

NSW Telestroke Service

The Reperfusion Times

An internal newsletter for staff at NSW Telestroke Service Referring Sites

June 2022

Medical Director's Foreword

We did it! Yes, after more than 2.5 years of planning and implementing, we have 23 fully operational Telestroke Referring Sites in NSW. I am also pleased to announce that we have assessed and treated patients at all of our sites as well. This represents a tremendous achievement and is the culmination of work by hundreds of talented and dedicated individuals across the state. For all of those involved, please accept my congratulations, and my gratitude for making this vision a reality. At 23 sites we have fulfilled our initial plan and the election commitment made by our State and Commonwealth Governments.

I continue to be impressed and amazed at the quality of the data coming in from the primary referring sites. I am sure you all look forward to the reports summarising the clinical activity at your sites produced by the talented Juliette Cunningham. Thank you to our Stroke Coordinators and Project Officers who carefully collect the early (day 1-3) and late (day 90) outcome data, which show that most of our patients are recovering well after stroke. While we don't have baseline or pre-Telestroke patients to compare to, this simply reflects the fact that no one has collected the data with this type of rigorousness before.

This month we highlight the Northern NSW LHD sites, which continue to lead the way in terms of efficiency and quality assessments. Looking back, it is somewhat difficult to believe that there was ever any reticence about treating patients at these sites. While preparing for the recent ACI Telestroke Forum here in Sydney, I was reflecting on discussions with NSW Ambulance about the value of taking stroke patients to Tweed rather than diverting immediately to the Gold Coast University Hospital in the Far North of NSW. While this was a hard sell then, it is really just a distant memory now as we have indeed changed practice.

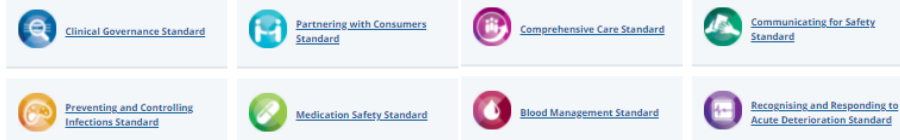
It was indeed a pleasure to meet with all of you in person at the Forum at the end of March. It has been far too long since we got together face to face, but I am hopeful that we will do this more often in the future. Regardless, we will continue to visit local sites from time to time to ensure that our working relationships stay strong. Recently we have just received a very nice message from one of our colleagues, about the fact that they feel part of a larger team even though they don't live in Sydney. Indeed that is the case, they are a critical part of our team, as are all of you, working at the NSW Telestroke Referring Sites. I don't know if this team is really centered in Sydney at all—it truly is a virtual team, but in many ways much more strongly connected than some clinical groups working side by side in the same building.

I am pleased to announce that the first publication resulting from the Telestroke work is now available online at www.ahajournals.org/journal/str. Our manuscript evaluated the clinical utility of using CT Perfusion to assess all of our patients. While we take this for granted in NSW and much of Australia, this is not a standard practice in many parts of the world. We have shown that by adding perfusion imaging to the assessment of all of our patients, we are able to make a definitive diagnosis of stroke in another 20%. This means for 1 in every 5 patients we assess, a diagnosis of ischaemic stroke can be provided as part of the acute NSW Telestroke Consultation, and before waiting for additional investigations such as MRI. Once again, thank you to all who helped us collect the data upon which the manuscript was based. Congratulations also go out to Thea Thomas, Claire Gill and Natalie Wilson who, on behalf of the NSW Telestroke Working Group, led an abstract accepted for presentation at the Stroke Society of Australasia meeting in Christchurch later this year.

