length of stay in inpatient care is less than 7 days

## 7.4 Percentage of applicable patients who have cognition screening by discharge

**Included:** all patients are included, except those who either refused or were medically unwell for entire admission and those who are discharged from inpatient care within 24 hours of clock start without receiving a cognition screen.

**Excluded:** patients who refused a cognition screen, patients who were medically unwell for entire admission (i.e. patients where Q 6.8.1 is answered 'Patient refused' or 'Patient medically unwell for entire admission'), and patients who were discharged from inpatient care within 24 hours of clock start without receiving cognition screening are excluded from this indicator.

**Numerator** = the number of patients who have cognition screening by discharge.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but did not have cognition screening by discharge are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date patient screened for cognition using a validated tool (Q 6.8) and date of arrival (Q 1.13) must be greater than or equal to 0 weeks and less than or equal to 6 weeks.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date patient screened for cognition using a validated tool (Q 6.8) and the date of symptom onset (Q 1.11) must be greater than or equal to 0 weeks and less than or equal to 6 weeks.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred  
All patients in the team-centred post-72h cohort (inpatient discharge) who were applicable for cognition screening, except where the patient's length of stay in inpatient care is less than 24 hours

For patient-centred  
All patients in the patient-centred post-72h cohort who were applicable for cognition screening, except where the patient's length of stay in inpatient care is less than 24 hours

## 7.5 Percentage of applicable patients assessed by a psychologist by discharge

**Included:** all patients are included in this indicator, except those who are either medically unwell, refused to be assessed or had no relevant deficit.

**Excluded:** patients who are medically unwell, refused to be assessed or had no relevant deficit (i.e. patients where Q 6.12.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient had no relevant deficit') are excluded from this indicator

**Numerator** = the number of patients who were assessed by a psychologist by discharge.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but were not assessed by a psychologist are included in the denominator.

To calculate the numerator, count the number of patients for whom a date is given for when they were assessed by a psychologist (Q 6.12).

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (inpatient discharge) except those who are medically unwell, refused to be assessed or had no relevant deficit

For patient-centred

All patients in the patient-centred post-72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

## 7.6 Percentage of applicable patients who have vision screening by discharge

**Included:** all patients are included except those who either refused or were medically unwell for entire admission and those who are discharged from inpatient care within 24 hours of clock start without receiving a vision screen.

**Excluded:** patients who refused a vision screen, patients who were medically unwell for entire admission (i.e. patients where Q 6.13.1 is answered 'Patient refused' or 'Patient medically unwell for entire admission'), and patients who were discharged from inpatient care within 24 hours of clock start without receiving vision screening are excluded from this indicator.

**Numerator** = the number of patients who were screened for vision by discharge.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but did not have vision screening by discharge are included in the denominator.

To calculate whether a patient is included in the numerator:

For newly arrived patients, the difference between the date patient screened for vision using a standardised tool (Q 6.13) and date of arrival (Q 1.13) must be greater than or equal to 0 weeks and less than or equal to 6 weeks.

For patients already in hospital at the time of their stroke (Q 1.10 is 'Yes'), the difference between the date patient screened for vision using a standardised tool (Q 6.13) and the date of symptom onset (Q 1.11) must be greater or equal to 0 weeks and less than or equal to 6 weeks.

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (inpatient discharge) who were applicable for vision screening, except where the patient's length of stay in inpatient care is less than 24 hours

For patient-centred

All patients in the patient-centred post-72h cohort who were applicable for vision screening, except where the patient's length of stay in inpatient care is less than 24 hours

## 7.7 Percentage of applicable patients assessed by an orthoptist by discharge (or have an orthoptic outpatient appointment scheduled by discharge)

**Included:** all patients are included in this indicator except those who are either medically unwell, refused to be assessed or had not relevant deficit.

**Excluded:** patients who are medically unwell, refused to be assessed or had no relevant deficit (i.e. patients where Q 6.14.1 is answered 'Patient refused', 'Patient medically unwell' or 'Patient had no relevant deficit') are excluded from this indicator

**Numerator** = the number of patients who were assessed by an orthoptist by discharge and the number of patients who have a scheduled outpatient orthoptist appointment.

**Denominator** = all the applicable patients in the cohort. Patients who are applicable but were not assessed by an orthoptist or do not have a scheduled outpatient appointment are included in the denominator.

To calculate the numerator, count the number of patients for whom a date is given for when they were assessed by an orthoptist (Q 6.14) and the number of patients who have a scheduled outpatient appointment (Q 6.14.1 is 'Scheduled outpatient appointment').

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (inpatient discharge) except those who are medically unwell, refused to be assessed or had no relevant deficit

For patient-centred

All patients in the patient-centred post-72h cohort except those who are medically unwell, refused to be assessed or had no relevant deficit

## 7.8 Percentage of those patients discharged alive who are given a named contact for information, support and advice

**Included:** all patients discharged alive from inpatient care are included in this indicator.

**Excluded:** patients who died in inpatient care or were transferred to another inpatient team are excluded from this indicator

**Numerator** = the number of patients who are given a named person to contact after discharge.

**Denominator** = all the patients discharged alive in the cohort. Patients who are not given a named person to contact after discharge are included in the denominator.

To calculate the numerator, count the number of patients who were discharged with a named person to contact after discharge (Q 7.12 is 'Yes')

Cohort percentage:  $100 * \frac{\text{numerator}}{\text{denominator}}$

For team-centred

All patients in the team-centred post-72h cohort (inpatient discharge)

For patient-centred

All patients in the patient-centred post-72h cohort

## Audit Compliance

We have categorised the audit compliance score into five bands as follows:

Band 1: 90.0-100

Band 2: 80.0-89.9

Band 3: 70.0-79.9

Band 4: 50.0-69.9

Band 5: 0.0-49.9

The overall Audit Compliance score is based on **SIX** categories.

