



Thrombolysis in Acute Stroke
Collaborative

TASC Case Study

University Hospital Dorset



University Hospitals Dorset Uses Data to Unlock Stroke Pathway Improvements

Prior to joining TASC, UHD had already introduced several innovations to improve stroke care, including pre-hospital video triage and CT Perfusion imaging. These developments had strengthened the pathway and increased access to reperfusion therapies. The Trust joined TASC to build on this foundation, reduce variation in thrombolysis rates and identify further opportunities for improvement.

Rationale for joining TASC

UHD is part of the Wessex Region Integrated Stroke Delivery Network. It was inspired by the experience of Hampshire Hospitals NHS Trust which was part of the inaugural TASC cohort and disseminated its learning to the rest of the group.

” We were really keen to embark on our own journey with TASC. We’d been talking about increasing our thrombolysing rates for some time and had already implemented a number of improvements. Joining TASC was a way to build on what we’d already done and, potentially, improve consistency and standardise processes.”

Tony Smith
UHD Stroke Consultant Nurse

” We wanted specialist quality improvement support, a better understanding of our data and an objective assessment of where further efficiency gains could be made.”

Tanya Davies
Quality and Performance Manager

What they did as part of TASC

As part of the TASC Network, UHD’s vision was to continue its improvement journey, increasing thrombolysing rates still further and reducing variation. This is what they did:

Secured executive support for the project

Executive support is a prerequisite for joining the TASC programme as it is crucial for making sustained improvements. The UHD team received consistent, hands-on support from Chief Operating Officer Mark Mould who was an enthusiastic advocate for the work. He commented:

” Participating in the project created genuine collaboration within our service and across organisations. Our team felt both challenged and supported, and the improvements made have directly benefited patients. The project fostered learning, innovation and service improvement across the stroke pathway.

Overall, the project brought out the best in our team, fostering connection, learning, and innovation, and we are grateful for the opportunity to contribute.”

Mark Mould
Chief Operating Officer

Created a driver diagram

Alongside the TASC Network, UHD created a driver diagram setting out its aims and objectives and identifying key areas for improvement on its stroke pathway.



Used data effectively to identify areas for improvement

UHD reports its stroke data in line with SSNAP (Sentinel Stroke National Audit Programme) indicators. However, to gain meaningful insights and identify opportunities for improvement, the team needed to look beyond overall thrombolysis rates and develop a deeper understanding of performance across the entire stroke pathway. NHS Elect's quality improvement team supported the trust to analyse its data in greater detail, helping to identify patterns, variation and opportunities for change.

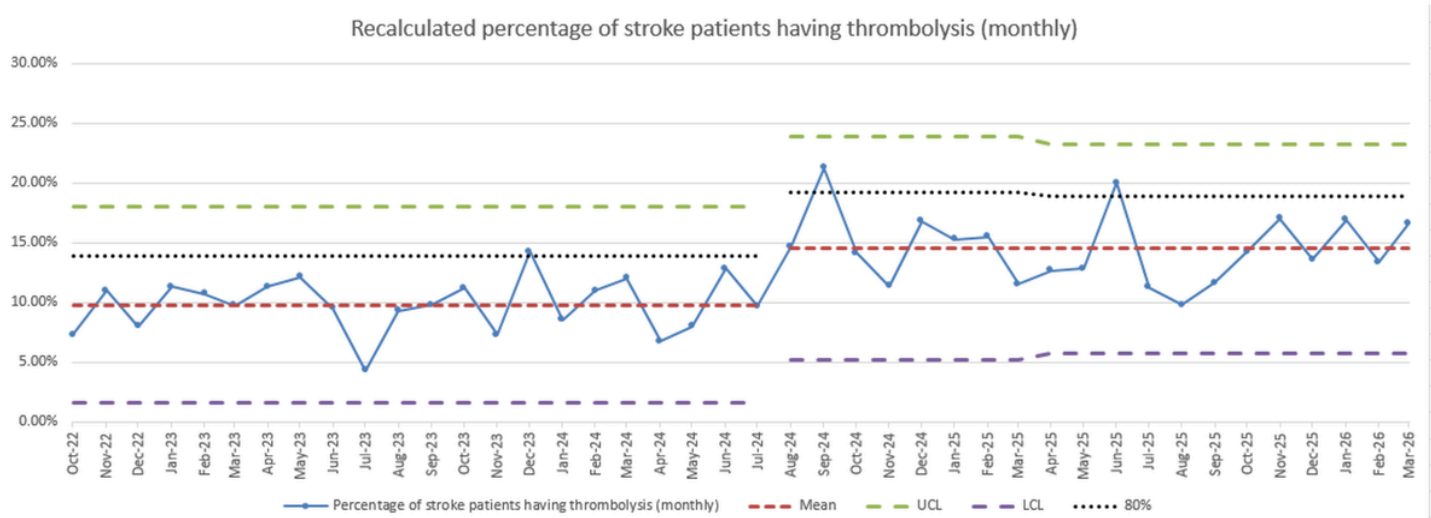
“We weren't just looking to improve our thrombolysis rate; we wanted to understand the whole stroke pathway. NHS Elect's quality improvement team helped us use our data more effectively, identify variation and pinpoint where changes would have the greatest impact. The analysis highlighted inconsistencies in our out-of-hours pathway, giving us a clear focus for improvement.”

