Therapy Report

Sentinel Stroke National Audit Programme (SSNAP)
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Contents

Executive Summary ........................................................................................................................................... 4
Purpose of this Report ...................................................................................................................................... 4
Who is this report for? ................................................................................................................................... 4
What is contained in this report? ........................................................................................................................ 4
Further information ......................................................................................................................................... 4
Introduction to the Sentinel Stroke National Audit Programme (SSNAP) ...................................................... 5
Section 1: The SSNAP webtool ....................................................................................................................... 6
  How to register for SSNAP ............................................................................................................................. 6
  How to submit therapy data to SSNAP ........................................................................................................... 6
  Common queries ............................................................................................................................................ 9
  How to access results on SSNAP ................................................................................................................... 11
Section 2: SSNAP Clinical Audit Therapy Reporting .................................................................................... 12
  Therapy reporting by team type on SSNAP .................................................................................................... 12
  Types of reports produced ............................................................................................................................. 13
  Figure 6: Performance tables ......................................................................................................................... 13
  Figure 7: Summary Report .............................................................................................................................. 13
  Figure 8: Results Portfolio .............................................................................................................................. 13
  Phasing of Results ........................................................................................................................................ 15
  Understanding the scoring process .................................................................................................................. 16
Useful Graphics in the Reporting Outputs ..................................................................................................... 18
  Interactive mapping of SSNAP results ............................................................................................................ 20
Section 3: How to interpret team level SSNAP results for therapy ................................................................. 21
  Scoring for Therapy Key Indicators ................................................................................................................ 23
    Applicability for Therapy: In focus ................................................................................................................ 23
    Deriving the benchmark for therapy applicability ......................................................................................... 23
    Amount of therapy received ......................................................................................................................... 24
    Compliance against clinical standards ......................................................................................................... 24
    In focus: Psychology .................................................................................................................................. 26
Section 4: SSNAP Acute Organisational therapy reporting ............................................................................. 27
  The structure and staffing of stroke units ...................................................................................................... 27
  Acute organisational Audit 2016: National Report ......................................................................................... 29
  Useful resources from the 2016 Acute Organisational Audit ....................................................................... 29
Section 5: SSNAP Post-acute stroke services therapy reporting ..................................................................... 31
  Aims of the post-acute organisational audit .................................................................................................. 31
  Phase 1: Audit of post-acute stroke service commissioning ........................................................................ 31
  Phase 2: Audit of post-acute stroke service providers .................................................................................... 32
  SSNAP DIY analysis tool ................................................................................................................................. 34
  Therapy intensity calculator ............................................................................................................................. 35
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom fields</td>
<td>35</td>
</tr>
<tr>
<td>Online Support Area</td>
<td>36</td>
</tr>
<tr>
<td>Glossary</td>
<td>37</td>
</tr>
<tr>
<td>Appendix 1: Simplified Technical Information</td>
<td>38</td>
</tr>
<tr>
<td>Appendix 2: Example Slide Decks</td>
<td>45</td>
</tr>
<tr>
<td>Appendix 3: Example Executive Summary</td>
<td>71</td>
</tr>
<tr>
<td>Appendix 4: Intercollegiate Stroke Working Party Members</td>
<td>73</td>
</tr>
<tr>
<td>Appendix 5: SSNAP Therapy Cards</td>
<td>76</td>
</tr>
<tr>
<td>Appendix 6: Therapy vignettes</td>
<td>77</td>
</tr>
</tbody>
</table>
Executive Summary

Purpose of this Report

The purpose of this report is to provide a comprehensive summary of the therapy aspects of SSNAP to improve the quality of data collected, and promote consistency in data collection and interpretation of the therapy metrics and results. We have included overviews of the resources available to therapists on SSNAP to improve stroke care for their patients.

Who is this report for?

This report has been produced for therapists providing care to stroke patients, and staff involved in entering data on to SSNAP.

It is also recommended for any clinical or non-clinical staff working in stroke care who would like to gain a better understanding of therapy reporting on SSNAP. SSNAP is a valuable tool for targeted quality improvement activities, and SSNAP encourages therapists from each discipline to take an active part in contributing to, reviewing and understanding their results.

What is contained in this report?

This report contains an overview of how therapy data are collected and reported on by SSNAP. It also provides guidance for data entry and submission, and covers common Frequently asked questions (FAQ)s.

It includes guidance on the interpretation of SSNAP results, including team performance at domain and key indicator level, so as to improve understanding in clinical teams and to monitor services.

Case studies sent to SSNAP have been added to illustrate how therapy data can been used for quality improvement, and provide recommendations on how to maximise the use of SSNAP data.

It is intended that this report comprehensively covers all of the therapy related components of SSNAP.

All feedback is welcomed via email to ssnap@rcplondon.ac.uk.

Further information

More information on therapy is available in the recently updated comprehensive support area which is discussed in more detail later in the report.

https://ssnap.zendesk.com/hc/en-us/sections/115000451409-Therapy
Introduction to the Sentinel Stroke National Audit Programme (SSNAP)

The purpose of SSNAP is to reduce variation in stroke care and practice and facilitate improving the quality of care by comparing with best evidence.

The work of SSNAP is guided by the Intercollegiate Stroke Working Party (ICSWP) which has representatives from the appropriate colleges of each therapy discipline. They have been actively involved in the development of the dataset and in the presentation of data since the inception of SSNAP. The evidence on which the SSNAP measures are based comes from the National Clinical Guideline for Stroke 2016 (www.strokeaudit.org\guideline) and the National Institute for Care and Excellence (NICE) quality standard (www.nice.org.uk/guidance/qs2).

There are three main components of SSNAP; the clinical audit, acute organisational audit and post-acute organisational audit.

The clinical audit collects information on every stroke patient admitted to hospital in England, Wales and Northern Ireland, from stroke onset to 6 months post stroke. It is a continuous, prospective audit with full participation by all eligible acute hospitals and covers 95% of all stroke admissions (case ascertainment). Results are published every 4 months in addition to annually. Much of the focus of this report is on the clinical component of SSNAP.

The acute organisational audit has been conducted biennially since 1998 and focuses on the structures in place to provide stroke care to patients. It includes key questions such as the availability of 24/7 acute interventions, number and type of stroke unit beds available across England, Wales and Northern Ireland (and by therapy type) nurse, therapy and staffing levels per 10 stroke unit beds, frequency of multidisciplinary meetings, and whether or not interventions including therapy are provided across 5, 6 or 7 days per week. It most recently reported in 2016.

The post-acute organisational audit was conducted for the first time in 2015. It took place in two phases. Phase 1 collected information from Clinical Commissioning Groups (CCGs) in England, Local Health Boards (LHBs) in Wales and Local Commissioning Groups (LCGs) in Northern Ireland. They were asked to supply information about the services they commissioned for stroke patients following the acute phase inpatient and domiciliary services. Exactly who commissioned these services and where they were located (https://www.strokeaudit.org/results/PostAcute/Maps.aspx) was also included. The data from Phase 1 was then used in Phase 2. The post-acute services identified were asked to supply information about characteristics of the service including stroke specialism, location, waiting times, staff numbers, capacity, 7 day working, time limits and information to patients.

The results for each of these phases of the audit are available publically on the SSNAP webtool www.strokeaudit.org/results.
Section 1: The SSNAP webtool

Before discussing therapy data in detail, it is important to outline some important practical steps that should be taken to make the best use of SSNAP, and to contextualise the sections that follow. The SSNAP webtool is a secure portal for both data collection and to view results in real-time during data collection and to view results at all levels with a very short turnaround time from the centre. To access the webtool as a participant it is necessary to register as a SSNAP user.

How to register for SSNAP

Any clinician working within the multidisciplinary stroke team at a hospital trust can register as a clinical user on SSNAP to ensure the widest and fastest access to the data, including real-time online interim results, quality improvement tools and benchmarked results relevant to each team, each region and nationally. Though SSNAP disseminates almost all audit results in the public domain, clinical users have access to these results at an earlier stage before publication.

New users can register at [https://www.strokeaudit.org/Registration2.aspx](https://www.strokeaudit.org/Registration2.aspx) Therapists, clinicians, nurses, data entry clerks and service managers should register under clinical registration whereas members of a CCGs, SCN or the NHS should register under “other” registration. Step by step instructions for registering for SSNAP area available here: [https://www.strokeaudit.org/Support/New-SSNAP-Users.aspx](https://www.strokeaudit.org/Support/New-SSNAP-Users.aspx)

Figure 1 shows the registration tab of the SSNAP webtool.

![SSNAP Registration](Image)

**Figure 1: SSNAP registration tab**

How to submit therapy data to SSNAP

All stroke patients admitted to hospital should have an electronic patient record created for them on SSNAP’s secure webtool ([www.strokeaudit.org](http://www.strokeaudit.org)) upon admission. Each team type providing a stroke service e.g. hyperacute, post-acute, or early supported discharge, may be responsible for different parts of the pathway. This may include starting a record or completing a patient record which is transferred by another team.

SSNAP users who have successfully registered on the webtool (see “How to register for SSNAP”) are able to enter therapy data for their team. Even if you are not directly involved in the day-to-day submission of patient data to SSNAP, we encourage you to understand and have an overview of this part of the process to promote consistency (e.g. in the case of staff absence, and to pick up any potential errors in data entry, to better understand the data definitions). The format of the electronic patient record is demonstrated on the following page.
Detailed information on data submission

Once logged into the SSNAP webtool go to ‘Clinical’ > ‘Patient records’. The clinical case management area (see below) contains all patient records created by or transferred to your team(s). Therapists can search for a patient’s record here and enter data relating to their therapy. To open or edit an individual patient record select ‘Actions’ > ‘Edit’ for the record in question.

Figure 2 shows the clinical case management screen where users find and complete patient records.

![Clinical case management screen](image)

Figure 2: Clinical case management screen

Below is a snapshot of the patient record. Information related to therapy can be completed in sections 2, 3, 4, and 6. Here you will input information such as the patient’s applicability for each type of therapy, the number of days and minutes that therapy is received and the date the patient no longer required each therapy type.
Figure 3 shows an example patient record where users enter data, the screenshot below is of Section 4 of the patient record where users record the therapy intensity for each patient.

![Patient record screenshot](image)

**Figure 3: Patient record**

Once a team is satisfied that the data entered are correct, they must select “lock” to secure the patient record. This signifies that the patient record has been clinically signed off. **SSNAP will only analyse data that has been locked**, so this is a necessary step in the data entry process. No further changes to the data are permitted after this sign off.

Whilst therapists may collect more detailed information about therapy intensity this is the source for all of the reports produced by SSNAP.
Common queries about how to complete therapy questions in the webtool

These questions and answers were agreed following a consensus meeting of a wide range of therapists held at the RCP. A comprehensive list of frequently asked questions is available under the support section of the SSNAP webtool. www.strokeaudit.org. Please ensure you are logged in when attempting to access these resources.

