Melbourne Health

Stroke Nurse Practitioner Model
2009

Model Development Project
Victorian Nurse Practitioner Project
Phase 4 Round 4.2 (Stroke)
# Stroke Nurse Practitioner Model Development Project

## Model Endorsement

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Acknowledgements
Austin Health “Nurse Practitioner Service Plan Development Project 2006”
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Michelle Thomas and The Nurses’ Board of Victoria
Southern Health “Nurse Practitioner Strategic Framework 2008”
Victorian Stroke Nurse Practitioner Collaborative
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Glossary of Terms

ANMC – Australian Nursing and Midwifery Council
CPG – Clinical Practice Guideline
DHS – Department of Human Services
ED – Emergency Department
FTE – Full Time Equivalent
MH – Melbourne Health
NBV – Nurses Board of Victoria
NP – Nurse Practitioner
NPC – Nurse Practitioner Candidate
RMH – Royal Melbourne Hospital
SNC – Stroke Nurse Consultant
SNP – Stroke Nurse Practitioner
SCU – Stroke Care Unit
TIA – Transient Ischaemic Attack
VNPP – Victorian Nurse Practitioner Project
2. Executive Summary

The Stroke Nurse Practitioner (SNP) is a senior member of the stroke clinical team. The SNP model development is based on stroke service demand and adding value to patient care outcomes, and is an extension to the role of the Stroke Nurse Consultant (CNS).

The SNP model investigates options for an experienced and academically prepared stroke clinical nurse to facilitate stroke patient care across the patient’s hospital journey from the *hyperacute* phase, through the *inpatient* stay, and *outpatient* follow up. The role encompasses improving patient access and treatment, holistic patient management and continuity of care, as well as risk factor modification and secondary stroke prevention for patients suspected of or diagnosed with TIA and stroke. The advanced academic and clinical preparation of the SNP will allow for extensions to nursing practice (prescribing, diagnostic ordering and interpretation) to help meet stroke patient and caregiver’s needs. The role integrates research, education, clinical practice and management and leadership.

Strategic Context

At Melbourne Health, the average age of inpatients is increasing (MH Service Plan 2007, p.57). At the same time, the MH Stroke Service has seen an increase in demand for stroke services, in-line with Australian stroke service demand (forecast to increase by up to 5% per annum by 2018-19 (DHS, 2007, p.35)). This will impact on Melbourne Health patient access to the Emergency Department and outpatient clinics.

The key drivers Melbourne Health has highlighted in its service plan (2007, 9.19-2) are:

1. There is projected growth in demand for MH services;
2. The ongoing sustainability of MH may be under threat if the future service mix is not carefully considered;
3. The changing health care environment.

These key drivers lend themselves to investigating other options to meet the demand of our ageing population, including exploring the role of a Stroke Nurse Practitioner to help meet the needs of those at risk or following stroke and TIA. The SNP role aligns itself with Melbourne Health’s Service Plan, goals and values through it’s innovative remodelling of service delivery to stroke and TIA patients.

Outline of proposal

The Melbourne Health Stroke Nurse Practitioner Model Development Project considered four options in the development of the model.

**Option 1. No change** to current model (single practitioner model). Maintain senior stroke clinical nursing position as a Stroke Nurse Consultant (SNC) only. High risk model.
Option 2. **Replace**: Implement Stroke Nurse Practitioner to replace Stroke Nurse Consultant. Single practitioner model. SNC progresses to SNP position. The SNP would have to manage aspects of both the SNC role and SNP role. Moderate – high risk model.

Option 3. **Additional part-time resource**: Implement Stroke Nurse Practitioner (1.0 FTE) in addition to part-time Stroke Nurse Consultant (0.4 FTE). This model will see the SNP take on most aspects of the SNC role, and begin to resolve organisation stroke gaps. The SNC will cover the SNP whilst the SNP is attending Outpatient Clinic, Code Stroke calls, and at NP / NPC education / development sessions. Low – moderate risk option.

Option 4. **Full-time Addition**: Implement Stroke Nurse Practitioner (1.0 FTE) to complement role of Stroke Nurse Consultant (1.0 FTE). The SNP and SNC will work together to ensure coordination and continuity of care. Minimal risk option.

Option 5. **Two SNPs – no SNC**: Implement a model with two Stroke Nurse Practitioners (2.0 EFT) to work collaboratively to deliver a high level holistic nursing service that has patient continuity of care and expert evidence-based service provision as its focus. This is a low – minimal risk option.

The Proposed Option

The proposed option is **Option 4 – Full-time Addition**.

This will positively impact on the gaps in the MH stroke service, including:

1. A delay in outpatient clinic follow up for patients with stroke and TIA;
2. The time taken to obtain a CT scan prior to thrombolysis which is slightly outside current recommendations;
3. A lack of continuity of care across the continuum – from hyperacute, acute, sub-acute to the community;
4. Unstructured and ad hoc stroke education and prevention to patient and carers during inpatient stay and following discharge;
5. Limited succession and career planning for senior clinical stroke nurses.
3. Introduction

Melbourne Health is Victoria’s second largest health service, providing comprehensive acute, sub-acute and community based health care programs to more than one million people living in northwestern metropolitan Melbourne, as well as general and specialist services to regional and rural Victorians. Melbourne Health’s operating budget is $676 million; it employs more than 7800 staff; manages more than 1000 beds; annually treats 55,000 patients in the Emergency Department and provides over 700,000 occasions of service. Melbourne Health was established in July 2000 under the Health Services Act 1988 (Victoria) and comprises: The Royal Melbourne Hospital (RMH) - City and Royal Park Campuses; NorthWestern Mental Health (NWMH); North West Dialysis Service (NWDS); and Victorian Infectious Diseases Reference Laboratory (VIDRL). (Melbourne Health Annual Report 07/08).

Melbourne Health Statement of Purpose

Securing the health of our communities through research and innovation, to deliver effective services and educate future generations.

Melbourne Health Goals

Health care: Melbourne Health will deliver services that meet the current and changing needs of its communities and collaborate with its strategic partners so that Melbourne Health is at the forefront of innovations in practice.

Quality and safety: Melbourne Health will provide a safe, appropriate and effective health care experience, every time.

Research: Melbourne Health will foster research that enhances patient care, challenges clinical practice and promotes innovative health service delivery.

Education: Melbourne Health will invest in the quality of its communities’ current and future health by facilitating lifelong multidisciplinary learning.

Organisational improvement: Melbourne Health will develop and maintain a dynamic and sustainable organisation that provides its staff with a constructive working environment and achieves the goals of the organisation.

Melbourne Health Values

Respect for the dignity, beliefs and abilities of every individual

Caring and compassion

Integrity by being open, honest and fair

Unity as a team and in embracing our communities

Discovery through passion for innovation
Melbourne Health Stroke Services

Background
Stroke Services at the Royal Melbourne Hospital form part of the Department of Neurology. The Department has a strong emphasis on general neurology with particular strengths in stroke, multiple sclerosis, epilepsy and clinical neurophysiology. There is a Stroke Unit, a Comprehensive Epilepsy Program, a multiple sclerosis clinical research unit and a department of clinical neurophysiology. Other subspecialty interests include neuro-ophthalmology, neurogenetic and behavioural neurology. There are 14 neurologists appointed at the RMH and currently 7 clinical research fellows.

Outpatient Clinics include two General Neurology Clinics, Epilepsy Clinic, First Seizure Clinic, Stroke Clinic, Movement Disorders Clinic, Peripheral Neuropathy Clinic and Multiple Sclerosis Clinic. Rehabilitation services are offered at the Royal Park campus of Melbourne Health.

The expertise and achievements of Melbourne Health staff were recognized at the 2008 Victorian Public Healthcare Awards. Professor Stephen Davis, Divisional Director of Neurosciences, won the Health Minister’s award for outstanding achievement by an individual, particularly for his contribution to neurology (Melbourne Health Annual report 07/08).

Education & Research Activities
Medical staff have close links with the University of Melbourne, the Walter and Eliza Hall Institute and the Florey Institute. There is a major emphasis on research and postgraduate education. Two members of the Department currently hold NHMRC research grants.

Nursing staff and Allied Health staff have access to specialty training in stroke management and care through the Stroke Unit and the RMH Neuroscience Short Course, as well as a dedicated Neuroscience Clinical Nurse Educator and Clinical Support Nurse. Each year, many of the nursing staff complete post-graduate studies – including the Graduate Certificate in Clinical Nursing, conducted by the Royal Melbourne Hospital and Australian Catholic University (ACU) National. This course offers a neuroscience stream.

Stroke Service
Melbourne Health has one of the busiest, and longest established stroke services in Melbourne. The RMH has a comprehensive, dedicated and localised Stroke Care Unit (SCU) that provides stroke management primarily to Melbourne’s Northern and Western communities in addition to the broader Victorian and interstate population. The SCU has a long history of leading the way in stroke management both in research and clinical practice. The comprehensive SCU was established in 1995 and since this time there have been many improvements to the service delivery. Such developments include the introduction of the Stroke Nurse Consultant position, the Transient Ischemic Attack (TIA) pathway and the Code Stroke model. The Code Stroke protocol aims to decrease ‘door to needle time’, increase the appropriate use
of intravenous thrombolysis and improve transfer delays from the Emergency Department (ED) to the SCU.

The RMH admits 800 stroke and transient ischaemic attack (TIA) patients per year, and sees patients in both a Stroke Outpatient Clinic and a Neuro-interventional Outpatient Clinic. The inpatient and outpatient numbers continue to increase each year and are expected to continue to rise with an aging population, in line with Victoria’s health department (Department of Human Services) forecast (DHS, 2007, p.35).

<table>
<thead>
<tr>
<th>Year</th>
<th>RMH Stroke Unit Admissions</th>
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<tbody>
<tr>
<td>2008</td>
<td>800</td>
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<tr>
<td>2007</td>
<td>860</td>
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<td>2006</td>
<td>785</td>
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<td>2005</td>
<td>700</td>
</tr>
<tr>
<td>2004</td>
<td>578</td>
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The Stroke Nurse Consultant
The Stroke Unit’s staff includes a Stroke Nurse Consultant (SNC). The two major aspects of the SNC’s role are patient care coordination and hyperacute management.

Stroke Patient Care Coordination
This role assumes the day-to-day coordination of stroke and TIA patient care within the acute care setting (RMH city campus) within business hours. The SNC is involved with all stroke inpatients within the SCU, coordinating their transfer to the SCU and referrals to rehabilitation, aged care and palliative care services.

The responsibilities of the SNC include preventing complications, and reducing length of stay whilst providing optimal outcomes for patients. This is achieved through the SNC providing information and advice, offering emotional and practical support and caregiver support, in addition to monitoring and liaising with other health professionals. The SNC is a central link between the multidisciplinary team and patients and caregivers, and is actively involved with these people in decision making and planning throughout the acute stay and discharge from the acute care setting.

The SNC is involved in education for colleagues with an aim to ensure stroke patients are treated early and receive the best available evidence based treatment. Education is delivered both formally and informally to nurses, allied health staff, interns and registrars. This includes information on evidence based stroke management, stroke pathophysiology, pharmacological management, and patient and caregiver counselling techniques for secondary prevention. Stroke survivors and their caregivers receive written and verbal education from the SNC about the stroke / TIA and stroke secondary prevention management.
Hyperacute Stroke Management

The SNC attends the Emergency Department as part of the Code Stroke team. The key aim for the Code Stroke team is to prevent further brain injury through rapid triage and treatment. The SNC works with the Stroke Registrar, Fellow and/or neurologist to obtain the patient’s history and perform the physical assessment using stroke specific tools, diagnostic radiology and pathology. The team works collaboratively to obtain a rapid provisional diagnosis in preparation for treatment, which may include thrombolysis for a patient following ischaemic stroke.

Role Extension

The role of the Stroke Nurse Consultant has the potential for extension to that of a Stroke Nurse Practitioner to add value and meet the gaps in the service provided by the SNC. Gaps that may be positively impacted on by the SNP are discussed in the Stroke Service Gap Analysis but, briefly, these include improving patient follow up and education after stroke and TIA, facilitating patient assessment during Code Strokes, and providing continuity of care across the continuum. It would be anticipated that these gaps would become more evident with the increasing demand for Stroke and TIA services at Melbourne Health: introduction of the SNP role may alleviate these issues.

The role of the Stroke Nurse Practitioner (SNP) is one that will extend the skills of senior clinical stroke nurses (such as the Stroke Nurse Consultant) and incorporates professional and clinical leadership in stroke care. The extended scope of practice of the SNP allows greater autonomy in practice and enables the SNP to take on a higher leadership role within the unit – including during the stroke ward round, in family meeting discussions around, for example, care planning and end of life decision making. The SNP would continue to be involved with all stroke and TIA inpatients with an aim to extend the follow up through to outpatient clinic, sub-acute care and into the community. Initial patient contact would be in the hyperacute setting during Code Strokes, with the SNP taking on a collaborative leadership role in decision-making and team coordination, using higher level decision-making and assessment skills to facilitate the process.
4. Background:

Nurse Practitioners
A Nurse Practitioner is:

a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role. The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to, the direct referral of patients to other health care professionals, prescribing medications and ordering diagnostic investigations. (The Australian Nursing and Midwifery Council (ANMC), 2004, p.1)

Across Australia there are approximately 260 Nurse Practitioners. In Victoria there are approximately 40 Nurse Practitioners working in the following areas:


Stroke Nurse Practitioner
The role of the Stroke Nurse Practitioner (SNP) is new to Australia, but aligns itself well to adding value to the stroke service and to meeting gaps in stroke service provision. The SNP’s role will provide

- quality of care delivery and accessibility of care and service...(and) continuity of care experienced throughout the stroke care continuum, from acute in-hospital care to postdischarge follow-up (Green and Newcommon, 2006, p.329).

