Bwrdd Iechyd Prifysgol
Cwm Taf Morgannwg
University Health Board

AGENDA ITEM
5.6

PLANNING, PERFORMANCE & FINANCE COMMITTEE

STROKE SERVICES – PROGRESS REPORT

Date of meeting	25th October 2022
FOI Status	Open/Public
If closed please indicate reason	Not Applicable - Public Report
Prepared by	Dr Marysia Hamilton-Kirkwood, Consultant in Public Health Medicine Lucy Timlin, Head of Business Support Kevin Duff, Head of Strategic Planning and Commissioning
Presented by	Gethin Hughes, Chief Operating Officer
Approving Executive Sponsor	Executive Director of Therapies & Health Sciences
Report purpose	FOR NOTING

Engagement (internal/external) undertaken to date (including receipt/consideration at Committee/group)		
Committee/Group/Individuals	**Date**	**Outcome**
Quality and Safety Committee CTM UHB Board	20/9/2022 29/9/2022	NOTED

ACRONYMS	
	PCH – Prince Charles Hospital POWH – Princess of Wales Hospital YCRH – Ysbyty Cwm Rhondda Hospital ESD – Early Supported Discharge CNRT – Community Neuro-Rehabilitation Team SSNAP – Stroke Sentinel National Audit Programme MDT - Multi-Disciplinary Team ILG – Integrated Locality Group WAST –Welsh Ambulance Service Trust

	ICT – Information and Communication Technology NG – Nasogastric ANP – Advanced Nurse Practitioner IMTP –Integrated Medium Term Plan NICE – National Institute for Health and Care Excellence DOAC – Direct Oral Anticoagulant CTM – Cwm Taf Morgannwg University Health Board QIMs – Quality Improvement Measures UHB – University Health Board

1. BACKGROUND

1.1 Stroke is the 4th leading cause of death in Wales and can have significant long-term effects on survivors. It is estimated that 70-80% of strokes are preventable. A number of factors contribute to the large disease burden related to stroke and, as 70% of strokes are potentially avoidable, it is vital that a whole system approach is taken. Focus is required on prevention, early identification, management in the acute phase, and rehabilitation.

1.2 The Sentinel Stroke National Audit Programme (SSNAP), which is a single source of data in Wales, England and Northern Ireland, publishes a range of 28 statistics, collecting data from hospital sites with stroke services, including PCH and POWH.

1.3 Across Wales the vision and strategic direction for stroke services is outlined in the Welsh Government Quality Statement for Stroke (July 2021), which states that the next phase of service improvement for stroke survivors and their carers must drive forward change to deliver better quality, higher value and more accessible stroke services.

1.4 In February 2022, the NHS Wales Collaborative Executive Group gave agreement in principle for the Collaborative to support the national Stroke Implementation Group (SIG) to develop a national business plan and case to implement a regional model for delivering acute stroke services in Wales.

2. SITUATION

2.1 Stroke Services in Cwm Taf Morgannwg University Health Board (CTM) comprise of acute stroke services at Prince Charles Hospital (PCH) and combined acute and rehabilitation services at the Princess of Wales Hospital (POWH). Inpatient stroke rehabilitation is provided at Ysbyty Cwm Rhondda Hospital (YCRH), and community-based rehabilitation provided by the Early Supported Discharge (ESD) Team. In addition, there is a Community Neuro-rehabilitation Team (CNRT) providing community-based support, including support for recovering stroke patients. Not all services are available in all geographical areas of CTM.

2.2 Stroke services being delivered in CTM are impacted upon by pressures across hospital sites and workforce challenges. Overall, outcomes are poor in the national audit and the service offer is inequitable across the CTM footprint.

2.3 The Sentinel Stroke National Audit Programme Sustained (SSNAP) is a national healthcare quality improvement programme which measures the quality and organisation of stroke care in the NHS. It is the single source of stroke data in the UK. CTM has reported consistently poor performance across a number of key quality improvement measures (QIMs). It should be noted that during August 21–July 22, PCH had the highest proportion of thrombolysed patients receiving thrombolysis within 45 minutes (48%), compared to the other 12 acute stroke sites across Wales. These QIMs are reported at Appendix 2.

2.4 In late 2021, a CTM stroke equity audit was undertaken and completed by Dr Hamilton-Kirkwood, Consultant in Public Health Medicine. The audit highlighted significant challenges within the CTM stroke pathway. The findings of the audit were reported and recommendations made to the Strategic Leadership Group in February 2022. Appendix 2 outlines the key issues identified/confirmed by the audit.

