Improvements in acute stroke treatments in New Zealand—no one should be left behind

John Fink

Stroke is a major health burden to New Zealanders. Approximately 6,000 New Zealanders suffer from a stroke every year. Stroke is the third largest cause of death behind heart disease and all cancers combined. However, unlike coronary heart disease and cancer, the major burden of stroke is chronic disability rather than death. Most of us know someone who has survived stroke, but now lives with a permanent disability as a result. Long-term institutional care following disabling stroke is a major financial cost for individuals and district health boards. Acute treatments for stroke reduce disability, but time is brain—the faster treatment can be delivered, and to more stroke patients, the greater the benefit.

Delivering quality acute stroke care across New Zealand is not an easy challenge. There is no “new money” available for this treatment and stroke services must be provided out of DHBs’ existing operational budgets, and compete for attention and funding with other priorities. Smaller hospitals and DHBs face additional challenges associated with small generalist workforces, including limited after-hours cover compared with larger services, which may call on a larger pool of clinicians and can foster stroke specialist expertise. Despite these challenges, the two studies published in this issue of the New Zealand Medical Journal show that substantial progress has been made. Stroke thrombolysis is now offered in all 21 DHBs, and the workforce with expertise and experience in acute stroke care has expanded.

The proportion of stroke patients (ischaemic or unspecified) treated with thrombolysis nationally has increased from 6.5% in the first quarter of 2015 to 8.4% by mid 2016. The establishment of reportable targets for DHBs’ acute stroke care by the Ministry of Health has been a significant development that has helped to drive change, including a specific target for stroke thrombolysis rates. The national stroke thrombolysis registry has added further impetus for improving quality of thrombolysis services with transparent reporting of quality measures such as onset to needle time, door to needle time and haemorrhagic complications.

Of particular encouragement is the finding that some of the largest improvements have been achieved in the smaller DHBs. A 24/7 service is now offered in four out of seven small DHBs. Small DHBs now give thrombolysis to 5.6% of incident stroke patients, close to the previous national target of 6%.

But some problems with, and disparities in, access to acute stroke services still hide behind these data. While all DHBs report that they offer acute stroke thrombolysis, some remain very inactive at providing it, with thrombolysis rates as low as 2%. This compares very poorly against the highest performing centres at nearly 20%. The 6% target for stroke thrombolysis was arbitrary and pragmatic, and is appropriately being increased to 8% for 2017 and 10% for 2018. Continued improvement will be needed to meet these targets. Many DHBs have multiple hospital sites admitting acute stroke patients, some of which have no effective thrombolysis service. This means the reported figure that 92% of the population lives in a DHB offering a 24/7 stroke thrombolysis service is misleading. The proportion of the population that truly has access to acute stroke thrombolysis 24/7 is not being reported.
How can the necessary improvements be made? The Central Region pilot of “telestroke” services to provide expert stroke-physician after-hours backup to generalists has proven to be a powerful source of improvement and could be replicated in other New Zealand regions if there is sufficient will to do so among clinicians and funders. Implementation of a “code stroke” contact system with pre-hospital notification to acute stroke teams has been an important source of improvement within existing resources, but is not as yet implemented in eight DHBs (and not all hospitals within the other 13). All hospitals admitting acute stroke patients need to be working towards implementation of these strategies. Reporting processes need to be more sophisticated to be able to measure progress in each hospital, not just at ‘DHB’ level.

Looking ahead to the next five years, the pace of improvements in acute stroke treatment in New Zealand is likely to continue to accelerate. These studies on stroke thrombolysis in New Zealand do not address the most powerful of all acute stroke treatments: endovascular clot retrieval. This revolutionary treatment, which now offers the chance of “cure” for some of the most severe acute strokes, is available 24/7 to Aucklanders, seven days per week until 11pm in Christchurch and “office hours” in Wellington. Additional resources will be needed for access to this treatment to improve. Robust mechanisms for rapid identification of potentially eligible patients and rapid transfer to an endovascular centre need to be developed if patients outside those metropolitan areas are to have a chance of benefitting from this life-changing treatment as well.

What are stroke services like at the hospital where you or your loved ones live? As some centres continue to develop excellence in treatments based on examples of international best practice it remains important for us collectively to ensure that no one is left behind.

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Nil.

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