SSNAP has created a useful video on how to use real time online indicators in the clinical case management area of the webtool to assess performance across important time bound aspects of care. See the following link: https://vimeo.com/213678402

Who is applicable for therapy?
If a patient is assessed and requires therapy at any point during their total stay under the care of a team, then the patient should be recorded as applicable for therapy, regardless of how much therapy the patient requires or receives. Following piloting and consultation on the SSNAP dataset, the decision was made to collect simple and straightforward data about the intensity of therapy provided to each patient. This means that SSNAP collects data on whether a patient was considered to require therapy at any point in the admission and does not reflect whether the patient required or was able to tolerate therapy on each day. It does not break down on a daily basis. It is important to note that therapy on a given day does not have to be delivered in a single session, it may be most clinically appropriate to deliver therapy through several shorter sessions throughout the day.

NB: SSNAP indicators are based on median scores; this reduces the impact that outlying patients have on SSNAP results.

Therapy for the purpose of recording on SSNAP includes:
- goal-directed therapy (i.e. towards goals that have been set and agreed by the team)
- either individual or group therapy
- home visits where the patient is present
- advice and training for patients and carers
- speech and language therapy refers to communication therapy and swallowing therapy.

NB. If a patient is assessed and requires therapy, the assessment time should be included as part of the total therapy time. If the patient is only assessed and does not go on to have further therapy, the time for the initial assessment does not count towards the therapy minutes.

In this definition therapy does not include:
- assessment only
- time for the therapist to travel to and from where the patient is located
- documentation
- environmental visits
- multidisciplinary team meetings
- case conferences
- case reviews

Which staff members treating the patient are included in the definition of who provides therapy to stroke patients?
Therapy provided by qualified or non-registered therapy assistants, including rehabilitation assistants, under supervision is included in the measure. For speech and language therapy it includes therapy for
dysphagia and communication. For psychologists it includes activities including assessment and treatment of mood, higher cognitive function and non-cognitive behavioural problems.

Is the total number of therapy minutes that a patient received during their stay the amount of therapy they received while in the care of my team or across their stroke pathway?
The stay refers to the team answering the question. Teams will have their scores relayed in both patient-centred and team-centred measures. Whilst patient –centred scores attribute the results to every team that has treated the patient, team-centred scores attribute the results to the team most appropriate to assign the responsibility to. (Please see the glossary for definitions).

What happens if two therapists are treating a patient at the same time?
- If two therapists of the same profession treat a patient at the same time, the number of therapy minutes provided is recorded as the duration of the session e.g. 2 physiotherapists treating a patient for 45 minutes counts as 45 minutes of physiotherapy
- If two therapists of different professions treat a patient at the same time, record the total number of minutes for each therapy e.g. a physiotherapist and occupational therapist treating a patient for 45 minutes counts as 45 minutes of physiotherapy and 45 minutes of occupational therapy

If one therapy assistant works on two different therapies during a 45 minutes session, record 45 minutes for only one profession or the times can be split (e.g. 25 minutes for one, 20 minutes for the other).
How to access results on SSNAP

Every four months SSNAP has a data locking deadline at which point all locked patient records for the period are analysed by the statistical team at the Royal College of Physicians, using complex software programmes. In the weeks that follow, the results for that given time period are made available to teams. We discuss the phasing of result dissemination in a later section.

SSNAP results for an individual team are be presented for ease of interpretation in different ways in order to highlight the level of care that a team provides to patients during that period, and to drill down into specific areas. The national benchmark is always provided and may be further broken down by type of team and region.

Results can be accessed at [www.strokeaudit.org/results/Clinical-audit.aspx](http://www.strokeaudit.org/results/Clinical-audit.aspx). All national and regional level results can be accessed publically. However users that are assigned to a specific team have the option to log in to the webtool and view their own bespoke team level reports, hence the importance of registering as a clinical user on SSNAP as described above.

Figures 4 and 5 demonstrate how to find national and regional results can be found.

Section 1 described how to access the SSNAP webtool, enter patient data, and find relevant results. Section 2 will focus on how results are presented, and how they can be interpreted.
Section 2: SSNAP Clinical Audit Therapy Reporting

Every four months and at the end of each financial year, SSNAP produces a variety of bespoke reporting outputs to help those involved in stroke care to review, compare with a national benchmark and all other teams, reflect on performance and make plans to improve patient care in the future. Reports are produced at team, regional, and national level. As well as providing important information on the processes and outcomes of patient care, these reports also include vital casemix data to enable teams and disciplines to compare their performance and patient demography and severity with all other teams and against the national picture.

A consistent approach
There is considerable interest in how SSNAP data are reported and used because large amounts of the data are made available through reports accessible to the general public. It is therefore essential that data are collected uniformly to enable consistent interpretation and so the results give an accurate and comparable picture. The measures were piloted and have been defined in the same way since SSNAP started to report in 2013. The only modification that was made was in April 2014, the addition of the ability to add dates for when therapy was considered no longer appropriate for each individual therapy discipline. The audit has always had a process of clinical sign off and “locking” by the deadline which signifies that all the data have been checked by the lead clinician and overall. There is no further opportunity to alter the data submitted after this deadline.

Therapy reporting by team type on SSNAP
As SSNAP measures stroke patient care from onset to six months after stroke there are a number of different types of stroke care providers actively participating in SSNAP. This includes hospitals that provide hyper-acute care in the initials days after hospital admission, rehabilitation centres including community hospitals, and early support discharge and community rehabilitation teams who provide care to patients in a home environment. Some acute process of care measures such as initial swallow screening are answered only by acute hospitals as these measures are usually not relevant to post-acute teams who do not start the SSNAP record. Additionally the (A-E) scoring system on SSNAP only applies to inpatient providers at this time.

However all teams input details on the therapy intensity provided to all of their patients (section 4 of the dataset) as well as completing patient information upon discharge from each SSNAP team (section 7 of the dataset).

SSNAP produces different report types for teams depending on their function. Though there are more reporting outputs produced for acute therapy providers, SSNAP currently produces bespoke ESD/CRT slideshows for every team that submits 20 or more records over a four month period. Similarly, SSNAP produces ESD/CRT level regional slideshows which allow easy comparisons to be made against other providers in your area and changes in performance over time to be monitored. Lastly, the full results portfolio is produced for all the aspects of care captured by ESD/CRT teams on SSNAP meaning that every data item submitted to SSNAP is reported back to teams.
Types of reports produced

Figure 6: Performance tables
Give a brief overview of all domain scores and overall SSNAP score for each inpatient team participating in SSNAP. Performance tables can be used to make quick comparisons against other similar teams.
Available at regional and national level for inpatient providers. Level of detail reported varies according to team type.

Figure 7: Summary Report
The summary report provides results for each domain and all key indicator results. Individual team level summary reports include data for the past four reporting periods and therefore allow for an analysis of changes over time.
Available at team, regional and national level for inpatient providers. Level of detail reported varies according to team type.

Figure 8: Results Portfolio
The results portfolio is the most detailed report and is provided in an Excel format. It presents every data item collected by SSNAP. Individual result portfolios include data for the past four reporting periods, allowing analysis of changes over time.
Available at team, regional and national level for all teams on SSNAP. Level of detail reported varies according to team type.

Figure 9: Inpatient team slide decks
Inpatient team slide decks (power point slides) provide helpful visualisations of the SSNAP results. Slide decks are individual for each team, and provide a snapshot of progress over time for local interpretation. The visualisations also highlight in a shaded section where the optimal results should be. Team level slide decks are not put in the public domain because the numbers are too low to ensure accurate interpretation.
Available at team level only for all inpatient providers. Level of detail reported varies according to team type.
SSNAP produces Early Supported Discharge (ESD) and Community Rehab Team (CRT) specific slide decks. These slide decks use data visualisations to highlight key data such as patient casemix, applicability, days and minutes per day of each therapy type. These slides include changes over time and therefore should be used for service evaluation and to highlight where improvements have been made.  
Available at team level only for all ESD/CRT providers

**Figure 11: Regional slide deck**

Regional slide decks are put in the public domain and include comparison of each team within a region and the national results to allow for comparisons across a region.  
Available at regional level for all providers.  
Separate slide decks are produced for different team types within a region.

A selection of reporting outputs that highlight the most recent national level therapy results at time of writing are included within the appendices of this report.

These outputs can be used for analysing and looking at the information in different ways. For example, the results portfolio includes a pathway summary, casemix and the numerator, denominator and percentage for each care measure collected. This information can be used to identify successful areas, and monitor trends to see the impact of any service changes made by teams on the care their service provides to patients. Local knowledge can be used in conjunction with the SSNAP outputs to have a better understanding of team’s patient centred results.

All SSNAP clinical reporting outputs can be found at: [www.strokeaudit.org/results/Clinical-audit.aspx](http://www.strokeaudit.org/results/Clinical-audit.aspx)
Phasing of Results

The process of results dissemination is displayed in the infographic below. This outlines the types of users that have access to each report as well as the timeline for when these results are made available.

Results are disseminated to teams within one month of the data locking deadline, ensuring they are timely and relevant. The graphic below outlines the predetermined phases between when teams are first able to view their own team level results until they are put into the public domain. The sequence includes “all logged in users” during which the results are made available to all NHS bodies who are eligible to use the information including the CQC. These results have been made available in the public domain in a variety of outputs since 2013.

This phasing allows teams to discuss the results internally before they become public to enable preparation for questions by the general public and press or other interested parties. Teams are encouraged to arrange regular meetings for discussion of results across the trust or with CCGs.

Figure 12 demonstrates the process of results dissemination, showing who can see what results and when.
Understanding the scoring process: Indicators, domains and scoring

SSNAP reports on 44 key indicators (KI) of care. These indicators are based on evidence in the National Clinical Guideline for Stroke 2016 (www.strokeaudit.org/guideline), and satisfy the requirements of, and provide data for the CCG Outcome Indicator Set OIS (England only) and NICE quality standard, in addition to those used previously in other national benchmarks for all of acute inpatient care. More than 20 of these indicators measure care provided by therapists.

The KIs of care are grouped into 10 ‘domains’. The patient-centred and team-centred scores for each KI are aggregated and averaged to produce a score for each domain, and an overall combined KI score.

Patient centred scores attribute the results to every team which treated the patient at any point in their care. Team-centred scores attribute the results to the team considered to be most appropriate to assign the responsibility to. The infographic below describes this in more detail.

Figure 13 illustrates the calculation of patient centred and team centred results.

Figure 13: Patient-centred & team centred infographic
Each KI score is calculated and then adjusted according to the number of records submitted (‘Case Ascertainment) as well as timeliness and completeness of data (‘Audit Compliance’). SSNAP participants are sent methods for calculations and the results for their team and individual team slideshows each reporting period. Teams are also given a rating from A-E for each of the 10 domains.

An overall SSNAP score is derived by measuring performance in each domain of care with adjustments made for case ascertainment levels and the quality of data submitted to SSNAP.