Internationally, the Stroke Nurse Practitioner is seen as an expert senior nursing clinician, with strong clinical experience and educational background in stroke patient care.

In Canada the SNP is a leader in stroke care – “providing excellence in stroke patient care” (Green and Newcommon, 2006, p.328) – and coordinating the team using holistic principles of care. The SNP is involved in stroke patient care across the continuum, with input through inpatient care coordination, hyperacute management and stroke secondary prevention / management. The scope of the SNP practice is not limited to the acute care setting, but may extend into sub-acute and the community setting, liaising with general practitioners and the family and carers. (Green and Newcommon, 2006).

The role of the SNP in the United States of America (USA) is well established. Their role is one that practices closely with the Stroke Neurologist to provide evidence based best practice.
Stroke Nurse Practitioners:
...are held responsible for higher-level decision making; have supervisory authority over neurology residents; lead morbidity/mortality and neuroradiology rounds; and provide formal education to neurology residents, medical students, and the nursing staff to support improved stroke care. Although these Advanced Practice Nurses (APNs) function in roles similar to physicians, a key difference is that they are able to look beyond the medical aspects of patient care and appreciate the holistic needs of stroke patients and families (Saiki and Wojner, 2003).

Stroke Nurse Consultant & Stroke Nurse Practitioner Role Summaries
The role of the Stroke Nurse Practitioner can be seen to be an extension of the current role of the Stroke Nurse Consultant. The advanced knowledge and skills required for the SNP role provide a greater depth to the level of care the SNP can provide. A summary of the two roles - Stroke Nurse Consultant and Stroke Nurse Practitioner is listed on Table 1 (page 15). The role description of the SNC uses the ANMC (2006) competencies to describe aspects of the role.

Stroke care strategy for Victoria
The Stroke care strategy for Victoria (DHS, 2007) functions as a template for improving stroke patient care and outcomes. The strategy acknowledges the pressure that will be placed on the health care system, with acute stroke inpatient management forecast to increase by up to 5% per annum by 2018-19 (DHS, 2007, p.35). Continuity of care and inpatient coordination will be paramount to ensure stroke patients receive high quality care.

The Stroke care strategy for Victoria (DHS, 2007) states 28 recommendations for patients following stroke and transient ischaemic attack (TIA) that aim to:
- Improve health care for Victorians,
- Facilitate consistent stroke care, and
- Build a skilled workforce.

The recommendations can be viewed in Appendix 1.

The role of the Stroke Nurse Practitioner particularly aligns itself with meeting the following recommendations, from both a collaborative and autonomous perspective:
- Recommendations 1, 3 and 17 in relation to providing and managing stroke care as extensions to the current Stroke Nurse Consultant’s role;
- Recommendations 5, 6, 7, 12, 19 and 23 in relation to stroke diagnosis, hyperacute management, team organisation and patient contact which are all part of the current role of the Stroke Nurse Consultant and will tie in with the SNP model.
- Recommendation 11 to link in with the GP role in TIA / Stroke management;
- Recommendation 26 in advancing the career pathway and supporting retention of senior stroke nurses, and promoting better patient care and outcomes.
Table 1. Stroke Nurse Consultant & Stroke Nurse Practitioner Role Summaries

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<thead>
<tr>
<th>Stroke Nurse Consultant</th>
<th>Stroke Nurse Practitioner</th>
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<tr>
<td>Efficiently and effectively coordinate stroke patient management within Melbourne Health</td>
<td>Conducts advanced, comprehensive and holistic health assessment of stroke patients</td>
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<td>Attend stroke ward rounds and meetings</td>
<td>• Autonomously and collaboratively manage stroke and TIA patients across the continuum of care, from the hyperacute phase of admission through to return home / to their community</td>
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<td>In collaboration with the multidisciplinary stroke team, promote patient care that delivers an efficient response to patient and family needs</td>
<td>Demonstrates a high level of confidence and clinical proficiency in carrying out a range of procedures, treatments and interventions that are evidence based and informed by specialist knowledge</td>
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<td>Provide an expert resource in areas and department across MH, including facilitating and maintaining the care continuum for all stroke patients</td>
<td>• Manage a specified group of patient’s hyperacute admission</td>
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<tr>
<td>Referral and liaison to other health providers including rehabilitation facilities both internal and external</td>
<td>• Lead weekly TIA and stroke outpatient clinics, targeting secondary stroke and TIA prevention strategies.</td>
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<tr>
<td>Act as a resource and education source for patients, families and their carers</td>
<td>• Extend patient and carer follow up through to outpatient clinic, sub-acute care and into the community.</td>
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<tr>
<td>Actively promote stroke evidenced based practice and educate staff in stroke management</td>
<td>Has the capacity to use the knowledge and skills of extended practice competencies in complex and unfamiliar environments</td>
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<tr>
<td>Act as a resource for staff working within the Stroke Care Unit on a day to day basis</td>
<td>• Develop skills in hyperacute stroke management in collaboration with the Code Stroke team and Emergency Department, working towards SNP thrombolysis decision-making ability</td>
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<tr>
<td>Develop clinical management protocols in conjunction with clinicians</td>
<td>• Develop skills in stroke secondary prevention management</td>
</tr>
<tr>
<td>Monitor discharge processes and planning, including key performance indicators that are necessary to improve performance</td>
<td>Demonstrates skills in accessing established and evolving knowledge in clinical and social sciences, and the application of this knowledge to stroke patient care and the education of others</td>
</tr>
<tr>
<td>Marketing of the MH stroke service including linkages with fundraising</td>
<td>• Actively promote stroke evidenced based practice, and educate medical, nursing and allied health staff in acute stroke, medication and secondary prevention management</td>
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Applies extended practice competencies within the stroke nursing model
| Establishes therapeutic links with the patient / carers / community that recognise and respect cultural identity and lifestyle choices |
| Is proactive in conducting clinical service that is enhanced and extended by autonomous and accountable practice |
| Engages in and leads clinical collaboration that optimise outcomes for stroke patients and carers |
| • Coordinate and facilitate higher level nursing decision making for stroke and TIA inpatients |
| • Take on a higher collaborative leadership role within the unit – including during the stroke ward round and meetings, in family meeting discussions, and in stroke unit activities including projects and research |
| • Take on a higher collaborative leadership role with external professional, clinical and community bodies |
| Engages in and leads informed critique and influence at the systems level of health care |
| • Develop leadership skills in decision-making, team coordination, and communication |
Victorian Nurse Practitioner Project
The Victorian Nurse Practitioner Project (VNPP) was established by the Victorian Government to provide a policy focus for development and implementation of Nurse Practitioner roles and to assist health services to initially pilot, and then establish NP roles in public health services. Phase 4 of funding targets stroke and renal Nurse Practitioner role and service development. These NP priority areas have been identified by the DHS’s Nurse Policy Branch, following assessment of issues such as:

- Opportunities to create leverage for NP roles by linking VNPP funding to new DHS service developments or initiatives;
- The current regulatory and legislative frameworks (state and commonwealth) in a given clinical area and the likely impact of this on the ability to develop a sustainable role;
- Degree of stakeholder acceptance of NP roles within a specific area; and
- Areas where demand for services is high or where changes to conventional service models is occurring. (DHS, 2008)

In July 2008 Melbourne Health obtained funding from the Nurse Policy Branch (DHS) to develop, implement and support a Nurse Practitioner model in stroke care. The specific objectives of the Round 4.2 funding are to:

- Assist health services to examine the opportunities for strategic, sustainable and integrated NP services in the provision of stroke care
- Ensure NP models in stroke care are aligned with relevant existing organisational service plans and/or workforce plans and the state-wide service model for stroke care
- Facilitate collaboration between health services in the development and implementation of NP models
- Build engagement, collaboration and consultation with local stakeholders to support the NP role, and
- Provide evidence about NP models in stroke care that may have state-wide/system wide application and relevance.

The scope of submissions in Round 4.2 may include NP models that have a focus on:

- Continuum of care including acute management, prevention or assessment or subacute care models
- Service development, role delineation, regional or sub-regional integration models, or
- Dissemination of best practice or innovation/role redesign models
5. Stroke Service Gap Analysis

Recommendations

Using the recommendations of the Stroke care strategy for Victoria, a gap analysis of Melbourne Health’s cross campus stroke services was completed as part of the Stroke Nurse Practitioner model development process. A broad selection of stakeholders from across the Royal Melbourne Hospital were interviewed, including the current Stroke Nurse Consultant, Neurology Consultants and stroke registrar, Geriatricians, senior staff from Nursing, Nursing Education, Allied Health, Radiology, Pathology, Outpatients, the Emergency Department, Research, and Safety and Service Improvement, and patients through the “LifeMoves” peer support program.

The gap analysis found that Melbourne Health’s stroke service is generally well aligned with the Victorian stroke care strategy (DHS, 2007) Recommendations (Appendix 1). The stroke unit is seen as a benchmark service on a national and international level. Internationally, the service meets the Brain Attack Coalition’s recommendations for a comprehensive stroke centre and is able to care for acutely ill patients with stroke and other cerebrovascular diseases (Alberts, 2005). Nationally, the stroke service manages all strokes including complex strokes, and has all the National Stroke Foundation’s (2008) recommended elements for a stroke service including:

- A designated “Stroke Unit;
- Specialised, dedicated, multidisciplinary team (MDT);
- Emergency Department protocols for rapid triage;
- Protocols for transfer Delivery of intravenous tissue plasminogen activator (tPA);
- Access to comprehensive post acute services (for ongoing rehabilitation);
- Access to regular professional development and education relating to stroke;
- Ongoing monitoring and stroke specific quality improvement activities;

Furthermore, senior stroke staff are recognised for their academic and clinical expertise in stroke. In particular, Professor Stephen Davis, Divisional Director of Neurosciences, is internationally recognised for his stroke expertise. He has commitments to a variety of stroke organisations, the World Health Organisation, and trial management and supervision committees. Professor Davis is the current President of the Australian and New Zealand Association of Neurologists, an author and editor of stroke texts and an invited speaker at international conferences. His commitment to stroke management and leadership add strength to the organisation’s ability to provide a benchmark service.
Gaps & Strengths related to the Stroke Nurse Practitioner role

Gaps:
The gaps that were noted that may have a positive impact by a Stroke Nurse Practitioner include:

1. A delay in outpatient clinic follow up for patients with stroke and TIA – **Recommendation 3**;
2. Timely access to diagnostics: On average, patients who are eligible receive thrombolysis in a timely fashion at RMH – **Recommendation 6**. However, the time taken to obtain a CT scan prior to thrombolysis is slightly outside current recommendations – **Recommendation 5**.
3. A lack of continuity of care across the continuum – from hyperacute, acute, sub-acute to the community – **Recommendations 7, 8 and 23**;
4. Unstructured and ad hoc stroke education and prevention to patient and carers during inpatient stay and following discharge – **Recommendations 7, 8, 11, 22 and 25**;
5. Limited succession and career planning for senior clinical stroke nurses – **Recommendation 26**.

Strengths:
The Stroke Nurse Consultant is credited with improving patient continuity of care in the *acute* setting through advanced knowledge and holistic understanding of each patient’s stroke journey. The Stroke Nurse Consultant’s role is particularly evident for **Recommendation 23** in relation to Care Co-ordination for stroke patients in the *acute* phase of hospitalisation.

The SNC’s role is limited in its current model due to the current scope of practice for a Clinical Nurse Consultant. By extending the role to that of a Stroke Nurse Practitioner, the role will have greater autonomy and use of enhanced knowledge and skills to help close the gaps in the current model of stroke patient management. This will positively impact on points 1, 2, 4 and 5 (above), particularly as a SNP is academically and clinically prepared for higher level decision making with a focus on holistic care. A combined model, with a SNC and an SNP, will positively impact on 3, 4 and 5, with both roles collaborating to improve patient care across the continuum.
6. Proposed Stroke Nurse Practitioner Model

Stroke Nurse Practitioner Model Overview

- The SNP will autonomously and collaboratively manage stroke and TIA patients across the continuum of care, from the hyperacute phase of admission through to return home / to their community.
- Within this context, the SNP will manage a specified group of patient’s hyperacute admission, their secondary prevention treatment, as well as coordinate and facilitate all stroke and TIA inpatients.
- The SNP will develop skills in hyperacute stroke management in collaboration with the Code Stroke team and Emergency Department, working towards SNP thrombolysis decision-making ability.
- The SNP will lead weekly TIA and stroke outpatient clinics, targeting secondary stroke and TIA prevention strategies.
- The SNP will be part of a team of senior stroke nurses that work together with the stroke team to achieve the above patient care objectives.
- The model for the Melbourne Health Stroke Nurse Practitioner is in alignment with the Victorian stroke care strategy (DHS, 2007) and many of the existing stroke management recommendations, including the National Stroke Foundation’s stroke clinical guidelines (NSF, 2005; NSF, 2007).
- The role is an extension to the current Stroke Nurse Consultant role, and provides a clear pathway for stroke nurse clinical career development.
- The model will be developed in phases, based on the progress of the Stroke Nurse Practitioner Candidate and Stroke Nurse Practitioner within an organisational context.

Stroke Nurse Practitioner Model Development

The model development is based on stroke patients’ needs, and is dependent on meeting the gaps and adding value to stroke service delivery from an advanced nursing practice perspective.

