

## NSW Telestroke Service

# The Reperfusion Times

An internal newsletter for staff at NSW Telestroke Service Referring Sites

December 2021

## Medical Director's Foreword

### Professor Ken Butcher

Welcome to the NSW Telestroke Service (NSW TSS) Inaugural newsletter.

This is the first of many newsletters that will be published Quarterly by Prince of Wales Host Site team. The functional aim of the newsletter is to communicate and inform NSW TSS Referring Sites of current activities and service updates. It is also an opportunity to celebrate local NSW TSS success stories with the broader community across the state. Each Quarter, we will have a different LHD focus. In November, we will be kicking off with the Mid North Coast LHD (MNCLHD), which is only fitting as this was the first cab off the rank in March of last year.

Coffs Harbour in MNCLHD will also be the first NSW TSS site where we conduct an acute clinical trial. The *Extending the time window for Tenecteplase by Effective Reperfusion of peNumbrAL tissue in patients with Large Vessel Occlusion* (ETERNAL LVO) trial is a randomised trial of Tenecteplase versus the current standard of care (Alteplase) in patients with an acute ischaemic stroke associated with a large vessel occlusion. This is an important clinical trial led by one of our new Consultants, Dr. Mark Parsons, aimed at determining if Tenecteplase is a superior treatment to Alteplase in acute stroke patients. Many of us have been keen to use this much more convenient lytic agent, which is already the standard of care for acute STEMI patients, but it is important to complete trials like ETERNAL LVO first—not all of our hypotheses turn out to be correct!

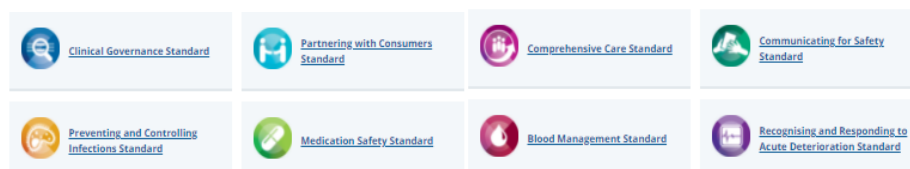
In addition, both Port and Coffs will also be in the initial NSW TSS sites participating in the *Tele-Clinical Care Stroke* (TCC-Stroke) trial, which is aimed at reduction in re-presentation to hospital after a stroke. Patients who are going home after stroke will be randomised to remote monitoring using a smartphone app paired with Bluetooth peripherals, including blood pressure and heart rate/rhythm monitors; or standard clinic follow-up. Several other sites will be joining the MNCLHD sites in this trial early next year. This will allow us to move more into the post-acute phase of treatment and gain some insight into longer-term recovery in our patients.

Finally, I would like to take this opportunity to thank all of you for your support and active participation in this project. The NSW TSS is made possible by the cooperation of many individuals and groups including those at eHealth, the Agency for Clinical Innovation, our widely dispersed group of Consultants and of the entire team here at Prince of Wales. There is absolutely no program, however, without all of the hard work and dedication shown by Project Officers, Stroke Coordinators and all of the Medical, Nursing and Allied health staff at our local sites.

This genuinely has been one of the most rewarding projects I have had the privilege of being involved with in my 20 years as a Stroke Clinician, for which I thank you all.

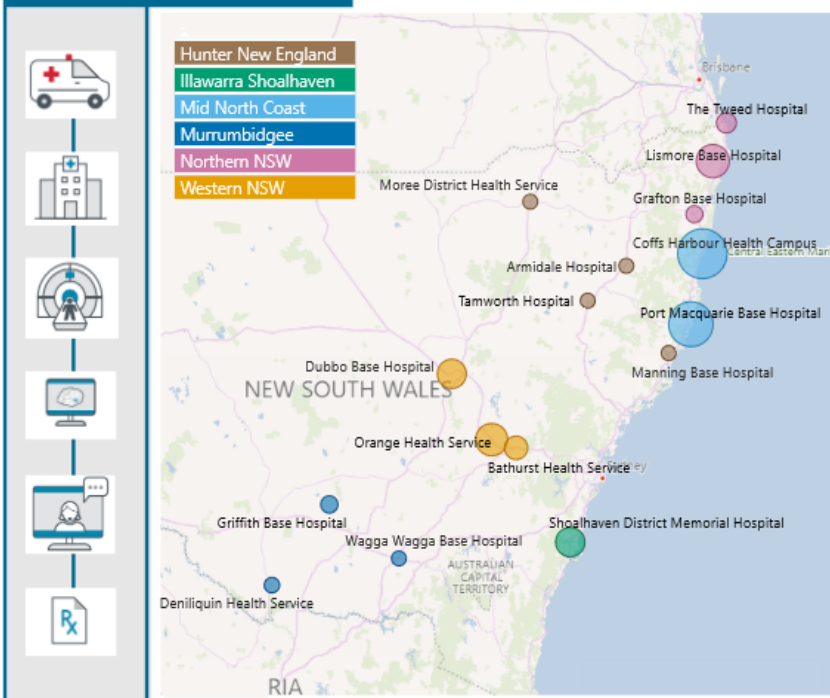
Ken

National Safety and Quality Health Service Standards tagged throughout this newsletter