Themes covered by the SSNAP domains are as follows. Four domains (highlighted in bold) contain therapy indicators:

- Domain 1: Scanning
- Domain 2: Stroke unit
- Domain 3: Thrombolysis
- Domain 4: Specialist assessments
- Domain 5: Occupational therapy
- Domain 6: Physiotherapy
- Domain 7: Speech & language therapy
- Domain 8: MDT working
- Domain 9: Standards by discharge
- Domain 10: Discharge processes

Figure 14 demonstrates how domain scores are adjusted and amalgamated into an overall SSNAP score.

![Figure 14: Calculation of SSNAP score](image-url)
Useful Graphics in the Reporting Outputs

The data are presented in different formats to enable services to better describe the issues around delivery of processes of care to stroke patients. For each domain SSNAP includes:

- KI results at national level and changes over time (available in the national public report produced every four months) (Table 1)
- the national distribution of scores for the domain, (also available in the national public report) (Figure 16).
- how each KI is reported for an individual team within a domain. Recommendations from the RCP National Clinical Guideline for Stroke 5th edition in relation to each domain. (Figure 17, Table 2)
- progress over time graphs for component KIs. These graphs illustrate the target and progress at monthly intervals at a national level. The green shaded area highlights the target for all teams. (Figure 18)

The results below are extracted from the Public Report which is created every 4 months, it can be found at https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx

These national results demonstrate the progress that is being made at a national level, with significant reductions to the numbers of E scores and increases to the numbers of A scores.

Table 1: Distribution of SSNAP levels across inpatient teams

<table>
<thead>
<tr>
<th>SSNAP levels:</th>
<th>Three month reporting</th>
<th>Four month reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>26 (12%)</td>
<td>25 (12%)</td>
</tr>
<tr>
<td>B</td>
<td>56 (26%)</td>
<td>46 (22%)</td>
</tr>
<tr>
<td>C</td>
<td>47 (22%)</td>
<td>50 (23%)</td>
</tr>
<tr>
<td>D</td>
<td>72 (33%)</td>
<td>77 (36%)</td>
</tr>
<tr>
<td>E</td>
<td>14 (7%)</td>
<td>15 (7%)</td>
</tr>
<tr>
<td>Number of teams</td>
<td>215</td>
<td>213</td>
</tr>
</tbody>
</table>

The histogram below shows the national distribution of inpatient teams’ SSNAP score for the physiotherapy domain, this is created for every therapy domain.

Figure 16: Physiotherapy scores over time
How indicators are reported and what is recommended:

Evidence from *RCP National Clinical Guideline for Stroke, 5th Edition*

**4.4.1.1A** People with communication problems after stroke should be assessed by a speech and language therapist to diagnose the problem and to explain the nature and implications to the person, their family/carers and the multidisciplinary team. Reassessment in the first four months should only be undertaken if the results will affect decision making or are required for mental capacity assessment.

<table>
<thead>
<tr>
<th>The table below is an example of the Speech and Language Therapy domain, there is a table for each type of therapy.</th>
<th>Three month reporting</th>
<th>Four month reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Indicators: Speech and Language Therapy</strong> Percentage of patients reported as requiring speech and language therapy</td>
<td>Jan-Mar 2016</td>
<td>Apr-Jul 2016</td>
</tr>
<tr>
<td></td>
<td>48.8%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Median number of minutes per day on which speech and language therapy is received</td>
<td>31.5 mins</td>
<td>32.0 mins</td>
</tr>
<tr>
<td>Median % of days as an inpatient on which speech and language therapy is received</td>
<td>45.0%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Proxy for 2016 NICE Quality Standard Statement 2: % of the minutes of speech and language therapy required (according to 2016 NICE QS-S2) which were delivered</td>
<td>43.0%</td>
<td>45.1%</td>
</tr>
</tbody>
</table>

**Table 2: National results for Speech and Language therapy**

This graph illustrates the KI target and progress at monthly intervals at a national level. The green shaded area highlights the target for all teams.

Source: SSNAP 2014-2016
Patient-centred results for Key Indicator 7.1A

**Figure 18: Illustration of a slide from the team slide deck.**
Interactive mapping of SSNAP results

Each reporting period, SSNAP creates interactive maps. This innovative data visualisation allows easy access to stroke data for stroke services for clinicians, commissioners, NHS stakeholders, patients and the public. Standards of care can be compared within and across individual teams and can be benchmarked regionally and nationally. SSNAP KIs and domains are both presented. These maps allow for changes over time to be coherently shown and can be printed and saved for easy dissemination.

www.rcplondon.ac.uk/ssnap/Clinical-audit/maps

Figure 19 shows the interactive maps for the Occupational Therapy domain at a national level.

Figure 20 shows the interactive maps for the Occupational Therapy domain at a regional level.

These maps are also available in the same format for the acute organisational audit and post-acute audit.

www.strokeaudit.org/results/Organisational/Maps
Section 3: How to interpret team level SSNAP results for therapy

The therapy intensity scoring system attempts to acknowledge teams who provide more minutes of therapy, to more patients, on more of the days they spend in hospital.

If a team has a low score on the therapy domains, it is important to review all three aspects to determine whether there is scope to provide more therapy to those who would benefit from it.

Step One: We recommend each team reviews the percentage of patients their team has deemed applicable to receive therapy. If there is a low score on this key indicator, consider the reasons why this may be. If you believe your team has a markedly different case mix than other teams, you can review this information in the casemix tab of the results portfolio. (see snip below) If your case mix is not very different, you could review your patients to see if there are some who are currently not being included in the cohort who could benefit from receiving some therapy input.

Figure 21 shows an example of a casemix tab which can be found in the results portfolio.

![Figure 21: Casemix tab](image)

Step 2: Teams should review the average number of minutes per day of therapy received. If a team has a low score on this indicator, it is suggested that the team considers whether patients are receiving enough input on the days they have therapy. Remember, all of the therapy on a given day does not have to be delivered in a single session. It may be more appropriate for the patient to accumulate more minutes overall by receiving, for example, 5 sessions of 10 minutes each on a given day, if they are unable to tolerate longer sessions. In addition, not all patients who are applicable for therapy will require 45 minutes in a day – some patients will require more therapy and some will require less therapy. This is why SSNAP takes the median performance for the indicator, so it is based on what the “middle” patient receives; it is not affected by patients who receive either lots or very little therapy.

Step 3: Review the percentage of days in hospital (or when being treated by a community team) on which the therapy is delivered. If a team has a low score on this indicator, it is suggested that the team considers how many patients are going for many days without receiving any therapy input, and what the reasons for this might be. For example, a low score on this indicator may be due to therapy staff not covering all of the week days. The team and senior management can then have a detailed, evidence based discussion using the data to come to a decision about what to do if there is insufficient time to see all eligible patients frequently, or even at all. The conclusion may be that it is preferable for the patient to receive smaller amounts of therapy on more of their days in hospital, than to receive a smaller number of long sessions of therapy during their inpatient stay. Please note that this indicator is
based on the median performance, so it is not affected by “outlying patients”, but rather the “middle” patient. It is anticipated that some patients will be at either end of the spectrum.

The stroke guideline provides the evidence of the importance of providing intensive therapy.

The national comparison enables detailed discussions with managers and commissioners, and can be put together in an information pack with a proposal for how to remedy the areas concerned. If after reviewing the results a team believes that more patients could benefit from more minutes of therapy on more of their days in hospital, but that there is not enough available therapy provision to achieve this, then consider reading about this issue in the NIHR study by David Clarke, and case study by Dr Andrew Hill. These resources can be found at https://www.strokeaudit.org/AnnualReport/Case-Studies.aspx

SSNAP results can also be used to celebrate successes, highlight improvements in results, and as a means to share good practice with local services.

Therapy issues to consider:

- Reviewing therapy staffing levels in the latest SSNAP Acute Organisational Audit (discussed in the next section) to determine whether your team has lower staffing ratios than other similar teams for both therapists and therapy assistants.
- Reviewing the pattern of working for your therapists and therapy assistants
- Timetabling so that patients know when their therapy provision will occur
- Putting together a business case to increase the number of therapists routinely available to provide therapy (including considering 7 day working).
Scoring for Therapy Key Indicators – Additional detailed information

The therapy domain score for occupational therapy, physiotherapy and speech and language therapy are derived from 4 key indicators. For example the indicators for occupational therapy are as follows:

5.1 Percentage of patients reported as requiring occupational therapy (Applicability)

5.2 Median number of minutes per day on which occupational therapy is received (Amount of therapy received)

5.3 Median % of days as an inpatient on which occupational therapy is received (Amount of therapy received)

5.4 Compliance (%) against the therapy target of an average of 25.7 minutes of occupational therapy across all (Target = 45 minutes x (5/7) x 0.8 which is 45 minutes of occupational therapy x 5 out of 7 days per week x 80% of patients) (Compliance against clinical standards)

Applicability for Therapy: In focus

All patients that are considered applicable for any amount of therapy at any point during their stay, must be recorded as applicable for therapy. For patient-centred results the patient must be considered to require that specific therapy (either speech and language, physiotherapy or occupational therapy) by at least one inpatient team treating the patient, whereas for team-centred results the patient must be considered to require that specific therapy by the specific team.

SSNAP reports on the number of patients reported as requiring each type of therapy and measures this against the number of patients typically recorded as eligible according to national results from the start of SSNAP, this is to ensure that all patients considered eligible for therapy are included within SSNAP and to reduce the possibility of only those patients that receive good care being reported. The number of patients considered applicable for therapy at a national level differs for each type of therapy.

80% of patients are considered eligible for Occupational Therapy
85% of patients are considered eligible for Physiotherapy
50% of patients are considered eligible for Speech and Language Therapy

For national key indicator results showing changes over time for therapy applicability please see the appendix.

Deriving the benchmark for therapy applicability

The benchmark for levels of patients requiring therapy outlined above has been derived using data collected in previous rounds of stroke audit and has proved to be consistent and increasing slightly at national level in SSNAP periodic reporting. The national percentage for patients reported as requiring each type of therapy for the last four reporting periods has remained stable and in line with the figures that we would expect to see based on evidence and national figures. The number of patients reported as requiring Occupational Therapy was 83.6% in the latest reporting period, 85.1% for Physiotherapy and 50.7% for Speech and Language Therapy.
Amount of therapy received

SSNAP captures the total number of minutes of therapy a patient receives and the total number of days that the patient receives each type of therapy. From this the average number of minutes is calculated.

What is recommended?

*RCP National Clinical Guideline for Stroke, 5th Edition*

2.11.1A People with stroke should accumulate at least 45 minutes of each appropriate therapy every day, at a frequency that enables them to meet their rehabilitation goals, and for as long as they are willing and capable of participating and showing measurable benefit from treatment.

*Nice Quality Standards 2010 (updated 2016)*

**QS Statement 2**

Patients with stroke are offered a minimum of 45 minutes per day of each active therapy that is required, for a minimum of 5 days a week, at a level that enables the patient to meet their rehabilitation goals for as long as they are continuing to benefit from the therapy and are able to tolerate it.

