

# Appendix B: The National Stroke Unit Program

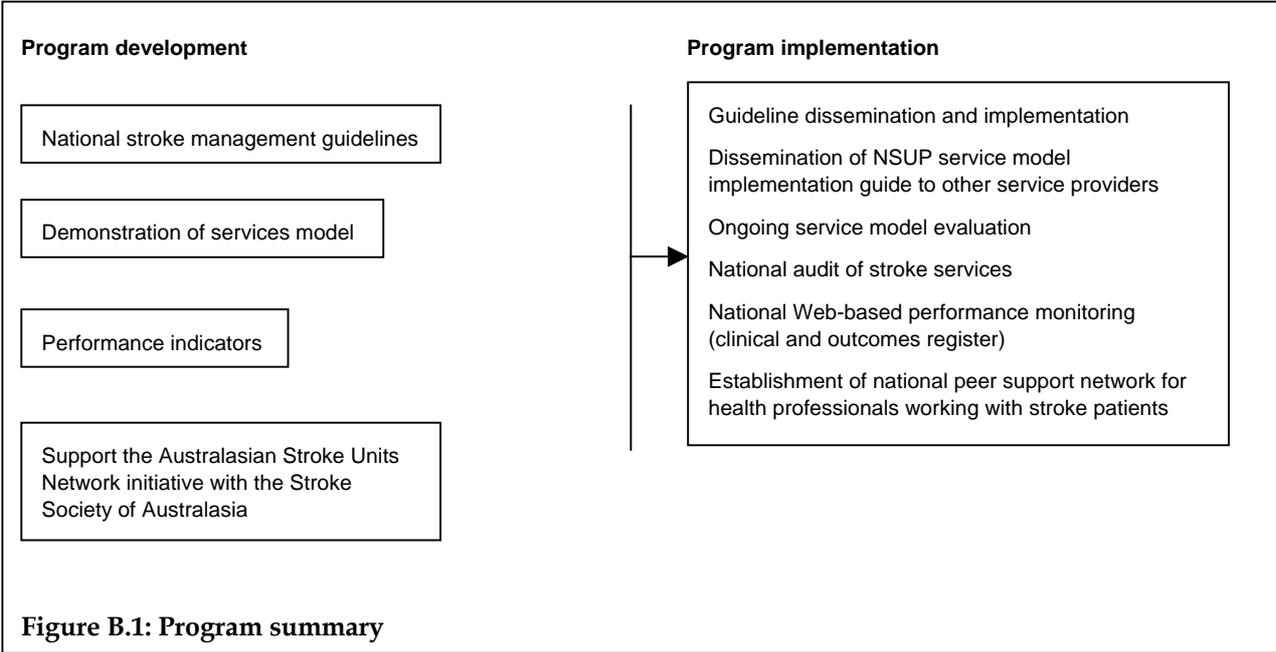
*This appendix was prepared by the National Stroke Foundation.*

The objective of the National Stroke Unit Program is to develop a cohesive stroke policy that identifies the key elements of clinical best practice. Such a policy will help to ensure that clinical best practice is implemented across a diverse range of clinical settings, resulting in coordinated stroke services throughout Australia. The policy will also support continual improvement of these services by establishing performance measures for the provision and monitoring of care for stroke patients (Table B.1).

The National Stroke Unit Program can be described in three distinct phases:

- Phase 1 includes a policy analysis and the development of a model. It also includes initial work on the development of a national set of guidelines for stroke management and validation of clinical performance indicators, as well as some formative evaluation of the model.
- Phase 2 entails further detailed evaluation of the program, a national health services audit and completion of the guidelines.
- Phase 3 involves the implementation of accreditation systems for stroke programs, program evaluation and program roll-out to other jurisdictions.

Figure B.1 summarises the major aspects of the program and shows how program development relates to program implementation.

