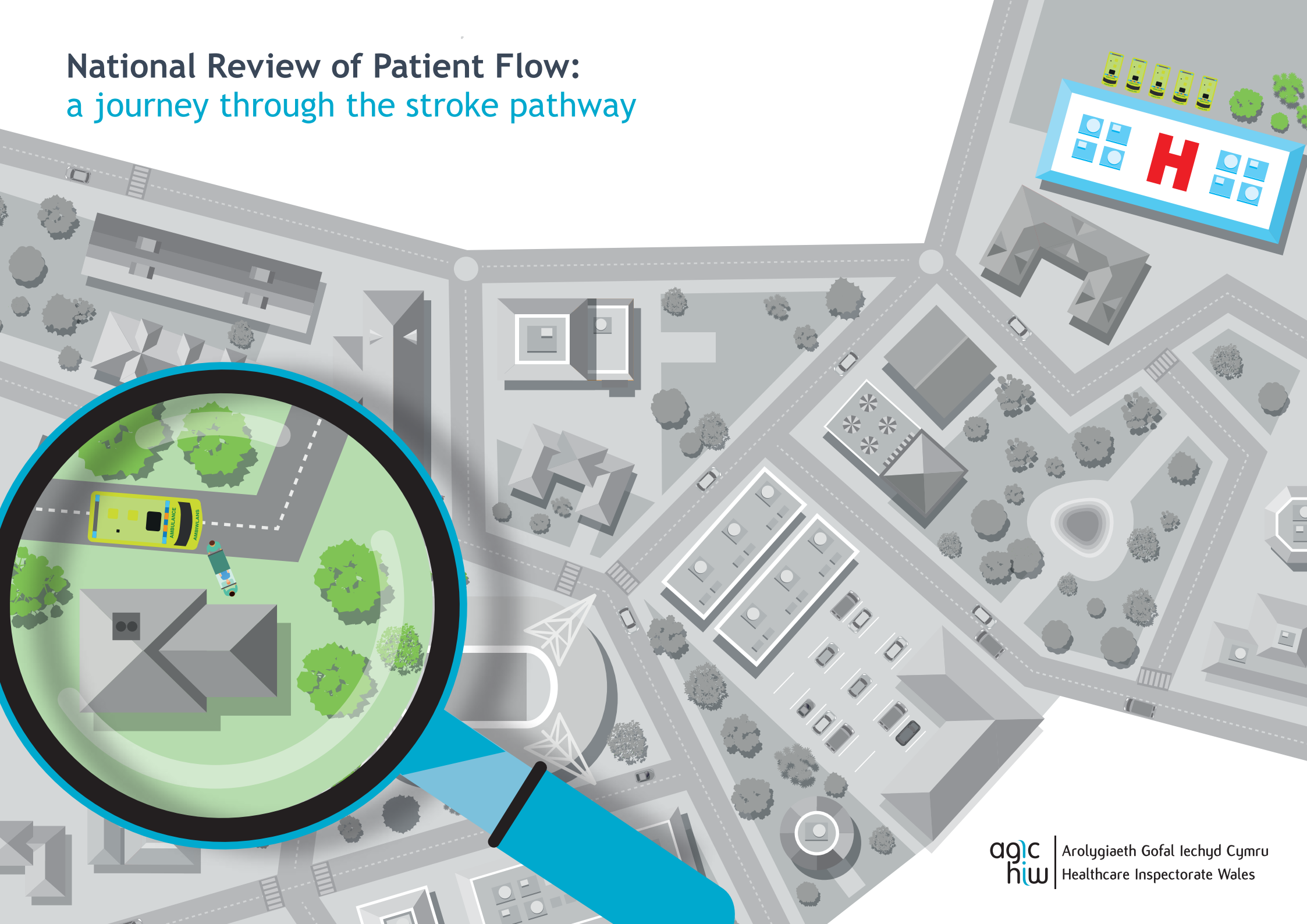
National Review of Patient Flow:
a journey through the stroke pathway



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Arolygiaeth Gofal Iechyd Cymru
Healthcare Inspectorate Wales

Executive Summary

This report sets out the findings from our National Review of Patient Flow: a journey through the stroke pathway.

The review explored the experiences of people accessing care and treatment for stroke at each stage, from calling an ambulance, transfer to hospital, assessment, inpatient treatment, through to discharge.

