Improving Stroke Rehabilitation Services across Barking & Dagenham, Havering and Redbridge

The Case for Service Change

Key Highlights

May 2015
Vision of BHR CCGs

“Identify what needs to change within the stroke rehabilitation pathway together and develop future solutions to ensure the best possible outcomes for users of stroke rehabilitation are delivered’
Why is there a Case for Service Change?

- There is variation of the community stroke rehabilitation care being delivered across all three BHR boroughs.
- The quality of community stroke rehabilitation is not consistently meeting national standards.
- The current level of capacity and current level of demand for community stroke rehabilitation are not aligned.

The current variation in service configuration, quality and lack of information across the stroke pathway is impacting on patient outcomes.
What are the benefits of changing the current stroke pathway?

- Improved Patient Outcomes
  - Reduced long-term disability
  - More people back to work or other meaningful activity
  - Improved quality of life
  - People with effects of stroke have on-going needs met

- Resources are invested in the best possible way
  - Making most of the available resource
  - Efficiency savings
  - Improved ESD - most cost effective intervention

- Will meet current and future demand
  - Improved throughput through acute pathway, reducing bed days
  - Earlier access to rehabilitation services
  - Faster integration into the community

Improved Patient Outcomes

Resources are invested in the best possible way

Will meet current and future demand
BHR Governing Bodies are asked to take the findings of the case for service change in post-acute stroke care and agree the following three recommendations:

1. Agree that outcomes for people living with the effects of stroke will improve by changing the way that post-acute stroke care is commissioned and delivered across BHR.

2. Agree to prepare a business case to consider possible changes to the provision of post-acute stroke services.

3. Agree to engage widely with patients and the public on the case for change.

→ Once the case for service change has been approved, wider public and patient engagement on the BHR Stroke Transformation project will commence.

→ This will include engaging on the case for service change, as well as a developing list of future solutions to the issues raised in this document.
Stroke, also known as a ‘brain attack’ is a sudden loss of brain function when the supply of blood to the brain is either interrupted or reduced.

**Types of Stroke**

- **Ischaemic** - stroke caused by a clot.
- **Haemorrhagic stroke** - stroke caused by a bleed.
- **Transient ischaemic attack (TIA) aka ‘mini-stroke’** - where stroke symptoms resolve within 24 hours.

**Effects of Stroke**

- Stroke causes a greater range of disabilities than any other condition.
- Stroke can affect walking, talking, memory and thinking, vision, spatial awareness, swallowing, bladder control, bowel control, participation in work and leisure, mood and personality.

**Main Risk Factors**

- High Blood Pressure
- Diabetes
- Atrial fibrillation
- Patent foramen ovale (aka ‘hole’ in the heart)
- High Cholesterol
- Sickle Cell Disease
- Smoking, Alcohol and Drug Use

**Stroke By Numbers**

- Occurs approximately **152,000** times a year in the UK. This equals one stroke every **3 minutes and 27 seconds** in the UK.
- **125,000 people** in the UK survive a stroke each year, but often at the cost of long-term disability.
- There are around **1.2 million stroke survivors in the UK**.
- Stroke incidence rates fell **19%** from 1990 to 2010 in the UK.
- First-time incidence of stroke occurs almost **17 million times a year worldwide; one every two seconds**.
- Stroke is the **fourth single largest cause of death** in the UK and second in the world.
- Stroke is the **largest cause of complex disability**.
- In **2012**, **£56 million** was spent on stroke research in the UK which remains dwarfed by the comparable spend on cancer research which was **£544 million**.
Local picture for stroke in BHR – The ‘As Is’

The proportion of the population over the age of 65 varies across the three boroughs with Havering having the highest at 17.9%, Redbridge 11.9%, and Barking & Dagenham the lowest at 10.3%.

As a consequence Havering has the highest prevalence of stroke in BHR.

Given the complexities of calculating stroke prevalence and incidence, it is key BHR CCGs consider future solutions together.
The numbers of people having strokes in all three BHR boroughs will increase over the next twenty years as the population gets older.

→ Demand for stroke rehabilitation services will increase by around 35% over the next twenty years.