The model identifies:
- The stroke patients that the SNP will manage;
- The advanced clinical skills the SNP will use;
- The SNP’s authorisation to refer, admit, discharge and transfer stroke patients

Within the model will be policy and procedure development and research activities supported by a multidisciplinary stroke team. The National Stroke Foundation’s “Clinical Guidelines for Acute Stroke Management” (2007) and the “Clinical Guidelines for Stroke Rehabilitation and Recovery” (2005), and the Victorian Stroke Care Strategy (DHS, 2007) have been used to guide model development.
The SNP model also explores the Candidature of the SNP, including the Stroke Nurse Practitioner Candidate (SNPC)’s learning needs and the organisation’s ability to meet these needs.

**Stroke Nurse Practitioner Model**

*Extensions to Practice*

The areas of practice that extend beyond the current role of the Stroke Nurse Consultant revolve around (a) patients, (b) clinical skills and (c) authorisation in relation to organisational patient management processes.

**a) Patients**

The SNP’s patients will include:

- Hyperacute stroke patients including patients eligible for thrombolysis;
- All ischaemic strokes;
- All haemorrhagic strokes (excluding those undergoing neurosurgical intervention, and patients with sub-arachnoid haemorrhage, sub-dural haematoma and extra-dural haematoma);
- All Transient Ischaemic Attack (TIA) patients admitted under the “TIA Pathway”;
- Selected outpatients for secondary risk prevention / management, based on consultation with the Stroke / Neurology Medical Consultant;
- Patients across the continuum i.e. from hyperacute to community;
- Stroke patients requiring palliation.

Patients excluded from care by the SNP will be those deemed inappropriate by the Neurologist (Stroke Medical Consultant) and the SNP due to increased complexity or complications.

**b) Advanced Clinical Skills**

This includes advanced patient management skills in:

- Advanced assessment including history taking, physical assessment, care planning;
- Ordering and interpreting diagnostic tests including Pathology, Radiology and Cardiology. See Appendix 2
- Prescribing stroke related medications. See Appendix 3

These advanced clinical skills will be used to case-manage a specified group of stroke patients (as above).

The Stroke Nurse Practitioner Collaborative will develop the SNP Drug Formulary in early 2009. The formulary will be written up using “Class of Drugs” rather than specific drugs (to allow for new drug preparations). The formulary will be written up under Schedules (some drugs may be in multiple schedules).

*For note:* It should be noted that there are currently limitations to NP access to Medicare Provider Numbers for ordering diagnostic imaging and prescribing medications. Also of note: An issue that has been identified is the introduction
of new medications or new classes of drugs. This will create difficulties for the SNP if the limited prescribing practice continues. It is anticipated that open-prescribing would alleviate this issue.

**c) Organisational patient management processes: Authorisation to refer, admit, discharge and transfer stroke patients**

The Stroke Nurse Practitioner will be able to directly refer to:

- Neurology Unit;
- Cardiology Unit;
- Endocrinology Unit;
- Medical Units;
- Palliative Care Service;
- Intensive Care Unit;
- Rehabilitation Team;
- Aged Care Assessment Team / Geriatrician;
- Hospital in The Home;
- Gastroenterology Unit;
- Vascular Unit;
- Neuro-Interventional Radiology Service;
- Drug & Alcohol (Addiction Medicine Service);
- Psychiatry;
- Respiratory Medicine;
- Neuropsychiatry.

The Stroke Nurse Practitioner will be able to admit to and discharge from the:

- Stroke Care Unit;
- Stroke Ward;
- Short Stay Unit;
- Emergency Department.

The Stroke Nurse Practitioner will be able to transfer:

- Between the Short Stay Unit and the Stroke Ward;
- To rehabilitation, aged care wards, nursing homes, hostels and other acute hospital facilities.
The Role

The role of the SNP incorporates a three-pronged approach (Fig. 1) to patient care across the continuum, with an emphasis on hyperacute stroke management, patient care facilitation and stroke prevention. This model incorporates the above extensions to the scope of the current Stroke Nurse Consultant role. The role will be developed in phases, to allow for the Stroke Service and Stroke Nurse Practitioner Candidate / Stroke Nurse Practitioner to develop in synchrony.

Figure 1

1. Stroke Patient Care Facilitator

Aims: Health services should identify for each patient and their carer and family member a single point of contact who will be responsible for ensuring ongoing communication between the stroke care team for that patient and their carer (DHS, 2007). This role would also co-ordinate other needs of patients and their carers as required.

Phase 1:
The first phase of the Stroke Nurse Practitioner model will include the SNP being actively involved with all patients presenting to the Royal Melbourne Hospital with a stroke and admitted with a transient ischaemic attack (TIA). The SNP will have authorisation to refer, admit, discharge and transfer stroke patients within Melbourne Health, and will use her / his advanced clinical skills in diagnostics, assessment and prescribing to manage these patients throughout their acute admission.

An important aspect of this part of the role will be to decrease blockages to rehabilitation through gaining an understanding of the issues contributing to extended length of stay, and facilitating processes to decrease length of stay.
Phase 2:
Further development of the role will incorporate facilitation of the integration of service and care through the sub-acute setting and into the community. The SNP would be involved in facilitating care delivery and streamlining stroke secondary risk prevention / management through liaison with the patient and carer, the GP and other community disciplines. Conversely, referral from these sources may be made back to the SNP. Phase 2 activities may be guided by the results of the Melbourne Health led, multi-site ICARUSS (Integrated Care in the Reduction of Secondary Stroke) research project (Communication from David Jackson, ICARUSS Research Coordinator, 2008).

2. Hyperacute Stroke Management

Aim:
Health services should treat all patients with stroke symptoms as a medical emergency and in accordance with existing evidence-based clinical practice guidelines, which includes but is not limited to:

- Rapid triage of patients presenting with stroke symptoms
- Rapid brain imaging of patients presenting with stroke symptoms. (DHS, 2007).

Phase 1:
In this role the Stroke Nurse Practitioner will perform:

- History taking
- Patient physical assessment, including diagnostic test ordering and interpretation
- Prescribing and medication management of patient (e.g. blood pressure management)
- Team co-ordination for thrombolysis
- Coordination and admission to stroke unit

Phase 2:
- Initiation of thrombolysis treatment

3. Stroke Prevention and Risk Factor Modification

Aim:
Assessment / follow-up of people at risk of having a new or subsequent stroke should be undertaken at TIA/neurovascular clinics. Unless already in place, public health services treating more than 200 acute strokes a year should establish TIA/neurovascular clinics. Across criteria, protocols and requirements to monitor and evaluate the practice and activity of TIA clinics should be developed. (DHS, 2007).

The Stroke Nurse Consultant currently collaboratively manages stroke risk factor modification, through individualised discussions and
provision of written information with acute inpatients and their families / carers, and through staff education.

**Phase 1:**
The SNP will continue to provide the service to inpatients as part of the multi-disciplinary stroke team. Additionally the SNP will see selected outpatients for risk factor modification at a Stroke / TIA clinic. Extensions to practice in this domain include the use of advanced clinical skills, and the authorisation to refer and admit these patients. Gap analysis findings indicated that this activity needed a more streamlined approach. As such this Phase 1 activity for the SNP will allow the information to be received at a time that is more appropriate for stroke survivors and their carers with the aim to make an impact on risk factor modification. The SNP will work with the stroke team to also deliver a formal weekly education program for patients and carers that addresses stroke pathophysiology, stroke management and stroke prevention strategies.

The SNP will use advanced knowledge of current evidence based stroke management to educate staff. This will include both formal and informal education to nurses, allied health and medical staff. The SNP will have a high level of involvement with intern and registrar orientation to the stroke unit, and proactively input into decision making for stroke patient care.

**Phase 2:**
In keeping with stroke care across the continuum, this aspect of the Stroke NP model will be a Cardiac Style Rehabilitation Clinic. Using a multidisciplinary approach, and tying in with existing Cardiac Rehabilitation, the SNP will manage a regular / recurring group program of risk factor modification classes, that addresses key elements in stroke / TIA prevention. This would be viable under a model of care that includes a SNC and SNP, in collaboration with Stroke Team.

The Stroke Nurse Practitioner will work with the neuro-interventionalists to manage patients undergoing neuro-interventional procedures e.g. cerebral aneurysm coiling and arteriovenous malformation treatment using interventional angiography.

**Phase 3:**
Primary risk factor modification through liaison with primary health care providers will be investigated.
7. **Stroke Nurse Practitioner Preparation**

The preparation for endorsement and ongoing practice of the Stroke Nurse Practitioner requires careful consideration of the following variables:

- The Model and Clinical Practice Guideline development
- Clinical and non-clinical time
- The candidacy
- Academic preparation
- Clinical experience
- Mentorship
- Assessment
- Professional portfolio
- Endorsement process

**The Model and Clinical Practice Guideline development**

Development of the SNP Model provides a means to communicate the scope of the SNP’s role (NBV, 2008). Although Clinical Practice Guidelines (CPGs) are not required for the nurse’s application for endorsement, they provide a means to describe the nature and scope of the NP’s role and practice, including:

- Which patients the NP will see;
- What advanced skills the NP will use to assess and manage the patients; and
- Where the patient will go following their interaction with the NP (e.g. referred on, discharged, admitted) (NBV, 2008).

CPGs facilitate decision-making and are “designed to improve the quality of health care, to reduce the use of unnecessary, ineffective or harmful interventions, and to facilitate the treatment of patients with maximum chance of benefit, with minimum risk of harm, and at an acceptable cost” (NHMRC, 1998, p.1).

Guideline development “involves reviewing literature and existing guidelines: considering the level, quality, relevance and strength of evidence available to support treatment recommendations. Guidelines should indicate the strength of evidence upon which they have been formed. Consensus based recommendations may result where evidence is lacking. The emphasis is therefore on implementing evidence based research to improve patient care and outcomes” (Bayside Health, 2006).

Each newly established Nurse Practitioner Candidate will convene a Clinical Reference Group. The Clinical Reference Group will provide local support and clinical expertise in development of tools, such as the CPGs, to guide practice. The Stroke Clinical Reference Group will investigate the SNP’s medication formulary and Clinical Practice Guidelines. CPGs related to the Stroke NPC and NP’s role in hyperacute stroke patient care and secondary prevention of stroke will be investigated.
Clinical and non-clinical time
All NPC and NP roles must have at least 20% Full Time Equivalence (FTE) of their hours as “non-clinical” time. This equates to 1 day per week for full time NP and NPC. This must be built into the budget as an ongoing component of any NP and NPC role. (Southern Health, 2008).

Non-clinical time will be used for activities including auditing, research, education preparation, and leadership and professional skill development.

Stroke Nurse Practitioner Candidacy
The candidacy period will provide the Stroke Nurse Practitioner Candidate time develop her / his knowledge and skills to be able to function autonomously and collaboratively in an advanced and extended stroke clinical role. This candidacy also provides time for the candidate to build on and implement leadership, research and education skills and activities.

It is anticipated that the Stroke Nurse Practitioner Candidacy will be of two years duration (FTE). The candidacy will incorporate academic preparation, clinical experience and mentoring – all of which prepare the NPC for endorsement.

Academic Preparation
The education of the Stroke NPC and ongoing education of the endorsed Stroke NP is a challenging area of role implementation. The nature and amount of education required for each Stroke NPC and SNP is dependent on the needs of the individual practitioner, their prior experience, the context of the role and the specific scope of the role.

It is expected that the Master of Nurse Practitioner degrees offered by relevant Universities will close the theory-practice gap further supporting the Nurse Practitioner candidate. The internship module that applicants must undertake will support this. A list of courses approved under the Nurses Act 1993 which also lead to endorsement of nurse practitioner under the Health Professions Registration Act 2005 can be viewed on the Nurses’ Board of Victoria website: http://www.nbv.org.au/web/guest/courses-nurse-practitioner

The education plan for the Stroke NP candidates and Stroke NPs recognises that NPCs and NPs will require significant initial and ongoing education to undertake their role and identify potential areas where education can be accessed. The formal education coupled with advanced practice skills learnt under the direction of the clinical mentor will allow the Stroke NPC to be able to practice at an advanced level.

Clinical Experience
The NPC’s clinical experience will be negotiated with support of the clinical mentor to provide a comprehensive internship. This will incorporate supervised experience in hyperacute stroke management, patient care
facilitation and stroke prevention, with the candidate moving towards autonomy in her / his practice as the candidacy period advances.

Clinical experience may be negotiated with other health care agencies, but this is dependent on the specific needs of the candidate. The Stroke NPC will also have access to the state wide Stroke NP Collaborative, convened by Austin Health. The collaborative will organise regular education and skill development workshops for NPCs and NPs in consultation with the nurse practitioners, candidates and relevant health care organisations.

Locally, following development of Melbourne Health’s strategic framework for Nurse Practitioners, the NP and NPCs will have access to monthly NP / NPC meetings (commencing in 2009) to ensure collegiality, nursing context and strategic alignment.

Candidates will also attend relevant conferences / seminars in both the NP, nursing and medical arena, allowing for further growth and development clinically and academically.

**Mentorship**
The Nurses Board of Victoria recommends that a Nurse Practitioner Candidate needs “to identify a clinical supervisor to help facilitate…. development” (NBV, 2008). Melbourne Health encourages the NPC to nominate two (or more) mentors for their candidacy. The first mentor is a clinical mentor and the second mentor is a professional mentor.

**Clinical Mentor**
The clinical mentor is the clinical supervisor for the candidate. She / he needs to be available and clinically accessible, committed to and have a good understanding of the NP model and role. The mentor needs to have current clinical expertise in stroke practice and evidence based research. The mentor also needs to be able to monitor and provide critical feedback on the NPC’s practice (Lee and Fitzgerald, 2008).

The clinical mentor may be a member of the medical team or an endorsed Stroke Nurse Practitioner. Initially medical staff will perform the clinical mentoring, but once the organisation has an endorsed Stroke Nurse Practitioner, this person will be available to take on a role of mentor.

