1. BACKGROUND AND CONTEXT

“Together for Health – Stroke Delivery Plan” was published in December 2012 and provides a framework for action by Local Health Boards and NHS Trusts working together with their partners. It sets out the Welsh Government’s expectations of the NHS in Wales to tackle stroke in people of all ages, wherever they live in Wales and whatever their circumstances. The Plan is designed to enable the NHS to meet the needs of people at risk of a stroke or affected by a stroke. It sets out:

- The population outcomes we expect.
- The outcomes from treatment and support to return to health and independence we expect.
- How success will be measured and the level of performance we expect.
- Themes for action by the NHS, together with its partners.

The vision:

For our population we want:

- People of all ages to have a minimised risk of having a stroke and, where it does occur, an excellent chance of surviving, returning to independence as quickly as possible.
- Wales to have stroke incidence and mortality rates comparable with the best in Europe.

We will use the following indicators to measure success:

- Stroke incidence rates
- Cerebrovascular mortality rates (European Age Standardized Rates)
- Improved level of disability
- Stroke survival rates (30 days)

The Drivers:

There are clear reasons why stroke remains a top priority for the Welsh Government:

- It is one of the top three causes of death
- It is estimated there are around 11,000 stroke events, including 6,000 new strokes, per year in Wales.\(^1\)
- Childhood stroke affects around five out of every 100,000 children a year in the UK.\(^2\)
- 25 per cent of strokes occur in people who are under the age of 65
- It is a leading cause of adult disability\(^3\)

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\(^1\) Estimated figures based on the Welsh population and incident rate.
- It has a higher risk for certain ethnic minorities
- 20–30 per cent of people who have a stroke die within a month
- Circulatory disease (includes stroke and cardiac disease) accounts for 8.7% of all NHS Expenditure in Wales. In 2010-11 this amounted to £464.4 million – the second highest area of expenditure for the NHS.

**What do we want to achieve?**

The Delivery Plan sets out action to improve outcomes in the following key areas between now and 2016:

1. Preventing stroke - People live a healthy lifestyle, make healthy choices and minimise risk of stroke.

2. Detecting stroke quickly - Stroke is detected quickly where it does occur or recur.

3. Delivering fast, effective care - People receive fast, effective treatment and care so they have the best chance of living a long and healthy life.

4. Supporting life after stroke - People are placed at the centre of stroke care with their individual needs identified and met so they feel well supported and informed, able to manage the effects of stroke.

5. Improving Information

6. Targeting research

**2. ORGANISATIONAL PROFILE**

**Organisational Overview**

We have 4 integrated acute and rehabilitation units that admit acute strokes, one in each of our 4 acute hospitals. Each unit offers thrombolysis 24 hours a day, delivered as part of the general medical rota with radiologists reported scans. The stroke units are supported by community resource teams including nursing and therapy professionals. TIA services are delivered on each site.

In each county there is a stroke delivery group. This is a multi-disciplinary, multi agency group that is responsible for the development and improvement of stroke services for their local area. Across the Health Board we have a Stroke Delivery Team that meets twice a quarter to drive improvements in stroke care. This group is chaired by the clinical lead for stroke care for the Health Board. At a strategic level we have a Stroke Steering Group, also chaired by the stroke clinical lead but comprising our Executive Lead for stroke and our key partners from the CHC and third sector. Regular reports on stroke performance are reported to our Integrated Governance Committee, a sub-committee of our Board.
Overview of Local Health Need and Stroke Challenge

Hywel Dda Health Board covers a quarter of the land mass of Wales but contains only 13% of Wales' population. It is the second most sparsely populated health board area. 31.4%, 47.9% and 20.7% of the population live in the local authority areas of Pembrokeshire, Carmarthenshire and Ceredigion respectively.

With 30% of Wales’ population the area’s age and sex profile is similar to that of Wales as a whole (Figure 1), but there are notable differences with fewer people aged 25-44 and more people aged 55-79.