→ By 2031 services will need to provide ESD for 115 more people per year and other types of stroke rehabilitation for 180 more people per year.
The ideal stroke survivor journey: Service Configuration

London acute stroke reconfiguration programme (2010) defined a nationally recognised stroke pathway delivered through a ‘hub and spoke’ model of acute stroke care.

Best Practice Recommendation: All elements must be delivered by stroke specialist staff across all care settings.

1. 24 hr centres providing high quality expertise in diagnosing, treating, and managing stroke patients.
   - Assessment, brain scan and thrombolysis within 30 mins.
   - Ideal LoS - 24-72 hrs

2. Provides multi-therapy rehabilitation and ongoing medical supervision.
   - Pts should be transferred to the one closest to their home
   - target of 17 days for average LoS

3a. Rehabilitation at home at the same intensity of inpatient care.

3b. Delivered by a multi-disciplinary team
   - Stroke survivors follow an tailored rehab programme
   - Average LoS is 20 days

3c. Patients ready for discharge who are deemed unsuitable for ESD
   - Needs - led rehabilitation within the home environment delivered by multi-disciplinary community team
**The ideal stroke survivor journey:** Hyper-acute and Acute Quality Standards

HASU/SU Quality standards were developed and have been robustly implemented and measured as part of the London Acute Stroke reconfiguration 2010-2012 through two separate processes – Clinical Audit and an annual Organisational Audit. Acute providers of stroke care are contracted to use the Sentinel Stroke National Audit Programme (SSNAP).

<table>
<thead>
<tr>
<th>Clinical</th>
<th>Organisational</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>There are a number of standards for HASU/SU. These include:</strong></td>
<td><strong>There are a number quality standards for a stroke service organisation within SSNAP. They are split into 6 domains:</strong></td>
</tr>
<tr>
<td>• 100 % of appropriate stroke patients, identified as potentially eligible for thrombolysis treatment, to be scanned within next available CT slot (this must support a door to needle time of 60 mins)</td>
<td>1. D1-Acute care</td>
</tr>
<tr>
<td>• 100 % of appropriate stroke patients to receive thrombolysis within 3 hrs or as soon as possible of symptom onset</td>
<td>2. D2-Specialist roles</td>
</tr>
<tr>
<td>• 100% of appropriate patients scanned within 24 hrs of admission to A&amp;E</td>
<td>3. D3-Interdisciplinary services</td>
</tr>
<tr>
<td>• 95 % of all appropriate stroke patients to be admitted to HASU directly from A+E</td>
<td>4. D4-TIA/Neurovascular clinic</td>
</tr>
<tr>
<td>• 70 % of all stroke patients to receive swallow test within 24 hrs of admission</td>
<td>5. D5-Quality improvement, training &amp; research</td>
</tr>
<tr>
<td>• 40% of patients discharged from HASU with ESD</td>
<td>6. D6-Planning and access to specialist support</td>
</tr>
<tr>
<td>• 40% of patients discharged from SU with ESD</td>
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</tbody>
</table>
The ideal stroke survivor journey: Post – Acute Quality Standards

The National Stroke Strategy (2007) and the NICE clinical guideline for Stroke Rehabilitation (CG 162) detail several quality markers for post-acute stroke care. These include:

- After stroke, people should be offered a review of their health, social care and secondary stroke prevention needs, typically within six weeks of leaving hospital, before six months have passed and then annually.

- Offer initially at least 45 minutes of each relevant rehabilitation therapy for a minimum of five days per week to people who have the ability to participate, and where functional goals that can be achieved.

- Return-to-work issues should be identified as soon as possible after stroke, reviewed regularly and managed actively.

- Carers of patients with stroke are provided with a named point of contact for stroke information, written information about the patient’s diagnosis and management plan, and sufficient practical training to enable them to provide care.

- Review the health and social care needs of people after stroke and the needs of their carers at 6 months and annually thereafter.

This is further reinforced by quality standards from Royal College of Physicians (RCP) National Clinical Guidelines for Stroke (2012), National Stroke Strategy QM14 (2007) and Care Quality Commission review on stroke care (2011).
Modified Rankin Score (mRS) is the national tool recommended for all services providing stroke care to use to categorise the level of functional independence. However some stroke clinicians feel is lacks sensitivity.