The candidate will keep a progressive patient log, which will be used by the candidate and mentor to systematically discuss and analyse the Stroke NPC’s management of the patient. The aim of the mentor is to objectively examine the clinical cases and challenge the candidate’s thinking. Objectives should be set between the mentor and NPC and reflected upon in weekly sessions. The log should includes details of patients reviewed and the associated diagnostics and documentation (Lee, 2008). The log can be used to provide complex case studies for the endorsement application.
Stroke Nurse Practitioner Candidate’s Clinical Mentors - 2009
Two clinical mentors have been identified. Neurologists Dr Peter Hand and Dr Bernard Yan, with support from Professor Stephen Davis, are the Stroke NPC’s medical mentors. These doctors are specialists in stroke care, and are recognised leaders in their fields. Dr Hand will mentor the NPC in all aspects of stroke management, including review of the NPC’s clinical log. Dr Yan’s sub-specialty area is neuro-diagnostic and neuro-interventional radiology. He will mentor the Stroke NPC in this particular aspect of stroke management.

Professional Mentor
The professional mentor does not need to be an expert in the NPC’s field, but is seen by the NPC to hold skills necessary to facilitate development as a role model. The professional mentor will be involved from the beginning of the candidacy process through to endorsement. He or she will work with the candidate to become independent, self-directed and confident in the role of Stroke Nurse Practitioner, through reflection and self-analysis.

Stroke Nurse Practitioner Candidate’s Professional Mentor – 2009
Colin Dawson, the Co-Divisional Director of Nursing and Operations (Cardiac Services, Neurosciences & ICU) has been nominated as the Stroke NPC’s professional mentor. Colin will provide support for the professional development of the candidate and assist with strategies for the successful implementation of the role within the organisation.

Assessment
Assessment of the candidate is based on university and organisational expectations, clinical hurdles, case presentations and working within the candidate’s model of practice. Melbourne Health’s Performance and Development Management process forms part of the organisation’s expectations for the NP / NPC.

Professional Portfolio
The Stroke NPC and NP will keep a progressive log of non-clinical activities. This may be in the form of a Professional Portfolio using recommendations from Andre, K. and Hartfield, M. Professional Portfolios: Evidence of Competency for Nurses and Midwives. 2007. The portfolio forms part of the application for endorsement.

Endorsement Process
The Nurses Board of Victoria (NBV, 2008) provides information for nurses and midwives on the process to become Nurse Practitioners, as summarised below.

Nurse Practitioners have an endorsement on their registration in accordance with section 20 the Health Professions Registration Act (HPRA) 2005. The process leading to endorsement is rigorous and extensive. The candidature aims to build the Nurse Practitioner Candidate’s skills as clinical and professional
leaders, whilst working within a model of nursing practice that meets a service need. The Nurses' Board of Victoria provides three pathways for nurse to become Nurse Practitioners: refer to Appendix 4 for details.

During the candidature process the nurse will have developed clinical, professional and leadership skills to evidence his / her practice at the Australian Nursing and Midwifery Council’s (ANMC) National Competency Standards for the Nurse Practitioner (ANMC, 2006). This is with the support of an appropriate mentor.

A nurse may apply for endorsement when she / he has completed the Master of Nurse Practitioner (or successfully applied for equivalency), the role is established and the nurse is confident and competent to practice according to the ANMC Competency Standard (ANMC, 2006). The nurse must also have mastered the knowledge and skills required within the specific model of practice.

Application for endorsement as an NP is through the Nurses Board of Victoria, and application forms (which vary for each pathway) are on their website. The application should include:

- Evidence of organisational support for the role;
- A summary of the model of practice;
- The formulary that reflects the nurse’s scope of practice;
- Case studies that reflect practice at the NP level;
- An account of the nurse’s clinical and professional leadership activities.

The Nurses Board of Victoria will send a letter to acknowledge the application and a fee is payable.

The NBV will convene an expert panel for the candidate’s oral examination. The expert panel provides an independent assessment of the nurse’s ability to practice as a Nurse Practitioner, and ensures that the public are safe. The panel comprises a pharmacologist, a nursing and a medical expert from the applicant’s area of clinical practice. A Nurse Policy Officer will also be in attendance. The panel will review the application prior to the examination against the ANMC Nurse Practitioner Competency Standards (ANMC, 2006), discuss the application and determine some questions to ask during the oral examination.

The oral examination allows the nurse to demonstrate and articulate her / his ability to assess and manage routine and complex care situations, with an aim to assess the nurse’s clinical competence and ability to think as an autonomous practitioner. The nurse can take any information into the oral
examination that will assist the panel in understanding the model of practice, a copy of the case study and prompt notes.

The applicant is told the outcome of the examination on the day.

If successful, the recommendation will be made at the next monthly Nurses Board of Victoria meeting scheduled after the examination, following which a letter will be sent to the applicant confirming endorsement. The letter will also indicate whether the medications in the applicant’s formulary are approved and when he / she may commence prescribing.

If the applicant is unsuccessful, a brief overview of the panel’s rationale and recommendations will be provided on the day. A written summary will be provided. The panel will usually make a recommendation of a time frame to represent for the next oral examination (the applicant may sit two examinations per application). The nurse is entitled to appeal the decision of the Board in accordance with section 78 of HAPR 2005.

Endorsement as a nurse practitioner is ongoing and renewed each year with the annual registration. There are no additional fees once endorsed. The NP is accountable for maintaining competency, ongoing professional development, and working within her / his scope of practice. This applies equally to all nurses and midwives.

Please refer to the Nurses Board of Victoria’s Nurse Practitioner Information Sheets for full details:
1) What is a Nurse Practitioner?
2) How do I become a Nurse Practitioner?
3) Applying for endorsement.
4) Preparing for an oral exam.
5) Oral examination.
6) Post endorsement.
These are available from the Board www.nbv.org.au
8. Position Descriptions

Stroke NP Candidate Position Description (Appendix 5)
Stroke NP Position Description (Appendix 6)

The Stroke Nurse Practitioner Candidate Position Description and Stroke Nurse Practitioner Position Description are generic Melbourne Health Nurse Practitioner / Candidate Position Descriptions.

The Position Descriptions set out the Organisational Context, Values and Behaviours, and incorporate:

- Date of effect
- Reporting lines
- Classification
- Role summary
- Essential qualifications, including academic and clinical experience
- Key Result Areas.

The Key Result Areas (KRAs) for the Nurse Practitioner are aligned with Melbourne Health’s Goals. The KRAs are evidenced by the Nurse Practitioner’s competency, based on the Nurse Practitioner Competency Standards (ANMC, 2004). Each of the Competency Standards has a “Performance Indicator”, which should be evidenced by individualised “Performance Measures”. These Performance Measures are unique to each Nurse Practitioner and Candidate, although there will be commonalities to specific NP areas of practice.

The Performance Measures will be used by the candidate / Nurse Practitioner and her / his manager as part of Melbourne Health’s Performance and Development Management process. Additionally, this process and the use of the ANMC Nurse Practitioner Competency Standards (2006) provide evidence to the Nurses Board of Victoria for the Nurse Practitioner endorsement process that the nurse is functioning as a competent practitioner.
9. Business Case

Business Case Summary
The Stroke Nurse Practitioner (SNP) is a senior member of the stroke clinical team. The SNP model development is based on stroke service demand and adding value to patient care outcomes. The SNP role aligns itself with Melbourne Health’s Service Plan, goals and values through its innovative remodelling of service delivery to stroke and TIA patients.

The SNP model investigates options for an experienced and academically prepared clinical nurse to facilitate stroke patient care across the patient’s hospital journey from the hyperacute phase (Emergency Department management), through the inpatient stay, and outpatient follow up. The role encompasses improving patient access and treatment, holistic patient management and continuity of care, as well as risk factor modification and secondary stroke prevention for patients suspected of or diagnosed with TIA and stroke.

Objectives
- To add value to Melbourne Health’s Stroke Service
- To meet international stroke clinical guideline recommendations
- To improve patient movement from the ED
- To aid KPI performance for ED waiting time
- To improve care of ageing patients
- To improve stroke patient management and the continuum of care
- To decrease the demand for TIA and stroke clinic hours
- To improve stroke and TIA patient outcomes.

Strategic Context
At Melbourne Health, the average age of inpatients is increasing (MH Service Plan 2007, p.57). At the same time, the MH Stroke Service has seen a 40% increase in demand for stroke services since 2003. This is in-line with Australian stroke service demand, which is forecast to increase by up to 5% per annum by 2018-19 (DHS, 2007, p.35). Projected growth is across all areas of Melbourne Health and impacts on patient access to the Emergency Department and outpatient clinics.

Within the Division of Neurology, in which the Stroke Service lies, the Base Case Forecast for Total Separations for 2006 – 2019 (MH Service Plan, 2007, p.45) is projected to increase:

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<th>Multi-day</th>
<th>Same-day</th>
<th>Overall</th>
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<td>2006</td>
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<td>2006</td>
<td>2019</td>
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| Neurology | 1841 | 2243 | 22% | 2013 | 3527 | 75% | 3854 | 5770 | 50% | 3.2% |

Melbourne Health has highlighted a number of key drivers related to system developments, changing demographics, technology and clinical practice and
workforce issues, which were considered in development of the MH Service Plan (2007, p.19-20). The relevant key drivers are:

4. There is projected growth in demand for MH services
5. The ongoing sustainability of MH may be under threat if the future service mix is not carefully considered
6. The changing health care environment.

These key drivers lend themselves to investigating other options to meet the demand of our ageing population, including exploring the role of a Stroke Nurse Practitioner to help meet the needs of those at risk or following stroke and TIA.

Background
In Australia, stroke affects approximately 53,000 people per year. Around half of these people are over the age of 75 and as the population ages the number of strokes occurring each year is expected to increase. The burden of stroke goes beyond the measured cost in Australia of $1.3 billion per annum. The impact on individuals, families and the workforce is substantial. Of those who have a stroke, approximately a third will die within the first 12 months, a third will make a complete recovery and a third will be left with a disability that causes some reliance on others for assistance with activities of daily living. Effective early stroke treatment aims to promote maximum recovery and prevent costly complications and subsequent strokes. (NSF, 2007, p.1)

Outline of proposal
The Stroke Nurse Practitioner (SNP) role will be a new position for Melbourne Health and within Australia. The SNP is a senior nursing clinician, who functions autonomously and collaboratively, in an advanced and extended clinical role with the Stroke Team and stroke and TIA patients.

The Stroke Team currently has a Stroke Nurse Consultant (SNC), which is a 0.9 FTE position. Within other Victorian hospitals with Stroke Units, the senior stroke nurse is a full time position (e.g. Austin Health, Barwon Health, Eastern Health, Southern Health). The MH SNC is involved in patient care coordination in the acute inpatient setting and involvement in Code Stroke calls to the Emergency Department for hyperacute stroke patients. The scope of practice of the SNC role precludes autonomous practice, prescribing, diagnostic ordering and interpretation. Conversely, the advanced academic and clinical preparation of the SNP will allow for these extensions to nursing practice, following assessment and endorsement by the Nurses’ Board of Victoria.

The Melbourne Health Stroke Nurse Practitioner Model Development Project considered five options in the development of the model. Reflection and discussion about the current senior stroke nurse’s role, and its extension with a single practitioner model or dual practitioner model was considered, and the risks and benefits of each examined (outlined below). The option of a Clinical Nurse Specialist (CNS) to work with the SNP (in the dual practitioner model
option) was also investigated, but this option was rejected due to the higher levels of stroke knowledge and nursing leadership needed to close service gaps and add value to Melbourne Health’s stroke service.

The areas within Melbourne Health that the SNP can positively impact upon, and that align with Melbourne Health’s Service Plan (December 2007) include:

- Hyperacute stroke management
- Patient care facilitation and
- Stroke prevention

The SNP will be involved in hyperacute stroke management in the Emergency Department (ED). This involves coordinating, fast tracking and managing the care of the stroke patient, with a view to timely movement of stroke patients from the ED. The latter is particularly relevant with the increasing numbers of ED presentations and KPI performance for ED waiting time. The additional benefit of this aspect of the role is in patient care meeting international stroke clinical guideline recommendations.

As the stroke and TIA patient care facilitator, the SNP will ensure timely, appropriate and seamless transition through Melbourne Health and into the community. The benefits of the SNP model of care will see this group of ageing patients have comprehensive and holistic management across the continuum of care. Collaboratively with the SNC and Stroke Team, using advances in technology and clinical management, the SNP will be able to manage the complex stroke patient’s disease process and co-morbidities.

Likewise, the SNP will be involved with stroke prevention. A current 8 – 12 week waiting list for patients in the outpatient Stroke Clinic can be addressed through the SNP providing a Stroke and TIA clinic for Melbourne Health patients suspected of or diagnosed with TIA and stroke. This has the potential to decrease the demand for TIA and stroke clinic hours and improve patient outcomes.

Identification of Options

Five options are discussed below:
1. No change to current model
2. Replace SNC with SNP
3. Additional part-time resource
4. Full-time addition
5. Two SNPs – without a SNC

All salaries listed in the financial impact include 0.09% superannuation, but do not include backfill.
Option 1. **No change:** No change to current model.

**Features of model:** Maintain senior stroke clinical nursing position as a Stroke Nurse Consultant (SNC) only – thus is a single practitioner model. The SNC role is described briefly on p.12.