2.5 An action plan was subsequently developed to address the recommendations. The actions can be grouped into 3 overarching areas: stroke prevention and taking swift action when symptoms develop; care delivered during the acute phase of a stroke; care delivered during the rehabilitative phase of a stroke.

2.6 In addition, work had already started on addressing operational issues relating to stroke. As both plans aim to address prevention of stroke or to improve outcomes for stroke patients, it was decided that

the plans be combined into a single stroke action plan (see Appendix 3).

2.7 In May and September 2022, the Quality and Safety Committee received a position update on stroke services in CTM which outlined a number of short, medium and long term measures being taken by the Health Board's Stroke Planning Group to improve the quality of care in our stroke services.

3. SPECIFIC MATTERS FOR CONSIDERATION BY THIS MEETING (ASSESSMENT)

RECENT PROGRESS (Since May 2022)

Current stroke services

3.1 Work has continued to progress actions within the stroke action plan. A summary is included at Appendix 3.

3.2 Rapid work is underway to develop a Stroke Access Bed at both PCH and POWH. This would be a protected bed to facilitate rapid admission to a stroke ward (a key quality improvement measure within SSNAP). A protocol will be required to ensure that such beds remain available.

3.3 Immediate changes are planned to the rehabilitation pathway. The development of a single specialist bedded stroke rehabilitation unit for CTM will support flow from the acute sites and so increase acute stroke bed availability.

3.4 A case is being worked up to develop an Early Supported Discharge Team for the population of Bridgend. This will enable patients to safely undertake their rehabilitation journey at home and will support reduced length of stay and increased flow for the POWH site.

3.5 Vacancies, turnover and capacity issues within the Consultant Stroke Physician workforce at PCH led to an imminent gap in the on-call rota for thrombolysis/thrombectomy. Colleagues within Cardiff and Vale UHB were approached, resulting in immediate cover on a short-term basis. Swift solutions from CTM Radiology colleagues ensured that reporting challenges for this arrangement were overcome.

3.6 Plans are being progressed at pace to operationalise a 1 in 6 pan-CTM out of hours rota for thrombolysis/thrombectomy advice.

3.7 Given current pressures in both primary and secondary care, it is important to recognise that prioritisation of actions has been required to reflect capacity and resource availability.

3.8 It is also important to recognise that the scale of change required unavoidably has resource implications. Additional funding for stroke services has not been allocated in the 2022/23 IMTP. Alternatives are being explored and resource-neutral developments have been progressed.

3.9 The extension of the Bristol thrombectomy service to become 24/7 will come into place in the new calendar year. Work is already underway to ensure optimised processes to facilitate swift identification, referral, and transfer of suitable patients. The extension of this service will have a positive impact on the thrombectomy rates reported within the SSNAP data.

Stroke prevention

3.10 In May 2022, Public Health, Primary Care and Planning submitted a bid for funding to Welsh Government through the CTM Value Based Health Care team. CTM collaborated with Swansea Bay and Hywel Dda UHBs to submit a joint bid aimed at reducing stroke risk.

3.11 The evidence-base indicates that medication optimisation and medication compliance for hypertension and atrial fibrillation can result in stroke prevention. The CTM proposal supports optimising treatment and secondary prevention for patients with a known diagnosis of hypertension or atrial fibrillation and will allow targeted case finding amongst patient cohorts of known potential higher risk for these conditions in line with national guidance.

3.12 The bid has been successful and will increase capacity in the current Health Check Programme team in CTM, including a band 7 prescribing nurse, additional lifestyle advisors, project and analyst support and sessional time for a GPwSI/clinical lead.

Regional stroke services

3.13 In June 2022, the Collaborative Executive Group endorsed the development of a National Stroke Programme, coordinated and supported nationally, but primarily delivered at a regional level. The national programme aims to meet stroke quality standards and deliver individual and population outcomes comparable with the best in the UK within five years.

3.14 Comprehensive Regional Stroke Centres (CRSCs) will be established to offer highly specialist interventions in the hyperacute phase of stroke care. Regional Stroke Operational Delivery Networks (ODNs) will be developed to incorporate designated Acute Stroke Units

(ASUs) and be responsible for the delivery of a comprehensive range of stroke services.