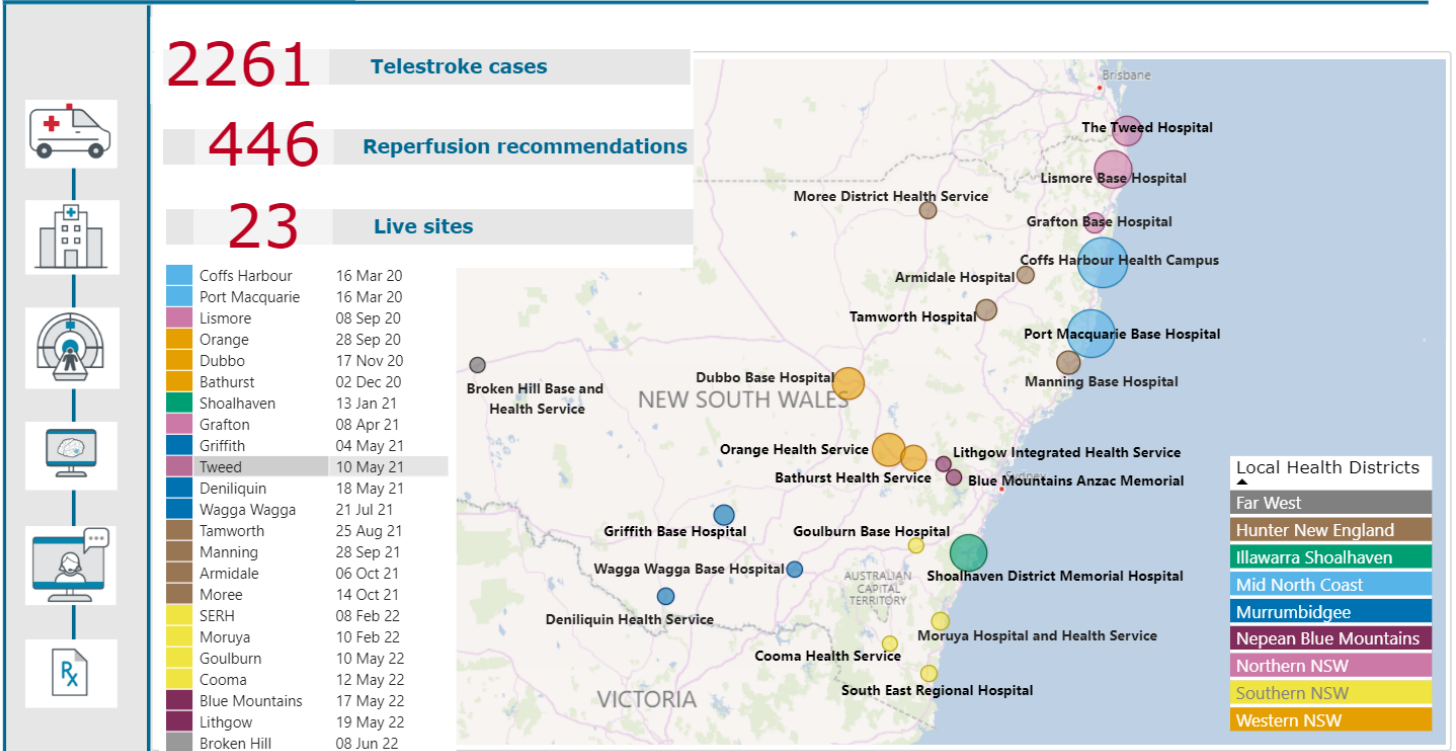
While we celebrate our accomplishments to date, please know that we are not done. We have discovered many areas where we think our service can provide additional value to stroke patients in NSW. We will continue to work together, leveraging our resources and the strength of our clinical models, to improve outcomes for stroke patients, in new and exciting ways in the coming months and years.

All the best, Ken

National Safety and Quality Health Service Standards tagged throughout this newsletter



<https://www.safetyandquality.gov.au/standards/nsqhs-standards>



NSW TSS Recognition

- An abstract by the NSW TSS Ministerial Working Group has been accepted for oral presentation at the **2022 Stroke Society of Australasia Conference** in New Zealand in August.
- Congratulations to the team at SERH for their nomination in the **SNSWLHD Quality Awards** in Transforming Patient Experience category for NSW Telestroke implementation.
- In April, **ABC's 7:30** aired a piece on the NSW TSS and the impact that early access to reperfusion therapies at NSW TSS Referring Sites has for patients in Regional and Remote NSW.
- Congratulations Coffs Harbour, Dubbo, Port Macquarie, Shoalhaven, Tweed and Wagga Wagga, for receiving recognition in 2022 Q1 **World Stroke Organisation (WSO) Angels Awards**.