**Financial Impact Option 1**

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<td></td>
<td>$ 72,085.06</td>
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<td>$ -</td>
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**Risks** associated with Option 1 include:

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<thead>
<tr>
<th>Risk</th>
<th>Level of risk</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organisation is unable to meet increased stroke service demand.</td>
<td>Moderate risk</td>
<td>There may be other options available to the organisation to meet patient demand.</td>
</tr>
<tr>
<td>Under utilisation of expert human resource and SNC limitation.</td>
<td>High risk for both the current SNC and the organisation</td>
<td>Risk associated with lack of career progression despite clinical and academic preparation for SNP role.</td>
</tr>
<tr>
<td>Single practitioner model</td>
<td>High risk</td>
<td>Given the increasing numbers of patients being seen by the stroke service and the ageing population, the service demand will not be able to be met. This option also carries the risk of not having a pathway for clinical career progression, and also limits succession planning. Succession planning is essential to ensure appropriate clinical nurses are able to fill the advanced position (leave cover and career moves).</td>
</tr>
<tr>
<td>Unable to resolve current service gaps</td>
<td>High risk</td>
<td>Outpatient clinic waiting times remain delayed, although there may be other options available to the organisation to meet outpatient clinic demand.</td>
</tr>
</tbody>
</table>
**Option 2.** Replace: Implement Stroke Nurse Practitioner to replace Stroke Nurse Consultant.

**Features of model:** This would be a single practitioner model that would see the SNC progress to SNP position. As there would be no replacement for the SNC role, the SNP would have to manage aspects of both the SNC role and SNP role.

**Financial Impact Option 2**

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<th>Current</th>
<th>Proposed</th>
<th>Budget Required</th>
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<td>$72,085.06</td>
<td>$88,154.40</td>
<td>$16,069.35</td>
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**Risks** associated with Option 2 include:

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<tr>
<th>Risk</th>
<th>Level of risk</th>
<th>Comment</th>
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<tbody>
<tr>
<td>The organisation is unable to meet</td>
<td>Moderate risk</td>
<td>There may be other options available to the organisation to meet patient demand.</td>
</tr>
<tr>
<td>increased stroke service demand.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under utilisation of expert human</td>
<td>High risk</td>
<td>The SNP may be unable to manage patient coordination as well as extension to practice. This is a high risk and will impact stroke patient care and outcomes.</td>
</tr>
<tr>
<td>resource</td>
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<tr>
<td>Single practitioner model</td>
<td>High risk</td>
<td>Given the increasing numbers of patients being seen by the stroke service and the ageing population, the service demand will not be able to be met. This also limits succession planning, as per point 3 in Option 1, and eliminates a valued key stroke nursing role.</td>
</tr>
<tr>
<td>Unable to resolve current service</td>
<td>Moderate risk</td>
<td>The risk that outpatient clinic waiting times remain delayed will be alleviated with the introduction of an SNP, although as this is a single practitioner model, other areas of the model will be compromised. The SNP may also be in the position to improve time to CT scan for acute stroke patients in ED through advanced assessment ability as well as team coordination, decreasing the risk in this service gap.</td>
</tr>
<tr>
<td>gaps</td>
<td></td>
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</table>
**Option 3. Additional part-time resource:** Implement Stroke Nurse Practitioner (1.0 FTE) in addition to part-time Stroke Nurse Consultant (0.4 FTE).

**Features of model:** This model will see the SNP take on most aspects of the SNP model, and begin to resolve organisation stroke gaps (see [Gaps & Strengths related to the Stroke Nurse Practitioner role](#)). The SNC will cover the SNP whilst the SNP is attending Outpatient Clinic, Code Stroke calls, and at NP / NPC education / development sessions.

**Financial Impact Option 3**

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<th>Current</th>
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<th>Budget Required</th>
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<td>$ 72,085.06</td>
<td>$ 120,192.20</td>
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**Risks** associated with Option 3 include:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Level of risk</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organisation is unable to meet increased stroke service demand</td>
<td>Low risk</td>
<td>Does not allow for future expansion of the model, due to time and personnel constraints.</td>
</tr>
<tr>
<td>Dual practitioner model</td>
<td>Moderate risk</td>
<td>This option provides a pathway for clinical career progression and succession planning, but as the SNC position is part-time there is a moderate risk that the role cannot be further developed. This does not allow for continued increases in demands for stroke services.</td>
</tr>
<tr>
<td>Unable to resolve current service gaps</td>
<td>Low risk</td>
<td>A dual practitioner model resolves many of the identified stroke service gaps that can be resolved with the introduction of the SNP. This option though, limits the ability of the practitioners to achieve across the stroke continuum care (from hyperacute to return to community) due to time and staffing limitations.</td>
</tr>
</tbody>
</table>
Option 4. **Full-time Addition:** Implement Stroke Nurse Practitioner (1.0 EFT) to complement role of Stroke Nurse Consultant (1.0 EFT). The SNP and SNC will work together to ensure coordination and continuity of care.

### Financial Impact Option 4

<table>
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<tr>
<th></th>
<th>Current</th>
<th>Proposed</th>
<th>Budget Required</th>
</tr>
</thead>
<tbody>
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<td>$ 72,085.06</td>
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<td>$ 96,163.85</td>
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</table>

The risks associated with this option are negated:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Level of risk</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>The organisation is unable to meet increased stroke service demand</td>
<td>Low risk</td>
<td>It is anticipated that the two senior stroke nurses will be able to provide more streamlined advanced nursing care and discharge planning, as well as increase patient and carer satisfaction. The dual roles will facilitate collaboration within the team.</td>
</tr>
<tr>
<td>Under utilisation of expert human resource</td>
<td>Low risk</td>
<td>The dual roles will allow more flexibility of hours of service, thus improving access to families and patients after hours for family liaison, education, and risk factor modification. Additionally, the SNP and SNC will be able to manage stroke care initiatives, and projects, which will be beneficial for stroke patients and the organisation.</td>
</tr>
<tr>
<td>Unable to resolve current service gaps</td>
<td>Low risk</td>
<td>All identified gaps should be resolved with this model (see <em>Gaps &amp; Strengths related to the Stroke Nurse Practitioner role</em>).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved follow up in outpatient clinic for patients with stroke and TIA;</td>
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<td>• Time taken to obtain a CT scan prior to thrombolysis is within current recommendations;</td>
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<td>• There is continuity of care across hyperacute, acute, sub-acute to the community continuum;</td>
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<tr>
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<td></td>
<td>• Structured and planned stroke education and prevention is provided to patient and carers during inpatient stay and following discharge;</td>
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<td></td>
<td></td>
<td>• There is appropriate succession and career planning for senior clinical stroke nurses.</td>
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</tbody>
</table>
Option 5. **Two SNPs – no SNC:** Implement Stroke Nurse Practitioner (2.0 EFT) and remove the role of the Stroke Nurse Consultant. The SNP and SNC will work together to ensure coordination and continuity of care.

### Financial Impact Option 4

<table>
<thead>
<tr>
<th>Risk</th>
<th>Level of risk</th>
<th>Comment</th>
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<tbody>
<tr>
<td>The organisation is unable to meet increased stroke service demand</td>
<td>Low risk</td>
<td>It is anticipated that the two senior stroke nurses will be able to provide more streamlined advanced nursing care and discharge planning, as well as increase patient and carer satisfaction. The dual roles will facilitate collaboration within the team.</td>
</tr>
<tr>
<td>Under utilisation of expert human resource</td>
<td>Low risk</td>
<td>The dual roles will allow more flexibility of hours of service, thus improving access to families and patients after hours for family liaison, education, and risk factor modification. Additionally, the two SNPs will be able to manage stroke care initiatives, projects and research, which will be beneficial for stroke patients and the organisation.</td>
</tr>
</tbody>
</table>
| Unable to resolve current service gaps | Low risk      | All identified gaps should be resolved with this model (see [Gaps & Strengths related to the Stroke Nurse Practitioner role](#)).  

- Improved follow up in outpatient clinic for patients with stroke and TIA;  
- Time taken to obtain a CT scan prior to thrombolysis is within current recommendations;  
- There is continuity of care across hyperacute, acute, sub-acute to the community continuum;  
- Structured and planned stroke education and prevention is provided to patient and carers during inpatient stay and following discharge;  
- There is appropriate succession and career planning for senior clinical stroke nurses.
The Proposed Option
The proposed option is Option 4, which sees a Stroke Nurse Practitioner and a Stroke Nurse Consultant working collaboratively. Both positions are a full time (1.0 EFT each). The choice of Option 4, acknowledges the increasing demands on all aspects of the Melbourne Health stroke service, including inpatient, outpatient and rehabilitation services.

Involvement and Consultation with key stakeholders
A broad selection of stakeholders from across Melbourne Health have been consulted in preparation of the Stroke Nurse Practitioner model, including the current Stroke Nurse Consultant, Neurology Consultants, Geriatricians, General Practitioners (GP), senior staff from Nursing, Nursing Education, Allied Health, Radiology, Pathology, Outpatients, the Emergency Department, Research, and Safety and Service Improvement, and patients through the “LifeMoves” peer support program.

Ease of Integration with existing services / initiatives / implementation plan
The SNP model is an extension of the Stroke Nurse Consultant role, which is well regarded, and is reported by stakeholders as adding value to complex stroke patient care coordination and management. The current SNC functions as an advanced clinical nurse, and is currently undergoing academic and clinical preparation with the aim to become a Stroke Nurse Practitioner Candidate.

The Neurology Department and Stroke Service is very supportive of the potential role of SNP and the current SNC’s academic and professional endeavours, and there is wide support from stakeholders for implementation of this advanced role.

Within Melbourne Health there is executive support from the Executive Director of Nursing Services, the Divisional Directors of Nursing and the Nursing Workforce Unit. A Nurse Practitioner Project Nurse is employed to facilitate progress of Nurse Practitioner implementation at Melbourne Health. The Project Nurse and executive are implementing systems to support Nurse Practitioners and NP candidates through development of the:

- Melbourne Health Strategic Framework
- Melbourne Health Nurse Practitioner Clinical Governance
- Melbourne Health Nurse Practitioner Policy Support
- Melbourne Health Nurse Practitioner Risk Management

The Melbourne Health Advanced Nursing Practice Steering Committee will convene in March 2009. The Executive Director of Nursing Services will chair this committee. The Coordinator of Nursing Recruitment and Retention (Nursing Workforce Unit) will hold the portfolio for Advanced Nursing Practice (Nurse Practitioner).
Proposed Funding for the Stroke Nurse Practitioner
The increasing number of stroke inpatients and outpatients highlights the need for additional staff resources. The model for Stroke Nurse Practitioner provides a suitable option for meeting patient demand, closing the gaps in the service and adding value to the stroke service.

There is strong support from the Divisional Director of Neurosciences and the Co-Divisional Director of Nursing and Operations (Cardiac Services, Neurosciences and ICU), as well as the Stroke medical consultants, for the position, including for the use of salary that may have been used to fill a medical position. This will be used to boost nursing resources, in the form of Option 4 – a full-time Stroke Nurse Consultant and a full-time Stroke Nurse Practitioner, and will complement the current stroke medical service of two interns, one registrar and four consultants (rotating ward service).
### 10. Implementation Milestones for the next 12 months

The following describes activities and anticipated outcomes for the next 12 for the Stroke Nurse Practitioner Model

<table>
<thead>
<tr>
<th>Description of Activity</th>
<th>Anticipated Outcome</th>
<th>Jan-09</th>
<th>Feb-09</th>
<th>Mar-09</th>
<th>Apr-09</th>
<th>May-09</th>
<th>Jun-09</th>
<th>Jul-09</th>
<th>Aug-09</th>
<th>Sep-09</th>
<th>Oct-09</th>
<th>Nov-09</th>
<th>Dec-09</th>
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</thead>
<tbody>
<tr>
<td>Stroke NP Model endorsed by the organisation</td>
<td>Model is accepted and has organisational support</td>
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<tr>
<td>Stroke NP Model Budget signed off</td>
<td>Budget approved</td>
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<tr>
<td>Stroke NP Candidate position advertised</td>
<td>Stroke NP Candidate appointed</td>
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<tr>
<td>Stroke NPC enrolled in Masters program</td>
<td>Academic preparation under-way</td>
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<tr>
<td>Clinical Mentor(s) appointed and briefed</td>
<td>Mentor(s) aware of role and expectations</td>
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<tr>
<td>Professional Mentor(s) appointed and briefed</td>
<td>Mentor(s) aware of role and expectations</td>
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<tr>
<td>Stroke NPC meeting with mentors regularly</td>
<td>Support in place; learning gaps addressed; development of extended skills supported</td>
<td></td>
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<tr>
<td>Preparation and presentation of case study presentations</td>
<td>Exposure to and confidence in oral presentations in preparation for NBV endorsement process / education / conference presentations</td>
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<tr>
<td>Description of Activity</td>
<td>Anticipated Outcome</td>
<td>Jan-09</td>
<td>Feb-09</td>
<td>Mar-09</td>
<td>Apr-09</td>
<td>May-09</td>
<td>Jun-09</td>
<td>Jul-09</td>
<td>Aug-09</td>
<td>Sep-09</td>
<td>Oct-09</td>
<td>Nov-09</td>
<td>Dec-09</td>
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<tr>
<td>Stroke Clinical Reference Group investigates medication formulary and Clinical Practice Guidelines</td>
<td>Local support and clinical expertise in development of tools to guide practice</td>
<td></td>
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</tr>
<tr>
<td>Stroke NPC developing professional portfolio, and building on clinical and professional leadership skills</td>
<td>Preparation for endorsement and future professional activities</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Attend Melbourne Health Advanced Nursing Practice Steering Committee</td>
<td>Organisational support</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Meet with Stroke Nurse Practitioner Collaborative</td>
<td>Peer support for personal and professional development and collaboration</td>
<td></td>
<td></td>
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</tbody>
</table>
11. Evaluation of the Stroke Nurse Practitioner Role

Evaluation of the role of the Stroke Nurse Practitioner is an important aspect of implementation of the new model. The *Melbourne Health Nurse Practitioner Framework 2009* will guide the evaluation process.