**Figure 1  Population Pyramid for Hywel Dda Health Board and Wales**

The latest projections indicate that if current trends continue, the number of persons aged 65 and over resident in Hywel Dda Health Board will increase by 67 per cent between 2008 and 2033. The proportion aged 75 and over is projected to increase from around 10 per cent at local authority level to around 16 to 18 per cent over this period, the sharpest increases being in Ceredigion and Pembrokeshire. The percentage aged 85 and over is projected to more than double from around three per cent to six to seven per cent by 2033. (Figure2).
These estimates are based on assumptions about births, deaths and migration. The increase in the number of older people is likely to cause a rise in chronic conditions such as circulatory and respiratory diseases and cancers. Meeting the needs of these individuals will be a key challenge of the Health Board.

**Stroke Admissions – March 2012 to February 2013**

<table>
<thead>
<tr>
<th>Mar 12</th>
<th>Apr 12</th>
<th>May 12</th>
<th>Jun 12</th>
<th>Jul 12</th>
<th>Aug 12</th>
<th>Sep 12</th>
<th>Oct 12</th>
<th>Nov 12</th>
<th>Dec 12</th>
<th>Jan 13</th>
<th>Feb 13</th>
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<tr>
<td>43</td>
<td>49</td>
<td>49</td>
<td>50</td>
<td>50</td>
<td>46</td>
<td>65</td>
<td>58</td>
<td>57</td>
<td>62</td>
<td>50</td>
<td>50</td>
<td>629</td>
</tr>
</tbody>
</table>

From the above table it can be seen that we have admitted 629 patients into our acute stroke units in the last 12 months.

This number has been relatively stable for the last two years but with the projected increase in older people as described above this figure is likely to increase.

**Performance against targets**

We generally report good compliance with the intelligent targets as monitored by our Board and Welsh Government as can be seen below with the notable exception of access to an acute stroke bed within 24 hours. Challenging flows in some of our hospitals cause difficulty in this part of the target.
Our performance against the Royal College of Physicians Stroke Sentinel Audit has improved to a reported position in 2012 of 64.7 as a mean across all four sites an improvement of 24 points from the audit in 2010.

However there remain some key challenges and these are reflected in the priorities for 2013/14.

3. DEVELOPMENT OF HYWEL DDA HEALTH BOARD LOCAL DELIVERY PLAN STROKE

In response to the “Together for Health – Stroke Delivery Plan” (2012), Health Boards are required, together with their partners, to produce and publish a detailed local service delivery plan to identify, monitor and evaluate action needed within timescales. The LHB Executive Leads for Stroke will need to report progress formally to their Boards against milestones in these delivery plans and publish these reports on their websites quarterly.

Each site has considered its current stroke services against reported performance in the RCP audit and the expectations set out in “Together for Health – Stroke Delivery Plan”. These have been brought together under the
remit of the Stroke Steering Group to develop a composite plan for Hywel Dda Health Board.

In addition to this the Stroke lead clinicians have been tasked with assessing what we are currently doing, to look at what we can do differently or collectively and to set priorities for 2013/2014 within this Plan. A Stroke Clinical Think Tank will re-examine our stroke model to identify how we can continue to improve our service and meet best practice guidelines.

4 SUMMARY OF THE PLAN - THE PRIORITIES FOR 2013 - 14

The key findings have been incorporated into our local delivery plan for stroke services. This delivery plan includes actions against each of the 2016 milestones within the Welsh Governments Stroke Plan (2012).

Preventing stroke

The priorities for 2013 – 14 are:

• Higher public and professional awareness of the risk factors for stroke
• Work with primary care to improve monitoring and management of AF by GPs.
• Improve access to carotid imaging

Detecting stroke quickly

The priorities for 2013 – 14 are:

• Review TIA services and ensure an equitable model that is available 7 days per week
• Continue to raise public awareness utilising the FAST campaign.
• Stabilise both ED and Medical workforce to ensure consistent/rapid diagnosis at front door.

