Preface

The Australasian Neuroscience Nurses’ Association (ANNA) "Neuroscience Nursing Standards", published in 1992, required review and revision in keeping with the scope of nursing practice change since the first edition. This responsibility was designated to the ANNA WA Branch. In 2002 a coordinated group of dedicated members began intense activity to develop a draft of the Professional Standards for Neuroscience Nurses, which was completed within a three-month timeframe.

Through reflection on the diversity and nature of neuroscience nursing, a set of broad generic Professional Standards was developed that would capture the attributes needed for specialist nursing practice across a diversity of neuroscience settings. Performance standards and criteria were developed based upon eight domains of professional nursing practice, which were extrapolated from the Competency Standards for the Advanced Nurse (ANF, 1997) and the Competency Standards for Specialist Critical Care Nurses (Confederation of Australian Critical Care Nurses Inc., 1996).

2010 - 2013:
During the re-editing of the Professional Standards for Neuroscience Nurses a deliberate and critical review of developments in competency standards for generic and specialty nurses has been undertaken to ensure authenticity and authority of the Professional Standards for Neuroscience Nurses.
Acknowledgments

2013

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The Australasian Executive would like to acknowledge the Western Australia branch for their contributions and commitment to the development of this document – “Professional Standards for Neuroscience Nurses”.

- 5 -
2003

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Finally, this project would not have been completed without the feedback from the ANNA membership.
Introduction

The Professional Standards for Neuroscience Nurses have been designed to be generic and thus are applicable to a diverse range of neuroscience nursing practice contexts. The set of Professional Standards received endorsement by the Australasian Neuroscience Nurses Association membership at the 2003 Annual Scientific Meeting, held in Queenstown, New Zealand.

The set of Professional Standards provides meaning and value to neuroscience nursing practice and acts as a guide to nurses seeking practice development. Hence, the set of Professional Standards may be utilized as:

- A practice-based evaluation tool for performance management, such as self-appraisal and the identification of learning needs and goals.
- A framework for development of professional and academic neuroscience nursing education curricula.

The set of Professional Standards has been tested, validated and refined every 5 years or as required.

Significance

The set of Professional Standards for Neuroscience Nurses has been developed to reflect current neuroscience nursing practice within the scope of neuroscience nursing and a diverse range of contexts. The use of behaviours as performance standards provides a benchmark of best practice in neuroscience patient care.

The evaluation of the Professional Standards has been conducted by a standards project subcommittee of the ANNA, with expert input from neuroscience nurses.
Professional Standards for Neuroscience Nurses

The following domains define the standards of professional performance for the neuroscience nurse:

Domain 1: Legal
Domain 2: Ethical
Domain 3: Leadership
Domain 4: Clinical expertise
Domain 5: Teamwork
Domain 6: Resource utilization
Domain 7: Professional development
Domain 8: Research

Nurses often commence their neuroscience specialty nursing in their post registration year(s), which accounts for the varying level of performance as neuroscience nurses undergoing different but timely development from advanced beginner to competent and proficient practitioner. (Benner 1984)

It is logical to consider individual differences in their level of performance for each domain.
Domain 1: Legal
This domain refers to nursing practice in accordance with State and Federal legislation.

1.1 **Performance Standard**
Functions in accordance with legislation and common law affecting nursing practice.

**Performance Criteria**

1.1.1 Demonstrates practice that complies with legislation and common law pertinent to nursing practice.
Examples:
- Adheres to legislative and organizational requirements for drug storage and administration.
- Verifies informed consent in the course of practice.
- Ensures patient safety by consistent attention to duty of care.

1.1.2 Demonstrates accountability for nursing practice.
Examples:
- Initiates and implements clinical decisions based within own scope of competence and practice.
- Demonstrates awareness of predictable and unpredictable outcomes of clinical decisions.
- Ensures accurate and complete documentation in clinical records.

1.1.3 Identifies unsafe practices that contravene the law, and intervenes to ensure safe and legal practice is followed.

1.1.4 Demonstrates practice that displays awareness of relevant acts and resources. Examples:
- Nurse’s Act
- Organ and Tissue Transplant Act
- Freedom of Information Act
- Occupational Health and Safety Act
- Equal Opportunity Act
- Privacy Act
- Carer Recognition Act
- National Safety and Quality Health Service Standards 2011
- Australian Disability Discrimination Act
- Disability Amendment Act 2012
- National Clinical Supervision Competency Resource 2013
Domain 2: Ethical

This domain refers to the ways practice should be underpinned by the ethical principles of Justice, Autonomy, Beneficence, Non-maleficence, Privacy and Dignity.

2.1 Performance Standard

Conducts neuroscience nursing practice in a manner that can be ethically justified.

Performance Criteria

2.1.1 Demonstrates understanding of contemporary ethical issues impinging on neuroscience nursing.

Examples:
- Withdrawal of treatment or resuscitation
- Care issues for individuals in Persistent Vegetative State (PVS).