The evaluation of the SNP role will assess stroke patient care outcomes in relation to the Stroke NPC / NP’s impact on the relevant targets in the Melbourne Health Service Plan and relevant recommendations of the *Stroke Care Strategy for Victoria* (DHS, 2007) for Melbourne Health’s Stroke Service. These relate to gaps in the stroke service that may be impacted upon by the SNP, and include (see Appendix 1):

- Recommendations 1, 3 and 17 in relation to providing and managing stroke care;
- Recommendations 5, 6, 7, 12, 19 and 23 in relation to stroke diagnosis, hyperacute management, team organisation and patient contact;
- Recommendation 11 to link in with the GP role in TIA / Stroke management.

An evaluation on the impact of the role in advancing the career pathway and supporting retention of senior stroke nurses (Recommendation 26) will also be considered.
12. The Melbourne Health Stroke NP Model Project

Project Background
In May 2008 Melbourne Health was successful in gaining funding from the Department of Human Services for Victorian Nurse Practitioner Project - NP Model in Stroke (Funding Rounds 4.2) through which a part-time NP Project Nurse in July 2008 has been employed. The initial scope of the project has been to develop the Stroke Nurse Practitioner model of care, and following this the Project Nurse will work on developing organisational wide systems to support Nurse Practitioners. This will include development of the NP framework, clinical governance support, policy support, and systems for NP risk management.

Prior to this, there had been some work within the organisation to investigate the feasibility of the NP role at Melbourne Health. In 2007 a project officer from within the Nursing Workforce Unit at the Royal Melbourne Hospital began development of NP support processes and explored the level of interest by senior nursing clinicians. Over 30 interested nurses attended a “Nurse Practitioner Workshop”, at which the Nurses’ Board of Victoria and two Melbourne Health Nurse Practitioner Candidates discussed the NP experience, educational requirements and the path to becoming an NP.

Issues associated with project establishment
In the current project, the DHS “Victorian Nurse Practitioner Project (VNPP) Phase 4 – Nurse Practitioner Model Development – Key Activities” (Katy Fielding, Manager, Nurse Workforce Policy & Programs, Nurse Policy Branch, Department of Human Services) has been used to guide the project. The main drivers in developing the model have been:

1. Understanding local demand and opportunities,
2. Shaping the service model for NPs,
3. Priming the organisation for NPs, and
4. Preparing the nursing workforce

The issues associated with each of these activities are as follows:

1. Understanding local demand and opportunities
There have been minimal issues in relation to understanding local demand and opportunities, as there is great enthusiasm by all stakeholders for the Stroke Nurse Practitioner and a demand for the role has been identified, as evidenced through the gap analysis. The gap analysis was a lengthy but necessary process to substantiate and develop the SNP model.

2. Shaping the service model for NPs
The MH Stroke Nurse Practitioner model is an extension of the Stroke Nurse Consultant role. In developing the model, it was clear that the scope of the role needed to be realistic, that is not too big for a single practitioner and that service continuity be built into the model to ensure sustainability. Thus the model that has been decided upon utilises the skills of an advanced stroke nurse (part-time Stroke Nurse Consultant) to provide continuity of patient care whilst the SNP Candidate / SNP is engaged in NP activities.
3. Priming the organisation for NPs
There continues to be a high level of interest from senior nurses and other clinical staff – in particular from medical staff – for the NP position. As an example, the SNP model has strong support from the Head of Neurology, the stroke medical consultants and the multi-disciplinary stroke team. However, there is a reported restlessness amongst the staff for the NP support structures to be in place: the employment of a dedicated NP Project Nurse will see the process expedited.

Melbourne Health’s statement of purpose – *Securing the health of our communities through research and innovation, to deliver effective services and educate future generations* – gives all involved with the project a direction to work towards to improve our patient care and staff retention. Executive support is paramount to the success of this process, and as such there is strong support from the Executive Director of Nursing Services and the Co-Divisional Director of Nursing and Operations (Cardiac Services, Neurosciences & ICU) for the NP role development. Other Nursing Co-Divisional Directors and senior staff from the clinical, management and education and research domains, and NPCs and NPs will form part of the Advanced Nursing Practice Steering Committee.

4. Preparing the nursing workforce
The project nurse has begun the process of communication about Nurse Practitioners within the organisation. This has been through discussions at senior nursing clinician level and nursing education. The project nurse has also begun to disseminate a Nurse Practitioner newsletter. This work will become more formalised in 2009 with work on the Melbourne Health Nurse Practitioner framework, which incorporates organisation support systems.

Finally, as noted in the Stroke Nurse Practitioner Model ([Advanced Clinical Skills](#)) section, there are issues with NP access to Medicare Provider Numbers, and issues associated with limited prescribing. These issues are Victorian-wide issues.
13. References


Appendix 1 – Stroke Care Strategy for Victoria – Key Recommendations

Providing Stroke Care

Recommendation 1: Health services and general practitioners should manage TIAs and secondary prevention of stroke in accordance with existing evidence-based clinical practice guidelines.

Recommendation 2: The Department of Human Services should support the National Stroke Foundation to deliver public education campaigns that increase public awareness of stroke symptoms.

Recommendation 3: Assessment/follow-up of people at risk of having a new or subsequent stroke should be undertaken at TIA/neurovascular clinics. Unless already in place, public health services treating more than 200 acute strokes a year should establish TIA/neurovascular clinics. Across criteria, protocols and requirements to monitor and evaluate the practice and activity of TIA clinics should be developed.

Stroke is a medical emergency

Recommendation 4: The Department of Human Services should undertake work to examine options that provide appropriate mechanisms for health services to transfer people who have a stroke to ensure they receive appropriate emergency stroke care.

Recommendation 5: Health services should treat all patients with stroke symptoms as a medical emergency and in accordance with existing evidence-based clinical practice guidelines, which includes but is not limited to:

- Rapid triage of patients presenting with stroke symptoms
- Rapid brain imaging of patients presenting with stroke symptoms

Thrombolysis

Recommendation 6: Acute health services should provide thrombolysis in accordance with role delineation for acute stroke services and internationally recognised clinical criteria, with appropriate neurology support, and provide information on these patients to the international SITS (Safe Treatment of Thrombolysis in Stroke) registry.

Management of Acute Stroke

Recommendation 7: Health services should provide acute stroke care in accordance with existing evidence-based clinical practice guidelines. Care should address:

- Appropriate treatment of acute stroke
- Accessing specialist acute services (for example, neurosurgery, interventional neuroradiology, specialist allied health)
- Interdisciplinary care
- Commencement of rehabilitation within the acute setting and prior to transfer
- Transition between acute and sub-acute services
- Inpatient discharge planning
- Liaising with community providers
- Ongoing care in the community
Management of sub-acute stroke

Recommendation 8: Sub-acute stroke should be provided in accordance with existing evidence-based clinical practice guidelines. Care should address:
- Accessing specialist sub-acute services (for example, specialist medical, nursing and allied health)
- Interdisciplinary care
- Provision of sub-acute care across the care continuum
- Transition between inpatient and ambulatory care
- Discharge planning
- Ongoing care in the community

Palliative Care

Recommendation 9: Appropriate and culturally sensitive palliative care should be provided and communication with carers/family members undertaken in accordance with existing national guidelines and *Strengthening palliative care - a policy for health and community care providers 2004-09.*

Measuring Performance

Recommendation 10: The Department of Human Services, in consultation with key stakeholders, should develop and implement a statewide performance monitoring system for stroke care management and patient outcomes.

Clinical support in the community following a stroke

Recommendation 11: General practitioners should be engaged in the care of stroke survivors as early as possible following diagnosis to ensure ongoing and appropriate clinical care and support, which should include:
- Managing known risk factors for stroke
- Referring to, and linking with, community rehabilitation and self-management programs.
- Referring to appropriate specialist clinical services.

Acute stroke service organisation

Recommendation 12: Acute stroke care should be provided by stroke units that are led by a physician with an interest and experience in stroke treatment and supported by an interdisciplinary team.

Sub-acute stroke service organisation

Recommendation 13: People with stroke and who are assessed as requiring rehabilitation and other sub-acute services should receive those in a program that has the following features:
- An interdisciplinary approach to care with a full range of medical, nursing and allied health professionals
- A physical environment that facilitates the rehabilitation process, is enabling for ongoing recovery and is easy to navigate for people who have mobility problems, visual deficits or cognitive impairment
- Equipment necessary to facilitate the provision of a quality rehabilitation program

Recommendation 14: The Department of Human Services should review the current designation of sub-acute services.
Recommendation 15: Sub-acute inpatient care should be led by a physician with an interest and experience in rehabilitation, supported by an interdisciplinary team and collocated with the appropriate inpatient environment.

Recommendation 16: People with stroke receiving sub-acute care should have access to the full range of medical, nursing and allied health care in an appropriate environment with access to appropriate evidence-based rehabilitation interventions, which is supported by the role delineation of sub-acute services.

Role delineation of stroke services

Recommendation 17: All health services should implement role delineation for acute stroke services to guide service delivery and future planning and ensure provision of the appropriate level of acute stroke care and expertise in accordance with infrastructure and resources. Role delineation will also ensure health services establish appropriate linkages and referral processes to ensure people with stroke have access to appropriate expertise and resources as required.

Recommendation 18: The Department of Human Services should develop role delineation to guide service delivery and future planning of all sub-acute services, including sub-acute stroke services.

Recommendation 19: Health services should transfer/refer patients to appropriate stroke services for accurate diagnosis of stroke, and transfer patients - when clinically appropriate - back to acute or sub-acute settings close to where they reside.

Recommendation 20: Health services should establish linkages and develop referral pathways and protocols with hospitals that receive their patient transfers and/or referrals to facilitate timely and smooth patient transition.

Telemedicine

Recommendation 21: To facilitate the use of telemedicine by health services in the diagnosis and treatment of stroke - particularly for improving access to clinical expertise and quality of care for rural patients - the Department of Services should:

- Assess telemedicine requirements and current infrastructure for public health services across Victoria
- Review the funding model to facilitate secondary consultation

High quality written information about stroke

Recommendation 22: Information about stroke and treatment options should be provided to patients and their carers/family members throughout the care continuum to allow participation in decision making, and ensure that personal choices, values and beliefs are considered in accordance with evidence-based guidelines.

Care co-ordination throughout the continuum of care

Recommendation 23: Health services should identify for each patient and their carer/family member a single point of contact who will be responsible for ensuring ongoing communication between the stroke care team for that patient and their carer. This role would also co-ordinate other needs of patients and their carers as required.

Recommendation 24: The Department of Human Services should undertake work that will guide health services in the implementation of co-ordinated stroke care.
Returning to the community
Recommendation 25: Guidelines for providing peer support to inpatients, establishing community-based stroke support groups, promoting self-management programs for long-term care and accessing community-based services should be developed and implemented in accordance with evidence-based guidelines.

Stroke care workforce / training and education
Recommendation 26: The capacity of the system should be increased, in accordance with the role delineation of stroke services, to provide safe and high quality stroke care, enhance workforce capability and provide for future demand. This should be done by:
- Better use of existing workforce recruitment and retention strategies
- Developing stroke-specific education programs targeted at both specialist and general stroke care workforce
- Encouraging and supporting staff providing stroke care to undertake appropriate education, training and research

Implementing the strategy
Recommendation 27: Clinical facilitators should be appointed on a time-limited basis to:
- Develop protocols identified in the recommendations above
- Oversee the implementation of protocols by stroke care providers
- Facilitate appropriate/relevant education, training and support
- Contribute to the development of stroke-specific education programs

Recommendation 28: A state-wide stroke project manager should be appointed on a time-limited basis to:
- Co-ordinate the implementation of the strategy recommendations for Victoria
- Oversee the work of the clinical facilitators
- Mainstream the implementation of the strategy for Victoria
Appendix 2 – Diagnostics

The Stroke Nurse Practitioner will be able to order and interpret the following diagnostic interventions / tests:

Radiology
- Computerised Tomography +/- angiography / perfusion studies of brain, neck,
- MRI +/- MRA brain, neck
- CXR
- Cerebral Digital Subtraction Angiography (DSA)
- Carotid Doppler

Cardiology
- Echocardiogram: TTE and TOE
- ECG
- Holter Monitor

Pathology
- Haematology and Biochemistry (FBE, Coagulation Profile including APTT & INR, Vasculitic profile, Hypercoagulability screen, Fasting cholesterol, Fasting glucose and HbA1C, U&Es, Creatinine, LFT, CRP, CK, Troponin)
- Cultures (for nosocomial chest infection, UTI)
Appendix 3 – Stroke Nurse Practitioner Drug Formulary

Below is a sample of some of the medications the SNP may potentially prescribe.

