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Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board



| | | | |
|-------------------------------|---|--------------------|------------|
| Meeting Date | 23 February 2023 | Agenda Item | 4.1 |
| Report Title | Report on Stroke performance | | |
| Report Author | David West, Directorate Manager Nick Brain, Assistant Directorate Manager | | |
| Report Sponsor | Craig Wilson, Deputy Chief Operating Officer Kate Hannam, Morryston Service Group Director Fiona Hughes Associate Service Director | | |
| Presented by | Craig Wilson, Deputy Chief Operating Officer | | |
| Freedom of Information | Open | | |
| Purpose of the Report | <p>To provide the committee with an update on Stroke performance.</p> <p>This report includes plans and timescales for improving Stroke performance.</p> <p>This report includes an update on the establishment of a HASU/CRSC (Hyper-Acute Stroke Unit/Comprehensive regional Stroke Centre) .</p> | | |
| Key Issues | <p>Compliance against the 4 Hour access target for admission to the Acute Stroke Unit remains challenging due to system wide pressures.</p> <p>Infection control measures and outbreaks due to Influenza and COVID closed beds on the ASU (acute stroke unit) reducing 4-hour compliance.</p> <p>High compliance of OT/PT/SALT (occupational therapy/physiotherapy/speech and language therapy) assessments within 24 hours.</p> <p>High level of swallow assessment compliance.</p> <p>Consistently high thrombolysis rates and this has been recognised by the Delivery Unit.</p> <p>Reducing door to needle time for Thrombolysis is an area for improvement.</p> <p>Time to CT head scan will be addressed by the Hyper-Acute Stroke Unit and Decompression of ED emergency</p> | | |

| | | | | |
|--|---|--------------------------|-------------------------------------|--------------------------|
| | <p>department as part of AMSR (acute medical services redesign).</p> <p>AMSR driven improvements will require a period of transition to achieve desired improvements.</p> | | | |
| Specific Action Required <i>(please choose one only)</i> | Information | Discussion | Assurance | Approval |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Recommendations | <p>Members are asked to:</p> <p>Note the content of the report and endorse actions to improve performance.</p> | | | |

Report on Stroke performance and action plan for performance recovery and improvement.

1. INTRODUCTION

This report aims to provide the committee with an update on Stroke performance in SBUHB. As a result of the pandemic and the pressures on acute hospitals such as Morriston mean that access targets have been challenging to improve. This report will illustrate Morriston's performance against other Welsh centres who are also experiencing the same challenges.

Following the consolidation of Stroke rehabilitation to NPTH (Neath Port Talbot Hospital) the current performance for that site is also highlighted.

With ongoing investment into the Stroke workforce and the culmination of the Acute Medical Services Redesign (AMSR) programme a plan for performance recovery and improvement has been developed. As AMSR beds in it is anticipated this will have a positive effect on performance but new models of care are still very much in their infancy.

2. BACKGROUND

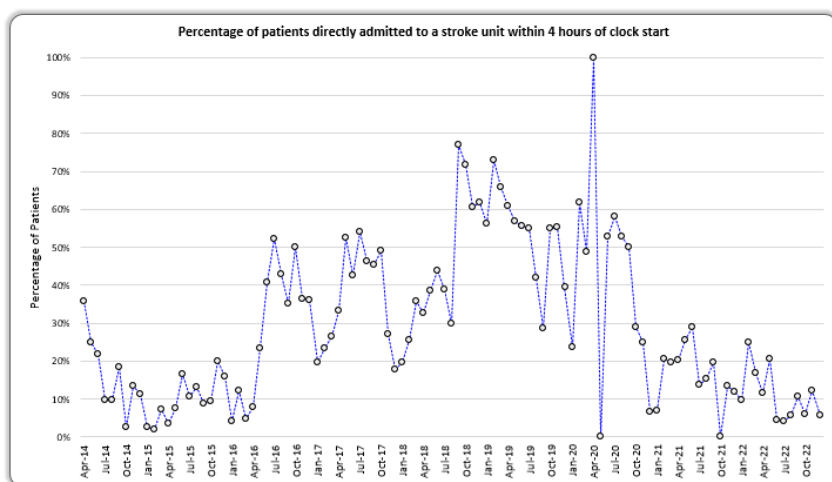
2.1 Stroke Performance

Summary of main Stroke Quality Improvement Measures for October to December 2022 illustrated below:

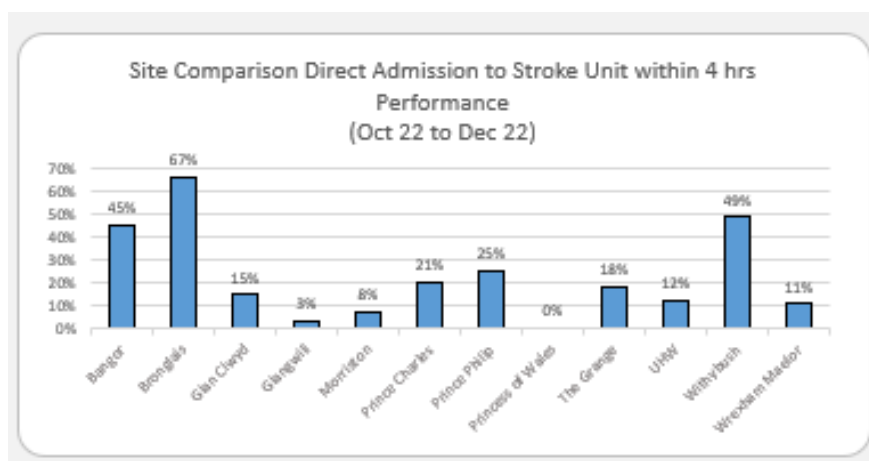
| Measure | SSNAP Audit Apr - Jun 2022 | Dec-22 Numerator | Dec-22 Denominator | Score | | | % Variation |
|--|----------------------------|------------------|--------------------|--------|--------|--------|-------------|
| | | | | Oct-22 | Nov-22 | Dec-22 | |
| Urgent Intervention | | | | | | | |
| Percentage of stroke patients given thrombolysis (all stroke) | 10.9% | 1 | 51 | 15.2% | 19.6% | 2.0% | -17.7% |
| Thrombolysed patients DTN <= 45 mins | | 0 | 1 | 10.0% | 9.1% | 0.0% | -9.1% |
| Percentage of patients scanned within 1 hour of clock start | 56.1% | 16 | 51 | 31.8% | 37.5% | 31.4% | -6.1% |
| Percentage of patients directly admitted to a stroke unit within 4 hours of clock start | 40.2% | 3 | 51 | 6.1% | 10.7% | 5.9% | -4.8% |
| Percentage of applicable patients who were given a swallow screen within 4 hour of clock start | 72.0% | 33 | 51 | 69.7% | 78.6% | 64.7% | -13.9% |
| Percentage of Unique stroke patients given thrombectomy (all stroke types) | | 0 | 51 | 0.0% | 0.0% | 0.0% | 0.0% |
| Urgent Assessment | | | | | | | |
| Percentage of patients assessed by stroke specialist consultant physician within 24 hours of clock start | 83.3% | 48 | 51 | 92.4% | 92.9% | 94.1% | 1.3% |
| Assessed by one of OT, PT, SALT within 24 hours | | 45 | 51 | 83.3% | 89.3% | 88.2% | -1.1% |
| Percentage of applicable patients who were given a formal swallow screen assessment within 72 hours of clock start | 86.8% | 15 | 18 | 93.3% | 94.7% | 83.3% | -11.4% |
| Inpatient Rehab | | | | | | | |
| Percentage of patients who spent at least 90% of their stay on stroke unit * | 72.5% | 68 | 138 | 49.3% | 49.3% | 49.3% | 0.0% |
| Compliance with patients receiving the required minutes for OT (3-month rolling) | 80.4% | 18.46 | 25.7 | 58.6% | 69.2% | 71.8% | 2.6% |
| Compliance with patients receiving the required minutes for physiotherapy (3-month rolling) | 74.8% | 17.76 | 27.3 | 80.0% | 70.8% | 65.0% | -5.7% |
| Compliance with patients receiving the required minutes for SALT (3-month rolling) | 49.1% | 5.49 | 16.1 | 37.7% | 37.9% | 34.1% | -3.9% |
| Discharge Standards | | | | | | | |
| Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge (exc. Palliative care pts) | 78.1% | 2 | 3 | 66.7% | 66.7% | 66.7% | 0.0% |
| Percentage of patients discharged with ESD/Community Therapy Multidisciplinary Team | 47.4% | 44 | 110 | 40.9% | 37.8% | 40.0% | 2.2% |
| Six month follow-up assessment | | | | | | | 0.0% |