Tanya Davies

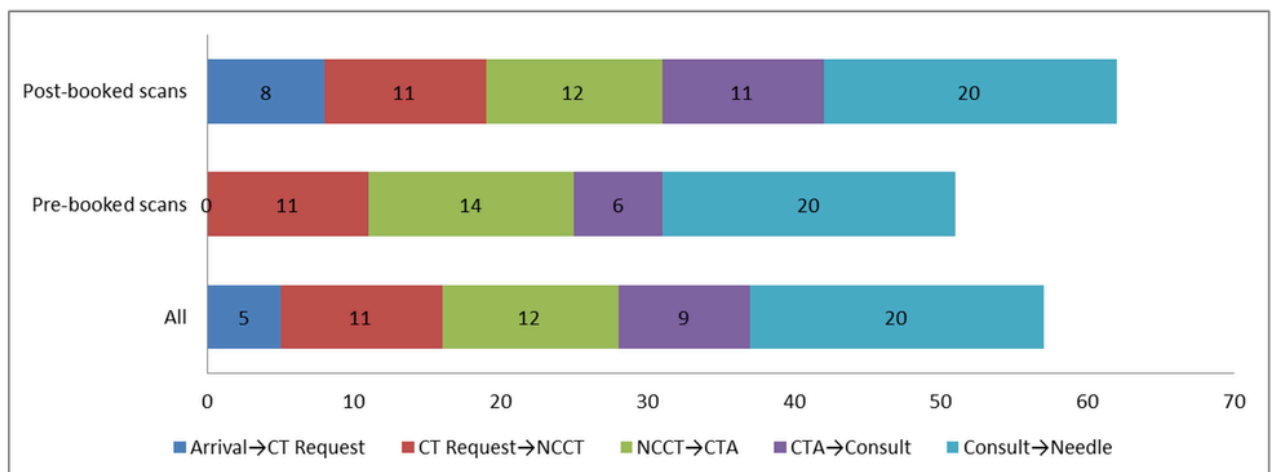
“The introduction of CT Perfusion and our revised clerking guidance prompted us to think differently about stroke onset times. Our data showed that more accurate onset information was linked to higher thrombolysis rates. It also helped us identify missed opportunities for treatment, particularly among patients with lower NIHSS scores whose symptoms were still disabling.”

Tony Smith

Using these insights, the team tested and implemented a range of improvements. Thrombolysis rates increased from around 11% to a sustained 14% and above.



In response to feedback, the team developed and implemented a standard operating procedure across the pathway. It is now creating new metrics to measure compliance and performance, including scan request-to-scan completion times, arrival-to-scan times and scan-to-thrombolysis times. The data demonstrated the impact of ordering scans before patient arrival and the associated reduction in door-to-needle times.



(Figure showing Impact of CT Pre-Booking on Door-to-Needle Times)

Redeveloped its stroke proforma

To support consistent decision-making, UHD had previously developed a clerking proforma for stroke assessment. As part of TASC, the team redeveloped the document, adding further guidance and structured questions to help clinicians gather the information needed for consultant decision-making, regardless of their level of stroke expertise. Training was provided to support implementation across the service.