3.15 A National Stroke Programme Board and National Programme Team will:

- Establish and deliver an overall programme for the development of a high quality, safe and effective configuration of an acute stroke services for the population of Wales
- Provide strategic direction and national oversight of the regional work
- Develop and approve a core service specification (including co-dependant service requirements and minimum workforce standards)
- Develop the national case for change and standardised supporting local and national engagement materials and approach for use with the public, their representatives and other stakeholders
- Support the funding of regional teams and their regionally led work with existing SIG funding for 22-23 whilst leading and overseeing development of any further regional and national business cases.
- Present to Welsh Government the overall business case for jointly agreed centralised funding for additional resources including that for workforce and capital to meet the requirements of ongoing service development and aims of the programme

3.16 CTM and Cardiff and Vale UHB are the first Health Boards in Wales to establish their Programme Board and commence stakeholder engagement. Internal stakeholder engagement events were delivered within Cardiff and Vale UHB on 15th July and within CTM on 25th August. A shared event is planned for 26th October. The initial regional South Central Stroke Network Board took place on 27th September 2022.

NEXT STEPS FOR IMPROVEMENTS

3.17 The challenges and developments faced by stroke services across CTM are multi-factorial and require a simultaneous focus on a number of areas. There is national agreement that regional delivery of stroke services will provide a more sustainable and effective service, but regional developments will likely take 24 months to develop. Therefore, delivery of improvements to the current stroke pathway must continue in parallel with regional developments.

3.18 The CTM Stroke Strategy Group will develop a Stroke Strategy for CTM that will clearly articulate the vision for local and regional stroke

services across CTM, along with key objectives to the delivery of this. The strategy will articulate our ambition to achieve SSNAP rating of Level A and how we will progress towards this year on year.

Improving current stroke services in CTM

3.19 Three task and finish groups will be established to drive forward improvements in stroke services delivered by CTM. Each group will have a designated clinical and operational lead. The three task and finish groups will comprise:

- Stroke prevention and seeking early intervention
- Acute care pathway for stroke
- Rehabilitation care pathway for stroke

3.20 Each task and finish will work to support services to deliver the relevant actions from the integrated stroke action plan. They will devise a clear vision for their designated aspect of stroke care, and will identify the incremental steps required to achieve this. Actions will require prioritisation according to impact and value. Task and finish group leads will report to the CTM Stroke Strategy Group but may have shared reporting lines, for example to the Primary Care Programme Board or the Urgent and Emergency Care Improvement Programme.

4. KEY RISKS/MATTERS FOR ESCALATION TO COMMITTEE

4.1 There remain some outstanding short term actions, as well as medium term (6-12 months) and long term (24+ months) actions which the Stroke Strategy Group are working to address.

4.2 The quality of stroke care delivered by CTM remains below the standards that we strive to deliver, as indicated by the SSNAP Quality Improvement Measures (QIMs). Performance on 4 key QIMs is reported at Appendix 2.

4.3 The planned development of a CTM Stroke Strategy which outlines our vision for the future and how we intend to deliver this.

4.4 The planned development of 3 task and finish groups, reporting to the Stroke Strategy Group, will enable a targeted approach to improvements across the stroke pathway.

4.5 Urgent changes are required to the acute and rehabilitation aspects of the stroke pathway. The scale and pace of change necessitates a sustained focus and is associated with resource implications.

4.6 The development of a regional approach to stroke services in partnership with Cardiff and Vale UHB will facilitate the sustainable delivery of timely, effective and high quality stroke services for our communities.

4.7 Some professional groups are experiencing acute workforce fragility, but plans have been implemented to maintain service delivery. Sustainable longer-term solutions are being progressed at pace.

5. IMPACT ASSESSMENT

Quality/Safety/Patient Experience implications	Yes (Please see detail below)
	Our plans for the delivery of high quality health and care services will address immediate and longer term challenges facing people who are at increased risk of stroke or who have experienced a stroke.
Related Health and Care standard(s)	Effective Care
	If more than one Healthcare Standard applies please list below: • Dignified Care • Timely Care • Safe Care • Staying Healthy • Staff and resources
Equality Impact Assessment (EIA) completed - Please note EIAs are required for <u>all</u> new, changed or withdrawn policies and services.	No (Include further detail below) EIA being completed for next Q&S Committee update.
Legal implications / impact	There are no specific legal implications related to the activity outlined in this report.
Resource (Capital/Revenue £/Workforce) implications / Impact	Yes (Include further detail below)
	The resource implications are to be determined and will be considered in the planning of the Annual Plan/IMTP
Link to Strategic Goals	Improving Care

6. RECOMMENDATION

6.1 The Planning, Performance & Finance Committee are asked to:

- **NOTE** the progress made against the action plan and the successful bid to enhance preventative developments.
- **NOTE** the planned immediate actions to the acute and rehabilitation aspects of the stroke pathway
- **NOTE** the plan to establish focused task and finish groups reporting to the Stroke Strategy Group, tasked with developing a stroke strategy and improving current service provision.
- **NOTE** the ongoing challenges in performance against the four Quality Improvement Measures in the Performance Framework.
- **NOTE** the regional and national work being undertaken to develop high quality prevention, identification and treatment for stroke.