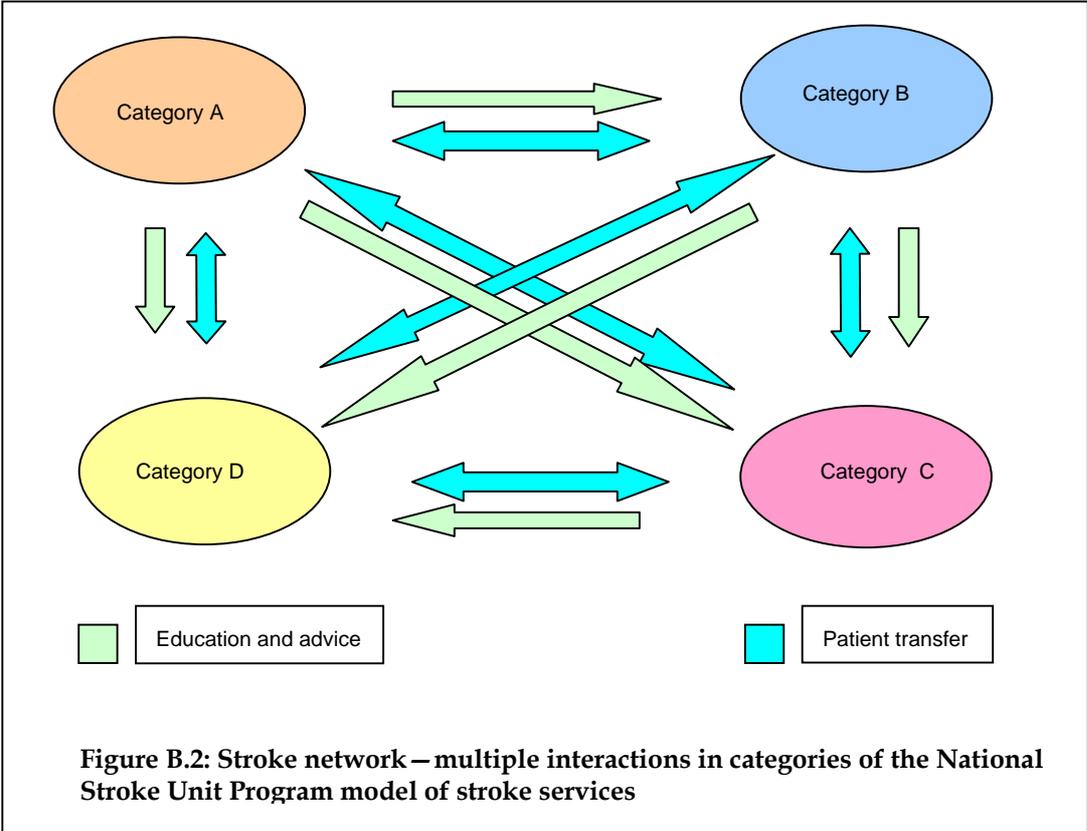


## Work to date

The initial phase of the program has produced a policy document based on available literature, stakeholder meetings and expert consultation (NSF 2002). A set of process indicators has been identified for monitoring clinical practice at the local level and a model for delivering optimal stroke care across Australia has been conceptualised.

In developing a model of stroke care that aims to ensure equity for all Australians, it is acknowledged that it is inappropriate for similar levels of stroke unit care to be provided in all settings. It is also unlikely that all patients will require the same level of care. The model has therefore been graded across four categories of care defined by the structure and specialist resources available. An outline of the core or fundamental components of stroke care that should be provided in all settings is presented in Table B.1).

The model anticipates that, in organising care across different sites or within area health regions, clinical centres will work together to achieve optimal service delivery using the same protocols and care plans as part of an overall strategy to deliver best practice. The term 'stroke network' has been used to describe the process of communication and patient transfer that supports the development of 'virtual stroke units', ensuring optimal stroke care in facilities that do not necessarily admit enough stroke patients to warrant the dedication of a specialised unit (see Figure B.2). The network facilitates optimal stroke care via communication between hospitals of varying categories and provides access to education, stroke expertise and support. Protocols for identifying and transferring appropriate patients would also exist within the network.