Alongside this work, UHD launched a Stroke and TIA Same Day Emergency Care (SDEC) service to support patients who could be safely managed without admission. Since its introduction, activity within the service has increased substantially and it has helped improve timely assessment of TIA patients, reduce stroke outliers and support reductions in short hospital stays. It has also enabled the front-door stroke team to focus more effectively on hyperacute stroke patients requiring urgent assessment and treatment.

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The proforma is aimed at stroke registrars, medical registrars and Advanced Nurse Practitioners. Using Royal College of Physicians guidance, we developed a structured series of questions that helps clinicians build a detailed picture of the patient and provide consultants with the information they need to make nuanced decisions about thrombolysis.”

Tony Smith

Last 10 patient review meetings

To identify missed opportunities for thrombolysis, UHD adopted regular ‘Last 10 Patients’ review meetings. Initially, the reviews focused on patients who had experienced a stroke but had not received thrombolysis. By examining each patient's journey, the team explored variations in clinical decision-making and identified opportunities to improve practice.

As part of this work, the team met with colleagues from the TASC Network to review the last 10 patients who had not been thrombolysed because of a low NIHSS score. They explored whether these patients subsequently developed disabilities that affected their quality of life and whether treatment decisions might have been different with the benefit of hindsight. The discussions challenged assumptions about the relationship between low NIHSS scores and long-term disability.

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Before each meeting, I reviewed the notes of the last 10 patients and presented the findings to the MDT and consultant team. The discussions provided an opportunity to challenge variation in decision-making, promote shared learning and encourage a more proactive mindset to thrombolysis.”

Tony Smith

Since then, the approach has been expanded beyond thrombolysis reviews and is now used in mortality reviews, discussions with relatives, feeding decisions and pathway performance reviews. It has also helped generate quality improvement initiatives, support shared learning and embed a culture of continuous improvement across the service.

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These meetings were very informal. The aim was simply to invite discussion between members of the clinical team, to look at the different cases that come through and to challenge each other within a safe and supportive space. This created a safe space for clinicians to discuss cases openly, reflect on decision-making and learn from each other. By increasing awareness of variation in practice, they helped support greater consistency across the team."

Tanya Davies

Staff and patient surveys

Alongside analysing pathway data, the team gathered feedback from staff and patients to better understand their experiences of stroke care. Staff surveys involved clinicians from across the hyperacute stroke pathway, including consultants, registrars, nurses and radiologists, providing valuable insight into current processes and opportunities for improvement.

The team also conducted face-to-face interviews with three patients who had recently received thrombolysis.

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We spent a lot of time focusing on consent, but the interviews showed that patients remembered very little about those discussions. Everything happens so quickly and recollections were often fragmented. It prompted us to think differently about how we support informed consent while minimising delays to treatment.

Tony Smith

The findings have informed a programme of co-design work involving patients and staff, focused on improving consent discussions, post-treatment support and public awareness of stroke symptoms.

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TASC gave us the opportunity and motivation to engage fully with staff, patients and relatives. Hearing directly about their experiences helped us identify areas where we could improve both the pathway and the patient experience."

Tanya Davies

Building on this work, the team has organised an Experience-Based Design (EBD) event to explore the key themes emerging from the patient interviews. The event will bring together patients and staff to gain deeper insight into the stroke pathway through a series of facilitated workshops focused on three questions:

- 🎯 How can we improve discussions about thrombolysis to better support informed consent?
- 🎯 How can we provide effective debriefing and support after treatment?
- 🎯 How can we help more people recognise stroke symptoms and seek help sooner?

The space to think

For UHD, one of the most valuable aspects of participating in TASC was the opportunity to step back from day-to-day operational pressures and focus on improvement.

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TASC gave us the headspace to think about the stroke pathway and how we could do things better. It allowed us to learn from other organisations, share ideas and build momentum for change. Having our data analysed and presented back to us also helped challenge assumptions and identify new opportunities for improvement.”

Tony Smith

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The programme helped us develop a deeper understanding of our data and the variation within our pathway. Being able to track improvement over time has strengthened our wider quality improvement approach and helped us focus our efforts where they have the greatest impact. Any ideas that we had about the challenges we face being unique to us were blown out of the water. But being part of a network meant we could learn from each other.”

