



Has implementing a NSW Early Access to Stroke Thrombolysis program increased the rate of thrombolysis in the Murrumbidgee Local Health District (MLHD)?



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Aim: This research was to determine if the implementation of a program designed to provide Early Access to Stroke Thrombolysis, including an ambulance diversion system increased the utilisation of thrombolysis for ischaemic stroke patients in the MHLHD and to examine the barriers to thrombolysis (including awareness of FAST).

Background: There is limited access to thrombolysis for patients living in rural and remote areas of the MHLHD, this in part, is due to the ambulance protocol to transport patients to the closest hospital and the distance to travel to access a thrombolytic centre. The Early Access to Stroke Thrombolysis recognises this is a major barrier to thrombolysis and has introduced an ambulance diversion protocol. This diversion enables ambulance paramedics when recognising signs of stroke transport the patient to WWHS for assessment and stroke unit care.

For patients to treat stroke as an emergency, they must be able to recognise signs of stroke. This awareness directly correlates to their action at symptom onset and arrival at hospital in thrombolysis treatment time.

Method: Data was collected by the Acute Stroke Unit (ASU) for both the 12month pre-implementation period from January 2011 to January 2012 and the post implementation period from January 2012 to January 2013.

The database recorded patient demographics of age, sex and Indigenous status, together with patient risk factors such as Atrial Fibrillation, Diabetes, Hypertension, Ischaemic heart Disease, previous stroke and smoking status.

Patient recognition of stroke symptoms was documented as awareness of the National Stroke Foundations campaign of stroke signs and symptoms called FAST.

A component of the early access to thrombolysis project was the training of paramedics in the FAST tool and protocol was revised to authorise transfer of FAST +ve patients to the nearest thrombolytic centre. The effectiveness of this was determined by the patients calling the ambulance and arriving at ASU within treatment time.

Results: The thrombolysis rate for the 12 month period prior to the implementation was 3% and this rate increased to 8% post implementation of the reperfusion program. This showed an increase in the rate of thrombolysis and in the number of patients presenting within the thrombolysis window. The majority of this increase was accounted for by an increased number of patients from outlying areas who received thrombolysis. Knowledge of FAST was 2% in 2012 and 9% in 2013 this may reflect why patients with stroke signs do not seek urgent medical care.

Conclusion: The introduction of the NSW Reperfusion Program has led to an increase in the number and rate of patients receiving thrombolysis in the Murrumbidgee Local Health District. This program has addressed one of the pre hospital barriers however the major factor still remains that patients do not recognise the signs of stroke and need to seek urgent medical advice.

Future directions: Further research is required to examine the reasons why patients present to hospital later than 4.5 hours given this remains the primary barrier to effective stroke care.

For the full report on this project visit our website, follow the link to the Rural Research Capacity Building Program and click on 'view completed projects'

Katherine Mohr is a Registered Nurse and is working as the Stroke Care Coordinator in the Acute Stroke Unit at the Wagga Wagga Health Service. She has a strong interest in improving stroke care for patients in the Murrumbidgee Local Health District. Katherine is excited about the implementation of a model of care that decreases the time of stroke symptom onset to arrival at an acute stroke unit. This will provide patients in spoke sites to access acute stroke unit care earlier, thereby improving outcomes for stroke patients.



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