The model proposes that stroke teams in less specialised centres (Categories B to D) are supported by health care teams in more specialised centres. This necessitates the development of a network among stroke service providers. Such a network would enable hospitals with limited access to resources for managing complex stroke patients to develop protocols for transferring patients and provide access to specialist advice from a more experienced stroke team. The network of stroke services may operate on the basis of administrative regions or clinical service networks. Depending on local needs and systems, support may be provided to all other categories by a primary 'Category A' facility, or a

system of flow-on support may be provided with each category supporting the team in the next category facility (see Table B.1).

The model aims to delineate how the implementation of clinical processes could permit smaller hospital sites to cooperate more closely with already established stroke units, and to provide a framework that guides the establishment of stroke units in larger hospitals. In this way, capacity is built within the health service system, within regions or networks of hospitals, permitting access to expertise and potentially other resources that may have previously been unavailable to patients and staff.

**Table B.1: Stroke service model – summary**

Component of care		Category A	Category B	Category C	Category D
STRUCTURE	Immediate access to computerised tomography (CT)	✓	✓	✓ (within 24 hours)	✗ Transfer to facility with CT with patient consent
	Access to high dependency unit <sup>1</sup>	✓	✓	✗	✗
	On-site access to neurosurgery <sup>2</sup>	✓	✗	✗	✗
	Geographically located stroke unit	✓	✓	✓ (or a mobile stroke team with care plan)	✗ Recommend transfer Provide care required on-site via protocols
PROCESSES	Specialised, dedicated, multidisciplinary team	✓	✓	Multidisciplinary team supported by specialist team at Category A/B	Multidisciplinary team supported by specialist team at Category A/B
	Emergency department protocols for rapid triage	✓	✓(or transfer)	✓(or transfer)	Protocols for transfer
	Access to regular professional development and education relating to stroke	✓	✓	Access to professional development relating to stroke and support from Categories A & B	Access to professional development relating to stroke as required and support from Categories A & B
CLINICAL PROFILE	Management of all strokes including complex strokes	✓	✗	✗	✗
	Stable stroke	✓	✓	✓	✓
	Elected deviation from model Patient/physician informed decision not to adhere to model transfer recommendation in particular cases such as: <ul style="list-style-type: none"> <li>• palliative care</li> <li>• low complexity care</li> </ul>	—	—	✓	✓

1 High Dependency Unit (HDU): The recommendation for access to high dependency units at category A and B hospitals is made so patients who deteriorate may be appropriately managed. Access to a HDU may become a priority if tPA is licensed for use in Australia.

2 Neurosurgery: Access to neurosurgery is recommended for Category A model of care. This recommendation is made so that neurosurgical opinions and intervention regarding complex patients can be accessed (e.g. those diagnosed with hydrocephalus). In the event that tPA becomes licensed for use in Australia, the need for access to neurosurgery may become a consideration for authorisation to administer the drug.

**Table B.2: Performance indicators identified for the National Stroke Unit Program for appropriate inpatients**

<b>Indicator</b>	<b>SCOPES</b>	<b>UK process domain</b>	<b>Readiness to implement</b>
Documentation of swallowing ability within 24 hours of arrival at hospital	Yes	Initial assessment	Yes
Brain imaging with CT or MRI scan within 12 hours of arrival at hospital	Yes	Clinical diagnosis	Yes
Allied health assessment within 1 day of admission: physiotherapy assessment occupational therapy assessment speech pathology assessment	Yes	Multidisciplinary assessment and screening and functional assessment	Yes
A clinical care plan exists to avoid complications and promote urinary continence	Yes	Management and care planning	Trial
A multidisciplinary team meets with the patients and their carer within 7 days of admission	No	Communication with patients and carers	Trial
Appropriate discharge strategy: a timely and informative provision of a discharge summary	Yes	Primary/secondary interface	Yes
Commencement of aspirin for patients with a thrombotic or thrombo-embolic stroke within 24 hours of admission	Yes	—	Yes
Commencement of an anti-platelet or anti-thrombotic agent for patients with a thrombotic or thrombo-embolic stroke at time of separation	Yes	6-month follow-up and review	Yes
A self-management (consumer) care plan	No	Communication with patients and carers	Under development

The performance indicators are intended for all acute stroke services as well as being a tool to monitor and improve current practice. In addition, they must be viewed in the broader context of initiatives to improve quality and safety for patients.