Tanya Davies



Managed the shift from Alteplase to Tenecteplase

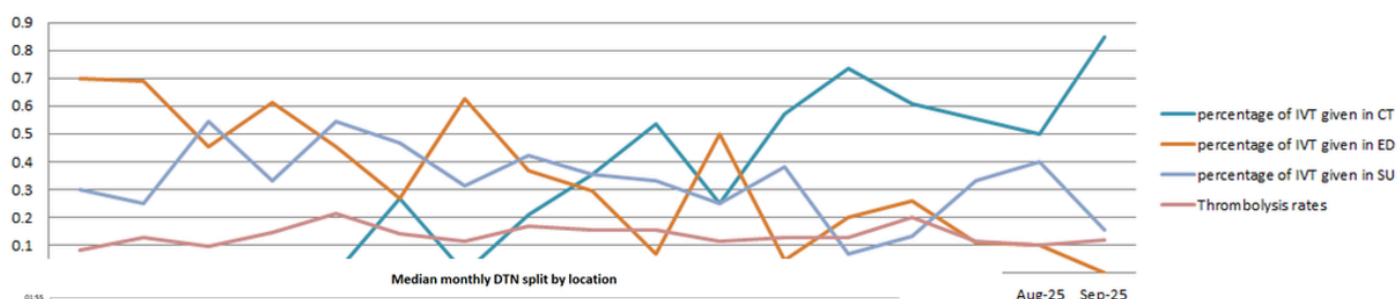
During the TASC programme, UHD also implemented the transition from Alteplase to Tenecteplase for acute ischaemic stroke treatment. The move aligned with the team's focus on streamlining the pathway and reducing delays to treatment.

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Tenecteplase can be administered as a single bolus while the patient remains in the CT scanner, meaning we no longer needing to facilitate transfers to enable the patient to receive a second drug dose. It has similar safety levels to Alteplase and significant pharmacological benefits. We were very happy that the drug became approved around the same time that we joined TASC. It has helped us to simplify the pathway and support faster treatment. Although there was some initial scepticism, the transition was successful and has now become established practice.”

Tony Smith

The implementation required close collaboration between stroke physicians, pharmacists and nursing staff to develop local guidance and ensure safe adoption across the service.



Challenges

While TASC provided the structure, support and expertise needed to drive improvement, finding the time and capacity to implement changes remained a challenge.

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You get out what you put in. Clinical pressures sometimes limited the amount of time I could dedicate to the improvement work, despite wanting to do more. Maintaining momentum after the programme has also required continued focus. However, many of the improvements introduced through TASC have become embedded within the service and thrombolysis rates have been sustained at around 14%.”

Tony Smith

Regular review of pathway data remains a key part of maintaining performance and identifying further opportunities for improvement.

Success factors

The team at UHD identified several factors that contributed to the success of its TASC project.

Executive support

One of the primary factors was having dedicated executive support.

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Having Mark's buy-in from the outset was invaluable. After our TASC meetings he would come to the stroke unit to ask what support he could offer. He opened up doors for us and shared what we were doing across the trust, highlighting how it fitted with the wider organisational objectives. Alongside the dedication of the improvement team, this was one of the things that made the project a success.”

Tony Smith

Being part of the TASC network

UHD valued the opportunity to work alongside organisations facing similar challenges. Access to quality improvement expertise, peer learning and comparative data analysis helped the team identify opportunities for change and maintain focus on improvement goals.

A Stroke Nurse Consultant on the team

The presence of a dedicated Stroke Nurse Consultant provided clinical leadership and continuity throughout the programme. The role helped bridge pathway improvement, clinical practice and service development, supporting the implementation and sustainability of change.

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There aren't many of us. We slot into the stroke service and plug the gaps wherever there is demand. Here at UHD, I have a very clinical role. I don't make decisions about thrombolysing but I do write policy and advocate for thrombolysing and advances in treatment, alongside focusing on pathway optimisation. I am involved in ward rounds and follow-up clinics and I lead oversight of the outreach team”

Tony Smith

What's next?

UHD plans to build on the improvements achieved through TASC by expanding access to CT Perfusion imaging, broadening the range of clinicians able to request it and continuing to optimise the out-of-hours stroke pathway. The 'Last 10 Patients' reviews will remain a key component of the trust's quality improvement approach, helping to identify variation, share learning and drive further improvements. The team is also developing additional performance metrics to ensure best practice and agreed operating procedures are consistently applied across the pathway.

Questions?

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