We have calculated a proxy measure for the NICE quality standard by combining the percentage of patients considered to require therapy, the percentage of days on which each therapy was received, and the number of therapy minutes received per day. This calculation is used in key indicators 5.4, 6.4 and 7.4.

Compliance against clinical standards

**Important:** A score is assigned for each key indicator which is used to determine the overall domain score. Low percentages of patients reported as requiring therapy negatively impact overall domain scores, both percentage of patients reported as requiring therapy and the compliance indicator are measured against the number of patients reported as applicable. It is therefore imperative to include all patients considered eligible at any point during their stay, even if the patient is unable to tolerate the therapy for some duration of their stay.

**NB:** The median score is used.

**Minutes:** Whilst not measured exactly as defined in the NICE quality standard, the benchmark used is 45 minutes of therapy provided per day 5 days a week. If a patient receives therapy 7 days a week the benchmark is equivalent to 32 minutes per day across 7 days.

**Days:** An adjustment is made to the total number of days on which therapy was received to approximate the number of working days by multiplying by 5 out of 7 (approximately 70%) as to account for the standard of 5 days instead of 7.

Note: SSNAP collects data on whether a patient was considered to require therapy at any point in the admission and does not reflect whether the patient required or was able to tolerate therapy on each day. The start of therapy is taken from the time the patient is first admitted to the site.
To improve performance in the therapy domains, teams may need to improve one or more of the 3 elements. Taking national level results for occupational therapy for August – November as an example,

- 83.6% of patients nationally were considered to require therapy
- a median of 40.7 minutes of therapy was provided per day (based on 7 day week)
- therapy was delivered on 64.9% of inpatient days.

These figures show that the proportion of patients considered applicable is in line with the expected level of 80% and the number of therapy minutes across 7 days exceeds what would be recommended across this time period (target for 7 days = 32 minutes) if the NICE quality standard was extrapolated. The proportion of days on which therapy is provided is also almost in line with the NICE quality standard of approximately 70%.

With limited resources to achieve equilibrium between patients, days and minutes, the goal is to maximise the use of resources to benefit the highest number of patients throughout their stay.
In focus: Psychology

What is recommended?
*RCP National Clinical Guideline for Stroke, 5th Edition*

2.12.1
A Services for people with stroke should have a comprehensive approach to delivering psychological care that includes specialist clinical neuropsychology/clinical psychology input within the multi-disciplinary team.
B Services for people with stroke should offer psychological support to all patients regardless of whether they exhibit specific mental health or cognitive difficulties, and use a matched care model to select the level of support appropriate to the person’s needs.
C Services for people with stroke should include specialist clinical neuropsychology/clinical psychology provision for severe or persistent symptoms of emotional disturbance, mood or cognition.

NICE Quality Statement

**Statement 3:** Adults who have had a stroke have access to a clinical psychologist with expertise in stroke rehabilitation who is part of the core multi-disciplinary stroke rehabilitation team. [2016]

*Psychology results showing changes over time.*

<table>
<thead>
<tr>
<th>Psychology</th>
<th>Three month reporting</th>
<th>Four month reporting</th>
<th>Portfolio ref</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January-March 2016</td>
<td>August-November 2016</td>
<td></td>
</tr>
<tr>
<td>Applicable for psychology</td>
<td>5.7%</td>
<td>5.3%</td>
<td>J7.3</td>
</tr>
<tr>
<td>Median % of the days in hospital on which psychology is received</td>
<td>9.3%</td>
<td>9.9%</td>
<td>J7.4</td>
</tr>
<tr>
<td>Median number (IQR) of minutes per day on which therapy is received</td>
<td>40 mins (30 – 51.7 mins)</td>
<td>40 mins (30 – 53.8 mins)</td>
<td>J7.5, J7.6, J7.7</td>
</tr>
</tbody>
</table>

Table 3: Psychology results at a national level

For those patients that do receive psychology, the number of minutes per day on which therapy is received remains consistent for the last four reporting periods at 40 minutes. However the finding that only 5.3% of patients are applicable for psychology is inconsistent with literature published on the prevalence of cognitive and mood difficulties, or the self-reported, long term, unmet needs of stroke survivors.

It is important to clarify that teams should answer that the patient is applicable if the patient has any psychological difficulty **even if the service does not have access to a psychologist** or other mental health professionals. The question asks if the patient was applicable for psychology at any point during their stay and this answer should **accurately reflect the needs of the patient**, regardless of whether there was access to a clinical psychologist.

The 2016 acute organisational audit found that only 6% (10/178) of sites had the presence of at least one (WTE) qualified clinical psychologist per 30 stroke unit beds.
Section 4: SSNAP Acute Organisational therapy reporting

The structure and staffing of stroke units

The SSNAP Acute Organisational Audit is a biennial, snapshot audit which reports on how stroke care is organised in hospitals. Results from the clinical component of SSNAP should be interpreted within the context of the structure and staffing within which stroke services are operating. This includes stroke unit type, number of beds, staffing and 7 day working, all of which are reported in the biennial acute organisational audit. Linking processes of care with the structure of the service provides a comprehensive picture of therapy provision across acute hospitals.

As with the clinical audit, a national benchmark is provided along with the results for every hospital for direct comparison. Participating hospitals are measured against 10 key indicators of acute stroke organisation, two of which, outlined below, directly relate to therapy. The 2016 Acute Organisational Audit achieved full participation from all (178) eligible acute stroke services in England, Wales and Northern Ireland and is based on the structures in place at the time the audit was undertaken (July 2016).

### Acute Organisational Audit Key indicator 2

<table>
<thead>
<tr>
<th>Standard</th>
<th>Presence of a qualified clinical psychologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>National performance:</td>
<td></td>
</tr>
<tr>
<td>6% (10/178)</td>
<td>of sites meet key indicator</td>
</tr>
<tr>
<td>Key indicator achieved if:</td>
<td></td>
</tr>
<tr>
<td>Presence of at least one (WTE) qualified clinical psychologist per 30 stroke unit (SU) beds</td>
<td></td>
</tr>
</tbody>
</table>

### Acute Organisational Audit Key indicator 5

<table>
<thead>
<tr>
<th>Standard</th>
<th>At least two types of therapy available 7 days a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>National performance:</td>
<td></td>
</tr>
<tr>
<td>31% (55/178)</td>
<td>of sites meet key indicator</td>
</tr>
<tr>
<td>Key indicator achieved if:</td>
<td></td>
</tr>
<tr>
<td>At least two types of qualified therapy working 7 days a week. Includes occupational therapy, physiotherapy and speech and language therapy.</td>
<td></td>
</tr>
</tbody>
</table>
Comparisons over time
The graph below presents how the number of sites with therapists working 7-days a week has increased since 2008.

Figure 22 shows the sites with qualified therapist working 7-days a week, acute organisational Audit 2016 National Report.

Figure 22: Sites with qualified therapist 7 days a week
The line graph below provides changes over time for the past three acute organisational audits. It demonstrates the median WTE for each therapy type per 10 beds.

Figure 23 shows the median WTE for each therapy type per 10 beds, acute organisational Audit 2016 National Report.

Figure 23: Median WTE for each therapy type per 10 beds
Acute organisational Audit 2016: National Report

The table below is extracted from the Acute Organisational Audit 2016 National Report. It demonstrates National levels of and access to therapy staff. It compares results over time by presenting results for both the 2014 and 2016 Acute Organisational Audits. The table shows the percentage of sites with access to at least one of each type, how many have six of seven day working and median and interquartile range (IQR) for whole time equivalent (WTE) as a whole and per 10 beds.

Figure 24 is an extract from acute organisational Audit 2016: National Report:

<table>
<thead>
<tr>
<th>Whole time equivalents (WTE)</th>
<th>Qualified staff 2014 (183 sites)</th>
<th>Support staff 2014 (183 sites)</th>
<th>Qualified staff 2016 (178 sites)</th>
<th>Support staff 2016 (178 sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation therapy</td>
<td>Percentage (Number YES)</td>
<td>100% (183)</td>
<td>91% (167)</td>
<td>100% (178)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 6 day service)</td>
<td>13% (24/183)</td>
<td>7% (12/167)</td>
<td>16% (28/178)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 7 day service)</td>
<td>22% (40/183)</td>
<td>21% (35/167)</td>
<td>31% (55/178)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR)</td>
<td>3.0 (2.0-4.1)</td>
<td>1.0 (0.5-1.8)</td>
<td>3.3 (2.0-4.7)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR) per 10 beds</td>
<td>1.1 (0.8-1.5)</td>
<td>0.4 (0.2-0.6)</td>
<td>1.3 (1.0-1.6)</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>Percentage (Number YES)</td>
<td>100% (183)</td>
<td>95% (173)</td>
<td>100% (178)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 6 day service)</td>
<td>16% (29/183)</td>
<td>19% (18/173)</td>
<td>13% (24/178)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 7 day service)</td>
<td>28% (52/183)</td>
<td>24% (41/173)</td>
<td>40% (71/178)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR)</td>
<td>3.4 (2.5-5.0)</td>
<td>1.2 (0.9-1.9)</td>
<td>3.8 (2.6-5.0)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR) per 10 beds</td>
<td>1.3 (1.1-1.6)</td>
<td>0.5 (0.3-0.7)</td>
<td>1.4 (1.1-1.6)</td>
</tr>
<tr>
<td>Speech and language therapy</td>
<td>Percentage (Number YES)</td>
<td>98% (180)</td>
<td>52% (95)</td>
<td>98% (175)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 6 day service)</td>
<td>3% (5/180)</td>
<td>2% (2/95)</td>
<td>5% (15/175)</td>
</tr>
<tr>
<td></td>
<td>Percentage (Number 7 day service)</td>
<td>5% (9/180)</td>
<td>8% (8/95)</td>
<td>6% (11/175)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR)</td>
<td>1.4 (0.8-2.1)</td>
<td>0.1 (0.0-0.5)</td>
<td>1.6 (1.0-2.2)</td>
</tr>
<tr>
<td></td>
<td>Median (IQR) per 10 beds</td>
<td>0.5 (0.3-0.8)</td>
<td>0.0 (0.0-0.2)</td>
<td>0.6 (0.4-0.8)</td>
</tr>
</tbody>
</table>

Figure 24: Acute Organisational Audit, WTE table

Useful resources from the 2016 Acute Organisational Audit

The following reporting outputs are available for the most recent Acute Organisational Audit which measured structures as at 1st July 2016. Each offers a different level of detail, either providing a high level summary of results, results for key aspects of the audit only or the ability to drill down into the every data item by named site.

Interactive maps and data visualisation tools have also been used providing graphical representation and easy absorption of results. These reporting outputs have been produced to compliment the SSNAP clinical audit and we recommend they are used to supplement discussions on service performance and development, particularly around therapy.
Figure 25 shows the reports available for the acute organisational audit 2016.