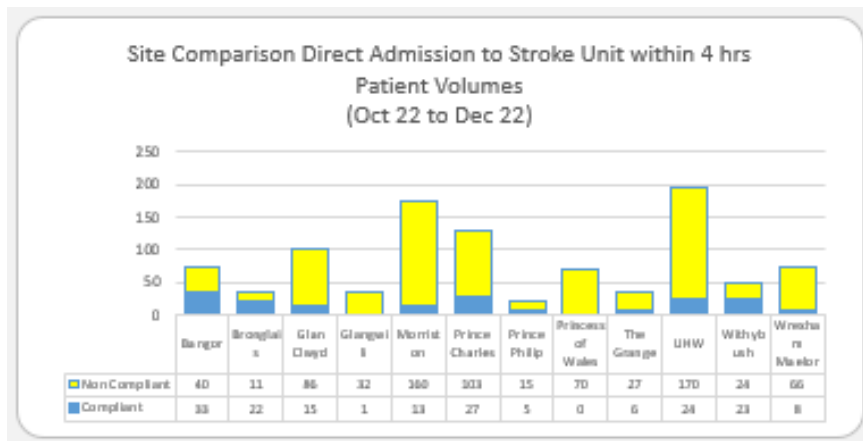
4 Hour Admission to ASU

Access to dedicated Stroke beds continues to impact on performance with 5.9% of patients meeting the target of admission within 4 hours for December 2022. This is against compliance of 10.7% in November 2022 and 6.1% compliance in October 2022. Compliance remains low around the 4-hour target having fallen during the pandemic. Performance is discussed weekly in the Stroke performance meeting held at Morriston alongside clinicians, Emergency Department staff and bed site managers. System wide pressures such as the busy Emergency department, Covid outbreaks and limited availability of packages of care continue to impact of overall flow.



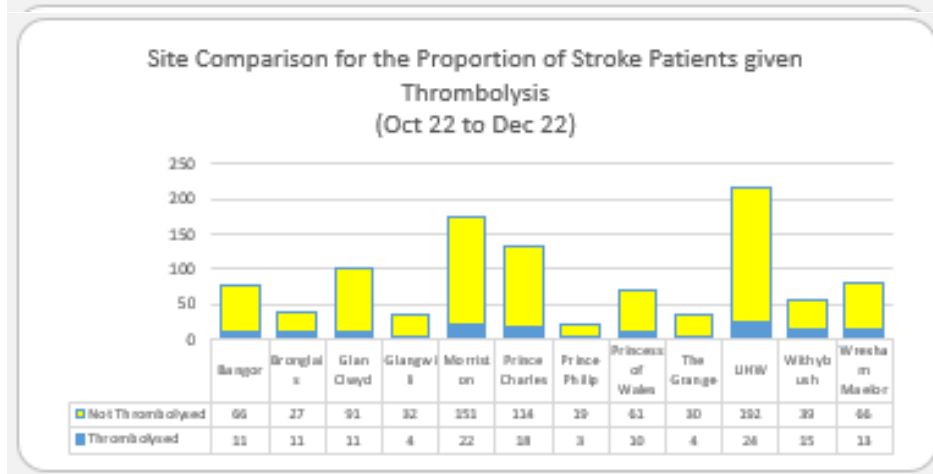
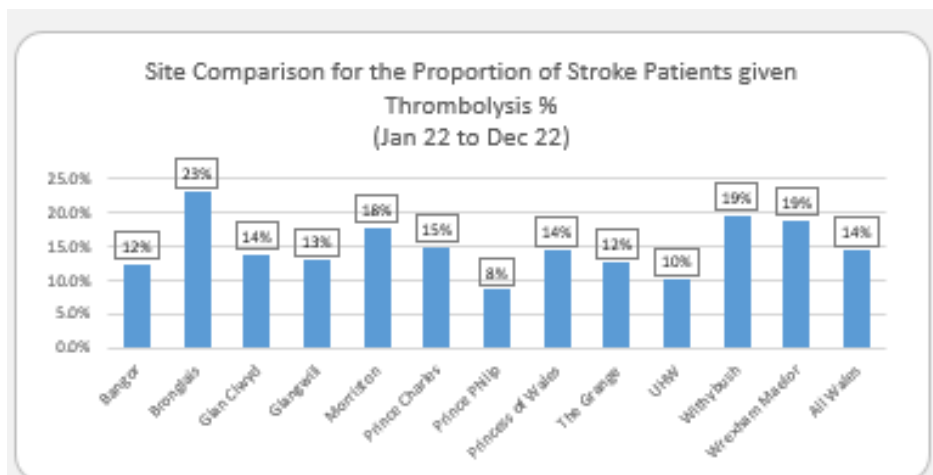
4-hour access issues are also affecting the other major admitting sites in Wales, such as UHW, POW and Prince Charles hospitals. SBUHB performance is in line with these other sites. Sites dealing with smaller volumes of Stroke patients such as Bronglais, Prince Phillip and Witherbush have much higher access rates as demonstrated below.