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

## NSW Telestroke Service



**16** Live sites

|                                       | Live since |
|---------------------------------------|------------|
| Coffs Harbour Health Campus           | 16 Mar 20  |
| Port Macquarie Base Hospital          | 16 Mar 20  |
| Lismore Base Hospital                 | 08 Sep 20  |
| Orange Health Service                 | 28 Sep 20  |
| Dubbo Base Hospital                   | 17 Nov 20  |
| Bathurst Health Service               | 02 Dec 20  |
| Shoalhaven District Memorial Hospital | 13 Jan 21  |
| Grafton Base Hospital                 | 08 Apr 21  |
| Griffith Base Hospital                | 04 May 21  |
| The Tweed Hospital                    | 10 May 21  |
| Deniliquin Health Service             | 18 May 21  |
| Wagga Wagga Base Hospital             | 21 Jul 21  |
| Tamworth Hospital                     | 25 Aug 21  |
| Manning Base Hospital                 | 28 Sep 21  |
| Armidale Hospital                     | 06 Oct 21  |
| Moree District Health Service         | 14 Oct 21  |

**1543** Telestroke cases

**292** Reperfusion recommendations

## NSW TSS Recognition

- **NSW TSS**, was a finalist in the NSW Premier's Awards for Excellence in Digital Innovation.
- **UCCW Program Telestroke team at eHealth**, were finalists for the *Greater Good Award*, in the inaugural *2021 eHealth NSW Awards*.
- **Northern NSW LHD Quality Awards**, the Stroke Team at **Lismore Base Hospital** was the **winner** in the *Integrated Value Based Care category for implementation of NSW TSS*.
- **World Stroke Organisations (WSO) Angels Awards in 2021**, through the dedication, hard work and diligent data collection of their local stroke teams a number of the NSW Telestroke Sites have received recognition in 2021. These include: Lismore, Wagga Wagga, Dubbo, Shoalhaven, Orange and Port Macquarie.
- A video celebrating Stroke Units acknowledged by the WSO Angels Awards can be found here: <https://vimeo.com/648875136/092f7c0227>




Photo: Lismore Stroke Team

## Radiology Fun Facts



Did you know?

The high potassium content of bananas means they are slightly radioactive (approximately 1 microsieverts).

|                                     | Dose (mSv) | Background Radiation Equivalent |  |
|-------------------------------------|------------|---------------------------------|---|
| Banana                              | 0.0001     | 30 minutes                      | 1   |
| Chest Xray                          | 0.02       | 5 days                          | 200   |
| Flight from Sydney -> Buenos Aires  | 0.07       | 17 days                         | 700   |
| Aust. Annual Background Radiation # | 1.5        | 1 year                          | 15 000  |
| CT Brain or CTA Arch-Vertex         | 1.7        | 1.15 years                      | 17 000  |
| CT Perfusion (dependent on scanner) | 1.5-7      | 1-4.6 years                     | 15 000 – 70 000   |
| Fatal Acute Dose (LD50/30) %        | 4 000      | 2 666.6 years                   | 40 000 000  |

# Aust. Annual Background Radiation dose refers to the average radiation dose an Australian resident receives in one year from natural sources like cosmic radiation, radioactive material in soil, etc.

% Fatal Acute Dose (LD50/30) refers to an acute whole-body radiation exposure where 50% of people exposed would not survive 30 days.

# NSW Telestroke Service: LHD Spotlight

## Mid North Coast LHD

Port Macquarie and Coffs Harbour were the very first NSW TSS live sites in March 2020, after participating in the early telestroke pilot project. Here the sites reflect on how they have worked to make their services sustainable.