Delivering fast, effective treatment and care

The priorities for 2013 – 14 are:

• Review stroke model with the Clinical Think Tank and identify improvements including access to psychology and staffing ratios
• Improve access to an acute stroke bed
• Psychology input into service
• Work with WAST over rapid transport to hospital
• Streamline thrombolysis pathway
• Access to carotid imaging within 24 hours where needed
• Improve equipment and infrastructure particularly on the GGH site

Supporting life after stroke

The priorities for 2013 – 14 are:
To ensure that an Early Supported Discharge service is delivered consistently across the Health Board
- Utilise resources and skills of the Stroke Association
- Establish community lead for life after stroke in each County
- Additional support for the post discharge pathway

Improving Information

The priorities for 2013 – 14 are:
- Implement the stroke passport
- Participate with SSNAP with administrative support
- Ensure patient questionnaires are utilised consistently across the Health Board and inform service improvement

Targeting Research

The priorities for 2013 – 14 are:
- Continue to participate in stroke related research where possible
- Present at Welsh Stroke Conference

5.0 PERFORMANCE MEASURES/MANAGEMENT

The Welsh Government’s Delivery Plan for Stroke (2012) contained an outline description of the national metrics that LHBs and other organisations will publish:

- Outcome indicators which will demonstrate success in delivering positive changes in outcome for the population of Wales.
- National performance measures which will quantify an organisation’s progress with implementing key areas of the delivery plan.

Progress with these outcome indicators will form the basis of each LHB’s annual report on stroke. They will be calculated on behalf of the NHS annually at both a national and LHB population level. LHBs will produce their first annual report in September 2013.

Hywel Dda Health Board will report progress against the local delivery plan milestones to the Board on a quarterly basis and to the public via the website. The Local Delivery Plan and their milestones will be reviewed and updated annually from April 2013.
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Actions</th>
<th>Expected outcome</th>
<th>Risks to delivery</th>
<th>Timescales</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher public awareness of the risk factors for stroke</td>
<td>Public awareness campaign Support Counties in their Foundation for Change Programme</td>
<td>Improved understanding of the lifestyle risk factors and targeted action to improve</td>
<td>Timescales to see a change</td>
<td>Throughout 2013 In line with F4C plans through 2013/14</td>
<td>KP &amp; Comms Counties</td>
</tr>
<tr>
<td>Work with primary care to improve monitoring and management of AF by GPs.</td>
<td>Analysis of current position through QoF Work with Public Health Wales to understand expected incidence Sessions at PT4L Targeted discussions</td>
<td>Understanding of AF management currently compared to expected Awareness raising and education at protected time for learning Improved management in those practices that are currently below average</td>
<td>Capacity in primary care to provide sufficient focus</td>
<td>Quarter 1 Quarter 2 Quarter 3 &amp; 4</td>
<td>KP &amp; PJ</td>
</tr>
<tr>
<td>Improve access to carotid imaging</td>
<td>As part of review of TIA services – see below</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## Detecting stroke quickly

<table>
<thead>
<tr>
<th>Objectives</th>
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<th>Risks to delivery</th>
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<th>Lead</th>
</tr>
</thead>
</table>
| Review TIA services and ensure an equitable model that is available 7 days per week | Review current service  
Agree preferred model  
Develop business case of needed Implementation programme | Improved TIA services across the Health board | Insufficient resources | Quarter 1  
Quarter 2  
Quarter 3 | KP              |
| Continue to raise public awareness utilising the FAST campaign.           | Public awareness campaign                                                 | Increased understanding of stroke symptoms of stroke and patients coming to hospital faster with an increase in thrombolysis rates | Campaigns have not had the impact previously | Quarter 1       | KP & Comms     |
| Stabilise both ED and Medical workforce to ensure consistent/rapid diagnosis at front door. | Agree stroke model and medical workforce requirements  
Continue to work with Counties to ensure appropriate service for stroke in EDs | Sustainable and reliable medical workforce | Unable to recruit & insufficient resources | Quarter 2       | KP, PJ & Counties |