Patient flow is the movement of patients through a healthcare system, from the point of admission to the point of discharge. When patient flow is impeded or is inefficient, it has significant repercussions on the quality and safety of patient care.

Our review has highlighted that across Wales, there are significant challenges which are having a negative impact on the efficiency of patient flow, and this means patients are not always receiving the care they need in a timely and appropriate manner. These challenges are wide ranging; the high demand for inpatient hospital beds combined with the complexities with discharging medically fit patients from hospital, leads to the inpatient healthcare system across Wales operating under extreme pressure. This impacts on the delivery of safe and timely care.

Whilst we found a range of initiatives, different models of care, and approaches being taken within health and social care to tackle the problems arising from poor patient flow, these have not sufficiently tackled the problem. Although there is no single solution, our review identifies opportunities for the health and social care systems to make improvements across each stage of the patient pathway, which may help lessen the impact of poor patient flow. The positive initiatives and approaches identified by our review, should be considered across Wales as services attempt to tackle their challenges with poor patient flow.

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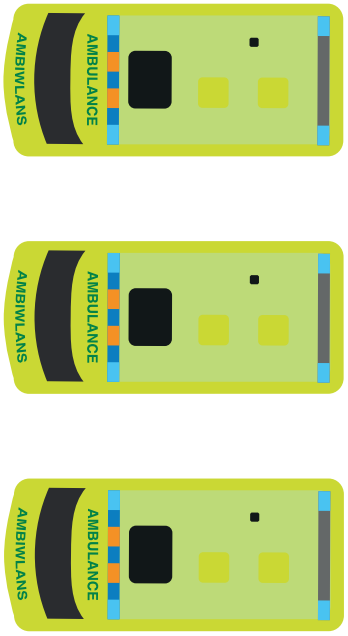

We specifically examined the journey of patients through the stroke pathway. This was to understand what is being done to mitigate any harm to those awaiting care, as well as to understand how the quality and safety of care is being maintained throughout the stroke pathway.

Demand is exceeding supply in relation to the healthcare system, and during our fieldwork almost all hospitals we visited were under level four ‘extreme pressure’, as highlighted in the *National Emergency Pressures Escalation and De-escalation Action Plan*[1]. The demand was having a knock-on impact on Welsh Ambulance Services NHS Trust (WAST) and its timely response to emergency calls. Despite hospital patient flow teams across Wales working tirelessly 24 hours a day seeking to manage patient flow, we found that patient flow issues were negatively impacting on every stage of stroke care. This was from the point of needing to access healthcare at home, through to discharge from hospital.

A key area requiring improvement identified by our work, relates to the need for healthcare services to engage with people, to better understand the barriers to them accessing or choosing from the range of healthcare services available in Wales. The range of healthcare services includes pharmacies, Minor Injury Units, mental health helplines, online NHS consultations, and the NHS 111 Wales service. Once the barriers are understood, this should in turn be used to influence service design.

[1] National Emergency Pressures Escalation and De-escalation Action Plan

Ongoing engagement with people about the range of available services may reduce the need for people to attend their GP surgery or attend an Emergency Department (ED) when their health concern is not an emergency.

There were prolonged patient handover delays from ambulances to ED at all hospital sites we visited. These delays were significantly impacting on the ability of WAST to respond to emergency calls in the community and increase the risk to patients requiring emergency treatment and transportation into hospital.

It was positive to find that patients suspected as having had a stroke, were prioritised for ambulance handover, and transferred into ED promptly in line with the stroke pathway. However, we found that achievement of the Welsh Government 15-minute target for handover of stroke patients was challenging. This target aims to ensure that time critical investigations and treatment are undertaken promptly to ensure the best outcome for patients. Challenges with the demand on EDs meant that some patients waited longer than expected for triage and ongoing assessment or treatment. This is a particular risk for those patients who self-present at an ED and have not had any clinical input prior to their arrival.

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We found that the recognition of stroke and its prevention is a key area that needs attention across Wales. More needs to be done by NHS healthcare providers and Public Health Wales (PHW) to educate people about this debilitating condition, to help minimise their risk of developing a stroke, and to seek immediate help if symptoms arise.

This is of relevance to certain population groups who are at a greater risk of having a stroke, such as those who smoke, have high blood pressure, high cholesterol, diabetes, are obese, or who excessively consume alcohol[2]. Evidence also suggest that Black and Asian people are at a higher risk of developing a stroke. Health boards and PHW should therefore work closely with these communities to understand the specific issues they face and ensure ongoing engagement with them, in support of better health outcomes.