Appendix 1

Quality Improvement Measures across PCH and POWH

The CTMUHB Integrated Performance Dashboard is published on a monthly basis and provides the Health Board with an overview of 4 national Quality Improvement Measures (QIMs), which are part of the suite of improvement measures in the SSNAP:

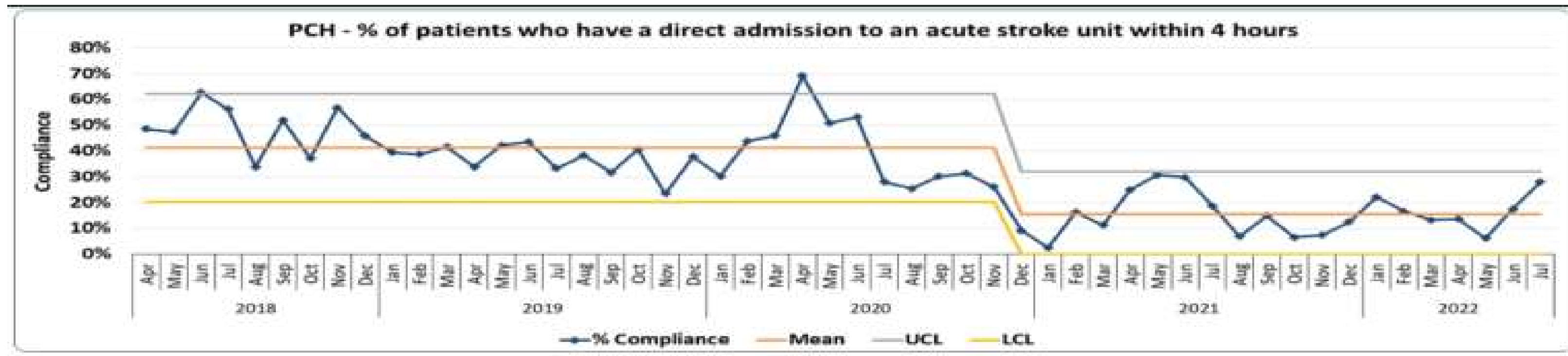
- Direct admission to an acute stroke unit within 4 hours
- Thrombolysis with a door to needle time within 45 minutes
- CT scan within 1 hour
- Assessment by a stroke consultant within 24 hours.

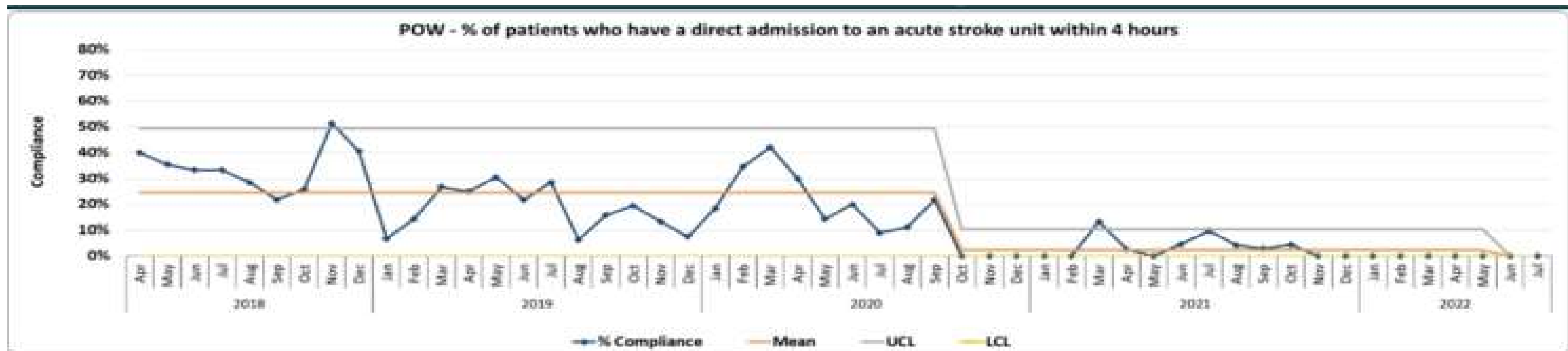
Overall, patient flow challenges on both the POWH and PCH sites have had a direct impact upon the ability to admit people to a stroke ward within 4 hours. In addition, increased length of stay for stroke patients at the POWH site is linked to the lack of access to ESD and community rehabilitation beds to support flow. Challenges in meeting the target for assessment by a stroke consultant within 24 hours, reflects the current 5 day working model of the stroke team.