<table>
<thead>
<tr>
<th>Objectives</th>
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<th>Timescales</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review stroke model with the Clinical Think Tank and identify improvements including access to psychology and staffing ratios</td>
<td>Agree stroke model for acute care implementation plan Work with new Professional Lead for Clinical Psychology to improve access for stroke patients</td>
<td>Reliable stroke model that improves performances</td>
<td>Insufficient resources Resistance to change if required</td>
<td>Quarter 1</td>
<td>KP, PJ</td>
</tr>
<tr>
<td>Improve access to an acute stroke bed</td>
<td>Develop a pathway that allows direct access</td>
<td>Rapid access to ASU</td>
<td>Flow in hospitals</td>
<td>Quarter 1</td>
<td>Counties</td>
</tr>
<tr>
<td>Work with WAST over rapid transport to hospital</td>
<td>Include WAST in discussions re stroke model in Hywel Dda Health Board</td>
<td>Transport requirements of any new model agreed</td>
<td>Capacity of WAST</td>
<td>Quarter 1</td>
<td>KP, PJ</td>
</tr>
<tr>
<td>Streamline thrombolysis pathway</td>
<td>Each site to review thrombolysis pathway Plan to improve</td>
<td>Improve access to thrombolysis</td>
<td>Patients do not get to hospital fast enough</td>
<td>Quarter 2</td>
<td>PJ &amp; Counties</td>
</tr>
<tr>
<td>Access to carotid imaging within 24 hours where needed</td>
<td>Review radiology input into the stroke/TIA pathway Agree model and</td>
<td>Increased access to carotid imaging Improved diagnosis and treatment</td>
<td>Insufficient resources</td>
<td>Quarter 2</td>
<td>KP, Radiology Lead &amp; Counties</td>
</tr>
<tr>
<td>Improvement and infrastructure particularly on the GGH site</td>
<td>Business case for required improvements</td>
<td>Improved patient environment</td>
<td>Insufficient resources</td>
<td>Quarter 2</td>
<td>JG</td>
</tr>
<tr>
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### Supporting life after stroke

<table>
<thead>
<tr>
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<th>Expected outcome</th>
<th>Risks to delivery</th>
<th>Timescales</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>To ensure that an Early Supported Discharge service is delivered consistently across the Health Board</td>
<td>Work with existing CRTs to agree ESD services</td>
<td>Improved ESD service Reduced LOS</td>
<td>Insufficient capacity and skills within community resource teams</td>
<td>Quarter 1</td>
<td>AR</td>
</tr>
<tr>
<td>Utilise resources and skills of the Stroke Association</td>
<td>Agree service SLA with Stroke association</td>
<td>Improved community based service</td>
<td>Insufficient resources to fully implement the model</td>
<td>Quarter 1</td>
<td>PL</td>
</tr>
<tr>
<td>Establish community lead for life after stroke in each County</td>
<td>Establish community lead for life after stroke in each County</td>
<td>Life after Stroke collaborative implemented</td>
<td>Capacity of existing staff</td>
<td>Quarter 1</td>
<td>Counties</td>
</tr>
<tr>
<td>Additional support for the post discharge pathway</td>
<td>Agree post discharge pathway Identify resources required to implement</td>
<td>Improved post discharge care</td>
<td>Insufficient resources and capacity</td>
<td>Quarter 2</td>
<td>Counties</td>
</tr>
</tbody>
</table>
### Improving information

<table>
<thead>
<tr>
<th>Objectives</th>
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<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement the stroke passport</td>
<td>Implement the stroke passport</td>
<td>Improved information for and communication with patient and carer</td>
<td>Capacity to implement</td>
<td>Quarter 1 on wards</td>
<td>Clinical Nurse Specialists</td>
</tr>
<tr>
<td>Participate with SSNAP</td>
<td>Agree reporting required Determine sufficient administrative support</td>
<td>Improved information to drive performance</td>
<td>Insufficient admin capacity</td>
<td>July onwards (in line with WG timeframes)</td>
<td>Clinical Nurse Specialists</td>
</tr>
<tr>
<td>Ensure patient questionnaires are utilised consistently across the Health Board and inform service improvement</td>
<td>Agree questionnaire to be used Agree performance measures</td>
<td>Improved information to drive performance</td>
<td>Capacity of staff</td>
<td>Quarter 2</td>
<td>Clinical Nurse Specialists</td>
</tr>
</tbody>
</table>

### Targeting research

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Actions</th>
<th>Expected outcome</th>
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<th>Timescales</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to participate in stroke related research where possible</td>
<td>Work with R&amp;D department to identify stroke related research opportunities</td>
<td>Increased stroke research across the Health Board</td>
<td>Capacity</td>
<td>On-going</td>
<td>Clinical Leads</td>
</tr>
<tr>
<td>Present at Welsh Stroke Conference</td>
<td>Determine support from R&amp;D Agree programme</td>
<td>Increased profile of the stroke work in Hywel Dda</td>
<td>Capacity</td>
<td>Quarter 2</td>
<td>Counties</td>
</tr>
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