Where a team does not have the relevant results for a particular category, e.g. if the team has not thrombolysed any patients, the “NIHSS 24h after thrombolysis is known” result is irrelevant and therefore does not contribute to the audit compliance score. The score is therefore based on the remaining categories, with the weighting adjusted accordingly.

### Categories

1) NIHSS at arrival: 15% of score (team-centred 72h cohort)

Percentage of patients where NIHSS at arrival is fully complete

2) NIHSS 24h: 10% of score (team-centred 72h cohort)

Percentage of patients where NIHSS 24h after thrombolysis is known

3) Transfers: 20% of score (team-centred 72h cohort and team-centred post-72h all teams cohort)

1. Percentage of records which are ready to transfer and have been transferred to next team (team-centred 72h cohort)
2. Median number of days from patient transferred to next team to when the record is transferred on the webtool (team-centred post-72h all teams cohort)
  - A score of 100 is obtained if the median time is less than 7 days
  - A score of 75 is obtained if the median time is between 7 and less than 14 days
  - A score of 50 is obtained if the median time is between 14 and <21 days
  - A score of 25 is obtained if the median time is between 21 and <28 days
  - A score of 0 is obtained if the median time is 28 days or longer
3. Percentage of patients who have been transferred to an ESD or CRT out of those who have been recorded as discharged with ESD or CRT in Q7.7 or Q7.8 (team-centred post-72h all teams cohort)

All applicable scores in this section are added together and divided by the total number of applicable components to calculate the transfers score.

4) Data Entry: 20% of score (team-centred 72h cohort and team-centred post-72h inpatient discharge cohort)

1. Median number of days from when patient is admitted/onset to when the record is started (team-centred 72h cohort)

- A score of 100 is obtained if the median time is less than 7 days
  - A score of 75 is obtained if the median time is between 7 and less than 14 days
  - A score of 50 is obtained if the median time is between 14 and <21 days
  - A score of 25 is obtained if the median time is between 21 and <28 days
  - A score of 0 is obtained if the median time is 28 days or longer
2. Median number of days from when the patient is discharged from the team's care to when the record is locked to discharge (not transferred) (team-centred post-72h inpatient discharge cohort)
- A score of 100 is obtained if the median time is less than 7 days
  - A score of 75 is obtained if the median time is between 7 and less than 14 days
  - A score of 50 is obtained if the median time is between 14 and <21 days
  - A score of 25 is obtained if the median time is between 21 and <28 days
  - A score of 0 is obtained if the median time is 28 days or longer

All applicable scores in this section are added together and divided by the total number of applicable components to calculate the data entry score.

5) 72h measures: 15% of score (team-centred 72h cohort)

1. Percentage of patients whose ethnicity is known
2. Percentage of patients where reason for no swallow screen within 4h is known
3. Percentage of patients where reason for no swallow screen within 72h is known
4. Percentage of patients where reason for no OT assessment within 72 is known
5. Percentage of patients where reason for no PT assessment within 72 is known
6. Percentage of patients where reason for no SALT communication assessment within 72 is known
7. Percentage of patients where reason for no formal swallow assessment within 72 is known

All applicable percentages in this section are added together and divided by the total number of applicable components to calculate the 72h measures score.

6) Post-72h measures: 20% of score (team-centred post-72h cohorts)

1. Percentage of patients where reason for no rehabilitation goals is known (all teams cohort)
2. Percentage of patients where development of urinary tract infection is known (7 day cohort)
3. Percentage of patients where receipt of antibiotics for pneumonia is known (7 day cohort)
4. Percentage of patients where reason for no urinary continence plan is known (7 day cohort)
5. Percentage of patients where reason for no OT assessment by discharge is known (inpatient discharge cohort)
6. Percentage of patients where reason for no PT assessment by discharge is known (inpatient discharge cohort)

7. Percentage of patients where reason for no SALT communication assessment by discharge is known (inpatient discharge cohort)
8. Percentage of patients where reason for no SALT swallow assessment by discharge is known (inpatient discharge cohort)
9. Percentage of patients where reason for no psychological assessment by discharge is known (inpatient discharge cohort)
10. Percentage of patients where reason for no orthoptist assessment by discharge is known (inpatient discharge cohort)
11. Percentage of patients where reason for no mood screening by discharge is known (inpatient discharge cohort)
12. Percentage of patients where reason for no cognition screening is known (inpatient discharge cohort)
13. Percentage of patients where reason for no vision screening is known (inpatient discharge cohort)
14. Percentage of patients where discharge home and living alone is known (inpatient discharge cohort)
15. Percentage of patients where number of carer visits is known (inpatient discharge cohort)
16. Percentage of patients where number of carers is known (inpatient discharge cohort)
17. Percentage of patients asked for consent by inpatient discharge (inpatient discharge cohort)

All applicable percentages in this section are added together and divided by the total number of applicable components to calculate the post-72h measures score.

## Case Ascertainment

Currently, we use HES figures to calculate the case ascertainment for routinely admitting teams. For teams who are typically transferred patients from other hospitals, we use a different method for calculating case ascertainment. A proxy is generated **comparing the number of patients arriving at a team with the number of patients leaving the team** in a reporting period. Please note, the patients who are discharged do not have to be the same patients as those who arrived within a reporting period – patients may have lengths of stay that span the reporting period deadlines. Teams should always **ensure that all discharges within a reporting period are locked prior to the quarterly locking deadline.**