It was disappointing to find that in 2022, the performance of most acute hospitals in Wales which provide stroke services, had deteriorated since 2019. As highlighted within the UK's Sentinel Stroke National Audit Programme (SSNAP) data, there was an increase from three, to 11 out of 14 acute hospitals which were performing poorly and were categorised as either a D or an E grade (lowest).

[2] Causes of Stroke

However, it is important to note that this period coincided with the global COVID-19 pandemic, and there was an unprecedented demand on hospital beds nationally, which was significantly impacting on patient flow in general, and throughout the stroke pathway.

As highlighted earlier, during our fieldwork almost all hospitals were under level four ‘extreme pressure’. To help manage the pressure and patient flow through hospital systems, patient flow meetings were held regularly in all hospitals. They were well attended by the key staff responsible for a patient’s journey through hospital.

In some health boards, a Hospital Ambulance Liaison Officer (HALO) was also present during patient flow meetings, to discuss the handover delays and plans for longest wait patient handovers. We found this to have a positive impact in managing the issues associated with delayed patient handovers from ambulance crew to ED staff.

Overall, we found that patient flow teams appeared to manage meetings well, and we concluded that they had a strong understanding about which patients needed beds or moves to other wards. This included the oversight of patient specialty outliers in other service groups, such as medical patients cared for in surgical beds and vice versa.

Due to pressure on bed availability, hospitals were not always able to admit patients to the right bed or ward for their treatment. These patient outliers, as they are known, were a consistent finding across Wales. This meant that it was not always possible to move patients, which included stroke patients, to the most appropriate ward or specialty for their care and treatment. It was concerning to find that because of poor patient flow, patients are regularly being treated on a ward that would not usually care for that condition. Patients who are not allocated to the right bed or ward, can at times experience an increased length of stay.

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This may lead to other complications, creating additional challenges for care teams and adding to the issue of poor flow. A stroke patient who has been admitted to hospital is likely to have a much better outcome if they are treated on a stroke ward.

During our work, it was positive to find that Improvement Cymru[3] was undertaking a pilot within three acute hospitals supporting teams to improve their patient flow systems. Together with the health boards, they implemented a Real Time Demand Capacity methodology to focus on the flow process. This focuses on discharge and improving flow in small increments.

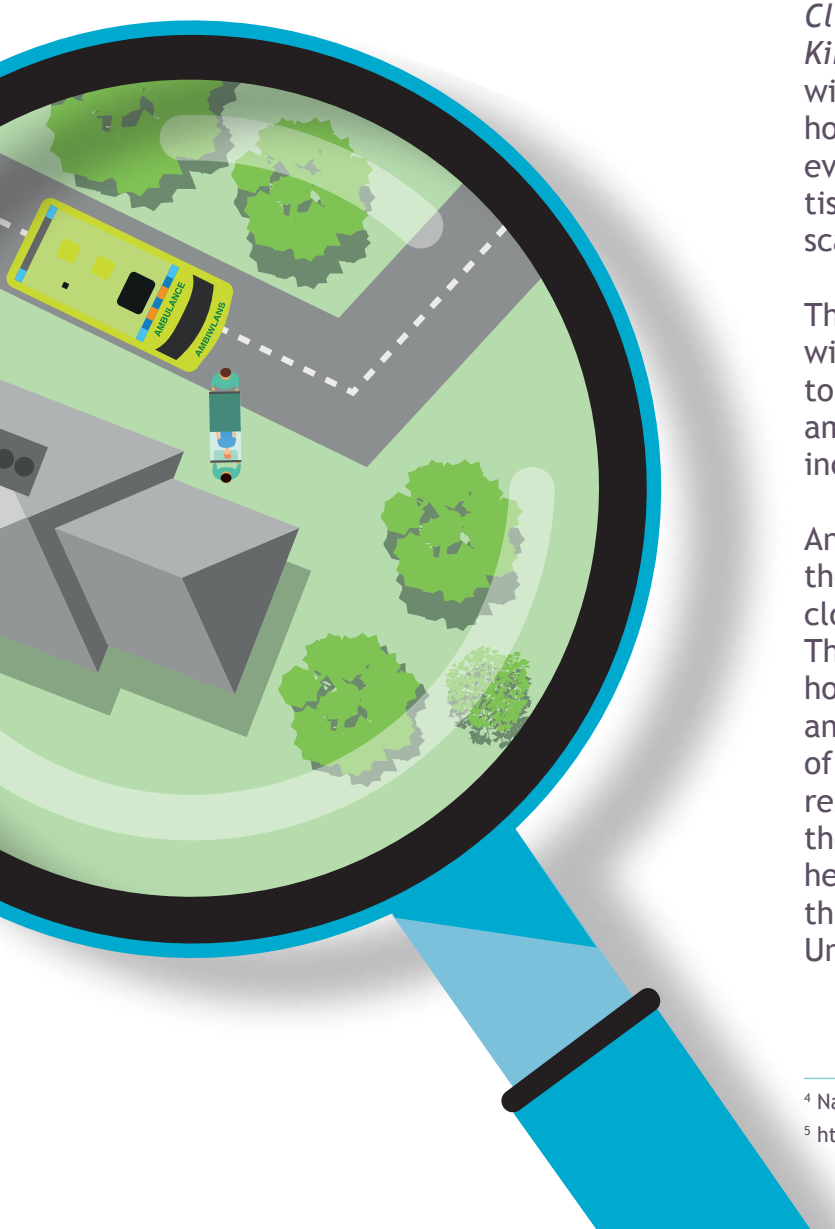
Whilst it does not assist with the existing flow issues which relate to social care, it supports patient flow daily, by preparing patients for earlier discharge times on the proposed discharge date. We noted that this pilot was making a positive difference to the flow process and overall management of beds, and it is an approach that should be considered nationally.

