
5 Stroke emergency treatment and acute care

Goal

To reduce stroke mortality and morbidity rates in Australia to those of benchmark regions such as Scandinavia.

Rationale

Magnitude of the problem

Each year there are an estimated 40,000-48,000 stroke events among Australians, which equates to a stroke occurring every 11-13 minutes. The majority (70%) of these are first ever strokes. Each year about 12,000 people who have previously had a stroke suffer another stroke. Stroke was the principal diagnosis for approximately 40,251 hospital admissions in Australia in 2001-02, with an average length of stay of 9.6 days (AIHW 2004). Nearly 25 per cent of people who suffer a stroke die as a consequence of the stroke within one month and stroke is the leading cause of disability.

Stroke accounted for 9 per cent of all deaths in Australia in 2002 (AIHW 2004). Stroke mortality rates were twice as high among Aboriginal and Torres Strait Islander peoples in Queensland, South Australia, Western Australia and the Northern Territory in 2000-02 than among other Australians living in these four jurisdictions. This may be linked to multiple risk factors. Furthermore, males in the most disadvantaged areas experienced higher deaths rates from stroke than their counterparts from the most advantaged areas in 2000-02.

Emergency treatment of stroke is critical to limit damage to the brain and to prevent complications and recurrent stroke events (Commonwealth Department of Health and Aged Care & AIHW 1999). However, recognition of the signs and symptoms of stroke in the general community is poor, resulting in delays in seeking medical care and early treatments for stroke. Furthermore, triaging of stroke patients following their arrival in hospital emergency areas is often slow (Crawford et al, 2003).

Opportunities

Improving knowledge of the early warning signs of stroke has been linked to people seeking earlier access to emergency treatment both in Australia and overseas (Collins et al 2002). A review of randomised trials of thrombolysis indicated benefits of selective use of such treatments within the first three hours. Early and accurate diagnosis and intervention is critical.

There is evidence that appropriate organisation and coordination of stroke services improves patient outcomes. Stroke patients who receive organised inpatient care in a stroke unit are more likely to be alive, independent and living at home one year after the stroke, according to a Cochrane Review of stroke unit care (Stroke Unit Trialists' Collaboration 2001).

Stroke units have a coordinated approach to the management of stroke, with staffing by a multidisciplinary team of experts. A meta-analysis of all existing randomised trials of management within stroke units compared to general wards found that specialised units reduced the odds of death and dependency of stroke by about 29 per cent (Stroke Unit Trialists' Collaboration 2001).

Case management is important for smooth transition from emergency, acute care to rehabilitation. Management of the emotional consequences of stroke is largely neglected, but needs to occur during psychological assessment following a stroke and as part of the rehabilitation process (discussed in Section 7).

Strategies

- Raise awareness of stroke (brain attack) among both consumers and health care providers, including general practitioners and paramedics, particularly in relation to the early symptoms and signs of stroke and the importance of receiving urgent medical attention.
- Develop and implement access to appropriate clinical pathways to ensure optimal emergency treatment for stroke is provided in different geographic areas.
- Support health workers in rural and remote locations to provide optimal emergency care in the event of a stroke, through provision of guidelines, training and professional support.
- Revise guidelines for acute stroke management to incorporate recent developments in stroke care, including the appropriate use of thrombolytic therapy.
- Further develop specialist outreach services to ensure that patients in rural and remote areas, including Aboriginal and Torres Strait Islander peoples, have access to high quality stroke services.
- Increase the availability of stroke unit care and associated multidisciplinary approaches to acute stroke management through the development of practical models for implementation in a range of geographical settings (including a hub-and-spoke approach to service support).
- Improve diagnosis and management of depression after stroke, including the provision of information to consumers and their families and carers about reasonable expectations in terms of mood swings and depression. This links to rehabilitation and long term follow up.

Priorities for national action

- *Increase community awareness of the early warning symptoms and signs of stroke.*
- *Increase availability of stroke unit care.*
- *Ensure access to appropriate stroke services for disadvantaged groups:*
 - *Aboriginal and Torres Strait Islander peoples; and*
 - *people living in rural and remote areas.*