2.1.2 Demonstrates practice that complies with professional codes of ethics and codes of conduct.

Examples:
- Delivers care in a manner that preserves/protects patient rights, autonomy, confidentiality, dignity and privacy e.g. assesses the patient’s capacity to consent, ensures informed consent prior to all care and/or research activity.

2.1.3 Delivers care in a nonjudgmental and nondiscriminatory manner that is sensitive to patient diversity.

2.1.4 Displays behaviours reflecting an ethical framework.

2.1.5 Identifies available resources to ethical decision-making.

Example:
- Utilises family conference to ensure views and issues are addressed in an ethical manner.

2.1.6 Undertakes or participates in approved research in accordance with ethical guidelines for the protection of human rights.
Domain 3: Leadership
This domain refers to the demonstration of leadership attributes and qualities.

3.1 Performance Standard
Acts as a positive role model to colleagues and other health care professionals.

Performance Criteria
3.1.1 Functions autonomously utilizing advanced, specialized knowledge and skills, consults and/or collaborates with other health care team members as appropriate.

3.1.2 Demonstrates awareness of organizational policies affecting neuroscience nursing practice.

3.1.3 Participates in quality improvement activities.

3.1.4 Manages issues and situations demonstrating professionalism and respect to colleagues, patients and/or significant others.

3.1.5 Maintains a positive attitude in response to feedback and/or suggestions for change.

3.1.6 Actively contributes to organisational decisions and contributes positively to team projects.

3.1.7 Actively provides appropriate support to staff in stressful and/or crisis situations.

3.2 Performance Standard
Positively promotes the specialty of neuroscience nursing

Performance Criteria
3.2.1 Actively participates in relevant professional associations.
Examples:
- Australasian Neuroscience Nurses Association (ANNA)
- Multiple Sclerosis Nurses Australasia (MSNA)
- Community Neurological Nurses Network (CN3)
3.2.2 Acts as an advocate and consultant for issues relating to neuroscience nursing practice.

3.2.3 Demonstrates knowledge of current neuroscience nursing research.

3.2.4 Has knowledge of issues that may have the potential to affect neuroscience health care services, and raises concerns at appropriate forums.

Domain 4: Clinical Expertise
This domain refers to the utilization of best practice standards to ensure optimal patient outcomes.

4.1 Performance Standard
Initiates and integrates ongoing patient assessment and utilizes interpretive and critical thinking skills to achieve optimal patient outcomes.

Performance Criteria
4.1.1 Assessment
4.1.1.a Utilises available resources for gathering clinical information eg the patient and/or significant others, health care record, referral letters, test results.
4.1.1.b Uses a systematic approach to collect and review relevant clinical data.

4.1.2 Diagnosis
4.1.2.a Ability to identify salient features of clinical history.
4.1.2.b Ability to identify deviation from baseline assessment parameters and/or the expected clinical course.
4.1.2.c Ability to identify abnormal biological parameters, and analyse trends to evaluate the patient’s clinical status.
4.1.2.d Ability to formulate nursing and collaborative problems and determine priorities based on assessment parameters.

4.1.3 Outcome identification
4.1.3.a Identifies optimal outcomes as measurable goals that are realistic and attainable within an estimated time frame.
4.1.3.b Goals are individually designed for the patient and significant others.
4.1.3.c Determines realistic outcomes from patient needs, based upon present and potential level of wellness.

4.1.4 Documentation
4.1.4.a Ensures the documented clinical data, identified problems and expected outcomes are accurate.
4.1.4.b Communicates the expected outcomes to the health care team to ensure continuity of care.
4.1.4.c Acts as a clinical resource to facilitate accurate and ongoing assessment, diagnosis, and expected outcome identification.

4.2 Performance Standard
Initiates a plan of care to achieve an optimal outcome considering implications for ongoing care and impending discharge.

Performance Criteria
4.2.1 Demonstrates a sound knowledge of the pathophysiology of neurological disease processes and related management and treatment strategies.
4.2.1.a Plans and organizes individualised care that reflects priorities, continuity and alternatives.
4.2.1.b Utilises evidence based knowledge from nursing, health sciences, and related disciplines to select and individualise nursing interventions.

4.2.2 Implementation
4.2.2.a Develops a plan of care incorporating specialised knowledge, and prioritises interventions according to patient presentation and clinical status.
4.2.2.b Facilitates the implementation of planned interventions, management priorities and treatment strategies, including but not limited to teaching, counselling, and community development, which assist patients to meet identified needs.
4.2.2.c Initiates discharge planning ensuring that care is planned to achieve optimal outcomes.
4.2.2.d Ensures that the documented plan of care is effectively communicated to the health care team.
4.2.2.e Maintains continuity of care.
4.2.3 Evaluation

4.2.3.a Demonstrates continuous evaluation of patient responses based on interventions towards attainment of optimal outcomes.

4.2.3.b Recognises and responds to alterations in patient status and undertakes further assessment and appropriate interventions.