To find these reports please visit
https://www.strokeaudit.org/results/Organisational/National-Organisational.aspx
Section 5: SSNAP Post-acute stroke services therapy reporting

In response to concerns that so little was known about the care provided for patients after their acute hospital stay, SSNAP undertook the first organisational audit of post-acute stroke services in 2015. This complemented the continuous clinical audit by providing organisational context, and enabled clinicians, managers and commissioners to examine and review their existing services and local pathway of rehabilitation in the community.

Aims of the post-acute organisational audit

1. To identify post-acute services commissioned to provide stroke rehabilitation beyond the acute setting
2. To measure the extent to which specialist stroke rehabilitation is being organised by these services in comparison with the evidence-based standards in the RCP and NICE stroke guidelines
3. To establish a baseline of current service organisation nationally to compare with processes of care (SSNAP clinical) and to monitor change over time
4. To enable providers to benchmark the quality of their service organisation nationally and regionally
5. To identify where improvements to services are needed and make recommendations
6. To provide timely, transparent information to patients and the public about the quality of post-acute stroke care organisation
7. To provide commissioners with evidence of the quality of commissioned post-acute services

In order for the audit to capture as much information as possible, the audit was conducted in two phases:

Phase 1: Audit of post-acute stroke service commissioning

Clinical Commissioning Groups (CCGs) in England, Local Health Boards (LHBs) in Wales and Local Commissioning Groups (LCGs) in Northern Ireland were approached for information on the post-acute stroke services they commission for stroke survivors within their locality. Recruitment and data submission for this phase was very successful with 99.6% (222/223) of organisations submitting information.

Commissioner specific results were released to all participants in March 2015, with the results made available to NHS organisations in April 2015 and publically available on 8 June 2015. This information provided a unique insight into the gaps in commissioning of key elements of the services stroke patients to be viewed alongside the clinical indicators and pathway descriptions. It also enabled SSNAP to provide a national picture of post-acute commissioning for stroke for the first time.

As well as commissioner specific reports, a range of other outputs have been produced at a national and regional level for a variety of audiences including strategic clinical network leads, clinicians, managers, Departments of Health, wider NHS organisation and the general public. These resources were also made publically available on 8 June 2015.
Figure 27 shows the reports available for the post-acute organisational audit: phase 1.

**Results**
- Public Report
- Generic Report

**Easy Access Version (EAV) Reports**
- National EAV
- Regional EAV

**Slide Decks (national and regional)**

**Portfolios**
- Full results portfolio
- Summary spreadsheet

**Interactive maps**

Figure 27: Phase 1 reports

The data from Phase 1 was used as a platform for identifying the breadth of services open to stroke survivors in England, Wales and Northern Ireland.

**Phase 2: Audit of post-acute stroke service providers**

In Phase 2 post-acute providers (those services identified in Phase 1 together with those already known to SSNAP) were asked to complete a snapshot organisational audit on how their services are organised.

Overall, 756 services were identified as eligible to participate in the audit. The audit questionnaire was developed under the guidance of the Intercollegiate Stroke Working Party, member of which also helped pilot it in both paper and the final web-based format. Data collection was carried out between 9 April and 29 May 2015.

Services were asked to submit organisational information on each type of service they provided for stroke survivors (e.g. post-acute inpatient, outpatient, multi-disciplinary domiciliary service, single discipline service, 6 month assessment and family and carer support) and the information submitted reflected the service structure as of 1 April 2015.

By the end of data collection 81.1% (613/756) services had registered to participate, and 80% (604/756) had submitted data on the types of services they carried out. Service level results were released to participating services in October 2015, with national results being made available to the wider NHS.
shortly after. All published results were made public at the UK Stroke Forum on 2 December 2015. A variety of outputs will be developed and made available to enable to these audit results to be disseminated to as many audiences as possible. Reporting outputs are similar to those developed for phase 1, including (but not limited to) the following:

Figure 28 shows the reports available for the post-acute organisational audit: phase 2.

**Results**
- Public Report
- Generic Report

**Easy Access Version (EAV) Reports**
- National EAV
- Regional EAV

To find these reports please visit
[https://www.strokeaudit.org/results/PostAcute.aspx](https://www.strokeaudit.org/results/PostAcute.aspx)
Section 6: Therapy resources on SSNAP

SSNAP DIY analysis tool

In addition to the periodic reports, a team can look at interim results as long as the data are complete and locked. The SSNAP DIY analysis tool provides teams with SSNAP data analysis for key therapy measures, including therapy assessments within 72 hours, therapy intensity and length of stay.

This tool has been designed to aid local reporting and is in the form of a Microsoft excel sheet into which an extract of the data from SSNAP can be pasted. The tool will then calculate the median number of therapy minutes and days that have been provided for that time period.

Figures 29 and 30 show the therapy section of the DIY analysis tool and the therapy intensity section respectively.

The DIY analysis tool can be downloaded by logged in users from the support area of the SSNAP webtool (www.strokeaudit.org) as demonstrated below.

Figure 31 shows where users can download the DIY analysis tool.
Therapy intensity calculator

SSNAP’s therapy intensity calculator allows users to collect therapy data ready for input into the SSNAP webtool. This resource is available for logged in users on the SSNAP webtool. [www.strokeaudit.org](http://www.strokeaudit.org)

Figure 32 is an extract of the therapy summary sheet within the therapy intensity calculator.

<table>
<thead>
<tr>
<th>Patient ID number</th>
<th>4.1 Date and time patient arrived in hospital/team</th>
<th>Therapy</th>
<th>4.4 Considered suitable to receive the therapy at any point in this admission?</th>
<th>4.4.1 If considered to require therapy at any point, what date was the patient no longer considered to require this therapy?</th>
<th>4.5 On how many days did the patient receive this therapy at their hospital/team?</th>
<th>4.6 How many MINUTES of this therapy in total did this patient receive during their stay in this hospital/team?</th>
<th>Entry complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>99999</td>
<td>01/04/2014 20:50</td>
<td>a) Physiotherapy</td>
<td>Yes</td>
<td>05/04/2014</td>
<td>5</td>
<td>90</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>a) Physiotherapy</td>
<td>a) Physiotherapy</td>
<td>No</td>
<td>05/04/2014</td>
<td>2</td>
<td>30</td>
<td>No</td>
</tr>
<tr>
<td>0</td>
<td>a) Physiotherapy</td>
<td>a) Physiotherapy</td>
<td>No</td>
<td>05/04/2014</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>0</td>
<td>a) Physiotherapy</td>
<td>a) Physiotherapy</td>
<td>No</td>
<td>05/04/2014</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>0</td>
<td>a) Physiotherapy</td>
<td>a) Physiotherapy</td>
<td>No</td>
<td>05/04/2014</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>0</td>
<td>a) Physiotherapy</td>
<td>a) Physiotherapy</td>
<td>No</td>
<td>05/04/2014</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**Figure 32: Therapy intensity calculator**

Custom fields

If there is any therapy information that you wish to collect which is not mandated by SSNAP, you can capture this information by adding custom fields to your proforma. This is a useful resource for local data requirements and local audits. The high functionality even allows validations to be entered on these questions, ensuring high quality data.

Only Lead Clinicians and Second Lead contacts have the ability to add custom fields. If you are not a Lead Clinician or Second Lead contact you may wish to work collaboratively to add custom fields.

For further information on how to set up custom fields, users should contact the SSNAP helpdesk. [ssnap@rcplondon.ac.uk](mailto:ssnap@rcplondon.ac.uk)

Figure 33 is an extract from the custom fields section on the SSNAP webtool.

**Figure 33: Custom fields**
Online Support Area

In addition to this report, SSNAP has developed an online therapy support resource. This resource is comprised of articles that offer SSNAP specific guidance and support to therapists. This tool gives the option for users to leave feedback to the articles provided.

Articles include:
1. Top 5 therapy FAQs
2. Reporting of therapy intensity
3. Applicability for therapy
4. How to interpret therapy results
5. Therapy Vignettes
6. Therapy resources on SSNAP
7. Therapy intensity calculator.

https://ssnap.zendesk.com/hc/en-us/sections/115000451409-Therapy

Figure 34, 35 and 36 demonstrates the online therapy resource area, including top 5 therapy FAQs, applicability for Therapy and therapy resources on SSNAP.
Glossary

Applicability

In the context of this report, applicability refers to those patients that are applicable for therapy at any point during their stay, regardless of how much therapy the patient requires and if they receive the therapy.

CCG Outcome Indicator Set (CCG OIS)

A set of measures by which commissioners of health services (Clinical Commissioning Groups) are held to account for the quality of services and the health outcomes achieved through commissioning.

Early Supported Discharge (ESD)

A service providing rehabilitation and support to stroke patients in a community setting by a multi-disciplinary team with the aim of reducing the duration of hospital care for stroke patients.

Patient-Centred

‘Patient centred’ attribute the results to every team which treated the patient at any point in their care. A team’s patient-centred results demonstrate the quality of care that their patients received across the whole inpatient care pathway, regardless of how many teams each patient went to, or which of the teams provided each aspect of care.

Team

Team in this context, refers to services that are registered on SSNAP and provide stroke care, these can be hospitals, community rehabilitation hospitals and domiciliary care.

Team-Centred

‘Team centred’ attribute the results to the team considered to be most appropriate to assign the responsibility for the measure to. In Section 1 (national level domains and scoring), it is clearly stated whether team- or patient-centred results are being presented.

Multidisciplinary Team

Refers to several types of health professionals working together, physiotherapists, occupational therapists, speech and language therapists, nurses and doctors.

National Clinical Guideline for Stroke (2016)


Users

Users refers to data entry clerks, clinicians, nurses, therapists and admin staff who enter data on behalf of their service on to the SSNAP webtool.
The purpose of the table below is to explain in easy-to-follow steps how each of the key indicators for each therapy domain 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. For complete guide to all 44 SSNAP key indicators please refer to the simplified technical information which can be found here https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Information-(1).aspx

| 5.1 Proportion of patients reported as requiring occupational therapy | Eligible patients for patient-centred
| | All patients in the patient-centred post-72h cohort
| | Eligible patients for team-centred
| | All patients in the team-centred post-72h cohort (records attributed to all teams)

*Calculations*

A patient is considered to require occupational therapy if Q4.4 (Was the patient considered to require this therapy at any point in this admission?) is answered “Yes” for Occupational Therapy.

For patient-centred results, the patient must be considered to require occupational therapy by at least one inpatient team the patient has been by.

For team-centred results, the patient must be considered to require occupational therapy by the specific team.

| 5.2 Median number of minutes per day on which occupational therapy is received | Eligible patients for patient-centred
| | Patients in the patient-centred post-72h cohort who are considered to require occupational therapy by at least one inpatient team.
| | Eligible patients for team-centred
| | Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require occupational therapy by the specific team.

*Calculations*

The number of minutes of Occupational Therapy received per team is given in Q4.6. The number of days on which Occupational Therapy is received per team is given in Q4.5.

For patient-centred results, the number of minutes of OT received is summed across all inpatient teams, out of the number of days on which OT is received summed across all inpatient teams.