Thrombolysis rates

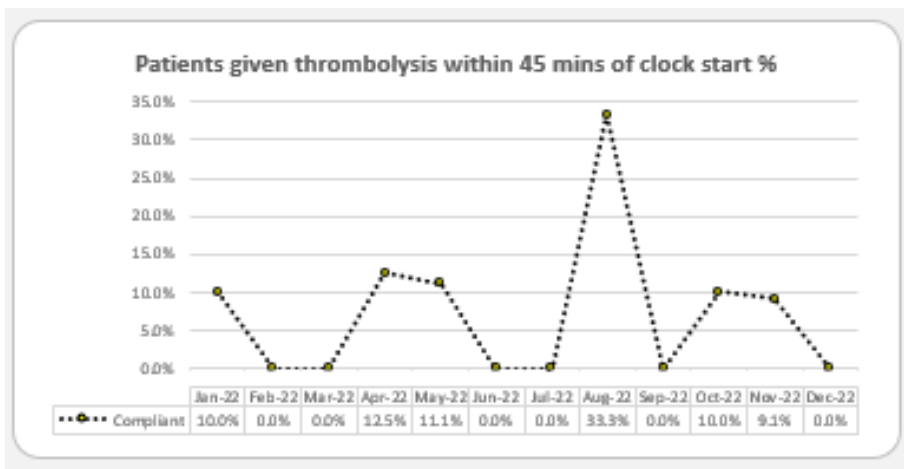
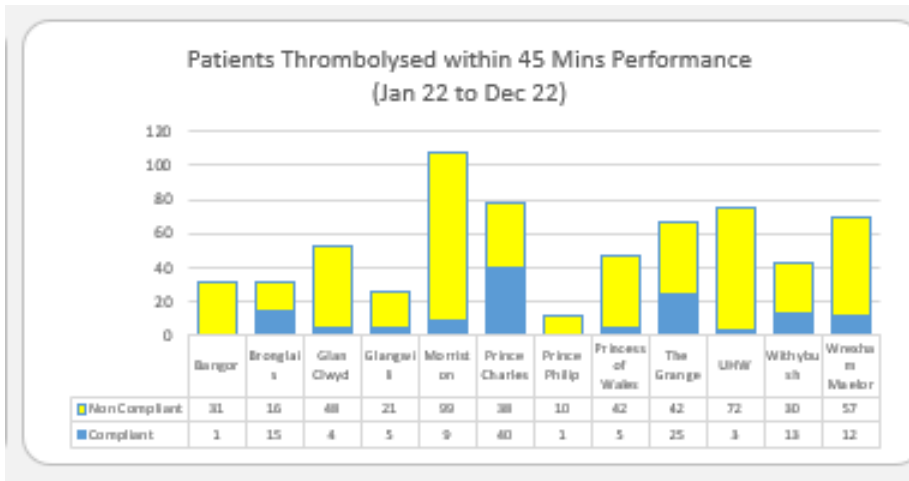
Thrombolysis rates were low in December 2022 at only 2% of patients receiving thrombolysis. The volume of Stroke patients Morriston accepts as illustrated by the graphs below.



Thrombolysis door to needle time <45 minutes.

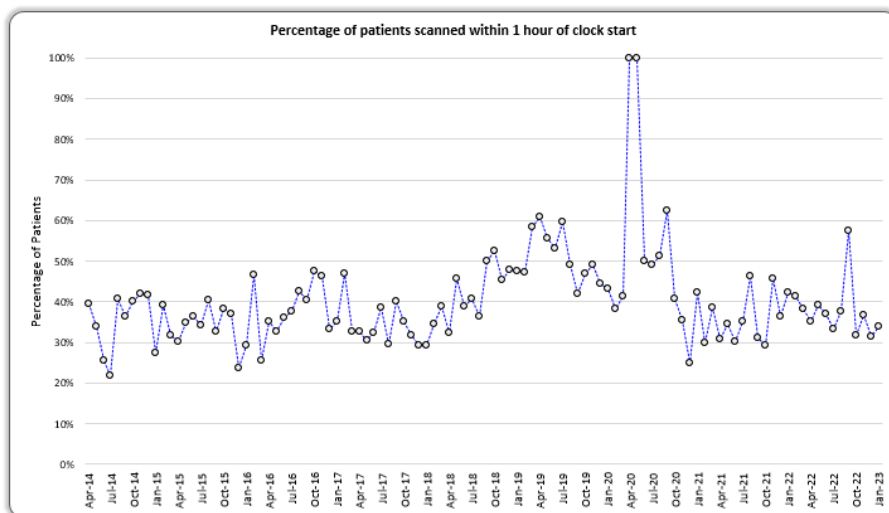
A high volume of patients suffering a Stroke receive thrombolysis at Morriston, but these patients require observation when given this treatment. Clinical Nurse Specialists (CNS) and doctors are not always able to leave a thrombolysed patient to attend any other call or alert that goes off.

Developing an ANP (advance nurse practitioner) workforce as per the HASU plan will allow these members of staff to attend to other patients suffering a Stroke and reduce door to needle time.