NSW TSS Neurologist Spotlight NSWLHD

Dr Bill O'Brien | Lismore, Grafton and Tweed NSW TSS Site Neurologist

Lismore, Tweed and Grafton are typified, like so many of the NSW Telestroke sites, by the tenacious and committed local champions who are driven to improve the stroke care provided to their region.

Each site had its own journey coming onto the NSW Telestroke Service and came from different starting points. Kim and Cecelia in Lismore; Kelly and Matthew in Tweed and Marianne, picking up the reigns for BAU in Grafton; all share a common enthusiasm for working through the process and were able to take their local teams along for the ride!

The work that the teams are doing in Northern NSW, investing in sustaining stroke care locally, is best paraphrased by Margaret Mead- that we should never doubt that a small group of people invested in something can change the world, given that it's the only thing that ever has. It's not nothing to go from 0-100-% in 1 year!

FUN FACT: I'm a dab hand at a bonfire pancake, which is a breakfast staple on our family Canoe Camping holidays.



NSW Telestroke Service: LHD Spotlight

Northern NSW LHD



This issue we visit the NNSWLHD NSW TSS Referring Sites of Lismore, Grafton and Tweed. In the last 6 months, staff in Northern NSW have demonstrated phenomenal resilience, with their determination to deliver outstanding health care to the communities they serve in the face of the devastating and unrelenting impact of recent natural disasters. The Reperfusion Times spoke to the local teams for the updates below.

Lismore

Lismore is coming up to 2 years on the NSW TSS and the stroke service continues to grow. The stroke unit is currently under redevelopment to expand from 4 to 8 beds with the inclusion of a gym and dining room. Completion due the end of July. The team is working to increase resources to support the Stroke coordinator/CNC position to sustain delivery of this service, which recently received the WSO Gold Award.

Weekly stroke MDTs and 2nd monthly Reperfusion meetings with NSW TSS and ASNSW ensure all reperfusion cases are reviewed clinically and any process issues discussed, which forms part of the ongoing sustainability plan for Lismore Hospital. Winning the 2021 NNSWLHD Quality Award is a reflection of the success of the work of the local team.



Photo: Lismore Stroke MDT



Photo: Grafton Stroke Team

Grafton

Prior to the implementation of the NSW TSS, Grafton was on bypass for FAST+ve patients. The roll out of the NSW TSS in Grafton has been an amazing opportunity to provide hyperacute stroke care locally, including the administration of thrombolysis, when clinically indicated. The positive impact on patients is demonstrated by the discharge of patients home with a return to baseline function, with all of their care managed locally.

An exciting local clinical governance activity is the recent identification of a medical stroke lead. This is also supported by the formation of a monthly local Stroke Advisory Group with multidisciplinary representation including Maclean Rehab Unit, to action, embed and sustain best practice stroke care in Grafton.

Tweed

Tweed joined the NSW TSS as another NNSWLHD site previously on bypass for stroke care. Going live for the NSW TSS saw an 100% increase in stroke presentations to ED! 32% of Telestroke patients went on to receive reperfusion treatments with many able to receive hyperacute stroke therapies locally, instead of crossing the border to Queensland. This has been an extremely positive outcome for patients and their families; as highlighted here in "[Nina's story](#)".

An important focus during the implementation of the NSW TSS at Tweed Hospital, was the identification of quality improvement activities that would ensure the ongoing sustainability of the service on conclusion of the project. BP management for primary haemorrhagic stroke, typifies this, with Tweed Hospital going from no documented pathway to having a clearly documented policy. This included specific BP targets, medication management guidance, best practice locations for care and a detailed plan for the first 24 hours of hospital stay.

