Hyperacute Stroke Unit (HASU) care – it’s not all about thrombolysis
Reduction in 30-day mortality from acute stroke 1998-2014

50%
Decline in institutionalisation for acute stroke 2004-2013

46%
Reduction in hospital length of stay for acute stroke 2001-2014

49%
Is it due to IV thrombolysis?

All patients should benefit from improved hyperacute stroke care
What are your chances of getting admitted to a stroke unit?

Regional variation in stroke unit admission within 4 hours for 80,000 patients in SSNAP
What are your chances of getting admitted to a stroke unit within 4 hours?

84%

22%

206 out of 211 CCGs (5 removed due to small numbers)

NHS Atlas of Variation 2015
What are your chances of meeting a stroke physician within 24 hours?

Regional variation in stroke physician assessment within 24 hours for 80,000 patients in SSNAP
Does it matter how quickly your swallow is screened?

Risk of pneumonia by time to swallow screening for 80,000 patients in SSNAP
Does it matter how quickly you meet a speech therapist?

Risk of pneumonia by time to SLT dysphagia assessment for 80,000 patients in SSNAP

Bray et al. UK Stroke Forum 2015
What are your chances of getting admitted to a stroke unit?

Proportions of patients getting to a stroke unit within 4 hours by time of day and day of the week
Does it matter if you are admitted outside ‘office hours’?

Likelihood of receiving key processes of care by admission inside or outside ‘office hours’

30 day mortality of patients admitted at weekends, by ratio of registered nurses per 10 beds on the weekend

Hazard ratios adjusted for patient casemix, organisational characteristics, staffing and care quality
Clinical variation in hyperacute stroke care

Direct to SU within 4 hours

- Bristol Royal Infirmary
- Derriford Hospital
- Gloucestershire Royal Hospital
- Great Western Hospital Swindon
- Musgrove Park Hospital
- North Bristol Hospitals
- North Devon District Hospital
- Royal Cornwall Hospital
- Royal Devon and Exeter Hospital
- Royal United Hospital Bath
- Salisbury District Hospital
- Torbay Hospital
- Weston General Hospital
- Yeovil District Hospital

National

Source: SSNAP Jan-Mar 2016
Patient-centred results at team level for Key Indicator 2.1A

South West SCN
Clinical variation in hyperacute stroke care

Clock start to stroke nurse time

Bristol Royal Infirmary
Derriford Hospital
Gloucestershire Royal Hospital
Great Western Hospital Swindon
Musgrove Park Hospital
North Bristol Hospitals
North Devon District Hospital
Royal Cornwall Hospital
Royal Devon and Exeter Hospital
Royal United Hospital Bath
Salisbury District Hospital
Torbay Hospital
Weston General Hospital
Yeovil District Hospital

Hours

0 1 2 3 4 5 6 7 8 9

National IQR National median Team IQR Team Median

Source: SSNAP Jan-Mar 2016
Patient-centred results at team level for Key Indicator 4.4A

Royal College of Physicians

South West SCN
Clinical variation in hyperacute stroke care

Swallow screen within 4 hours

Bristol Royal Infirmary - National
Derriford Hospital
Gloucestershire Royal Hospital
Great Western Hospital Swindon
Musgrove Park Hospital
North Bristol Hospitals
North Devon District Hospital
Royal Cornwall Hospital
Royal Devon and Exeter Hospital
Royal United Hospital Bath
Salisbury District Hospital
Torbay Hospital
Weston General Hospital
Yeovil District Hospital

Source: SSNAP Jan-Mar 2016
Patient-centred results at team level for Key Indicator 4.5A

South West SCN
# 10 Clinical Standards for 7-day services

<table>
<thead>
<tr>
<th>Clinical Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patients are supported in shared decision-making 7 days a week, supported by high quality information about emergencies</td>
</tr>
<tr>
<td>2. Emergencies with a mortality &gt;10% are assessed and treated by a suitable consultant within an hour (others within 6-14 hrs)</td>
</tr>
<tr>
<td>3. All emergencies must be assessed for complex and on-going needs by the MDT (nursing, medicine, pharmacy, PT and OT) within 14 hrs</td>
</tr>
<tr>
<td>4. Handovers must be standardised over 7 days, and kept to ≤2/day</td>
</tr>
<tr>
<td>5. Consultant-directed diagnostic tests where the test will alter management at the time must be available and reported within 1 hr</td>
</tr>
</tbody>
</table>
10 Clinical Standards for 7-day services

<table>
<thead>
<tr>
<th>Clinical Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. In-patients have 24/7 access to consultant-directed interventions that meet the relevant specialty guidelines</td>
</tr>
<tr>
<td>7. 24/7 access to psychiatric liaison for mental health needs within 14 hours (1 hour for emergencies)</td>
</tr>
<tr>
<td>8. All patients in high-dependency areas must be reviewed by a consultant twice daily. Consultants should work 2-4 day blocks</td>
</tr>
<tr>
<td>9. Support services in hospital and community care must be available 7 days/week</td>
</tr>
<tr>
<td>10. All those involved in patient care must review patient outcomes to drive quality improvement</td>
</tr>
</tbody>
</table>
Who is ‘high risk’?

72-hour mortality:

- Haemorrhage, or anything other than alert: 13.5%
- The rest: 1.0%

24% of acute stroke admissions classified as ‘high risk’

<table>
<thead>
<tr>
<th></th>
<th>High risk</th>
<th>Not high risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scanned within 1 hour of arrival</strong></td>
<td>53.3% (10,059)</td>
<td>40.8% (24,290)</td>
</tr>
<tr>
<td><strong>Seen by consultant within 1 hour of arrival</strong></td>
<td>15.6% (9,935)</td>
<td>15.9% (29,455)</td>
</tr>
<tr>
<td><strong>Seen by stroke nurse within 1 hour of arrival</strong></td>
<td>37.1% (7,006)</td>
<td>39.9% (23,741)</td>
</tr>
</tbody>
</table>
Draft 2016 Guidelines

1. A hyperacute stroke unit should have immediate access to:
   - Specialist medical staff
   - Emergency stroke treatments
   - Specialist nursing staff
   - Consultant review 7 days a week

2. Patients with acute stroke should be directly admitted to a HASU and be assessed for emergency stroke treatments without delay

3. Patients with suspected acute stroke should receive brain imaging urgently and at most within 1 hour of arrival at hospital