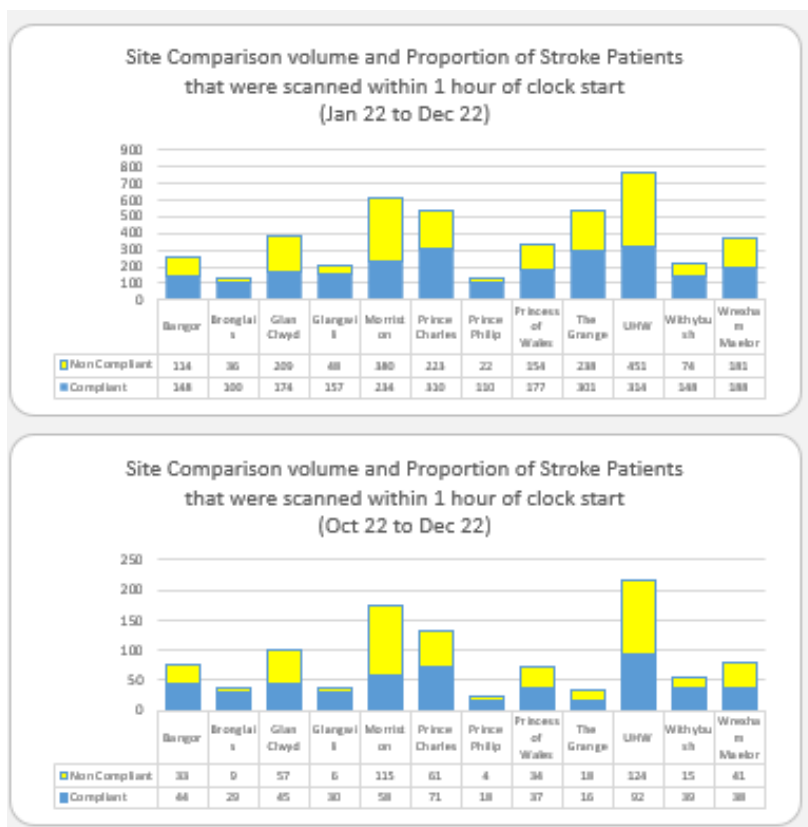


CT head within 1 hour

CT head scans <1hr were consistently improving prior to the pandemic. However, due to assessment delays and increasingly busy ED department, performance against this target has fallen back to where it was 2017-2018 but remains consistent.



Following the AMSR implementation in December 2022 the long-term effect expectation is that it will aid in improving these measures combined with a direct CT pilot commencing in February 2022 detailed further on in this report.



Stroke Pre-Alert Direct to CT pilot

The embedded pathway was agreed at Morriston Board 31st January 2023 and will be enacted from mid-February 2023 to reduce CT times.

It will be run initially on a pilot basis and should in turn improve the number of patients who can receive thrombolysis and those suitable for thrombectomy referral to Bristol. The pilot will only cover those patients pre-alerted by WAST and WAST staff will directly transfer patients to the CT scanner and remain with them until a scan is complete and the site team located a suitable exit bed. This will eliminate any delayed assessments due to busy Emergency Department and the AMU (acute medical unit) department.