Challenges remain with numbers of stroke patients continuing to present at the Royal Glamorgan Hospital (mostly self-attenders), leading to delays in accessing the stroke pathway at PCH. However, over the period August 2021 – July 2022, PCH had the highest proportion of thrombolysed patients receiving thrombolysis within 45 minutes (48%), compared to the other 12 acute stroke sites across Wales.

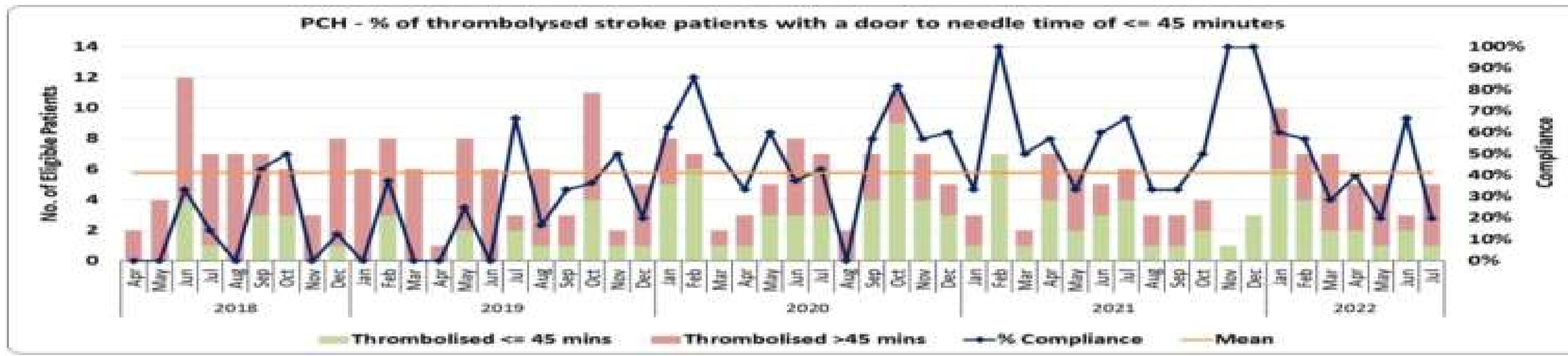
Bwrdd Iechyd Prifysgol
Cwm Taf Morgannwg
University Health Board