We found that in all cases, staff endeavour to achieve a brain scan for a symptomatic stroke patient within an hour of arrival at hospital.

However, although infrequent, it was concerning to find in our clinical records review, that some patients were not receiving a brain scan within the one-hour target. In addition, the SSNAP data we reviewed for the period of April to June during 2019, 2021 and 2022, showed that performance had reduced in nine out of 12 sites, with an increased number of patients suspected as having a stroke waiting more than one hour for a brain scan.

Following assessment and a subsequent stroke diagnosis, it was positive to find that overall, the treatment (called thrombolysis) to help dissolve the clot in the brain, was commenced promptly in ED if there were no beds available to administer this on the acute stroke ward. Thrombolysis must usually be undertaken within 4.5 hours of the known onset times of stroke symptoms.

[3] Improvement Cymru website



However, within the updated *National Clinical Guideline for Stroke for the United Kingdom and Ireland 2023*[4], this treatment window has now been increased to nine hours in some instances, if there is specific evidence of the potential to salvage brain tissue through CT perfusion imaging or MRI scanning.

Therefore, it is important that WAST works with health boards and Welsh Government to consider the protocol when sending an ambulance to stroke patients, and the increased treatment window.

An alternative procedure to thrombolysis therapy, is surgery to remove a blood clot which is known as a thrombectomy. Thrombectomy can be effective up to 24 hours from onset time of stroke symptoms and can significantly reduce the severity of disability a stroke can cause. This can result in better patient outcomes than those treated with thrombolysis. The only health board in Wales which provides a thrombectomy service is Cardiff and Vale University Health Board.

This service operates Monday to Friday from 9am to 5pm, when expert interventional neuroradiology staff and radiology facilities are available to undertake this treatment.

All other health boards in Wales must refer patients for thrombectomy, either to North Bristol NHS Trust, where the service is available to patients from Wales daily between 8am and midnight, or to the Walton Centre NHS Foundation Trust in Liverpool, which offers a 24/7 service. Given the geographical challenges and the availability of ambulances across Wales due to handover delays, this can have a negative effect on the timely provision of a thrombectomy and is of particular concern when thrombolysis is not clinically appropriate.

[4] National Clinical Guideline for Stroke for UK and Ireland

[5] https://www.thewaltoncentre.nhs.uk/patient-leaflets/ct-perfusion/483626

Due to the range of specialist treatment they provide, acute stroke units can provide care and treatment to reduce long-term brain damage, physical disability, and healthcare costs

Treating stroke patients with thrombectomy can have better long-term outcomes for people. According to SSNAP data, the annual thrombectomy treatment number between April 2020 and March 2021 within England, Northern Ireland and Wales was 1,763[6].

It is concerning to find that in Wales, only 13 patients received a thrombectomy at the University Hospital of Wales, just 16 patients from other health boards received treatment in North Bristol and only four at the Walton Centre. More needs to be done to provide equitable access to thrombectomy treatment across Wales.