WAST to CT pilot
SOP 2022.docx

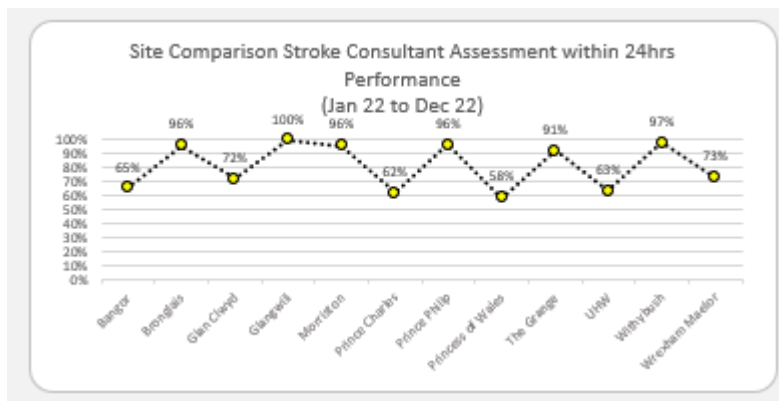


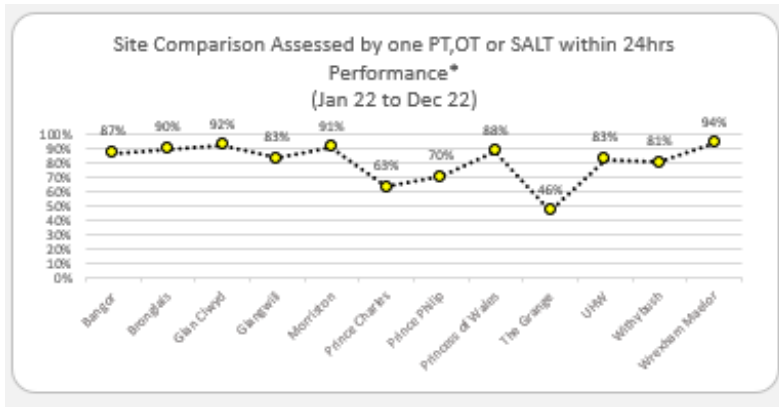
Morriston stroke
pre-alert pathway N

A key requirement for success is to maintain ring-fenced capacity on the acute stroke unit and if needed move medical outliers back to more appropriate areas. All stakeholders have been consulted and accepted this pilot approach to improve patient experience and outcomes.

Other Measures

High level of compliance for consultant assessment within 24 hours as well as high levels of therapy input compared to peers. This is something we have consistently high compliance on in terms of comparison to peers.





Morriston Discharge Standards – December 2022

| <i>Discharge Standards</i> | | |
|---|-----|--------|
| Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge | N/A | 66.67% |
| Percentage of applicable patients discharged with ESD/ Community Therapy Multidisciplinary Team | N/A | 41.59% |
| Percentage of applicable patients discharged with ESD | N/A | 41.59% |
| Percentage of applicable patients discharged with Community Therapy Multidisciplinary Team | N/A | 0.00% |
| Proportion of applicable patients assessed at 6 months | N/A | 0.00% |

Early Supportive Discharge (ESD) levels are not as high as we would like and therefore an outline of requirements to expand this service has been developed and put into the GMO for planning requirements for 2023-24. The proposal would be an expanded mid-week service with a longer-term aspiration to extend to weekends following a further review.

The outline case developed for Early Supportive Discharge expansion is embedded below and will be refined and developed through the planning cycle to reduce length of stay.



Enhancing Stroke
ESD Service V3.docx

Rehabilitation Performance

Rehabilitation services for Stroke are now consolidated on 1 site, 24 beds in Neath Port Talbot.

The tables below show the rehabilitation Quality Improvement Measures for December 2022. These measures focus on therapy input and the discharge process.

| December 2022 Quality Improvement Measures | | |
|--|-------------------|--------------|
| Quality Improvement Measures | Aspiration | Score |
| Inpatient rehab | | |
| Percentage of applicable patients who spent at least 90 % of their stay on stroke unit | N/A | 0.0% |
| Compliance (%) against the therapy target of an average of 25.7 Minutes of OT across all patients* | N/A | 51.1% |
| Compliance (%) against the therapy target of an average of 27.3 Minutes of PT across all patients* | N/A | 75.4% |
| Compliance (%) against the therapy target of an average of 16.1 Minutes of SALT across all patients* | N/A | 4.6% |
| Discharge Standards | | |
| Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge | N/A | 0.00% |
| Percentage of applicable patients discharged with ESD/ Community Therapy Multidisciplinary Team | N/A | 16.67% |
| Percentage of applicable patients discharged with ESD | N/A | 16.67% |
| Percentage of applicable patients discharged with Community Therapy Multidisciplinary Team | N/A | 0.00% |
| Proportion of applicable patients assessed at 6 months | N/A | 0.00% |

**If this measure is blank this means that there were no patients that required therapy in the last 3 months*

The above tables show the rehabilitation Quality Improvement Measures for December 2022. These measures focus on therapy input and the discharge process.

The Early Supported Discharge (ESD) percentage is included for the rehabilitation site, although the percentage for this is always low as this service is aimed at those with a mild/moderate Stroke so most patients are referred to this service from the acute site.

Transfer delays to the NPTH site are recorded daily and to maximise pathway efficiency will now be highlighted daily to the site teams. Data will be captured including time of referral and time of patient transfer so flow can be monitored, and barriers moved. This will be included in future reports.

Recruitment

Recruitment into Acute Stroke Services.

Stroke ANP roles.

3 x ANP's have now commenced in post (18-month training programme for two).

2 x CNSs (clinical nurse specialists) appointed due to gaps in the service (retirement, promotion)

1 x CNS for the Life After Stroke service based at NPTH out to advert.

2 x Physicians Associates out of contract May 2023. These posts are included in longer term HASU/CRSC requirements so funding needs to be secured to keep them on until the business case is approved.

Hybrid Neurology/Stroke Consultants

Funding for a further 3 Neurology consultants has been requested and is also linked to the FND (Functional Neurological Disorder) case between HDUHB and SBUHB. Ongoing recruitment to Neurology posts must support the Stroke rota and when

numbers allow a dedicated 24/7 Stroke rota will be initiated. This is a long-term aspiration.