% compliance with direct admission to an acute stroke unit within 4 hours



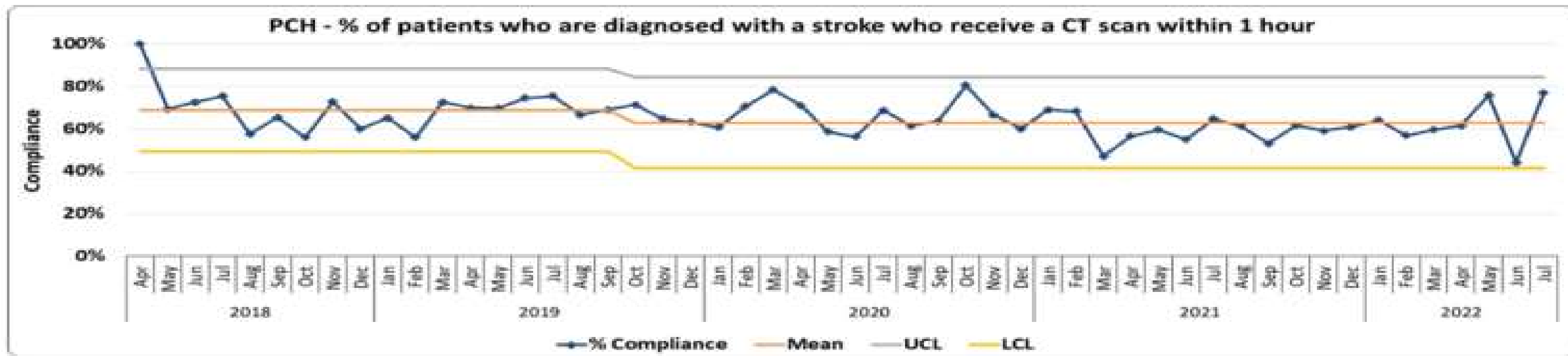


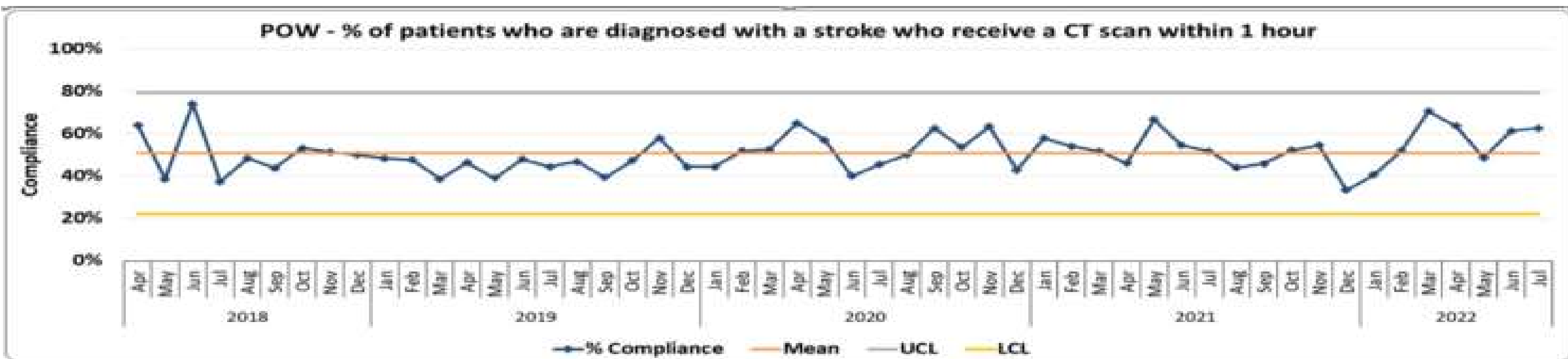
% compliance of thrombolysed stroke patients with a door to needle time within 45 minutes



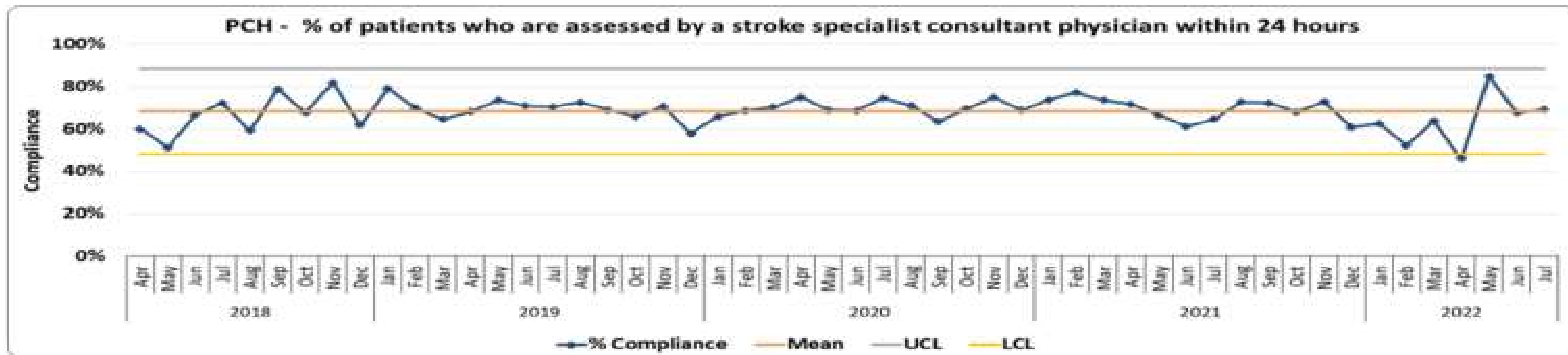
Bwrdd Iechyd Prifysgol
Cwm Taf Morgannwg
University Health Board

