

KPIs	Recommendations/ Action	Start Date	Implementation / End Date	Progress/ Remarks	Expected Benefit/ Impact on SSNAP Score	RAG Status	Budget Implications	2019 Pre-COVID	2021/22	2022/23	2023/24	Staffed to National Standards	
1	Admitted to Stroke Unit within 4 hours of arrival to hospital			Access to a Stroke Bed within 4 hours to be raised at site meetings with as high profile as other targets and plans to be created for getting ring fenced capacity back	Oct-22	Ongoing / Daily	Raised profile of Ring-fenced stroke capacity in line with specialties such as ITU, A&E, and Cardiac. Service Director has previously instructed that capacity is to be ring-fenced.	Improved compliance against 4 hour target					
				Ringfencing of 18 Stroke beds on the ASU To breach a ring fenced stroke bed a proforma should be completed and signed off by gold.	Jul-23	Ongoing / Daily	Maintain 4 ring-fenced beds per 24 hours – do not go into the night without a ring-fenced bed without exec approval. Last bed not to be used for non-stroke admissions unless exec approval. The attached pro-forma is to be populated (by Bed Manager or On-call Manager) each time the ring-fenced bed on the Acute Stroke Unit has been breached (by a non-stroke). This process is being adopted to ensure that the bed management SOP for stroke is applied consistently and that appropriate escalation takes place prior to occupation of the ring fenced bed. Dec 23 Escalated to Site management due to increasing numbers of medical outliers on the ASU (13-14 patients). Under ringfencing agreements there should be a maximum of 6 medical patients. Policy in place but not adhered to due to site pressures	Improved compliance against 4 hour target Reduced LoS from not using the therapies room			53.00%	8.60%	27.00%

		Transfer Delays Transfer issues to be raised at 10:30 internal site call and work with other sites to move longest waiters and ensure compliance	Oct-22	Ongoing / Daily	Use the ASU delayed transfer list to highlight transfer delays, monitor them and work to reduce them. Email is sent daily to proactively raise the profile long waiters at Morrision in order for other sites to pull. In place yet other rehab sites – NPTH are reliant on being able to discharge to the community which is no longer straight forward. Highly problematic given lack of social care. Reduced transfer delays at present a benefit of AMSR	Reduced LoS on ASU		n/a						
2	CT Scanned within 1 hour	Direct to CT to be explored with radiology	Oct-22	Implemented July 2023	 DIRECT TO CT PILOT.pdf Pilot live from 17/7/23 November 2023 Brainomix Artificial Intelligence now live. December 2023 Pilot in place and due to continue. April 2024 CT Perfusion operating Mon-Fri 9-5pm, with plans to expand to all CT radiographers covering on call to ensure a 24/7	Reduced time to CT Head	n/a	51.20%	38.60%	50.00%	66.00%	95.00%		
3	Door to needle Thrombolysis - 45 mins	ANP recruitment	Jul-23	Implemented July 2023	6 Stroke ANP (trainees) recruited to date due to be fully qualified in 2026	Improve door to needle times	Funded from agreed recruitment plan	17.50%	8.00%	25.00%	50.00%	95.00%		
4	Stroke consultant review within 24hrs	Recruitment plan for Consultants in place, 1 WTE out to advert in 23/24 and 2 WTE planned for 24/25	Sep-23	Jun-24	Ongoing recruitment Interviews 10th June 2024 for 1 Stroke Consultant 2 posts to be progressed in 2024 /25 and join hybrid Neuro/Stroke rota to be revised to ensure all future recruits in Neuro go on the Stroke on-call rota.	To sustain stroke consultant review within 24 hours	Funded from agreed recruitment plan	95.00%	94.40%	94.00%	95.00%	100.00%		
5	Swallow screen assessment within 4 hrs	Increased education of ED staff	Jul-23	Jun-24	Ongoing training and weekly monitoring of performance	To sustain swallow screen assessment within 4 hours	n/a	79.30%	75.80%	82.00%	90.00%	95.00%		

6	Formal Swallow screen assessment <=72 hrs	Increased education of ED staff	Jul-23	Jun-24	Ongoing training and weekly monitoring of performance	Formal swallow screen assessment within 72 hours	n/a	95.00%	90.30%	92.50%	95.00%	100.00%
7	Discharged Home Directly from ASU <= 72 hours	2024 GMO (PCT_10): Develop an Integrated Community Stroke Serv	Apr-24	Mar-25	Develop an Integrated Community Stroke Service (ICSS) to enable more stroke survivors to receive their on-going rehabilitation in a community based setting. To be added to Stroke GMO in MGH Plan as this is part of Phase 2 planning	Stroke evidence base demonstrates significant improvements in outcomes for all stroke patients when they receive community based rehab.	£1.2 million. Without investment, GMO won't be delivered	N/A	20.00%	21.00%	24.00%	N/A