Stroke Prevention and Treatment

- Anticoagulants (*Enoxoparin, heparin sodium, warfarin*)
- Antiplatelet therapy (*aspirin and dipyridamole, clopidogrel, aspirin*)
- Diabetes (*insulin, oral hypoglycaemic therapy*)
- Hypercholesterolaemia (*statins*)
- Antihypertensive agents
  - Diuretics (*thiazides and thiazide-like, potassium-sparing diuretics*)
  - Angiotensin converting enzyme inhibitors
  - Angiotensin II receptor blockers
  - Calcium channel blockers (*nondihydropyridine calcium channel blockers, dihydropyridine calcium channel blockers*)
  - Beta-blockers
- Smoking (*nicotine replacement therapy*)
- Thrombolytic therapy (*alteplase - tissue plasminogen activator*)

General Stroke Patient Care

- Analgesics (*paracetamol, codeine*)
- Anti-infectives (*anti-fungals, penicillins, cephalosporins, miscellaneous antibiotics*)
- Anticonvulsants (*clonazepam, phenytoin, carbamazepine, sodium valproate*)
- Anti-emetics (*metochlopramide, prochlorperazine, ondansetron*)
- Aperients (unscheduled) *eg bisacodyl, docusate (Coloxyl), fleet enema, glycerine suppositories, lactulose, microlax, Movicol, senna*
- Palliative Care (*atropine sulphate, morphine, midazolam, buscopan, hyoscine butylbromide*)
Appendix 4 – Nurses’ Board of Victoria – Pathways to Endorsement

There are three pathways to Nurse Practitioner endorsement:

Pathway 1

- Nurse has completed a NBV approved Master of Nurse Practitioner Commenced 2009 onwards

Pathway 2

- Nurse has completed a NBV approved Master of Nurse Practitioner Commenced prior to 2009
- Nurse has completed a Masters not approved specifically for the purpose of endorsement as a NP

Pathway 3

- Nurse has completed a Masters program and has worked as an independent prescriber overseas (excluding New Zealand)
- Nurse has been authorised as a NP under other Australian state, territory or New Zealand legislation

For more information on the pathways to endorsement see the “Process for Nurse Practitioner Endorsement” on the Nurses Board of Victoria’s website http://www.nbv.org.au/web/guest/np-become Accessed December 15th 2008
Appendix 5 – Nurse Practitioner Candidate Position Description

NURSING SERVICES
NURSE PRACTITIONER CANDIDATE – POSITION DESCRIPTION

Date of Effect:

Position Title: Stroke Nurse Practitioner Candidate

Report to: Divisional Director of Nursing or Operations Manager

Classification: Paid according to Substantive Salary until endorsement as Nurse Practitioner with the Nurses’ Board of Victoria

Period of Candidacy:

It is expected that most NPC’s will be endorsed within 24 months of their candidature commencing. The candidate and their managers must discuss any potential exceptions. The Melbourne Health NP steering committee must be given at least 4 months notice if this time frame is not anticipated to be met.
Role Summary:
Based on the ANMC’s definition of a Nurse Practitioner (1) the role of the Nurse Practitioner can be summarised:

A Nurse Practitioner Candidate (NPC) is a registered nurse educated and working towards functioning autonomously and collaboratively in an advanced and extended clinical role. The Nurse Practitioner candidacy involves engaging in clinical education, mentorship and professional activities that assist the development of extensions to practice. The NPC extensions to practice include developing skills in advanced assessment and management of clients using nursing knowledge and skills and may include but is not limited to the direct referral of patients to other health care professionals, prescribing medications and ordering diagnostic investigations. The Nurse Practitioner Candidate role is grounded in the nursing profession’s values, knowledge, theories and practice and is working towards providing innovative and flexible health care delivery that complements other health care providers. The scope of practice of the nurse practitioner is determined by the context in which the nurse practitioner is authorised to practice.

Essential Qualifications:

Academic
- Current registration with the Nurse’s Board of Victoria as a Division 1, 3 or 4 Registered Nurse;
- Working towards an approved “Masters of Nurse Practitioner” Qualification OR a Masters assessed as equivalent in qualification (2);
- Working towards an approved “Therapeutic Medication Management Module”.

Experience
- Significant years experience post specialist qualification, and evidence of working at a level of advanced practice in the clinical area
- Experience in contemporary nursing practice and education
- Excellent interpersonal, communication and presentation skills
- Strong communication skills both written and oral
- Demonstrate an ability to work towards autonomous practice
- Demonstrate an ability to work collaboratively as part of a multidisciplinary team.
- Is innovative, resourceful and adaptive to change.
Organisational Context:
Melbourne Health is a leading health care provider in our state. We provide acute, sub-acute, general, specialist medical and mental health services through both inpatient and community based facilities via the following services: The Royal Melbourne Hospital – City Campus, The Royal Melbourne Hospital – Royal Park Campus, North Western Mental Health, North West Dialysis, Victorian Infectious Diseases Reference Laboratory and Shared Support Services.
Our primary community groups live in the northern and western metropolitan communities of Melbourne and we support these groups and rural and regional Victorians as a tertiary referral service.
Our purpose is to secure the health of our communities through research and innovation, to deliver effective services and educate future generations of health professionals.

Organisational Values and Behaviours:
“How We Work Together”

Patient focus: We will deliver compassionate health care and treat all patients with dignity and respect.
Ethical behaviour: All our actions and behaviours will reflect the highest ethical standards.
Teamwork: In all that we do, we will act professionally and work together to achieve the goals of Melbourne Health and deliver on our aspirations.
Diversity: Our words and actions acknowledge and value the diverse range of people and cultures in our work places and communities.
Accountability: As individuals we take responsibility for our actions and value feedback so that we can learn from experience.
Transparency: We value openness and honesty at all levels throughout the organisation.
Innovative, Flexible and Responsive Behaviour: We strive to lead the way, achieving the best outcomes for our communities through embracing change and adapting to our environment.
Effective Partnering with Stakeholders: Our success relies on effective collaboration and enduring partnerships.
Leadership: We are committed to providing effective leadership that champions new and innovative ways of doing things.

Our organisation promotes behaviours that are consistent with these values
KEY RESULT AREAS (KRA’s)

The Key Result Areas for the Nurse Practitioner Candidate are aligned with Melbourne Health’s Goals:

**Health Care** We will deliver services that meet the current and changing needs of our communities and collaborate with our strategic partners so that we are at the forefront of innovations in practice.

**Quality and Safety** We will provide a safe, appropriate and effective health care experience, every time.

**Research** We will foster research that enhances clinical care, challenges clinical practice and promotes innovative health service delivery.

**Education** We will invest in the quality of our communities’ current and future health by facilitating lifelong, multidisciplinary learning.

**Organisational Improvement** We will develop and maintain a dynamic and sustainable organisation that provides our staff with a constructive working environment and achieves the goals of our organisation.

The KRA’s will be evidenced by the Nurse Practitioner Candidate achieving competency in the Nurse Practitioner Competency Standards. (The Australian Nursing and Midwifery Council (ANMC), 2004, “National Competency Standards for the Nurse Practitioner”).

These competency standards provide a nurse practitioner with the framework for assessing competence, and are used by the Nurses’ Board of Victoria to assess the candidate’s eligibility for endorsement Nurse Practitioner (2).

**Nurse Practitioner Competency Standards**

Three generic standards that define the parameters of nurse practitioner practice have been identified (1). These standards are defined by nine competencies each with specific performance indicators.

**STANDARD 1** Dynamic practice that incorporates application of high-level knowledge and skills in extended practice across stable, unpredictable and complex situations

**STANDARD 2** Professional efficacy whereby practice is structured in a nursing model and enhanced by autonomy and accountability

**STANDARD 3** Clinical leadership that influences and progresses clinical care, policy and collaboration through all levels of health service
## Nurse Practitioner Competency Standards

**STANDARD 1**
Dynamic practice that incorporates application of high-level knowledge and skills in extended practice across stable, unpredictable and complex situations

<table>
<thead>
<tr>
<th>Competency 1.1</th>
<th>Conducts advanced, comprehensive and holistic health assessment relevant to a specialist field of nursing practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance indicators</strong></td>
<td><strong>Performance measures</strong></td>
</tr>
<tr>
<td>• Demonstrates advanced knowledge of human sciences and extended skills in diagnostic reasoning</td>
<td>•</td>
</tr>
<tr>
<td>• Differentiates between normal, variation of normal and abnormal findings in clinical assessment</td>
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<tr>
<td>• Rapidly assesses a patient’s unstable and complex health care problem through synthesis and prioritisation of historical and available data</td>
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<tr>
<td>• Makes decisions about use of investigative options that are judicious, patient focused and informed by clinical findings</td>
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<tr>
<td>• Demonstrates confidence in own ability to synthesise and interpret assessment information including client/patient history, physical findings and diagnostic data to identify normal and abnormal states of health and differential diagnoses</td>
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<tr>
<td>• Makes informed and autonomous decisions about preventive, diagnostic and therapeutic responses and interventions that are based on clinical judgment, scientific evidence, and patient determined outcomes</td>
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</tr>
<tr>
<td>Competency 1.2</td>
<td>Demonstrates a high level of confidence and clinical proficiency in carrying out a range of procedures, treatments and interventions that are evidence based and informed by specialist knowledge</td>
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<tr>
<td><strong>Performance indicators</strong></td>
<td><strong>Performance measures</strong></td>
</tr>
<tr>
<td>• Consistently demonstrates a thoughtful and innovative approach to effective clinical management planning in collaboration with the patient/client</td>
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<tr>
<td>• Exhibits a comprehensive knowledge of pharmacology and pharmacokinetics related to a specific field of clinical practice</td>
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<tr>
<td>• Selects/prescribes appropriate medication, including dosage, routes and frequency pattern, based upon accurate knowledge of patient characteristics and concurrent therapies</td>
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<tr>
<td>• Is knowledgeable and creative in selection and integration of both pharmacological and non-pharmacological treatment interventions into the management plan in consultation with the patient/client</td>
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<tr>
<td>• Rapidly and continuously evaluates the patient/client’s condition and response to therapy and modifies the management plan when necessary to achieve desired patient/client outcomes</td>
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<tr>
<td>• Is an expert clinician in the use of therapeutic interventions specific to, and based upon, their expert knowledge of specialty practice</td>
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<tr>
<td>• Collaborates effectively with other health professionals and agencies and makes and accepts referrals as appropriate to specific model of practice</td>
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<tr>
<td>• Evaluates treatment/intervention regimes on completion of the episode of care, in accordance with patient/client-determined outcomes</td>
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</table>
### Competency 1.3
Has the capacity to use the knowledge and skills of extended practice competencies in complex and unfamiliar environments

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
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<tbody>
<tr>
<td>• Actively engages community/public health assessment information to inform interventions, referrals and coordination of care</td>
<td>•</td>
</tr>
<tr>
<td>• Demonstrates confidence and self-efficacy in accommodating uncertainty and managing risk in complex patient care situations</td>
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<tr>
<td>• Demonstrates professional integrity, probity and ethical conduct in response to industry marketing strategies when prescribing drugs and other product.</td>
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<tr>
<td>• Uses critical judgment to vary practice according to contextual and cultural influences</td>
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<tr>
<td>• Confidently integrates scientific knowledge and expert judgment to assess and intervene to assist the person in complex and unpredictable situations</td>
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### Competency 1.4
Demonstrates skills in accessing established and evolving knowledge in clinical and social sciences, and the application of this knowledge to patient care and the education of others

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<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
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<tbody>
<tr>
<td>• Critically appraises and integrates relevant research findings in decision making about health care management and patient interventions</td>
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<tr>
<td>• Demonstrates the capacity to conduct research/quality audits as deemed necessary in the practice environment</td>
<td>•</td>
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<tr>
<td>• Demonstrates an open-minded and analytical approach to acquiring new knowledge</td>
<td>•</td>
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<tr>
<td>• Demonstrates the skills and values of lifelong learning and relates this to the demands of extended clinical practice</td>
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</table>
## STANDARD 2
Professional efficacy whereby practice is structured in a nursing model and enhanced by autonomy and accountability

### Competency 2.1
Applies extended practice competencies within a nursing model of practice

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
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<tbody>
<tr>
<td>• Readily identifies the values intrinsic to nursing that inform nurse practitioner practice and an holistic approach to patient/client/community care</td>
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<tr>
<td>• Communicates a calm, confident and knowing approach to patient care that brings comfort and emotional support to the client and their family</td>
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<tr>
<td>• Demonstrates the ability and confidence to apply extended practice competencies within a scope of practice that is autonomous and collaborative</td>
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<tr>
<td>• Creates a climate that supports mutual engagement and establishes partnerships with patients/carer/family</td>
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<tr>
<td>• Readily articulates a coherent and clearly defined nurse practitioner scope of practice that is characterised by extensions and parameters</td>
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### Competency 2.2
Establishes therapeutic links with the patient/client/community that recognise and respect cultural identity and lifestyle choices

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<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
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<tbody>
<tr>
<td>• Demonstrates respect for the rights of people to determine their own journey through a health/illness episode while ensuring access to accurate and appropriately interpreted information on which to base decisions</td>
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<tr>
<td>• Demonstrates cultural competence by incorporating cultural beliefs and practices into all interactions and plans for direct and referred care</td>
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- Demonstrates respect for differences in cultural and social responses to health and illness and incorporates health beliefs of the individual/community into treatment and management modalities

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<tr>
<th>Competency 2.3</th>
<th>Is proactive in conducting clinical service that is enhanced and extended by autonomous and accountable practice</th>
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<tbody>
<tr>
<td><strong>Performance indicators</strong></td>
<td><strong>Performance measures</strong></td>
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</table>
| - Establishes effective, collegial relationships with other health professionals that reflect confidence in the contribution that nursing makes to client outcomes  
- Readily uses creative solutions and processes to meet patient/client/community defined health care outcomes within a frame of autonomous practice  
- Demonstrates accountability in considering access, clinical efficacy and quality when making patient-care decisions  
- Incorporates the impact of the nurse practitioner service within local and national jurisdictions into the scope of practice  
- Advocates for expansion to the nurse practitioner model of service that will improve access to quality, cost-effective health care for specific populations | - |

**STANDARD 3**  
**Clinical leadership that influences and progresses clinical care, policy and collaboration through all levels of health service**

<table>
<thead>
<tr>
<th>Competency 3.1</th>
<th>Engages in and leads clinical collaboration that optimise outcomes for patients/clients/communities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance indicators</strong></td>
<td><strong>Performance measures</strong></td>
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</tbody>
</table>
| - Actively participates as a senior member and/or leader of relevant multidisciplinary teams  
- Establishes effective communication strategies that promote positive multidisciplinary clinical partnerships  
- Articulates and promotes the nurse practitioner role in clinical, political and professional contexts | - |
- Monitors their own practice as well as participating in intra- and inter-disciplinary peer supervision and review

### Competency 3.2 Engages in and leads informed critique and influence at the systems level of health care

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
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<tbody>
<tr>
<td>- Critiques the implication of emerging health policy on the nurse practitioner role and the client population</td>
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<tr>
<td>- Evaluates the impact of social factors (such as literacy, poverty, domestic violence and racial attitudes) on the health of individuals and communities and acts to moderate the influence of these factors on the specific population/individual</td>
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<tr>
<td>- Maintains current knowledge of financing of the health care system as it affects delivery of care</td>
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<tr>
<td>- Influences health care policy and practice through leadership and active participation in workplace and professional organisations and at state and national government levels</td>
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<tr>
<td>- Actively contributes to and advocates for the development of specialist, local and national, health service policy that enhances nurse practitioner practice and the health of the community</td>
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</table>

### REFERENCES


Appendix 6 – Nurse Practitioner Position Description

NURSING SERVICES
NURSE PRACTITIONER – POSITION DESCRIPTION

Date of Effect:
Position Title: Stroke Nurse Practitioner
Report to: Divisional Director of Nursing or Operations Manager
Classification: RN Grade 6 Nurse Practitioner Year 1 (NO1)
Classification: RN Grade 6 Nurse Practitioner Year 2 (NO2)

Role Summary:
“A nurse practitioner is a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role. The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to the direct referral of patients to other health care professionals, prescribing medications and ordering diagnostic investigations. The nurse practitioner role is grounded in the nursing profession’s values, knowledge, theories and practise and provides innovative and flexible health care delivery that complements other health care providers. The scope of practice of the nurse practitioner is determined by the context in which the nurse practitioner is authorised to practise”. (1)
Essential Qualifications:

Academic
- Current registration with the Nurse’s Board of Victoria as a Division 1, 3 or 4 Registered Nurse;
- Completed approved “Masters of Nurse Practitioner” Qualification OR a Masters assessed as equivalent in qualification;*
- Completed an approved “Therapeutic Medication Management Module”.