In recognition of the importance of education to sustain the model of care, Tweed has embedded amongst other things; regular ED simulations, targeted medical and nursing education and the incorporation of "Code Stroke" training into existing local education packages i.e. DETECT.

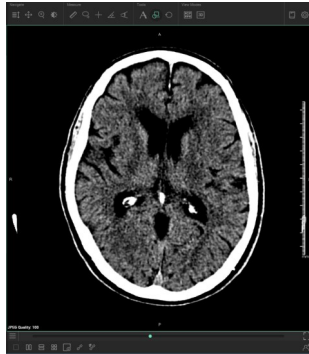


Photo: Tweed Stroke Team

NSW Telestroke Service: Updates from the team

eHealth Update

Cooma, Goulburn, Blue Mountains, Lithgow and Broken Hill are the first NSW TSS sites to be implemented with MS Teams as the video conferencing platform. Work is now underway to migrate all WOWs Statewide, from Skype for Business to MS Teams. Shoalhaven has been selected as the live pilot site, as it sits within the same ICT support infrastructure as the Host Site. eHealth and Health ICT are working through the upgrade process and upon successful testing, will work with the site to plan the delivery of training ahead of migrating the remaining devices to MS Teams. Post successful migration in Shoalhaven, a schedule for the following 17 NSW TSS sites will be provided.



EIR is now in the cloud!

The Enterprise Imaging Repository (EIR) is NSW's state-wide imaging archive. Imaging from all medical imaging departments in public hospitals is permanently stored here so clinicians across the state can access scans performed outside of the individual LHDs. NSW Telestroke uses a dedicated section of the EIR, which receives images directly from each site's CT scanner so that the NSW Telestroke Neurologists have timely access during a consult.

The move to cloud infrastructure provides higher performance storage, cost savings, improved disaster recovery and greater ability to scale up for future needs.



ACI Implementation Update

At the end of 2019, we embarked on a journey to implement the NSW Telestroke model of care at 23 Regional and Rural Hospitals across NSW by 30 June 2022. Since our last update we have had a very busy travel schedule to support the successful go-lives for our final five sites onto the service. Congratulations to **Goulburn, Cooma, Blue Mountains, Lithgow and Broken Hill!**



Photo: Lithgow Hospital

Go-live is always a fantastic achievement and a reflection of the hard work that occurs locally and the commitment from all involved in the project activities.

Sites in the Implementing phase (**HNELHD, MLHD, SNSWLHD**) have been busy working on process improvements, inpatient processes, ongoing education, data collection and sustainability planning.



Photo above: Broken Hill Team
Photo below: Goulburn Pre-go live simulation



Stroke Network Update

The extended time window of "*last known well*" for suspected stroke patients from 4.5 hours to 24 hours has gone live for **NSW Ambulance** in Metropolitan Sydney. This Phase 1 roll out will be evaluated to then inform the implementation of the Phase 2 and Phase 3 roll outs across Regional and Rural NSW.

There is work underway with Microsoft to build an app for the Statewide **ECR Clinical Handover form** with a plan to commence roll out at the end of July 2022.

The Stroke Network hosted the **Stroke Coordinator/CNC/NP Annual Meeting** on 27th June 2022. It was a great opportunity to bring clinicians together to share learnings, collaborate and connect in-person.



Photo: Dr Martin Jude and Katherine Mohr at Stroke Forum

A **NSW Stroke Peer Mentorship Program** is currently being developed in partnership with ACI Stroke Network, Rural Stroke Network, SESLHD, SLHD and NSLHD. For further details please contact aci-stroke@health.nsw.gov.au

In March/April 2022, we had the pleasure of being able to meet face-to-face over three days as part of the ACI Stroke Forum. This year, in the addition to the **Rural Stroke Network** annual meeting on the Wednesday; and the **Stroke Forum** on the Thursday; we were fortunate to hold an extra half day **NSW Telestroke Forum**. This important opportunity for everyone to get together over three days, will be continued annually with planning underway for March 2023.