8	Compliance with patients receiving the required minutes for Occupational Therapy	Recruitment underway for additional B6 OT post to support Rehab site. B4 Rehab practitioners x2 appointed and commencing 18th Dec Review of data inputting methods	Sep-23	Completed Jan 2024	OT interviews Monday 18th Dec Data inputting reviewed and adapted	Increase in target compliance as per trajectories in Stroke SBAR	As per the stroke SBAR	51.00%	74.10%	80.00%	95.00%	95.00%
9	Compliance with patients receiving the required minutes for Physiotherapy	B4 Rehab practitioners x2 appointed and commencing 18th Dec. Out to advert for x1 more B4 post Review of data inputting methods	Sep-23	Completed Jan 2024	Data inputting reviewed and adapted	Increase in target compliance as per trajectories in Stroke SBAR	As per stroke SBAR	58.80%	66.90%	74.00%	88.00%	95.00%
10	Compliance with patients receiving the required minutes for Speech and Language Therapy	B4 Rehab practitioners x2 appointed and commencing 18th Dec Review of data inputting methods	Sep-23	Completed Jan 2024	Data inputting reviewed and adapted	Increase in target compliance as per trajectories in Stroke SBAR	As per stroke SBAR	31.60%	64.30%	52.00%	83.00%	95.00%
11	Percentage of applicable patients screened for nutrition and seen by a dietitian by discharge	Recruited to 0.85 WTE B7 dietitian	Sep-23	Completed Jan 2024	Start Date January 2nd 2024	Improvement of compliance and data analysis	As per stroke SBAR	95.30%	62.50%	67.00%	90.00%	95.00%
12	Percentage of patients discharged with ESD	Multiple posts have been recruited too	Oct-22	Completed Jan 2024	Delayed Transfers of Care discussed every Tuesday via the Clinically optimised meeting. Ward F patients' profile to be raised as well as other key areas. <u>July 2023</u> ESD expansion in SBUHB investment plan for 23/24 <u>Dec 2023</u> Multiple posts recruited to in ESD	Increased patient flow, reduce LOS	Part of the Stroke Expenditure plan, £280k recurrent ear marked for ESD	22.00%	43.00%	44.00%	45.00%	45.00%
13	Six Month patient follow up assessment	Life after stroke clinics	Jun-23	Ongoing - weekly	Life after stroke clinics have been running since June 2023. Clinic appointment are being offered at closer three/four months instead of six as patients are requesting input sooner. Face to face / TEAMS/ telephone calls are also still offered at 6 months	Patient experience	n/a	53.50%	8.60%	45.00%	95.00%	95.00%
14	SSNAP data	Weekly scrutiny of data in conjunction with consultants, site teams, managers to identify themes	Oct-22	Ongoing -weekly	Completed – Occurs Weekly	Improved Scrutiny of recorded data	n/a					
15	TIA Clinics to run 5 days a week where possible.	Clinics to run Mon - Thurs and Friday when required	Aug-21	Ongoing - weekly	Implemented. Dedicated Doppler scans. 2 clinics per week back up and running at NPTH	In place – admission avoidance	n/a					

16	Ensure SLA with Bristol is maximised for Thrombectomy use	Work with strategy and commissioning team to ensure SLA in place is appropriate	Aug-22	Jun-24	Eligible patients transferred to Bristol for Thrombectomy. SLA is between WHSSC and North Bristol NHST which SBUHB benefits from. 50 thrombectomy transfers from Morriston to NBT from June 2020-Dec 2023	Increased Amount of thrombectomy referrals to Bristol		n/a							
17	Mechanical Thrombectomy	CT perfusion introduced in April 2024 Weekly scrutiny meeting over patients sent to Bristol for Thrombectomy as well as those returned that did not received treatment despite being sent.	Nov-22	Jun-24	Review DU recommendations and findings of their tour of radiology and Stroke services 1/11/22 to aim towards 11% thrombectomy rate. Survey conducted November -December 2022. DU report awaited on findings Direct to CT Pilot –July 2023 envisaged to cut down assessment/referral time for this service. Agreed at Morriston board, start date awaited from WAST as at 17/7/23 SSNAP reporting issue resolved 14/7/23 where SBUHB thrombectomy referrals were not showing due to records not being returned from NBNHST			SLA in place with NBT							
18	Review of Actions from Thrombolysis Action plan 2019/20 to ensure lessons learnt remain embedded.		Sep-21	In Place	2019/2020 Action Plan:	Lessons learnt and kept on for information		n/a							