For team-centred results, the number of minutes of OT received at an individual team, out of the number of days on which OT is received at an individual team.

| 5.3 Median percentage of a patient’s days as an inpatient on which occupational therapy is received | Eligible patients for patient-centred
| | Patients in the patient-centred post-72h cohort who are considered to require occupational therapy by at least one inpatient team.
| | Eligible patients for team-centred
| | Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require occupational therapy by the specific team.

*Calculations*
For each inpatient team a patient was considered to require Occupational Therapy at, the length of stay at that team for which the patient was considered to require Occupational Therapy is calculated as the difference between the date/time arrived at the team (Q4.1), or onset date/time (Q1.11) if the team is the first team and the patient was already in hospital at the time of their stroke, and either:
- The date patient considered to no longer require Occupational Therapy (Q4.4.1b) if a date is given, with a time component of 00:00.
- The date patient considered to no longer require inpatient rehabilitation (Q7.3.1) if the team is the last inpatient team and a date is given, with a time component of 00:00.
- The date/time the patient is transferred from this team (Q7.3) if it is not the team which discharged the patient from inpatient care (therefore there is no date given in Q7.3.1).
- The date the patient died (Q7.1.1) if the patient died in hospital (Q7.1 is “died”), with a time component of 00:00.

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

For patient-centred results, the length of stay at each team where the patient is considered to require OT are then summed together to give the patient’s total inpatient length of stay which is applicable for OT.
For team-centred results, the length of stay at that team (if the patient was considered to require OT at that team) is the patient’s length of stay applicable for OT.

For patient-centred results, the number of days of occupational therapy the patient receives (Q4.5) at each inpatient team the patient was deemed to require occupational therapy at are summed together to give the total number of days on which occupational therapy was received.
For team-centred results, the number of days of occupational therapy the patient received (Q4.5) at the specific team is the total number of days on which OT was received.

The percentage of a patient’s days in hospital on which occupational therapy is received is calculated as the total number of days on which OT was received out of the patient’s length of stay which is applicable for OT.

| 5.4 Compliance (%) against the therapy target of an average of 25.7 minutes of occupational therapy across all patients (Target = 45 minutes x (5/7) x 0.8 which is 45 minutes of occupational therapy x 5 out of 7 days per week x 80% of patients) (NICE QS | Eligible patients for patient-centred  
All patients in the patient-centred post-72h cohort.  
Eligible patients for team-centred  
All patients in the team-centred post-72h cohort (records attributed to all teams).  

Calculations
The average number of minutes of occupational therapy per day across all patients is calculated as the “Proportion of patients reported as requiring occupational therapy” (calculated as per Key Indicator 5.1) multiplied by the “Median number of minutes per day on which occupational therapy is received” (calculated as per Key Indicator 5.2) multiplied by the “Median percentage of a patient’s days in hospital on which occupational therapy is received” (calculated as per Key Indicator 5.3).

The target for the average number of minutes of occupational therapy per day across all patients is calculated as 80% multiplied by 45 minutes, multiplied by 5/7 days, which is 25.7 minutes for all teams.

The percentage of the target achieved is calculated as the average number of minutes of occupational
<table>
<thead>
<tr>
<th>Statement 7)</th>
<th>therapy per day across all patients out of the target number of minutes.</th>
</tr>
</thead>
</table>


### 6.1 Proportion of patients reported as requiring physiotherapy

Eligible patients for patient-centred  
All patients in the patient-centred post-72h cohort  
Eligible patients for team-centred  
All patients in the team-centred post-72h cohort (records attributed to all teams)

**Calculations**

A patient is considered to require physiotherapy if Q4.4 (Was the patient considered to require this therapy at any point in this admission?) is answered “Yes” for Physiotherapy.

For patient-centred results, the patient must be considered to require physiotherapy by at least one inpatient team the patient has been seen by.

For team-centred results, the patient must be considered to require physiotherapy by the specific team.

### 6.2 Median number of minutes per day on which physiotherapy is received

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Patients in the patient-centred post-72h cohort who are considered to require physiotherapy by at least one inpatient team.** | Eligible patients for team-centred  
Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require physiotherapy by the specific team. |

### 6.3 Median percentage of a patient’s days as an inpatient on which physiotherapy is received

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Patients in the patient-centred post-72h cohort who are considered to require physiotherapy by at least one inpatient team.** | Eligible patients for team-centred  
Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require physiotherapy by the specific team. |

**Calculations**

For each inpatient team a patient was considered to require Physiotherapy at, the length of stay at that team for which the patient was considered to require Physiotherapy is calculated as the difference between the date/time arrived at the team (Q4.1), or onset date/time (Q1.11) if the team is the first team and the patient was already in hospital at the time of their stroke, and either:

- The date patient considered to no longer require Physiotherapy (Q4.4.1a) if a date is given, with a time component of 00:00.
- The date patient considered to no longer require inpatient rehabilitation (Q7.3.1) if the team is the last inpatient team and a date is given, with a time component of 00:00.
- The date/time the patient is transferred from this team (Q7.3) if it is not the team which discharged the patient from inpatient care (therefore there is no date given in Q7.3.1).
- The date the patient died (Q7.1.1) if the patient died in hospital (Q7.1 is “died”), with a time component of 00:00.

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

For patient-centred results, the length of stay at each team where the patient is considered to require PT are then summed together to give the patient’s total inpatient length of stay which is applicable for PT.

For team-centred results, the length of stay at that team (if the patient was considered to require PT at
that team) is the patient’s length of stay applicable for PT.

For patient-centred results, the number of days of physiotherapy the patient receives (Q4.5) at each inpatient team the patient was deemed to require physiotherapy at are summed together to give the total number of days on which physiotherapy was received.

For team-centred results, the number of days of physiotherapy the patient received (Q4.5) at the specific team is the total number of days on which PT was received.

The percentage of a patient’s days in hospital on which physiotherapy is received is calculated as the total number of days on which PT was received out of the patient’s length of stay which is applicable for PT.

| 6.4 Compliance (%) against the therapy target of an average of 27.3 minutes of physiotherapy across all patients (Target = 45 minutes x (5/7) x 0.85 which is 45 minutes of physiotherapy x 5 out of 7 days per week x 85% of patients) (NICE QS Statement 7) | Eligible patients for patient-centred
All patients in the patient-centred post-72h cohort.
Eligible patients for team-centred
All patients in the team-centred post-72h cohort (records attributed to all teams).

Calculations
The average number of minutes of physiotherapy per day across all patients is calculated as the “Proportion of patients reported as requiring physiotherapy” (calculated as per Key Indicator 6.1) multiplied by the “Median number of minutes per day on which physiotherapy is received” (calculated as per Key Indicator 6.2) multiplied by the “Median percentage of a patient’s days in hospital on which physiotherapy is received” (calculated as per Key Indicator 6.3).

The target for the average number of minutes of physiotherapy per day across all patients is calculated as 85% multiplied by 45 minutes, multiplied by 5/7 days, which is 27.3 minutes for all teams.

The percentage of the target achieved is calculated as the average number of minutes of physiotherapy per day across all patients out of the target number of minutes. |
| 7.1 Proportion of patients reported as requiring speech and language therapy | Eligible patients for patient-centred  
All patients in the patient-centred post-72h cohort  
Eligible patients for team-centred  
All patients in the team-centred post-72h cohort (records attributed to all teams)  
  
**Calculations**  
A patient is considered to require speech and language therapy if Q4.4 (Was the patient considered to require this therapy at any point in this admission?) is answered Yes for Speech and Language therapy.  
  
For patient-centred results, the patient must be considered to require speech and language therapy by at least one inpatient team the patient has been seen by.  
  
For team-centred results, the patient must be considered to require speech and language therapy by the specific team. |
|---|---|
| 7.2 Median number of minutes per day on which speech and language therapy is received  
Eligible patients for patient-centred | Patients in the patient-centred post-72h cohort who are considered to require speech and language therapy by at least one inpatient team.  
Eligible patients for team-centred  
Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require speech and language therapy by the specific team.  
  
**Calculations**  
The number of minutes of Speech and Language therapy received per team is given in Q4.6. The number of days on which Speech and Language therapy is received per team is given in Q4.5.  
For patient-centred results, the number of minutes of SALT received is summed across all inpatient teams, out of the number of days on which SALT is received summed across all inpatient teams.  
For team-centred results, the number of minutes of SALT received at an individual team, out of the number of days on which SALT is received at an individual team. |
| 7.3 Median percentage of patients days as an inpatient on which speech and language therapy is received | Eligible patients for patient-centred  
Patients in the patient-centred post-72h cohort who are considered to require speech and language therapy by at least one inpatient team.  
Eligible patients for team-centred  
Patients in the team-centred post-72h cohort (records attributed to all teams) who are considered to require speech and language therapy by the specific team.  
  
**Calculations**  
For each inpatient team a patient was considered to require Speech and Language therapy at, the length of stay at that team for which the patient was considered to require Speech and Language therapy is calculated as the difference between the date/time arrived at the team (Q4.1), or onset date/time (Q1.11) if the team is the first team and the patient was already in hospital at the time of their stroke, and either:  
- The date patient considered to no longer require Speech and Language Therapy (Q4.4.1c) if a date is given, with a time component of 00:00. |
The date patient considered to no longer require inpatient rehabilitation (Q7.3.1) if the team is the last inpatient team and a date is given, with a time component of 00:00.

The date/time the patient is transferred from this team (Q7.3) if it is not the team which discharged the patient from inpatient care (therefore there is no date given in Q7.3.1).

The date the patient died (Q7.1.1) if the patient died in hospital (Q7.1 is “died”), with a time component of 00:00.

The shortest length of stay in a given team where a patient is deemed to require speech and language therapy is set at 24 hours, therefore any shorter lengths of stay are rounded up to reflect this.

For patient-centred results, the length of stay at each team where the patient is consider to require SALT are then summed together to give the patient’s total inpatient length of stay which is applicable for SALT.

For team-centred results, the length of stay at that team (if the patient was considered to require SALT at that team) is the patient’s length of stay applicable for SALT.

For patient-centred results, the number of days of speech and language therapy the patient receives (Q4.5) at each inpatient team the patient was deemed to require speech and language therapy at are summed together to give the total number of days on which speech and language therapy was received.

For team-centred results, the number of days of speech and language therapy the patient received (Q4.5) at the specific team is the total number of days on which SALT was received.

The percentage of a patient’s days in hospital on which speech and language therapy is received is calculated as the total number of days on which SALT was received out of the patient’s length of stay which is applicable for SALT.

| 7.4 Compliance (%) against the therapy target of an average of 16.1 minutes of speech and language therapy across all patients (Target = 45 minutes x (5/7) x 0.5 which is 45 minutes of speech and language therapy x 5 out of 7 days per week x 50% of patients) (NICE QS Statement 7) | Eligible patients for patient-centred All patients in the patient-centred post-72h cohort. | Eligible patients for team-centred All patients in the team-centred post-72h cohort (records attributed to all teams). |

Calculations

The average number of minutes of speech and language therapy per day across all patients is calculated as the “Proportion of patients reported as requiring speech and language therapy” (calculated as per Key Indicator 7.1) multiplied by the “Median number of minutes per day on which speech and language therapy is received” (calculated as per Key Indicator 7.2) multiplied by the “Median percentage of a patient’s days in hospital on which speech and language therapy is received” (calculated as per Key Indicator 7.3).