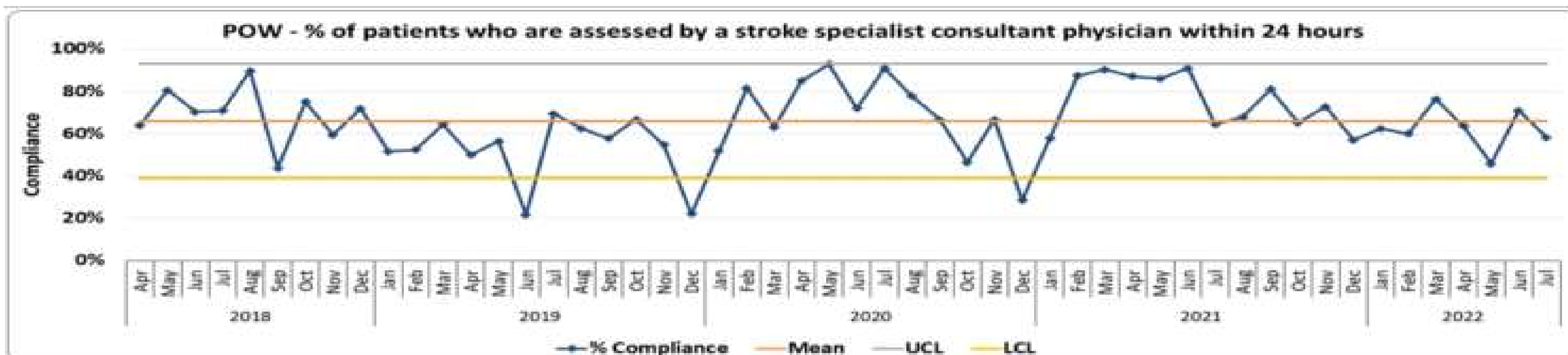
% compliance of patients diagnosed with stroke received a CT scan within 1 hour





% compliance assessed by a stroke consultant within 24 hours





GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

APPENDIX 2

ISSUES HIGHLIGHTED IN THE CTM STROKE EQUITY AUDIT

ISSUE	DESCRIPTOR
European age standardised mortality	CTM residents have the highest mortality from stroke of all health boards in Wales
European age standardised emergency admission rates	CTM residents have the 3rd highest emergency admission rate in Wales. It is highest in Bridgend and highest in males
High blood pressure	In CTM, there were 79,000 people on primary care hypertension registers in 2019-20. There were 1,654 residents of CTM admitted with stroke in 2020-21 with 60% of admissions to PCH and 53% to POW having pre-existing hypertension
Atrial fibrillation	AF accounts for 20-30% of all strokes, with 2.5% of the CTM population on primary care AF registers. 71- 83% are anticoagulated in the Bridgend and North Rhondda, compared to 86-92% in Merthyr. 27% of all admissions to hospital with AF are not anticoagulated. 70% of stroke admissions from Merthyr were anticoagulated, whilst 57% of residents from Bridgend and RCT were anticoagulated
Onset to arrival	Time from onset to arrival at PCH and POW varies, with longer median arrival times to arrive at PCH. Ambulance delays have been increasing over the last over the last 3 years but time to arrival when not travelling by ambulance appears to be much longer for patients getting to PCH
Variation in pathways	The initial management of patients with stroke varies between PCH and POW. Stroke patients at POW flow through ED and are initially managed by ED. In PCH, stroke patients are immediately handed to stroke team
Time to CT scan	64% of stroke patients at PCH have a CT scan in less than 1 hour of arrival, compared to 52% in POW, with a Welsh average of 55%. The median time to scan was 38 minutes in PCH and 58 minutes in POW with a Wales average of 51 minutes
Thrombolysis	In 2020-21, 12% of all strokes at PCH and 7% at POW were thought eligible for thrombolysis, with a Wales average of 13%. 57% of those eligible at PCH were thrombolysed in <45 minutes compared to 11% in POW, with a Welsh average of 28% (although this increased in 2021-22). Median time to thrombolysis was 38 minutes in PCH, (the fastest in Wales) and 67 minutes in POW, with a Welsh average of 61 minutes
Time to stroke unit	In 2020-21, 30% of stroke patients in PCH arrived at a stroke unit within 4 hours, compared to 8% in POW, with a Wales average of 34%. Median time to the stroke unit was 5 hrs 45 minutes in PCH and 9hrs 12 mins in POW with an average for Wales of 6 hours. There is a major flow issue in POW due to DTOC patients at rear door
Time to stroke consultant and therapies	71% of stroke patients in PCH and 68% in POW are seen by a Consultant in under 24hrs, with a Wales average of 81%. 75% of patients in PCH and 86% in POW access therapies in under 24 hrs, with a Wales average of 84%. PCH is one of the lowest in Wales
Early supported discharge	53% of patients in PCH were assessed by an Early Supported Discharge Team as compared to 1% of patients at POW. This and the absence of access to rehabilitation beds in POW leads to a length of stay of 18.4 days for Bridgend residents, compared to 11 days for residents of Merthyr and 10.3 for RCT. This affects overall flow