There are a range of other disability scales available but there is a lack of consensus on the selection of measures which best address and balance the needs and values of patients, their carers, practitioners, and commissioners.

2015/16 National Outcomes Framework articulates a number specific outcome measures in relation to stroke, both in relation to preventing people from dying prematurely, and helping people to recover from episodes of ill health or following injury.
Information is not available for all aspects of the stroke pathway, however there is emerging evidence where value, both in respect to patient outcomes as well as the commissioning spend.

### Early Supported Discharge

- Strong evidence base that proves to reduce long-term dependency and admission to institutional care, as well as reduce the length of hospital stay.
- Annual cost of an ESD team ≤ annual savings made by a reduction in length of hospital stay.
- NICE assessment of the Camden REDS case study demonstrated:
  - Savings in excess of £277,800 through a reduced need for non-elective bed days.
  - Potential £307,161 savings in acute bed-day costs due to reduced LoS in 2009
  - Potential £277,800 saving in acute bed-day costs due to reduced LoS in 2011/12
Case for Change: What’s working well across BHR stroke services?

**BHRUT Acute**
- Mortality from Stroke at 30 days - 7% during 2013/14, an improvement from 13% in 2010

**BHRUT ESD service**
- July – Dec 2014 SSNAP reporting; for 67 pts seen pathway processes show team is meeting required standards set; seen within 1 day of discharge (1) and 2 days between being first seen by team and date rehab. goals agreed (0-4)
- mRS scores for same period showed 20% of people having some improvement in mRS.

**Havering: Carers Trust Supporting Independence Programme**
- April 2014 demonstrated that 93% of people had benefited from the programme, particularly in the areas of Health and Emotional well-being and Choice and Control.
- Positive feedback from both NELFT and BHRUT stakeholders
Through the SSNAP organisational audit of the acute service at BHRUT in June 2014, it is understood that both the HASU and SU are providing the right numbers of stroke unit beds and WTE therapy staff to deliver the quality of stroke care required.

Post-acute stroke care

- The way in which the three types of post-acute stroke services are commissioned and delivered across BHR is very complex.
- Whilst there is one main provider for community stroke rehabilitation (NELFT), service configuration within each borough is very different.
- Detail on the individual CCG stroke provision is provided in the following slides.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Provider</th>
<th>Site</th>
<th>CCG population</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>BHRUT</td>
<td>Beech Ward – King Georges Hospital site (15 beds)</td>
<td>Barking &amp; Dagenham Redbridge, Havering</td>
</tr>
<tr>
<td>NELFT</td>
<td></td>
<td>Grays Court (17 beds)</td>
<td>Barking &amp; Dagenham Havering</td>
</tr>
<tr>
<td>ESD</td>
<td>BHRUT</td>
<td>Therapy team based at Queens Hospital site</td>
<td>Barking &amp; Dagenham Redbridge (except Wanstead strip) Havering</td>
</tr>
<tr>
<td>NELFT</td>
<td></td>
<td>B&amp;D and Havering CRS Redbridge ICC</td>
<td>B&amp;D and Havering Redbridge</td>
</tr>
<tr>
<td>CRS</td>
<td>NELFT</td>
<td>B&amp;D and Havering CRS Redbridge ICC</td>
<td>B&amp;D and Havering Redbridge</td>
</tr>
</tbody>
</table>
What are the main issues?

- Clear inequity in access to ESD stroke services for people living in Wanstead strip.
- Stroke survivors needing the support of two people to deliver rehabilitation in their home receive no further ESD support after discharge from BHRUT service.
- Concern about the % of stroke specialists providing the stroke rehabilitation within the Redbridge ICCSS in comparison to that available in Havering and Barking & Dagenham.
- No provision of ESD or CRS for stroke survivors living in a nursing home in Redbridge.
- The intensity at which ESD rehabilitation is provided is not always at the quality standards expected due to existing capacity.
- GPs have reported that they are unsure as to where to refer stroke survivors to for the support they need.
What are the main issues?

