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**The Royal Australasian College of Physicians
submission to the Ministry of Health**

Stroke Clot Retrieval Action Plan

Introduction

The Royal Australasian College of Physicians (RACP) welcomes the opportunity to submit feedback on the Ministry of Health's Action Plan for Stroke Clot Retrieval (the Action Plan).

The RACP works across more than 40 medical specialties to educate, innovate and advocate for excellence in health and medical care. Working with our senior members, the RACP trains the next generation of specialists, while playing a lead role in developing world best practice models of care. We also draw on the skills of our members, to develop policies that promote a healthier society. By working together, our members advance the interest of our profession, our patients and the broader community.

Key points

Our submission makes the following points:

- The RACP is in broad agreement with the Action Plan
- Stroke Clot Retrieval (SCR) is a highly effective treatment and should be prioritised by the New Zealand health system
- We recognise Māori continue to experience inequities in stroke treatment and management, with a greater likelihood to live with significant disability following stroke than non-Māori
- There is the potential for the Action Plan to have considerable impact on Neurology and Radiology services and workforce – regular monitoring is strongly recommended
- Optimising outcomes – rehabilitation following stroke
- Potential governance frameworks for consideration
- Although this consultation considers an Action Plan for interventional treatment, prevention of stroke and reductions in incidence should be referenced

Stroke clot retrieval – an opportunity to improve quality of life

Stroke is a major contributor to health loss in New Zealand. The 2016 report Health Loss in New Zealand 1990-2013 noted that while stroke accounts for a substantial burden of health loss (3 per cent), most of this loss could be potentially avoided through using technologies including those identified in the Action Plan (stroke clot retrieval with intravenous (IV) alteplase thrombolysis, computed tomography (CT) imaging, CT angiography and CT perfusion)¹.

While health loss from stroke decreased for males and females between 1990 and 2013, New Zealand lags persistently behind other OECD countries in reducing stroke morbidity. Projections published in the NZ Medical Journal suggest that with New Zealand's increasing and ageing population, incidence of stroke will increase by 40 per cent from 7,231 in 2015 to 10,228 in 2028².

The consultation document states that the implementation of the Action Plan will see improvements in treatment outcomes, including fewer people living with major disability following a stroke, and reduced costs to the health system. The consultation document also identifies opportunities to

¹ Ministry of Health. Health Loss in New Zealand 1990–2013: A report from the New Zealand Burden of Diseases, Injuries and Risk Factors Study. Wellington: Ministry of Health; 2016. Available from <https://www.health.govt.nz/publication/health-loss-new-zealand-1990-2013>. Accessed 21 February 2019.

² Ranta A. Projected stroke volumes to provide a 10-year direction for New Zealand stroke services. N Z Med J. [Internet]. 2018; (131)1477: 14-28. Available from <http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2018/vol-131-no-1477-22-june-2018/7592>. Accessed 21 February 2019.

reduce inequities for regions with higher Māori and Pasifika populations by improving access to intravenous Thrombolysis.

SCR has changed the evaluation and treatment of acute ischemic stroke dramatically and has been shown to be effective in New Zealand tertiary hospital settings^{3 4}. The RACP strongly supports the efforts made by the Advisory Group in developing an Action Plan to deliver the most effective treatment for this life-changing and potentially devastating medical event in a comprehensive and coordinated manner in New Zealand.

Greater detail on reducing inequities for Māori and Pasifika required

The RACP welcomes equity-focused objectives as part of the Action Plan. Māori and Pasifika peoples are more likely to suffer a stroke at a younger age (average ages of 60 and 62 years respectively) than people of European ethnicity (average age of 75 years). Stroke has a significant impact on the person's whānau, and this impact could be amplified if experienced at a young age, particularly when earning capacity is affected⁵.

In part due to the younger average age of incidence, Māori and Pasifika who have a stroke are more likely to be discharged to live at home with whānau following hospitalisation than non-Māori non-Pasifika, who are more likely to live alone at the time of the stroke and be discharged to residential or private hospital care. Whānau caring for a person following stroke report increased stress, loss of connection in the community, and reduced ability to work due to the level of care required^{5 6}.

We note that District Health Boards (DHBs) with the lowest numbers of intravenous alteplase thrombolysis use have similar characteristics: high populations of Māori (with the exception of Counties Manukau DHB, which has a majority Pasifika population); higher deprivation; and predominantly rural with a provincial centre. People in these regions may also experience challenges accessing rehabilitation services, and transport costs under the Ministry's National Travel Assistance scheme⁵. Unless there is well-resourced, accessible service to support regional centres, there is a risk of increasing the existing inequity experienced by patients and whānau in these areas.

Counties-Manukau is an outlier in this category as it is within a major urban centre (Auckland), there appears to be more than simply geography in this inequity: higher stroke mortality, comorbidities and complications may account for some of the differences but the RACP finds that the disparity warrants further investigation if equity of treatment is an intended aim of the Action Plan.