Appendix 3

Stroke Action Plan

Key to RAG rating

Green = complete

Amber = work progressing with issues to address

Red = no progress

Short Term

	Action	Review Date	RAG Rating	Progress
1.	Review policy for transfer of acute stroke patients from RGH to PCH	November 2022		Draft being actively explored with operational leads at RGH and PCH, with a view to inclusion of an appropriate time period for awaiting transfer.
2.	Check use of WAST/CTMUHB Pathway for Stroke	November 2022		Copy of WAST protocol/pathway received. Currently under review. Changes to be finalised by October 2022.
3.	Use of electronic whiteboard to review therapy activity, caseload, numbers awaiting transfer in order to aid flow and transfer of care between PCH and YCR.	November 2022		Relaunch planned to encourage use of eWhiteboards by the full MDT. Reviewing use of whiteboards and associated ICT issues.
4.	Provision of Therapy Space at POWH	June 2022		Complete - Handed over in May 2022.

5.	Provide ring-fenced beds on Stroke Wards	Ongoing		Pilot being planned for POW. Update to next Stroke Strategy Group.
6.	Development of single evidence-based care pathways across both sites	November 2022		Work progressing to develop a single operating procedure of how patients are handled from when they are assessed as having a stroke, from ambulance control or from home, and how handover is progressed to the stroke team
7.	Development of single evidence-based care pathway for thrombolysis	September 2022		Unified criteria for thrombolysis agreed across both sites.
8.	Review current pathway for Orthoptics and explore potential for unification of service across CTMUHB	November 2022		Head of Orthoptics appointed. Plan being progressed to address waiting lists in North CTM and alignment of pathways across CTM UHB.
9.	The development of a plan for a single specialist bedded stroke rehabilitation unit for CTM to support flow from the acute sites and so increase acute stroke bed availability	October 2022		Priority action for Task and Finish Groups
10.	Provision of ESD service across CTMUHB footprint	December 2022		Costed as part of service development process. Priority action for Task and Finish Group.
8.	Optimisation of medication and compliance for patients on Primary Care Atrial Fibrillation (AF) and Hypertension Registers. Case Detection of patients with AF and Hypertension.	November 2022		CTM UHB Value Based Health Care Business case successful as part of Regional Business Case. Work progressing for implementation.

Medium Term

1.	Explore appointment of a co-ordinator at YCR to improve communication with patients and families and free up medical, nursing and therapy time.	December 2022		Costed as part of service development process.
2.	Develop ability to transfer patients with nasogastric tubes to YCR	September 2022		Protocol established and 2 recent admissions accepted. Complete.
3.	Explore sourcing additional Junior Doctor hours, including 7day working	December 2022		7 day working of stroke teams, including medics, nurses and therapists, included within service development process
4.	Provision of additional Advanced Nurse Practitioners to support the stroke pathway.	December 2022		Nurse leaders are scoping models of care across the UK in order to provide a recommendation for CTMUHB.
5.	Explore potential for increased inpatient stroke rehabilitation capacity in YCR	December 2022		Additional staffing requirement is being costed as part of service development process.
6.	Explore reasons for delay in accessing help and arriving at PCH. In some cases this delay is a median time of 15 hours if travelling by own transport.	November 2022		Work has been undertaken to validate the data on the delays. It appears that delays have increased to both units but particularly in arriving at PCH when using own transport. Further work is being undertaken to understand reasons for the delay but likely multi-factorial (delay in recognition of symptoms, WAST waiting times, reluctance to seek health care, etc) Preliminary discussions are taking place on re-running the FAST campaign and there may be scope for targeting those with risk factors to proactively educate them in recognition of symptoms.

7.	Improve access to thrombectomy at Bristol.	November 2022		Bristol thrombectomy service to go 24/7 in the Autumn of 2022, improving access for both PCH and POWH. Work has commenced to review the evidence base for thrombectomy. This will be shared with clinicians to support improved access to thrombectomy service at Bristol in the short term.

Long Term

1.	Consider requirement for additional Stroke Consultant Capacity	December 2022		To be considered in conjunction with medium term action number 4 above and potential use of ANPs
2.	Work with Cardiff and Vale UHB to explore potential for regional working and regional enhanced stroke unit	November 2022		CTM UHB are working in partnership with Cardiff and Vale UHB to develop a regional programme structure. CTM Stakeholder event held on 25th August 2022. First South Central Regional Board meeting scheduled for 27th September.