### Port Macquarie

Quality Improvement has focused on improving “Door to Needle” times. This has been an ongoing project since transitioning to BAU in May 2021 and seen big improvements in this short period of time. Code Strokes are jointly run by ED and Medical Registrars which has streamlined the process. Other influencing factors include:

- developing a rotating roster for Code Stroke responders, with clarification of roles and responsibilities
- improved Code Stroke education for all responders with an increased pool of doctors resulting in;
- improved adherence to Telestroke Model of Care during and (most notably) after-hours



Photo: Port Macquarie Base Hospital Stroke team receiving World Stroke Organization Angels Gold Status Award, 2021

### Coffs Harbour



Photo: Coffs Harbour new Emergency Department, ED NUM Carolynn Worthing and CNE Jodi Smith, 2021

Since moving to BAU in June 2021, Coffs Harbour has continued to sustain consistent stroke care and local engagement by:

- publishing a local ED Telestroke Newsletter with a leaderboard of NSW TSS stats and celebrating MDT staff members involved in the calls
- renaming the NSW TSS Order Set on the local LHD eMR– making it easier to find for Code Stroke responders
- regular NSW TSS awareness sessions for all staff on the hospital central education calendar
- local QI project with NSW TSS process and target times mapped out, and attached to ED WOWs

The Coffs Harbour team is also transitioning to their new ED on 17th November 2021!

## NSW TSS Neurologists' Spotlight

Dr James Evans | Coffs Harbour TSS Site Neurologist



I've been working with the Coffs Harbour Team since mid 2017 and have really enjoyed going on the journey with them, from being a pilot site to being a BAU site. The Coffs' team have demonstrated the importance of having strong local engagement.

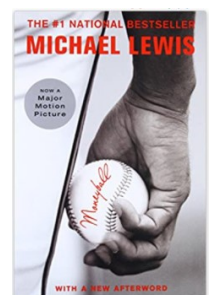
**FUN FACT:** I'm a proud Bombers fan!



Dr William O'Brien | Port Macquarie TSS Site Neurologist

I want to acknowledge the great work by the Port Macquarie Team in successfully adapting the NSW TSS Model of Care and augmenting the stroke services that were already in place. I recommend you have a look at the book "Moneyball". It reflects the importance of having a system that invests in the strengths of the individuals within the team. Maximising the resources you have, to successfully achieve the best outcomes.

**FUN FACT:** When things get a little frustrating, I will head over to my friend's place to split wood.





## e-Health

### Tips & Tricks

#### TIP 1

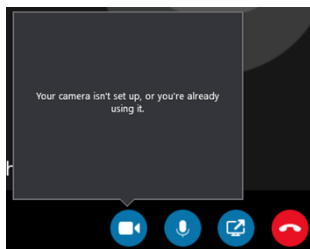
Some of the most common SfB VIDEO Call issues can be resolved by following the recommended process:

1. NSW TSS Neurologist calls with AUDIO only
2. Clinician on WOW answers with Handset (accepting AUDIO only call)
3. Switch to VIDEO (see TIP 2)
4. Switch to hands free speaker mode if required (see TIP 3)

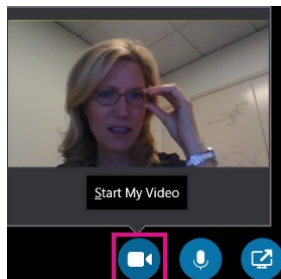
#### TIP 2

Switching from AUDIO to VIDEO call:

1. Click on "Start My Video"
2. If message below appears, wait 10 seconds and try again



3. VIDEO can be started when preview is available



#### TIP 3

Switching to speaker:

1. Press the "PHONE" button on the speaker



2. Confirm that audio is coming from speaker, replace handset back on cradle
3. To switch back, pick up the handset again

## ACI Implementation Update



With the NSW COVID-19 vaccination rate hitting 80%, ACI was granted permission to hit the road (or the air) and undertake some long awaited site visits to:

#### Southern NSW LHD

It was lovely to get back to Southern NSW and spend time on site at **South East Regional Hospital** and **Moruya-Eurobodalla Health Service** for the first time since their kick off in June.

#### Hunter New England LHD

We had the opportunity to touch base with the **Tamworth Hospital** team including Neurologists Dr Lisa Dark and Dr James Hughes; catch up with the **Moree Hospital** Emergency Department team; we were pleased to participate in a Media opportunity at **Armidale Hospital** and meet new Project Officer Thembie at **Manning Base Hospital**.



#### Murrumbidgee LHD

We provided training at **Griffith Base Hospital** Emergency Department; met with Project Officer Fiona (for the first time in person) and enjoyed a lovely dinner with the local team. We also met with Neurologist Dr Paul Rees and Advanced Trainee Dr Jasmin Tilling at **Wagga Wagga Health Service**.

Whilst we were on the road, in Northern NSW LHD, **Grafton Base Hospital** and **Tweed Hospital** both went live with in-patient strokes and **Grafton** transitioned to BAU on 13th October.

Photos: Armidale (above) & Griffith (right) Stroke Teams with eHealth & ACI