Experience
- Significant years experience post specialist qualification, and evidence of working at a level of advanced practice in the clinical area
- Experience in contemporary nursing practice and education
- Excellent interpersonal, communication and presentation skills
- Strong communication skills both written and oral
- Demonstrate an ability to work both autonomously and collaboratively as part of a multidisciplinary team.
- Is innovative, resourceful and adaptive to change.

Organisational Context:

Melbourne Health is a leading health care provider in our state. We provide acute, sub-acute, general, specialist medical and mental health services through both inpatient and community based facilities via the following services: The Royal Melbourne Hospital – City Campus, The Royal Melbourne Hospital – Royal Park Campus, North Western Mental Health, North West Dialysis, Victorian Infectious Diseases Reference Laboratory and Shared Support Services.

Our primary community groups live in the northern and western metropolitan communities of Melbourne and we support these groups and rural and regional Victorians as a tertiary referral service.

Our purpose is to secure the health of our communities through research and innovation, to deliver effective services and educate future generations of health professionals.
Organisational Values and Behaviours:

“How We Work Together”

**Patient focus:** We will deliver compassionate health care and treat all patients with dignity and respect.

**Ethical behaviour:** All our actions and behaviours will reflect the highest ethical standards.

**Teamwork:** In all that we do, we will act professionally and work together to achieve the goals of Melbourne Health and deliver on our aspirations.

**Diversity:** Our words and actions acknowledge and value the diverse range of people and cultures in our workplaces and communities.

**Accountability:** As individuals we take responsibility for our actions and value feedback so that we can learn from experience.

**Transparency:** We value openness and honesty at all levels throughout the organisation.

**Innovative, Flexible and Responsive Behaviour:** We strive to lead the way, achieving the best outcomes for our communities through embracing change and adapting to our environment.

**Effective Partnering with Stakeholders:** Our success relies on effective collaboration and enduring partnerships.

**Leadership:** We are committed to providing effective leadership that champions new and innovative ways of doing things.

Our organisation promotes behaviours that are consistent with these values.
KEY RESULT AREAS (KRA’s)

The Key Result Areas for the Nurse Practitioner are aligned with Melbourne Health’s Goals:

- **Health Care** We will deliver services that meet the current and changing needs of our communities and collaborate with our strategic partners so that we are at the forefront of innovations in practice.
- **Quality and Safety** We will provide a safe, appropriate and effective health care experience, every time.
- **Research** We will foster research that enhances clinical care, challenges clinical practice and promotes innovative health service delivery.
- **Education** We will invest in the quality of our communities’ current and future health by facilitating lifelong, multidisciplinary learning.
- **Organisational Improvement** We will develop and maintain a dynamic and sustainable organisation that provides our staff with a constructive working environment and achieves the goals of our organisation.

The KRA’s will be evidenced by the Nurse Practitioner’s competency based on the Nurse Practitioner Competency Standards (1).

These competency standards provide a nurse practitioner with the framework for assessing competence, and are used by the Nurses’ Board of Victoria to assess the candidate’s eligibility for endorsement Nurse Practitioner, for ongoing assessment of competence once endorsed, and for assessment of practice in regards to professional conduct (2).

**Nurse Practitioner Competency Standards**

Three generic standards that define the parameters of nurse practitioner practice have been identified (1). These standards are defined by nine competencies each with specific performance indicators.

- **STANDARD 1** Dynamic practice that incorporates application of high-level knowledge and skills in extended practice across stable, unpredictable and complex situations
- **STANDARD 2** Professional efficacy whereby practice is structured in a nursing model and enhanced by autonomy and accountability
- **STANDARD 3** Clinical leadership that influences and progresses clinical care, policy and collaboration through all levels of health service
## STANDARD 1
Dynamic practice that incorporates application of high-level knowledge and skills in extended practice across stable, unpredictable and complex situations

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<tr>
<th>Competency 1.1</th>
<th>Conducts advanced, comprehensive and holistic health assessment relevant to a specialist field of nursing practice</th>
</tr>
</thead>
</table>

### Performance indicators
- Demonstrates advanced knowledge of human sciences and extended skills in diagnostic reasoning
- Differentiates between normal, variation of normal and abnormal findings in clinical assessment
- Rapidly assesses a patient’s unstable and complex health care problem through synthesis and prioritisation of historical and available data
- Makes decisions about use of investigative options that are judicious, patient focused and informed by clinical findings
- Demonstrates confidence in own ability to synthesise and interpret assessment information including client/patient history, physical findings and diagnostic data to identify normal and abnormal states of health and differential diagnoses
- Makes informed and autonomous decisions about preventive, diagnostic and therapeutic responses and interventions that are based on clinical judgment, scientific evidence, and patient determined outcomes

### Performance measures
- 

<table>
<thead>
<tr>
<th>Competency 1.2</th>
<th>Demonstrates a high level of confidence and clinical proficiency in carrying out a range of procedures, treatments and interventions that are evidence based and informed by specialist knowledge</th>
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</table>

### Performance indicators
- Consistently demonstrates a thoughtful and innovative approach to effective clinical management planning in collaboration with the patient/client
- Exhibits a comprehensive knowledge of pharmacology and

### Performance measures
- 

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Melbourne Health Stroke Nurse Practitioner Model January 2009
pharmacokinetics related to a specific field of clinical practice
- Selects/prescribes appropriate medication, including dosage, routes and frequency pattern, based upon accurate knowledge of patient characteristics and concurrent therapies
- Is knowledgeable and creative in selection and integration of both pharmacological and non-pharmacological treatment interventions into the management plan in consultation with the patient/client
- Rapidly and continuously evaluates the patient/client’s condition and response to therapy and modifies the management plan when necessary to achieve desired patient/client outcomes
- Is an expert clinician in the use of therapeutic interventions specific to, and based upon, their expert knowledge of specialty practice
- Collaborates effectively with other health professionals and agencies and makes and accepts referrals as appropriate to specific model of practice
- Evaluates treatment/intervention regimes on completion of the episode of care, in accordance with patient/client-determined outcomes

<table>
<thead>
<tr>
<th>Competency 1.3</th>
<th>Has the capacity to use the knowledge and skills of extended practice competencies in complex and unfamiliar environments</th>
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</thead>
<tbody>
<tr>
<td>Performance indicators</td>
<td>Performance measures</td>
</tr>
<tr>
<td>- Actively engages community/public health assessment information to inform interventions, referrals and coordination of care</td>
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<td>- Demonstrates confidence and self-efficacy in accommodating uncertainty and managing risk in complex patient care situations</td>
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<td>- Demonstrates professional integrity, probity and ethical conduct in response to industry marketing strategies when</td>
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</table>
prescribing drugs and other product.
- Uses critical judgment to vary practice according to contextual and cultural influences
- Confidently integrates scientific knowledge and expert judgment to assess and intervene to assist the person in complex and unpredictable situations

<table>
<thead>
<tr>
<th>Competency 1.4</th>
<th>Demonstrates skills in accessing established and evolving knowledge in clinical and social sciences, and the application of this knowledge to patient care and the education of others</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Critically appraises and integrates relevant research findings in decision making about health care management and patient interventions</td>
<td>•</td>
</tr>
<tr>
<td>• Demonstrates the capacity to conduct research/quality audits as deemed necessary in the practice environment</td>
<td>•</td>
</tr>
<tr>
<td>• Demonstrates an open-minded and analytical approach to acquiring new knowledge</td>
<td>•</td>
</tr>
<tr>
<td>• Demonstrates the skills and values of lifelong learning and relates this to the demands of extended clinical practice</td>
<td>•</td>
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</tbody>
</table>

**STANDARD 2**
Professional efficacy whereby practice is structured in a nursing model and enhanced by autonomy and accountability

<table>
<thead>
<tr>
<th>Competency 2.1</th>
<th>Applies extended practice competencies within a nursing model of practice</th>
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</table>

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Readily identifies the values intrinsic to nursing that inform nurse practitioner practice and an holistic approach to patient/client/community care</td>
<td>•</td>
</tr>
<tr>
<td>• Communicates a calm, confident and knowing approach to patient care that brings comfort and emotional support to the client and their family</td>
<td>•</td>
</tr>
<tr>
<td>• Demonstrates the ability and confidence to apply extended</td>
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</tbody>
</table>
practice competencies within a scope of practice that is autonomous and collaborative
- Creates a climate that supports mutual engagement and establishes partnerships with patients/carer/family
- Readily articulates a coherent and clearly defined nurse practitioner scope of practice that is characterised by extensions and parameters

<p>| Competency 2.2 | Establishes therapeutic links with the patient/client/community that recognise and respect cultural identity and lifestyle choices |</p>
<table>
<thead>
<tr>
<th>Performance indicators</th>
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</tr>
</thead>
<tbody>
<tr>
<td>• Demonstrates respect for the rights of people to determine their own journey through a health/illness episode while ensuring access to accurate and appropriately interpreted information on which to base decisions</td>
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<tr>
<td>• Demonstrates cultural competence by incorporating cultural beliefs and practices into all interactions and plans for direct and referred care</td>
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<tr>
<td>• Demonstrates respect for differences in cultural and social responses to health and illness and incorporates health beliefs of the individual/community into treatment and management modalities</td>
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</tr>
</tbody>
</table>

<p>| Competency 2.3 | Is proactive in conducting clinical service that is enhanced and extended by autonomous and accountable practice |</p>
<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>Performance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Establishes effective, collegial relationships with other health professionals that reflect confidence in the contribution that nursing makes to client outcomes</td>
<td></td>
</tr>
<tr>
<td>• Readily uses creative solutions and processes to meet patient/client/community defined health care outcomes within a frame of autonomous practice</td>
<td></td>
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<tr>
<td>• Demonstrates accountability in considering access, clinical efficacy and quality when making patient-care decisions</td>
<td></td>
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<tr>
<td>• Incorporates the impact of the nurse practitioner service</td>
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</tbody>
</table>
within local and national jurisdictions into the scope of practice

- Advocates for expansion to the nurse practitioner model of service that will improve access to quality, cost-effective health care for specific populations

<table>
<thead>
<tr>
<th><strong>STANDARD 3</strong></th>
<th>Clinical leadership that influences and progresses clinical care, policy and collaboration through all levels of health service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competency 3.1</strong></td>
<td>Engages in and leads clinical collaboration that optimise outcomes for patients/clients/communities</td>
</tr>
<tr>
<td><strong>Performance indicators</strong></td>
<td><strong>Performance measures</strong></td>
</tr>
<tr>
<td>• Actively participates as a senior member and/or leader of relevant multidisciplinary teams</td>
<td></td>
</tr>
<tr>
<td>• Establishes effective communication strategies that promote positive multidisciplinary clinical partnerships</td>
<td></td>
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<tr>
<td>• Articulates and promotes the nurse practitioner role in clinical, political and professional contexts</td>
<td></td>
</tr>
<tr>
<td>• Monitors their own practice as well as participating in intra- and inter-disciplinary peer supervision and review</td>
<td></td>
</tr>
</tbody>
</table>

| **Competency 3.2** | Engages in and leads informed critique and influence at the systems level of health care |
| **Performance indicators** | **Performance measures** |
| • Critiques the implication of emerging health policy on the nurse practitioner role and the client population | |
| • Evaluates the impact of social factors (such as literacy, poverty, domestic violence and racial attitudes) on the health of individuals and communities and acts to moderate the influence of these factors on the specific population/individual | |
| • Maintains current knowledge of financing of the health care system as it affects delivery of care | |
| • Influences health care policy and practice through leadership and active participation in workplace and professional organisations and at state and national government levels | |
• Actively contributes to and advocates for the development of specialist, local and national, health service policy that enhances nurse practitioner practice and the health of the community

REFERENCES