The target for the average number of minutes of speech and language therapy per day across all patients is calculated as 50% multiplied by 45 minutes, multiplied by 5/7 days, which is 16.1 minutes for all teams.

The percentage of the target achieved is calculated as the average number of minutes of speech and language therapy per day across all patients out of the target number of minutes.
Regional inpatient team slide deck
The following slides are extracted from the regional inpatient team slide deck. This demonstrates what data visualisations are available for every region for each therapy domain and multidisciplinary team working domain. This slide deck presents results that are benchmarked nationally in a range of graphs that allow inter-team comparison across the region. These slide decks are publicly available and can be found on the SSNAP web tool at:
https://www.strokeaudit.org/results/Clinical-audit/Regional-Results.aspx

Domain 5 - Occupational therapy

Applicability and minutes per day of OT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.1A and 5.2A
Median % of inpatient days on which OT is received

Compliance (%) against OT target

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.3A

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.4A
Patient-centred results at team level for Domain 6

Source: SSNAP Aug-Nov 2016

Patient-centred results at team level for Key Indicator 6.1A and 6.2A

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 6.3A

Source: SSNAP Aug-Nov 2016

Median % of inpatient days on which PT is received

Patient-centred results at team level for Key Indicator 6.4A

Source: SSNAP Aug-Nov 2016

Compliance (%) against PT target
Domain 7 - Speech and language therapy

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Domain 7

Applicability and minutes per day of SALT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.1A and 7.2A
Median % of inpatient days on which SALT is received

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.3A

Compliance (%) against SALT target

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.4A
Domain 8 - Multidisciplinary team working

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Domain 8

OT assessment within 72 hours

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.1A
Clock start to OT assessment time

PT assessment within 72 hours

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.2A

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.3A
Clock start to PT assessment time

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.4A

SALT communication assessment within 72 hours

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.5A
Clock start to SALT communication assessment time

![Graph showing the time from clock start to SALT communication assessment with insufficient records for different hospitals and the National IQR and median.]

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.6A

Rehabilitation goals within 5 days

![Bar chart showing the percentage of rehabilitation goals achieved within 5 days for different hospitals with the National values.]

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.7A
Nursing, therapy and rehab goals within time limits

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.8A
Inpatient individual team slide deck
An extract from the slideshow available to all participating inpatient teams in the latest round of reporting. This extract demonstrates what data visualisations are available for each team for each therapy domain and multidisciplinary team working domain. You can download these slideshows once you are logged in to the SSNAP webtool at: www.strokeaudit.org/results/Clinical-audit/Teamresults.Aspx

![Applicability and minutes per day of OT](image)
Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.1A and 5.2A

![% of patient reported as requiring OT](image)
Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.1A
Patient-centred results at team level for Key Indicator 5.2A Team 276

Source: SSNAP Aug-Nov 2016

Patient-centred results at team level for Key Indicator 5.3A

Median minutes of OT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.2A

Median % of inpatient days* on which OT is received

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.3A
*From clock start to date recorded as no longer requiring OT
Patient-centred results at team level for Key Indicator 5.4A Team 276
Source: SSNAP Aug-Nov 2016

% of OT target achieved

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 5.4A

Applicability and minutes per day of PT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 6.1A and 6.2A
Patient-centred results at team level for Key Indicator 6.2A Team 276
Source: SSNAP Aug-Nov 2016

% of patient reported as requiring PT

Median minutes of PT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 6.1A

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 6.2A
Patient-centred results at team level for Key Indicator 6.4A Team 276

Source: SSNAP Aug-Nov 2016

*From clock start to date recorded as no longer requiring PT

% of PT target achieved

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 6.4A
Applicability and minutes per day of SALT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.1A and 7.2A

% of patient reported as requiring SALT

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.1A
Patient-centred results at team level for Key Indicator 7.2A Team 276

Source: SSNAP Aug-Nov 2016

Median minutes of SALT

Median % of inpatient days* on which SALT is received

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 7.3A
*From clock start to date recorded as no longer requiring SALT
Team-centred results at team level for Key Indicator 8.1B Team 276
Source: SSNAP Aug-Nov 2016

Patient-centred results at team level for Key Indicator 7.4A Team 276
Source: SSNAP Aug-Nov 2016

OT assessment within 72 hours
Source: SSNAP Aug-Nov 2016
Team-centred results at team level for Key Indicator 8.1B
Team-centred results at team level for Key Indicator 8.4B

Median time from clock start to PT (hh:mm)

Source: SSNAP Aug-Nov 2016
Team-centred results at team level for Key Indicator 8.4B

SALT communication assessment within 72 hours

Source: SSNAP Aug-Nov 2016
Team-centred results at team level for Key Indicator 8.5B
Team-centred results at team level for Key Indicator 8.6B Team 276

Median time from clock start to SALT communication (hh:mm)

Source: SSNAP Aug-Nov 2016

Patient-centred results at team level for Key Indicator 8.7A Team 276

Rehabilitation goals within 5 days

Source: SSNAP Aug-Nov 2016
Nursing, therapy and rehab goals within time limits

Source: SSNAP Aug-Nov 2016
Patient-centred results at team level for Key Indicator 8.8A
**ESD/CRT individual team slide deck**

An example of the slideshow available to all participating ESD and CRT teams in the latest round of reporting. You can download these slideshows once you are logged into the SSNAP webtool at: [www.strokeaudit.org/results/Clinical-audit/Teamresults.Aspx](http://www.strokeaudit.org/results/Clinical-audit/Teamresults.Aspx)

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Your team</th>
<th>All ESD/CRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients discharged from ESD/CRT</td>
<td>70</td>
<td>6564</td>
</tr>
<tr>
<td>Percentage of female patients</td>
<td>46%</td>
<td>45%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casemix</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>74 (66-82)*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pathway processes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Days between discharge from inpatient team to first seen by ESD team</td>
<td>1 (0-2)*</td>
</tr>
<tr>
<td>Days between first seen by team to date rehab goals agreed</td>
<td>1 (0-5)*</td>
</tr>
<tr>
<td>Length of stay (days) with ESD/CRT</td>
<td>36 (16-41)*</td>
</tr>
</tbody>
</table>

*Median (IQR)
Source: SSNAP Aug-Nov 2016

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**Discharge inpatient team - Day of the week**

Source: SSNAP Aug-Nov 2016
National level results
Source: SSNAP Aug-Nov 2016

*includes all patients discharged alive from inpatient care
Modified Ranking Score at discharge from inpatient care

Source: SSNAP Aug-Nov 2016

*includes all patients discharged alive from inpatient care

Applicability, days and minutes per day of therapy

Source: SSNAP Aug-Nov 2016
The Sentinel Stroke National Audit Programme (SSNAP) is the National Clinical Audit for Stroke and the main source of stroke data in the NHS. Data is collected on every stroke patient admitted to hospital in England, Wales and Northern Ireland. This is a summary of the stroke care provided by this hospital over the last two and a half years highlighting areas of good, adequate and poor performance. It should be shared with everyone involved in developing and providing stroke care in this hospital, including the non-executive team and managers, in order to draw up action plans for improvement. The SSNAP website has a range of additional tools to help drill down deeper into the data and identify ways to improve.

### Overall SSNAP score performance from April 2014 to November 2016

![Graph showing SSNAP score performance](image)

**Performance recently has generally been:**

- **Good**

- This hospital's performance over the two and a half years has generally been:
  - **Worsening**

### Performance in key indicators of care quality over the past year

<table>
<thead>
<tr>
<th>Mainly LOW scoring domains (D or E average)</th>
<th>Mainly ADEQUATE domains (C average)</th>
<th>Mainly GOOD domains (A or B average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(None)</td>
<td>Stroke Unit</td>
<td>Scanning</td>
</tr>
<tr>
<td></td>
<td>Speech and Language Therapy</td>
<td>Thrombolysis</td>
</tr>
<tr>
<td></td>
<td>Multidisciplinary Team Working</td>
<td>Specialist Assessments</td>
</tr>
<tr>
<td></td>
<td>Discharge Processes</td>
<td>Occupational Therapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physiotherapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standards by Discharge</td>
</tr>
</tbody>
</table>

**areas to focus quality improvement on, as require substantial improvement**

**areas where further improvements are still needed.**

**areas to celebrate success, maintain performance and identify whether further improvements are feasible.**

For further information about performance in different domains of care and scoring methodology, visit our results portal:

[https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx](https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx)
Activity and length of stay

In August-November 2016 this hospital treated 221 patients, of which:

- 221 patients were first admitted to this hospital
- 0 patients were transferred in from another hospital

<table>
<thead>
<tr>
<th>Length of stay:</th>
<th>For all routinely admitting teams nationally N=27,507</th>
<th>For all patients treated at this team N=221</th>
<th>For patients discharged/transferred alive from this team N=206</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 days</td>
<td>40.3% (11,087 patients)</td>
<td>48.9% (108)</td>
<td>49.0% (101)</td>
</tr>
<tr>
<td>4-7 days</td>
<td>20.3% (5,580 patients)</td>
<td>36.2% (80)</td>
<td>36.4% (75)</td>
</tr>
<tr>
<td>8-21 days</td>
<td>21.4% (5,886 patients)</td>
<td>14.0% (31)</td>
<td>13.6% (28)</td>
</tr>
<tr>
<td>22-30 days</td>
<td>5.3% (1,446 patients)</td>
<td>0.9% (2)</td>
<td>1.0% (2)</td>
</tr>
<tr>
<td>31+ days</td>
<td>12.8% (3,508 patients)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>14.0 days</td>
<td>5.1 days</td>
<td>5.1 days</td>
</tr>
</tbody>
</table>

**Cost of stroke**

These costs have been derived from the SSNAP health economic model. This estimates the average cost of stroke according to patients’ age, sex, stroke type and stroke severity. NHS costs include acute treatment costs, bed stays, inpatient and post-discharge rehabilitation, drug prescribing and follow up GP and hospital visits. Social care costs include the costs of nursing home admission and packages of care. They are not the costs for a specific hospital, but the average cost across all providers.

The model explored the cost effectiveness of two evidence-based interventions for acute stroke patients; thrombolysis and discharge with Early Supported Discharge. Both of these interventions are appropriate for a subset of acute stroke patients.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Current rate</th>
<th>Average cost saving by intervention</th>
<th>Quality-adjusted life-years gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrombolysis</td>
<td>13%</td>
<td>£4,100 for 1 patient</td>
<td>0.26 QALYs</td>
</tr>
<tr>
<td>Early Supported Discharge (ESD)</td>
<td>10%</td>
<td>£1,600 for 1 patient</td>
<td>0.14 QALYs</td>
</tr>
</tbody>
</table>

Nationally, 7.0% of patients discharged alive from inpatient care between August-November 2016 were newly institutionalised into a care home for the first time upon leaving hospital. This compares to 10.1% (19/188) for patients treated by this hospital and discharged from inpatient care either by this hospital or another hospital.