How the Advisory Group intends to reduce inequities in stroke outcomes for Māori and Pasifika, particularly in regional New Zealand, may need greater exploration and investigation.

³ Goyal M, Yu A Y X, Menon B K, Dippel D W J, Hacke W, Davis S M et al. Endovascular therapy in acute ischemic stroke: challenges and transition from trials to bedside. *Stroke*. [Internet] 2016; 47(2):548-53. Available from <https://www.ncbi.nlm.nih.gov/pubmed/26742796>. Accessed 26 February 2019.

⁴ Barber P A, Liu Q, Brew S, McGuinness B, Hope A, Moriarty M et al. Endovascular clot retrieval for acute ischemic stroke: the Auckland City Hospital experience. *N Z Med J* [Internet]. 2015; 128(1423):57-62. Available from <http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2015/vol-128-no-1423/6687>. Accessed 26 February 2019.

⁵ Robson B, Harris R. (Eds) *Hauora: Māori standards of health IV: A study of the years 2000-05*. Wellington: Te Rōpū Hauora a Eru Pōmare; 2007.

⁶ McNaughton H, McRae A, Green G, Abernethy G, Gommans J. Stroke rehabilitation services in New Zealand: a survey of service configuration, capacity and guideline adherence. *N Z Med J*. [Internet]. 2014; 127(1402): 10-19. Available from <http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2014/vol-127-no-1402/6288>. Accessed 21 February 2019.

Workforce impacts

Implementing an effective, nationally-consistent Action Plan for Stroke Clot Retrieval will have greater impacts on some sections of the workforce than others. The RACP agrees that in order to support the aims of the Action Plan, SCR centres (and regional stroke centres) will require sufficient, appropriately-resourced multidisciplinary teams to support a 24/7 service.

The Action Plan identifies emergency department, neurology, radiology, anaesthetics, nursing and intensive care unit teams as being essential components of the SCR pathway. Beyond the numbers needed to resource SCR effectively (the Action Plan notes a minimum one-in-three on-call roster), there will be changes to the way neuro-interventionalists work, including the need for on-call and telehealth capacity. We note that the greatest impact will be on neurologists and radiologists practicing in tertiary centres. This workforce should be monitored closely for overwork and burnout, with action taken to recruit additional neurologists and radiologists if necessary⁷.

Monitoring workforce is key to understanding any challenges or where additional capacity is needed. The RACP supports monitoring of SCR centres and regional stroke centres every 6 months for the next three years, and this reporting should inform the summative evaluation of the SCR Service Model.

Optimising outcomes – rehabilitation following stroke

As noted previously, stroke can be a life-altering experience, both for the person and for their whānau. Equitable access to high quality rehabilitation medicine is essential in ensuring that patients can get the most out of rehabilitation services to support and manage their ongoing recovery.

The RACP finds the median for rehabilitation is 14 days for SCR plus intravenous alteplase thrombolysis – less than half of the median 33 days for alteplase only. Rehabilitation medicine services are under significant pressure in New Zealand, and are predominantly located in the major centres, meaning that people living in regional New Zealand may face barriers to accessing high-quality rehabilitation medicine without significant impact and disruption to their lives.

The RACP recommends the Action Plan examines each point of care in the patient pathway to identify all specialties and workforces that may be required to support the implementation of the Action Plan.

Stroke prevention

Reductions in stroke prevalence will also have an impact on SCR. While the RACP notes that stroke prevention may be out of the scope of the Action Plan, reducing the risk of stroke through public health policies and intervention should remain a priority. Screening for and managing symptoms of known medical risk factors such as hypertension, type-2 diabetes mellitus, dyslipidaemia and atrial fibrillation should be a priority for primary care, particularly for groups disproportionately affected by these conditions, and those experiencing barriers to accessing health care due to cost⁵. At a public health level, working with people, whānau and communities to reduce rates of smoking, physical inactivity and poor nutrition should also be a priority, with an understanding that innovative solutions

⁷ The RACP notes that 'neurologist' is not on the long-term skills shortage or immediate skills shortage lists maintained by Immigration New Zealand, although 'diagnostic and interventional radiologist' is on the long-term skills shortage list. See <http://skillshortages.immigration.govt.nz/neurologist/> and <http://skillshortages.immigration.govt.nz/diagnostic-and-interventional-radiologist/>.

that work for Māori and Pasifika communities will be informed by their own indigenous and traditional forms of knowledge.

Governance frameworks

The RACP notes one of the potential challenges facing implementation for SCR in New Zealand will be around governance and monitoring of activities to ensure a nationally sustainable, safe and coordinated service model. One potential avenue for investigation could be through a third party outside the Ministry and DHB system such as the Accident Compensation Corporation.

Conclusion

The RACP thanks the Ministry of Health for the opportunity to provide feedback on this consultation and looks forward to the final draft of the Stroke Clot Retrieval Action Plan. To discuss this submission further, please contact the NZ Policy and Advocacy Unit at policy@racp.org.nz.

Nāku noa, nā

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