To give a patient the best possible chance of recovery, specialised stroke unit care must be initiated as soon as possible after the onset of stroke symptoms. Due to the range of specialist treatment they provide, acute stroke units can provide care and treatment to reduce long-term brain damage, physical disability, and healthcare costs. It was, therefore, disappointing to find several delayed admissions to acute stroke wards from ED. This was often due to a lack of available beds owing to delayed transfers to rehabilitation wards, or delayed discharges out of hospital impacted by the inability of social care providers to deliver timely social care.

[6] Annual thrombectomy April 2020 to March 2021

To help mitigate this issue and maintain flow for stroke patients, most stroke wards aim to ring-fence a stroke bed. However, we found these beds are repeatedly used for non-stroke patients across Wales, due to the persistent issues with the demands on ED services. This is a concern since some stroke patients may not receive the most appropriate and timely care for their condition, including timely ongoing treatment needed to help with their recovery.

We considered whether organisations can provide stroke services through the Welsh language active offer, and whether patients were offered the opportunity to communicate through the medium of Welsh. We found that Welsh speakers worked within or were accessible to stroke patients in all health boards. However, this was not easily identifiable, such as staff uniforms promoting the NHS 'Gwaith Iaith' badge.

Across Wales, we found inconsistencies with the provision of rehabilitation to people following their stroke. Overall, we found that the health boards with stroke rehabilitation wards provided an environment that facilitated specific multidisciplinary stroke rehabilitation care, although in some hospitals both acute and rehabilitation care were undertaken in the same environment. We also found inconsistencies across Wales in the provision of the 45-minute daily target for physiotherapy, occupational therapy and speech and language therapy.

This was attributed to the challenge with recruiting staff into key therapies posts, and the ability to provide timely services on wards that manage both acute and rehabilitation care to stroke patients.

HIW found good collaborative working between the stroke multidisciplinary teams in relation to patient discharge preparation. However, a key issue which significantly impacts on patient flow and overall patient progress, is the delayed transfer of care and discharge for patients who are medically fit to leave acute care.

This can be due to availability of care home beds or social care and rehabilitation therapies provided within the home.

Unnecessarily long stays in hospital due to delayed discharge can place patients at risk of hospital acquired infections, deconditioning or deterioration whilst awaiting discharge, all of which further impact on flow.

The bottleneck at the point of discharge has a knock-on impact on EDs, WAST response times, inpatient care, primary care, planned admissions and overall staff wellbeing.

It is therefore essential that Welsh Government, health boards and social care providers redouble their efforts and work collaboratively to help improve the persistent issues with discharging people from hospital.

To support us with the social care aspects of our review, we utilised the help of Care Inspectorate Wales (CIW)[6]. Through collaboration with CIW and its peer reviewer, we found several factors aligned to social care which also contributed to discharge delays.

One issue was frequent delays with social worker allocation causing unnecessary discharge delays for patients who are medically fit to go home. This was identified as an issue in most health boards. Another challenge impacting timely discharge is the ability to provide timely or appropriate domiciliary care packages to people in the community, or the availability of beds in care homes. We found the most significant issue was the recruitment and retention of domiciliary carers, who are needed to provide the social care people need at home.

Patients who cannot support themselves at home or who have no other means of care support, cannot be safely discharged. This in turn, increases the flow bottleneck at the hospital 'back door'.

Adding to the complexity of organising packages of care, some hospitals discharge patients to numerous local authorities within their own health board boundary, to local authorities within the boundaries of another health board, or even across the border to England.

Sometimes the process in each can be different, adding to the existing challenges, which may include different referral processes or different IT systems.

This makes the processes difficult to navigate and more challenging, therefore causing further unnecessary discharge delays and impacting on patient care.

It is evident that staff working within patient flow and stroke services are dedicated to helping patients move through hospital systems. However, our review

When preparing for patient discharge, we found good collaborative working between the stroke multidisciplinary teams

indicates that health and social care services are not operating as efficiently as they could be. This inefficiency increases the risk of complications arising from delayed discharge and has a significant impact on the overall health and care system in Wales.

In our report, we have identified various areas that require improvement, and have made recommendations for action to address these issues. We firmly believe that more can and should be done to tackle the problems highlighted by our review.

[7] Care Inspectorate Wales website

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