• Intensity at which ESD rehabilitation is provided is not always at the quality standards expected due to existing capacity e.g. 45 mins / day for 2 weeks

• The acceptance criteria for the providers of stroke Inpatient Rehabilitation are very different

• The service at Grays Court limits the stay to a maximum of 28 days inpatient rehabilitation - if stroke survivors require longer inpatient rehabilitation they will remain in an ASU inpatient bed at BHRUT.
All residents living in B&D have the same access to the same level of post-acute stroke care provision.

What are the main issues?

- Intensity at which ESD rehabilitation is provided is not always at the quality standards expected due to existing capacity.
- The acceptance criteria for the providers of stroke Inpatient Rehabilitation are very different.
- The service at Grays Court also limits the stay to a maximum of 28 days inpatient rehabilitation.
- No service providing the required 6 or 12 monthly stroke reviews.
- 2012/13 clinical audits undertaken between 2012 and 2013 demonstrated that approximately 30 - 50% of patients in Grays Court could have been treated in the community if specialist stroke rehabilitation teams were in place to meet needs.
Case for Change: Commissioning Quality Stroke Care – How is BHR doing?

Hyper-acute and acute stroke care (HASU and SU)

Results of the SSNAP Organisational Audit (June, 2014)

<table>
<thead>
<tr>
<th>Acute Organisational Audit 2014 Performance Table</th>
<th>Total no. stroke beds</th>
<th>Overall band</th>
<th>D1*</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
<th>D6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barking, Havering and Redbridge University Hospitals NHS Trust <em>HASU + SU</em></td>
<td>57</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>B</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>Barts Health NHS Trust (Royal London Hospital) <em>HASU + SU</em></td>
<td>26</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Barts Health NHS Trust (Whipps Cross Hospital) <em>SU only</em></td>
<td>19</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>D</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

Overall the three acute organisations providing stroke care to residents living within BHR scored the same band in respect to the quality of stroke care they deliver.

However an analysis of the individual domains highlights:

- Reduced ratios of nurses and therapists to numbers of stroke beds and difficulty in delivering 7 day therapy services in BHRUT and Whipps Cross.
- BHRUT governance arrangements for the delivery of monthly service improvement meetings are not as robust as they are expected to be.
- Access to clinical psychologists specialised in stroke care at the Royal London is reduced and patients are often not receiving the required assessments or interventions before discharge from the acute unit.
Case for Change: Commissioning Quality Stroke Care—How is BHR doing?

Post-Acute Stroke Care

The table below provides a benchmark of the post-acute stroke services against the Royal College of Physicians guideline for Stroke

<table>
<thead>
<tr>
<th>Quality Standard/s</th>
<th>Is there a known gap?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H</td>
</tr>
<tr>
<td>Minimum of 45 mins. of active therapy for 5 days per week</td>
<td>Y</td>
</tr>
<tr>
<td>Progress measured against goals set at regular intervals determined by their rate of change</td>
<td>Y</td>
</tr>
<tr>
<td>Regular reassessment and management</td>
<td>N</td>
</tr>
<tr>
<td>patients who wish to return to work should be referred to a disability employment advisor or vocational rehabilitation team</td>
<td>N</td>
</tr>
<tr>
<td>Assessment by a clinical psychologist is social interaction is causing stress</td>
<td>Y</td>
</tr>
<tr>
<td>6 and 12 monthly reviews of health and social care needs</td>
<td>Y</td>
</tr>
<tr>
<td>Appropriate stroke specialist services and generic voluntary services and peer support</td>
<td>N</td>
</tr>
<tr>
<td>Assessment and treatment from stroke rehabilitation services in the same way as patients living in their own homes</td>
<td>N</td>
</tr>
</tbody>
</table>

→ There are quite clearly gaps in the quality of care being provided in relation to national quality standards for stroke rehabilitation.

→ It is understood that these gaps are likely to be a result of the variation in current configuration and provision across a multitude of providers, or a lack of service capacity in a particular area or team.
Case for Change: Commissioning Quality ESD— How is BHR doing? Post- Acute Stroke Care

→ Fewer than the targeted 40% of people who have had a stroke are being discharged with ESD from the BHRUT HASU or SU.
→ Less than half the amount of people being taken home with ESD support, indicating people are not being offered the best possible outcomes in relation to stroke care.