19	Review of Actions from Therapies Action plan 2020 to ensure lessons learnt remain embedded.		Sep-21	In Place	2020 therapies action plan: Therapies room ring-fenced going forward	Lessons learnt and kept on for information		n/a							
20	Porter cover – pool porters & A&E porters to be involved in pathway to ensure we minimise delays.		Feb-22	In Place	Reduce delays in CT/Ward transfers.	Reduced time to CT		n/a							
21	Pre-Alert ED – Site to be alerted ahead of time to pull the patient through to a bed.			In Place	Already in place	Reduced time to first assessment / CT/ Swallow assessment		n/a							
22	Hyper Acute Stroke Unit (HASU) / Comprehensive Regional Stroke Unit (CRSC)	Access to beds		Jun-26	SOP and Ring-fencing policy to be adopted following New HASU Unit. Await approval of HASU business case and implement from April 2023			n/a							
23	Hyper Acute Stroke Unit (HASU) / Comprehensive Regional Stroke Unit (CRSC)	Dedicated CT facility to improve scan times.		Jun-26	£400k in stroke legacy fund to be put towards developing dedicated CT facilities. Additional benefit of working with radiology to bring cardiac scans back to SBUHB also. H DUHB colleagues to be asked about their contribution towards these facilities as requested by the Charitable funds committee December 2023. H DUHB confirmed not contributing towards SBUHB facility.	Improve scan times		n/a							
24	Hyper Acute Stroke Unit (HASU) / Comprehensive Regional Stroke Unit (CRSC)	Improved door to needle times from increased ANP workforce		Jun-26	Increased ANP workforce to improve door to needle times. Reduced time for patients to wait before receiving the medication. 3 candidates recruited and now in post. March 2023. Further 3 ANP posts to go out to advert July 2023 ready to have trained workforce for 2026 to take H DUHB patients.	Improve door to needle times		n/a							

25	Hyper Acute Stroke Unit (HASU) / Comprehensive Regional Stroke Unit (CRSC)	Recruitment of 3 x Hybrid Stroke/Neuro consultants		Jun-26	3 x Hybrid consultants to be recruited. Ring-fenced funding exists. ARCH to agree financial contribution of the model prior to recruiting which will improve HDUHB Neurology provision.			E450,000 (funded as part of Business case approved in 2024)						
26	AMSR	Decompression of ED / AMSR redesign - COMPLETE	Dec-22	Oct-23	Decompression of ED and Stroke patients going to a dedicated medical area will mean assessments are more focussed and will better tailor for Stroke patients whose symptoms are not immediately obvious of stroke. Anticipated Benefit includes: •Improved CT Head time •Improved door to needle time for Thrombolysis AMSR implementation took place in December 2022. Full audit results and measures awaited at the time of writing but ED and the new AMU remain congested due to a lack of patient flow back into the community. February 2023 Double running phase to complete. No major benefit yet realised from AMSR to date in terms of its impact on Stroke performance. July 2023 ED still 100+ patients most days post AMSR. CT pilot commenced 17/7/23 to avoid delays and release crews.		n/a							
27	Third Sector Collaboration		Jan-23	Mar-24	Tender being submitted January 2024	No impact to SSNAP but will allow more support to patients		E65k funded and awarded						
28	Speech and Language input	Several vacancies are causing a fall in compliance. National shortage of SLT staff	May-24	Nov	Explore putting out overtime in the department. Place advert with a locum agency. Overseas recruitment to be explored as an option. Explore pulling staff from general ward areas to support Stroke.	Increased compliance of therapy time by having more staff to delivery the therapy.		Locum costs to be established						
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Immediate actions to address 4 hour admission:		Decompression of ED with opening of Acute Frailty Unit	Apr-24	Sep-24	Acute frailty unit coming online in September 2024 is expected to absorb 40% of the medical take allowing quicker assessment times for patients including those suffering stroke who may not be clinically obvious.	Expected improvement in 4 hours compliance								
		All site matrons reminded that breach of a Stroke bed needs authorisation from Silver & Gold.	May-24	May-24	All staff reinforced of this 8/5/2024 Breach proforma reintroduced	Expected improvement in 4 hours compliance		n/a						