These posts are being discussed with HDUHB to simultaneously satisfy the need to increase on call Stroke cover as well as expanding Neurology services across the South West Wales Region.

Once appointed these consultants will most likely require a period of thrombolysis training although some in the labour market already possess this and have contacted SBUHB to express their interest in a post.

HDUHB/ SBUHB – meeting 15/2/2023 to agree a way forward.

Hyper Acute Stroke Unit (HASU) / Comprehensive Regional Stroke Centre (CRSC) Development

The current Swansea Bay Stroke pathway consists of 2 sites:

- 24 Acute Stroke Unit (ASU) in Morriston. These beds are not ring-fenced, and the ward always has a cohort of medical beds, approx. 5 on average.
- 24 Stroke rehabilitation beds (with 4 complex) on Ward B, Neath Port Talbot. These beds are co-located with general rehab/discharge planning beds.

The lack of ring-fenced beds and all wards having co-located beds provides a challenge to the staff working on those areas, bed capacity is limited by the pressures of unscheduled care demand.

Hyper-Acute Stroke Unit/Comprehensive Regional Stroke Centre

The HASU model being proposed by the clinical team in SBUHB would bypass emergency department and individuals with suspected stroke would be triaged in stroke specific area within the AMU footprint. This would create a specialist area for suspected strokes to be diagnosed without increase demand within ED. AMU is planned to have an appropriate ambulance bay for all medical patients

The following details the assumptions agreed to date:

- Stroke Team will meet patient on arrival to provide immediate assessment and diagnosis 24/7
- Immediate access to CT scan
- Immediate access to Thrombolysis (if appropriate)
- Immediate access to Hyper Acute Stroke Unit bed via AMU/ED
- Hyper Acute Stroke Unit will link with the All- Wales Thrombectomy pathway (currently Bristol)
- Max 24 hour waiting time for MRI scan, Doppler, Holter monitoring, Vascular and Cardiology review
- Robust pathways and SOPs (standard operating procedures) for Stroke Mimics
- 36% of stroke mimics will require admission to a Hyper Acute Stroke Unit bed

- All strokes and the 36% mimics will have a 3-day length of stay within the Hyper Acute Stroke Unit
- Bed occupancy rate has been set at 85%

HASU was until recently being progressed as a Swansea Bay only model. This model and the accompanying business case will be revised accordingly. Under the ARCH programme Alison Shakeshaft (HDUHB) will take the lead on developing these proposals in conjunction with SBUHB.

Meetings have already taken place between the two Health Boards and this work will progress at pace to establish the catchment for the Region and in turn revise the assumptions made to date.

Hyper-Acute Stroke Unit/Comprehensive Regional Stroke Centre Business Case Timeline

- 10/02/2023 BC (business case) Draft out to steering board for review
- 14/02/2023 BC Reviewed steering board
- 21/02/23 UEC Board (urgent and emergency care) (subject to any changes)
- 04/04/2023 Business Case Scrutiny Group

3. GOVERNANCE AND RISK ISSUES

Two main areas of risk highlighted below. The inability to admit patients in a timely manner into the Acute Stroke unit and the lack of dedicated rota and on call staffing which affects assessment times as highlighted in the paper.

| ID | Title | Risk (in brief) | Rating (current) | Controls in place | Assurances in Place |
|------|---|---|------------------|--|---|
| 2901 | Inability to admit patients in a timely manner to the Acute Stroke Unit | Patients who suffer a Stroke should be admitted to an Acute Stroke Unit (ASU) from ED within 4 hours. This is Ward F at Morriston. Due to site pressures often space is occupied by non-stroke patients and there is no room in ward F meaning patients are outlaid to areas lacking in the expertise to manage this condition optimally. Risk of major harm to patients from lack of timely assessment/admission and rehab facilities | 20 | - Weekly stroke scrutiny meetings, quarterly board meetings. - Improvement plan developed but no benefit realised until site pressures and placement of medical/stroke patients is addressed. | - Ring-fencing of beds to be stuck too not overruled from site or on call teams - Increased outflow from ward F i.e. more rehab beds off site, quicker routes to packages of care. |
| 2147 | Potential significant harm due to lack of Senior Stroke Medicine On-call rota | The acute stroke service in Morriston Hospital manages the care of approximately 700 confirmed stroke patients per annum. Of this cohort, around 120 patients will receive thrombolysis following a diagnosis of ischaemic stroke. The thrombolysis service in Morriston Hospital is delivered by the on-call medical registrar on a 24/7 basis with no stroke consultant oncall. The senior cover is key in complex cases to minimise risk to patients and also in improving care given to any acute stroke admissions. The failure to have senior stroke consultant in put carries the following potential risks: •Potential for significant patient harm (including death) as a result of not having access to specialist opinion when required. •Delayed access to thrombolysis compromises patient outcome and rehabilitation potential. •Incorrect delivery of thrombolysis can result in a brain bleed and potential death. •Delayed or incorrect patient management can also compromise eligibility for wider life-saving interventions (such neuro-surgery or mechanical thrombectomy). •Inappropriate management of intracranial bleeds can result in increasing mortality and morbidity | 12 | Revised thrombolysis clinical documentation Frequent training of the medicine middle grades delivered by the stroke consultants | ongoing discussion with HASU Regional Stroke Services Group to develop future acute stroke service specification (including on-call arrangements) |

2901 - Timely access to the ASU has now been added to the Health Board Risk register at the request of executives.