→ Demonstrates that BHRUT are not able to discharge as many people with ESD from the SU as national best practice advises.

Clearly, people living in the BHR geography are not getting the same level of access to ESD, and therefore the type of post-acute stroke care that has demonstrated the best quality outcomes for patients.
Case for Change: Commissioning Quality CRS— How is BHR doing?
Post- Acute Stroke Care

• These graphs demonstrate that stroke survivors are not necessarily getting the best possible access, and therefore quality of post-acute stroke care.

• Whilst the London standard is that 20% of people should be discharged from HASU or SU to community stroke team, 14.8% of people in BHRUT with stroke are being discharged from HASU, and approximately 16% from acute stroke unit.

Considering that discharges from BHRUT are way below the London quality standards, there is a need for BHR CCGs to change the way the existing post-acute stroke services are commissioned.
Whilst acute stroke providers are systematically using SNNAP to record nationally recognised outcomes for stroke, very little information routinely recorded or reported across providers and organisations in respect to any outcomes from post-acute stroke care.

The table illustrates the outputs of an analysis of contracts and service specifications. Highlight messages:

→ Availability of data on stroke-specific KPI’s both within services and across the stroke pathway is sparse, and generally focus on measuring process rather than the outcomes stroke survivors are currently achieving.

→ Currently no regular formal meeting or forum where outcomes being achieved can be presented across the entire pathway.

<table>
<thead>
<tr>
<th>Pathway Phase</th>
<th>Type</th>
<th>Provider</th>
<th>Are Outcomes for Stroke Measured and Reported?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyper-acute / Acute</td>
<td>BHRUT</td>
<td>Morality Rates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barts Health</td>
<td>mRS</td>
<td></td>
</tr>
<tr>
<td>Stroke Rehabilitation</td>
<td>In-Patient</td>
<td>Grays Court (NELFT)</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>BHRUT</td>
<td>mRS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Early Supported Discharge</td>
<td>BHRUT</td>
<td>mRS</td>
</tr>
<tr>
<td></td>
<td>NELFT</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community Rehabilitation Service</td>
<td>NELFT</td>
<td>X</td>
</tr>
<tr>
<td>Stroke Survivorship Support</td>
<td>6 / 12 monthly reviews</td>
<td>Stroke Association</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Carers Trust</td>
<td>X</td>
<td></td>
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</tbody>
</table>

Given the lack of available outcome data available through existing commissioning arrangements, there is clearly a case for change in relation to developing and agreeing a number key patient outcomes the BHR CCGs wish to measure in the future.
How is BHR doing in respect to commissioning for value?

Differing contracting and reporting arrangements across the number of different types of providers is complex.

What are the main concerns?

- No differentiation in Barts Health charges between ASU and inpatient rehabilitation
- No differentiation between inpatient stroke rehabilitation and rehabilitation for other conditions for BHRUT.
- No specific charge is made for ESD, so the assumption is that it is included inpatient rehabilitation price.
- The community services provided by NELFT are on a single block contract with no differentiated prices.

Commissioners don’t know whether the existing resources going into stroke care represents the best way to achieve the best outcomes for patients.
### Why there is a case for changing the provision of community stroke rehabilitation services in BHR

- There is no ESD service available to people living within the west of Redbridge.
- It is uncertain as to whether the existing rehabilitation provision will meet future demand.
- Whilst NELFT is the single provider of community stroke rehabilitation all three borough teams have different numbers and levels of specialist staff within them.
- The two inpatient stroke rehabilitation providers have different access criteria and different target LoS meaning delay to accessing stroke rehabilitation which will effect long – term recovery.
- People living in Barking and Dagenham have limited access to 6/12 and 12 monthly reviews to ensure robust stroke survivorship support and on-going measurement of patient outcomes.
- Patient outcomes across the entire stroke pathway are not is routinely recorded or reported across BHR.
- Activity and financial reporting process are inadequate; individual BHR CCGs are unable to tell how much they are spending on stroke services or how many patients are being treated.

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**The current variation in service configuration, quality and lack of information across the stroke pathway is impacting on patient outcomes.**