For further information, visit our results portal: www.strokeaudit.org/results

Information is available for different types of users:

- Data on stroke care quality for all services in England, Wales and Northern Ireland
- Regional slideshows and Easy Access Versions
- Reporting outputs for Clinical Commissioning Groups (CCGs) in England and Local Health Boards (LHBs) in Wales
- Information about patient outcomes (30 day all cause mortality and AF outcomes)
- Data about patient characteristics (e.g. AF, age profiles)
- Nationally benchmarked data on how effectively stroke services are organised (e.g. staffing levels, acute care protocols and provision of specialist services)
- Interactive root-cause analysis tools for to help to speed up thrombolysis and intra-arterial intervention times (requires log-in)
- Detailed data on the costs of stroke, and the costs and benefits of improving thrombolysis and Early Supported Discharge
- Interactive maps, infographics and dashboards.
Intercollegiate Stroke Working Party – List of Members

Chair

Professor Anthony Rudd, Professor of Stroke Medicine, King’s College London; Consultant Stroke Physician, Guy’s and St Thomas’ NHS Foundation Trust

Associate directors from the Stroke Programme at the Royal College of Physicians

Professor Pippa Tyrrell, Professor of Stroke Medicine, University of Manchester; Consultant Stroke Physician, Salford Royal NHS Foundation Trust

Dr Geoffrey Cloud, Consultant Stroke Physician, Honorary Senior Lecturer Clinical Neuroscience, St George’s University Hospitals NHS Foundation Trust, London

Dr Martin James, Consultant Stroke Physician, Royal Devon and Exeter NHS Foundation Trust; Honorary Associate Professor, University of Exeter Medical School

List of Members

Association of Chartered Physiotherapists in Neurology
Dr Nicola Hancock, Lecturer in Physiotherapy, School of Health Sciences, University of East Anglia

AGILE – Professional Network of the Chartered Society of Physiotherapy
Mrs Louise McGregor, Allied Health Professional Therapy Consultant – Acute Rehabilitation, St George’s University Hospitals NHS Trust, London

Association of British Neurologists
Dr Gavin Young, Consultant Neurologist, The James Cook University Hospital, South Tees Hospitals NHS Foundation Trust

British Association of Stroke Physicians
Dr Neil Baldwin, Consultant Stroke Physician
Dr Damian Jenkinson, Consultant in Stroke Medicine, Dorset County Hospital Foundation Trust

British Society of Rehabilitation Medicine/Society for Research in Rehabilitation
Professor Derick Wade, Consultant in Rehabilitation Medicine, The Oxford Centre for Enablement

British Geriatrics Society
Professor Helen Rodgers, Professor of Stroke Care, Newcastle University

British Dietetic Association
Mr Alex Lang, Guy’s and St Thomas’ NHS Foundation Trust

British and Irish Orthoptic Society
Dr Fiona Rowe, Reader in Orthoptics and Health Services Research, University of Liverpool
British Psychological Society
Dr Audrey Bowen, The Stroke Association John Marshall Memorial Reader in Psychology, University of Manchester

Dr Jason Price, Consultant Clinical Neuropsychologist, The James Cook University Hospital

Dr Shirley Thomas, Lecturer in Rehabilitation Physiotherapy, Queens Medical Centre

British Society of Neuroradiologists
Dr Andrew Clifton, Interventional Neuroradiologist, St George’s University Hospitals NHS Foundation Trust, London

Chartered Society of Physiotherapy
Dr Cherry Kilbride, Senior Lecturer in Physiotherapy, Institute of Health, Environment and Societies, Brunel University, London

The Cochrane Stroke Group
Professor Peter Langhorne, Professor of Stroke Care Medicine, University of Glasgow

College of Occupational Therapists and Special Section Neurological Practice
Professor Avril Drummond, Professor of Healthcare Research, University of Nottingham
Mrs Karen Clements, Clinical Specialist Occupational Therapist – Stroke, London Road Community Hospital

College of Paramedics
Mr Joseph Dent, Advanced Paramedic, College of Paramedics

Faculty of Prehospital Care of the Royal College of Surgeons of Edinburgh and the National Ambulance Service Medical Directors Group
Dr Neil Thomson, Interim Deputy Medical Director, London Ambulance Service NHS Trust

Health Economics Advice
Professor Anita Patel, Chair in Health Economics, Queen Mary University of London

NIMAST (Northern Ireland)
Dr Michael Power, Consultant Physician Ulster Hospital Belfast, Founder and Committee Member NIMAST

Patient representative
Mr Robert Norbury

Patient representative
Mr Stephen Simpson

Patient representative
Ms Marney Williams
Public Health England
Dr Patrick Gompertz, Consultant Physician, The Royal London Hospital

Public Health England/Royal College of Physicians
Dr Benjamin Bray, Clinical Research Fellow, Kings College London

Royal College of Nursing
Mrs Diana Day, Stroke Consultant Nurse, Addenbrooke’s Hospital, Cambridge University Hospitals NHS Foundation Trust
Dr Amanda Jones, Stroke Nurse Consultant, Sheffield Teaching Hospitals NHS Foundation Trust

Royal College of Radiologists
Prof Philip White, Hon Consultant Neuroradiologist, Newcastle Upon Tyne Hospitals NHS Foundation Trust

Royal College of Speech & Language Therapists
Ms Rosemary Cunningham, Speech and Language Therapy Team Manager, Royal Derby Hospital (Derbyshire Community Health Services Foundation Trust)

Royal College of Speech & Language Therapists
Professor Pam Enderby, Professor of Rehabilitation, University of Sheffield
Dr Sue Pownall, Head of speech and Language Therapy, Sheffield Teaching Hospitals NHS Foundation Trust

Southern Health and Social Care Trust
Dr Michael McCormick, Consultant Geriatrician/Stroke Physician, Craivagon Area Hospital

Stroke Association
Ms Juliet Bouverie, Chief Executive, Stroke Association
Mr Dominic Brand, Director of Marketing and External Affairs, Stroke Association

Welsh Government Stroke Implementation Group
Dr Phil Jones, Clinical Lead for Wales, Hywel Dda University Health Board
What therapy activity should be included on SSNAP?

**Therapy includes:**
- assessment and goal-directed therapy (i.e. towards goals that have been set and agreed by the team)
- either individual or group therapy
- either individual or group therapy
- home visits where the patient is present
- training patients and carers
- speech and language therapy refers to communication therapy and swallowing therapy

**Therapy does not include:**
- time spent for the therapist to travel to and from the patient
- time spent documenting patient therapy
- environmental visits
- multidisciplinary team meetings
- case conferences
- case reviews

**Guiding questions to determine if therapy should be included on SSNAP:**

1. Was the patient considered to require therapy at any point during their inpatient stay?
2. Was the activity with the patient face – to – face?
3. Was the activity working towards agreed goals?
4. Was the activity provided by either a therapist or rehabilitation assistant under supervision?

If the answer to all questions is YES then the therapy data should be inputted to the proformas and included in SSNAP.

If the answer to any questions is NO then the activity should not be inputted to the proformas and it will not be included in SSNAP.

If you are still uncertain whether therapy should be included, please contact the SSNAP helpdesk

ssnap@rcplondon.ac.uk
The vignettes below give examples of various therapy scenarios and outline the way in which each instance should be recorded on SSNAP. These examples were brought to our attention by a user query.

1. A band 5 OT accompanies Patient A on a home visit. They leave the hospital in a taxi at 11.00am and arrive at the patient’s home at 11.20am. During the journey the OT informs Patient A of what will happen when they reach his home, but does not subsequently address him. When they arrive at his home, she completes her assessment, and they leave the house at 11.57am, returning to the hospital at 12.20pm. The therapist records 80 minutes of OT in the SSNAP data record.

*Therapy does not include travel time alone, however if the patient is being taught how to get in, and out of the car, or positioning whilst in the car – then this would count as time towards therapy on SSNAP. Similarly, time spent describing what will happen during the therapy would count as therapy time on SSNAP. The therapist should record 37 minutes of therapy time, plus any time in the car describing what will happen, and any further OT in the car.*

2. A band 6 SLT plans to assess Patient B’s swallow and sits down to read his medical record at 3.00pm. She subsequently approaches his allocated nurse, and discusses with her how he has been managing with his thickened drinks. At 3.10pm, she approaches Patient B and gains consent to complete a bedside swallowing assessment. He agrees and she leaves to make up a thickened drink in the kitchen, returning some 3 minutes later. She conducts the assessment and provides him with recommendations following an upgrade. She updates a whiteboard above Patient B’s bed and leaves the patient at 3.25pm, before returning to the nurse to handover updated information, then writing her recommendations in Patient A’s medical record. She completes her work at 3.45pm and records 45 minutes in her SSNAP data record.

*It is suitable to include the time speaking with the patient’s allocated nurse in the recorded therapy time. The therapy therefore occurred between 3:00pm to 3:25pm; therefore 25 minutes of therapy should be recorded. Documentation is not included in therapy time.*

3. Patient C was discharged from active physiotherapy on 3rd November, but is awaiting discharge to an intermediate care facility. On 18th November, she attends a chair-based exercise group, alongside three other patients, staffed by a band 6 physiotherapist and a band 3 TA. The group lasts for 50 minutes and Patient C completes the exercises independently. The physiotherapist describes the aim of the session for Patient C was to maintain her current level of functioning and does not record any therapy minutes in the SSNAP data record.

*This is correct, as the patient will have already been discharged on SSNAP.*

4. A generic therapy assistant approaches Patient D for therapy at 11.40pm. During a ten-minute session, she directs him to complete a number of tasks, including threading beads on to a string and moving blocks from one box to another, using his affected upper limb. The TA records 10 minutes of OT in the SSNAP data record.

*If the therapy assistant was under supervision, then this is correct, and 10 minutes of OT should be recorded.*
5. A PT and an OT approach Patient E at 11.10am. Together, the therapists assist her to walk with her stick to the gym, where the PT completes a Berg Balance Assessment. The PT asks the OT to help Patient E if she needs it and the OT provides physical assistance during the session while the PT reads the instructions and completes the assessment form. When the assessment is complete, the OT directs Patient E to walk back to her bedside, encouraging her to read from signs on the way. The session ends at 11.55am. 45 minutes of OT and 45 minutes of PT are recorded in the SSNAP data record.

This is correct, if two therapists of different professions treat a patient at the same time, you should record the total number of minutes for each therapy – this is providing that both the PT and OT are treating the patient holistically (ie. from both professional perspectives). If the OT is only assisting the PT, then it would only count as OT time.