4. FINANCIAL IMPLICATIONS

The main financial implications for Stroke over the coming months are related to the development of the Hyper-Acute Stroke Unit/Comprehensive Regional Stroke Centre business case. Costings to date will need to be revised to represent the regional model. Including funding to recruit the three consultant neurologists and administrative support also required.

Further conversations need to take place with HDUHB under the ARCH umbrella to discuss their contribution.

Two Physician Associates currently out of contract from May 2023 unless funding can be source, this has been escalated to secure staffing.

5. RECOMMENDATION

Note the content of the report and endorse actions to improve performance.

| Governance and Assurance | | |
|--|---|-------------------------------------|
| Link to Enabling Objectives <i>(please choose)</i> | Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities | |
| | Partnerships for Improving Health and Wellbeing | <input checked="" type="checkbox"/> |
| | Co-Production and Health Literacy | <input type="checkbox"/> |
| | Digitally Enabled Health and Wellbeing | <input type="checkbox"/> |
| | Deliver better care through excellent health and care services achieving the outcomes that matter most to people | |
| | Best Value Outcomes and High Quality Care | <input checked="" type="checkbox"/> |
| | Partnerships for Care | <input checked="" type="checkbox"/> |
| | Excellent Staff | <input checked="" type="checkbox"/> |
| | Digitally Enabled Care | <input type="checkbox"/> |
| | Outstanding Research, Innovation, Education and Learning | <input type="checkbox"/> |
| Health and Care Standards | | |
| <i>(please choose)</i> | Staying Healthy | <input type="checkbox"/> |
| | Safe Care | <input checked="" type="checkbox"/> |
| | Effective Care | <input checked="" type="checkbox"/> |
| | Dignified Care | <input checked="" type="checkbox"/> |
| | Timely Care | <input checked="" type="checkbox"/> |
| | Individual Care | <input checked="" type="checkbox"/> |
| | Staff and Resources | <input checked="" type="checkbox"/> |
| Quality, Safety and Patient Experience | | |
| <p>The paper highlights challenging areas of the Stroke pathway but also highlights areas where SBUHB is doing very well against a difficult picture faced nationally by all Health Boards.</p> <p>Hyper-Acute Stroke Unit/Comprehensive Regional Stroke Centre development and the Acute Medical Services Redesign (AMSR) programme will only improve patients experience long term and address areas where SBUHB can improve.</p> | | |
| Financial Implications | | |
| <p>The financial implications for Stroke services are mainly related to Hyper-Acute Stroke Unit/Comprehensive Regional Stroke Centre development. Development of a HASU/CRSC will require significant investment as outlined in the business case.</p> <p>Development of a dedicated CT facility to improve scanning times can be part funded from a Stroke legacy fund which currently contains around £400,000.</p> <p>Capital implications would need to be considered in developing these facilities and it has been requested that this is factored into the business case.</p> | | |
| Legal Implications (including equality and diversity assessment) | | |
| No implications to note. | | |

| | |
|--|---|
| Staffing Implications | |
| As highlighted in the paper the committee is asked to note the urgency around securing funding to continue the 2 Physician Associates. They were recruited on non-recurrent central funding and will be required in future workforce models. | |
| Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015) | |
| Briefly identify how the paper will have an impact of the “The Well-being of Future Generations (Wales) Act 2015, 5 ways of working. | |
| <ul style="list-style-type: none"> ○ Long Term – Providing enhanced Stroke Services for the SBUHB region. ○ Prevention – Enabling timely intervention in patient’s pathways resulting in better outcomes for Stroke survivors. ○ Integration – Integrating with other hospital sites to ensure rehabilitation pathways are utilised. ○ Collaboration - Acting in collaboration with any other areas such as other hospital sites, tertiary organisations such as the Stroke Association and ○ Involvement – Stroke performance is monitored weekly by a range of staff from different backgrounds as well as being scrutinised before a regular executive board. | |
| Report History | V1 |
| Appendices | Appendix 1 - Stroke Delivery Action Plan – Performance Improvement There is resource section in relation to the embedded documents |