		Medical outliers should be capped at 6 on Ward F. Morrison to link in with NPTH around maximising use of rehabilitation facilities to improve flow	Apr-23	May-24	David West & Rebecca Davies to meet with Melanie Collins to speed up Stroke transfers. To be done May 2024.	Expected improvement in patient flow resulting in improvement in 4 hour compliance.		n/a						
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Immediate actions to address Thrombolysis compliance		Thrombolysis pathways to be reissued to all medical and ED staff	May-24	May-24	Dr Poulden and Dr Anjum to send out guidance to capture all eligible patients for thrombolysis.	Expected improvement in thrombolysis compliance by ensuring all eligible patients are given this treatment.		n/a						
		Recruit to develop 7 day a week 8am-10pm cover	May-24	Sep-24	2 substantive PA's to be recruited in place of locum ED team. These 2 PA's will join with 2 already in post substantive PA's as well as 6 ANP's and 3 CNS's to form 7 day a week cover	Expected improvement in thrombolysis compliance by ensuring specialist teams are available all throughout the week.								

							Funded from agreed recruitment plan						
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Immediate actions to address CT within 1 hour compliance	Expansion of CT perfusion service from Monday-Friday 9-5pm to 24/7	May-24	Jul-24	17 radiographers to train on CT/MRI perfusion so being trained as and when cases present.	Greater compliance with CT<1hour as well as increased thrombectomy rate from increased ability to identify salvageable brain following Stroke.		training costs						
	Continued education to On-call staff about thrombectomy options	May-24					n/a						
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	Refreshed audit of WAST pilot patients going Straight to CT to update November's report and to assess if this pilot can be adopted as policy	May-24	Jun-24	Patient data to be audited and assessment times analysed. Meeting to be arranged with WAST following this to see if it can be adopted as policy	Greater compliance with CT <1 hour.		n/a						
	Expansion of CT perfusion service from Monday-Friday 9-5pm to 24/7	May-24	Jul-24	17 radiographers to train on CT/MRI perfusion so being trained as and when cases present.	Greater compliance with CT<1hour as well as increased thrombectomy rate from increased ability to identify salvageable brain following Stroke.		training costs						
	Decompression of ED with opening of Acute Frailty Unit	Apr-24	Sep-24	Acute frailty unit coming online in September 2024 is expected to absorb 40% of the medical take from ED decompressing the department and allowing quicker assessment times for patients including those suffering stroke who may not be clinically obvious.	Expected improvement in CT compliance due to quicker identification of patients presenting with Stroke who don't attend via WAST and maybe not clinically obvious. Increased WAST conveyance due to reduced community delays resulting in greater numbers benefitting from direct to CT.								
	Training of ED/AMU reception Staff to highlight suspected strokes or expedited triage	May-24	Jun-24	Reception staff being trained in BEFAST tool to identify suspected Stroke patients to expedite triage by nursing staff	Quicker identification of walk in stroked to reduce time to CT, Thrombolysis and thrombectomy.		n/a						
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Immediate actions to maximise use of Thrombectomy treatment	Expansion of CT perfusion service from Monday-Friday 9-5pm to 24/7	May-24	Jul-24	17 radiographers to train on CT/MRI perfusion so being trained as and when cases present.	Greater compliance with CT<1hour as well as increased thrombectomy rate from increased ability to identify salvageable brain following Stroke.		Training costs						
	Continued education to On-call staff about thrombectomy options and NBNHST operating policy to be cascaded	May-24	May-24	Extended opening hours of this service has been cascaded to senior and junior staff	Increased utilisation of thrombectomy service in North Bristol.		n/a						
	Extended ANP cover due to 2 now been signed off to independently see Stroke patients. Another 4 to come on line over the next 12-24 months	May-24	May-25	2 trained as of May 2024, 4 more ANP colleagues to qualify over the next 24 months	Greater use of thrombectomy services due to quicker identification and referral to Bristol in conjunction with reduced CT and Thrombolysis times.		n/a						