Moving the Dial of Stroke Care
The Sixth SSNAP Annual Report

Stroke care received for patients admitted to hospital between
April 2018 to March 2019

Sentinel Stroke National Audit Programme
SECTION A: Getting to Hospital for Urgent Treatment

Median time between onset of symptoms and arrival at hospital

2013/14: 2 hours 25 min

2018/19: 3 hours 06 min

For seven out of ten patients for whom the onset time is known, the onset to arrival times to hospital have increased over the 6-year period.
SECTION B: Urgent Scanning

Brain scan with 1 hour
Changes over time

Annual Percentage: 42 44 47 51 53 55

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: G6.9
<table>
<thead>
<tr>
<th>Time of admission</th>
<th>Day of week</th>
<th>Likelihood of getting a brain scan within one hour of arrival at hospital</th>
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</table>

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
SECTION C: Stroke Unit Care

Stroke unit admission within 4 hours

Changes over time

Annual Percentage: 58

Percentage of Patients Meeting Key Indicator

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: G7.18
Stroke Unit Admission Within 4 Hours
Likelihood of direct admission to a stroke unit within four hours of arrival at hospital

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Percentage of patients who spent at least 90% of their stay on stroke unit

Changes over time

Annual Percentage:

83
82
84
84
84
84
84
84

Standard

84
84
82
83
83
82
84
85
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85
85
83
85
82
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85
85
83

Percentage of Patients Meeting Key Indicator

Jul-Sep 2013
Oct-Dec 2013
Jan-Mar 2014
Apr-Jun 2014
Jul-Sep 2014
Oct-Dec 2014
Jan-Mar 2015
Apr-Jun 2015
Jul-Sep 2015
Oct-Dec 2015
Jan-Mar 2016
Apr-Jun 2016
Jul-Sep 2016
Oct-Dec 2016
Jan-Mar 2017
Apr-Jun 2017
Jul-Sep 2017
Oct-Dec 2017
Jan-Mar 2018
Apr-Jun 2018
Jul-Sep 2018
Oct-Dec 2018
Jan-Mar 2019

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: J8.11
SECTION D: Thrombolysis

Thrombolysis rate (All strokes)
Changes over time

Annual Percentage: 12 12 11 12 12 12 12

Percentage of Patients Meeting Key Indicator

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: G16.3
Door to needle times

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Thrombolysis Within 1 Hour
Likelihood of receiving intravenous thrombolysis within one hour of arrival at hospital

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
SECTION E: Thrombectomy

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/17</td>
<td>602</td>
</tr>
<tr>
<td>2017/18</td>
<td>799</td>
</tr>
<tr>
<td>2018/19</td>
<td>1200</td>
</tr>
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</table>

Number of patients who received intra-arterial interventions
Change in National Institutes of Health Stroke Scale (NIHSS)

At hospital arrival and 24 hours after mechanical thrombectomy

<< Better Outcomes

Worse Outcomes >>

Change in median NIHSS

Before Thrombectomy

After Thrombectomy

Source: Sentinel Stroke National Audit Programme (SSNAP) April 2016 to March 2019 National Results
SECTION F: Improving Care for Haemorrhagic Stroke Patients

Intracerebral haemorrhage management

<table>
<thead>
<tr>
<th>Period</th>
<th>Blood pressure lowering within 24h</th>
<th>Warfarin antidote</th>
<th>Direct oral anticoagulant (DOAC) antidote</th>
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</thead>
<tbody>
<tr>
<td>Dec-Mar 2017/18</td>
<td>67%</td>
<td>75%</td>
<td>7%</td>
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<tr>
<td>Apr-Jun 2018</td>
<td>64%</td>
<td>75%</td>
<td>9%</td>
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<tr>
<td>Jul-Sep 2018</td>
<td>63%</td>
<td>72%</td>
<td>7%</td>
</tr>
<tr>
<td>Oct-Dec 2018</td>
<td>66%</td>
<td>71%</td>
<td>7%</td>
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<tr>
<td>Jan-Mar 2019</td>
<td>67%</td>
<td>75%</td>
<td>7%</td>
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Source: Sentinel Stroke National Audit Programme (SSNAP) December 2017 to March 2019 National Results
Items Reference: G22.3, G25.3, G25.15
SECTION G: Treatment for Irregular Heartbeats

Patients with pre-stroke atrial fibrillation on anticoagulants

Changes over time

Annual Percentage:

- Jul-Sep 2013: 38%
- Oct-Dec 2013: 39%
- Jan-Mar 2014: 40%
- Apr-Jun 2014: 41%
- Jul-Sep 2014: 41%
- Oct-Dec 2014: 44%
- Jan-Mar 2015: 46%
- Apr-Jun 2015: 47%
- Jul-Sep 2015: 49%
- Oct-Dec 2015: 50%
- Jan-Mar 2016: 51%
- Apr-Jun 2016: 54%
- Jul-Sep 2016: 57%
- Oct-Dec 2016: 59%
- Jan-Mar 2017: 59%
- Apr-Jun 2017: 59%
- Jul-Sep 2017: 62%
- Oct-Dec 2017: 61%
- Jan-Mar 2018: 64%
- Apr-Jun 2018: 64%
- Jul-Sep 2018: 64%
- Oct-Dec 2018: 64%
- Jan-Mar 2019: 64%

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: F6.13
Patients in atrial fibrillation discharged on anticoagulants

Changes over time

Annual Percentage:

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item Reference: J32.16
SECTION H: Multidisciplinary Team Working

Stroke specialist
Likelihood of being assessed by a stroke specialist within 14 hours of arrival at hospital

<table>
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<tr>
<th>Time of admission</th>
<th>Mon</th>
<th>Tue</th>
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<th>Fri</th>
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Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Swallow screen within 4 hours of clock start
Changes over time

Percentage of Applicable Patients Meeting Key Indicator

<table>
<thead>
<tr>
<th>Month</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Jul-Sep 2013</td>
<td>65%</td>
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<td>Oct-Dec 2013</td>
<td>64%</td>
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<td>Jan-Mar 2014</td>
<td>65%</td>
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<td>Apr-Jun 2014</td>
<td>67%</td>
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<tr>
<td>Jul-Sep 2014</td>
<td>69%</td>
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<tr>
<td>Oct-Dec 2014</td>
<td>69%</td>
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<tr>
<td>Jan-Mar 2015</td>
<td>68%</td>
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<tr>
<td>Apr-Jun 2015</td>
<td>71%</td>
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<tr>
<td>Jul-Sep 2015</td>
<td>72%</td>
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<tr>
<td>Oct-Dec 2015</td>
<td>73%</td>
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<tr>
<td>Jan-Mar 2016</td>
<td>74%</td>
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<tr>
<td>Apr-Jun 2016</td>
<td>74%</td>
</tr>
<tr>
<td>Jul-Sep 2016</td>
<td>73%</td>
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<tr>
<td>Oct-Dec 2016</td>
<td>76%</td>
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<td>Jan-Mar 2017</td>
<td>76%</td>
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Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: G14.20
Target compliance (across all patients) by therapy modality

Changes over time

Percentage compliance

Therapy modality
- Occupational therapy
- Physiotherapy
- Speech and language therapy

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Items reference: J3.10, J4.10 and J5.10
Psychological Therapy
Changes over time

Median Percentage of Applicable Days Receiving Psychological Therapy

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: J7.4
SECTION J: Longer Term Care

Patients treated by a stroke-skilled Early Supported Discharge (ESD) team

Changes over time

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: J10.3
Six month assessment
Changes over time

Percentage of Applicable Patients Meeting Key Indicator

Annual Percentage: 20 22 29 33 32 32

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019 National Results
Item reference: M4.6
Outcomes After Stroke

All Cause Mortality at 30-Days

England and Wales

Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2019
Outcomes After Stroke

In-hospital stay for stroke patients
2001 to 2019

Source: Sentinel Stroke National Audit Programme (SSNAP)
Item Reference (for 2013 to 2019): J8.4
Three Types of Trends

IMPROVING

- Compliance with Physiotherapy Target: 53% to 82% (↑29%)
- Brain Imaging within 1 hour of arrival at hospital: 42% to 55% (↑13%)
- Access to Early Supported Discharge Team: 25% to 39% (↑14%)
- Number of patients undergoing Thrombectomy (2016-2019): 602 to 1200 (↑100)
- Door to Needle time for Thrombolysis (in minutes): 59m to 52m (↓7m faster)
- Proportion of applicable patients receiving Six Month Assessments: 20% to 32% (↑12%)

PLATEAUING

- Proportion of patients spending at least 90% of their stay on a Stroke Unit: 83% to 84% (↑1%)
- Proportion of patients receiving Thrombolysis: 12% to 12% (0%)
- Percentage of patients who are directly admitted to a Stroke Unit within 4 hours of arrival at hospital: 58% to 58% (0%)

DETERIORATING

- Median time between onset of symptoms and arrival at hospital (in hours and minutes): 2h25m to 3h06m (↑41m)

2013 2019
Final Thoughts...

• Audit should be used as a tool to support quality improvement

• Not used to negatively shame or criticize

• There have been major improvements in the last 6 years

• Reducing arrival times to hospital and improving admission times to stroke units will be a priority for the next coming year

• Publication of NHS Long Term Plan will require more data collection particularly in the discharge phase after hospital
Thank you for attending the First SSNAP Webinar.

If you would like to send us any comment remember you can do it by email to ssnap@kcl.ac.uk

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