4.2.3.c Recognises and responds promptly to life-threatening changes i.e. rapid change management.

4.2.3.d Recognises that changes to health status are dynamic processes, anticipates potential issues and adjusts the plan of care accordingly to achieve an optimal outcome.

4.2.3.e Ensures the patient responses are documented and timely communicated to the healthcare team.

Domain 5: Teamwork/Collaboration

This domain refers to the ability to work within a multidisciplinary team and the utilisation of a collaborative approach to achieve optimal patient outcomes.

5.1 Performance Standard
Collaborates with the patient and significant others.

Performance Criteria

5.1.1 Establishes a therapeutic relationship with the patient and significant others.

5.1.2 Provides relevant and accurate information to facilitate informed decision-making processes.

5.1.3 Encourages the patient and significant others to actively participate in care, care planning and goal setting.

5.1.4 Proactive in identifying and managing issues relating to language, cultural and spiritual sensitivity.

5.1.5 Acts as a clinical resource to the patient and significant others.
5.2 **Performance Standard**
Collaborates with the members of the multidisciplinary health care team to achieve optimal patient outcomes.

**Performance Criteria**
5.2.1 Demonstrates effective collaboration with all members of the multidisciplinary health care team.
5.2.1.a Acts as a patient advocate in team decision-making.
5.2.1.b Liaises with the health care team members to prioritize and deliver appropriate care to the patient.
5.2.1.c Communicates patient information to assist the health care team to make informed decisions on care, interventions, outcomes and/or discharge planning.
5.2.1.d Initiates and/or participates in a debriefing process following a critical incident.

**Domain 6: Resource Utilisation**
This domain refers to optimal utilization of human and physical resources.

6.1 **Performance Standard**
Ensures and maintains an optimal safe neuroscience environment (as defined in the glossary).

**Performance Criteria**
6.1.1 Demonstrates knowledge of and compliance with safety procedures eg emergency response, fire, disaster, electrical safety, sharps, wastes and toxic disposal, infection control, Occupational Health & Safety, aggression management

6.1.2 Identifies risks and takes appropriate actions to prevent potential incidents.

6.1.3 Recognises the potential for violence and initiates appropriate action.

6.1.4 Allocates staff appropriately based on their skills and knowledge to provide safe patient care.
6.2 **Performance Standard**
Ensures that equipment is maintained and readily available.

**Performance Criteria**

6.2.1 Demonstrates working knowledge of equipment eg volumetric pumps, pressure relieving devices, ICP monitoring devices, external ventricular drainage, cardiac monitoring devices, and bladder scanner

6.2.2 Ensures that equipment is in working order at all times.

6.2.3 Identifies and seeks to minimise hazards associated with equipment.

6.2.4 Ensures appropriate reporting of actual or potential incidents.

**Domain 7: Professional Development**
This domain refers to participation in relevant activities, which maintain and enhance clinical knowledge, skills and competency for self and others.

7.1 **Performance Standard**
Maintains own professional and academic development portfolio (as defined in the Glossary)

**Performance Criteria**

7.1.1 Reviews appropriate journals and current literature to enhance nursing practice.

7.1.2 Participates in quality improvement activities.

7.1.3 Seeks opportunities to function in extended roles such as practice development and subspecialty roles, with added responsibilities

7.1.4 Utilises reflection and clinical supervision to identify personal strengths as well as seeking to address identified learning needs and professional goals.
7.1.5 Actively seeks, contributes and participates in education activities to maintain & advance clinical expertise.

7.2 **Performance Standard**
Facilitates ongoing professional development of colleagues.

**Performance Criteria**
7.2.1 Acts as a positive role model through the delivery of competent specialised care.

7.2.2 Accepts responsibility for the mentorship and development of colleagues and students.

7.2.3 Actively contributes to the mentoring and development of less experienced nurses.

7.2.4 Demonstrates the ability to identify optimal performance and actively facilitates a participative approach to resolving the performance issues.

**Domain 8: Research**
This domain refers to awareness of and/or participation in current and relevant research to enhance patient care **and** to validate and inform best practice.

8.1 **Performance Standard**
Acknowledges values and utilises research to enhance the specialty practice of neuroscience nursing.

**Performance Criteria**
8.1.1 Demonstrates knowledge and understanding of the levels of evidence underpinning best practice and research.
8.1.2 Utilises a range of processes to contribute to the knowledge base of neuroscience nursing.

Examples:
- Incorporates evidence-based practice into neuroscience nursing.
- Identifies clinical practice issues suitable for research.
- Seeks opportunities to participate in or undertake research.
- Disseminates research findings and/or results to colleagues.

8.1.3 Submits research papers for publication to add to the validated body of knowledge in neuroscience nursing.
Exemplars
It is intended that the professional standards will capture all the attributes of the neuroscience nurse in a range of practice contexts. Thus, case stories from practice are used here to showcase the professional standards. (See Appendices).

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<tr>
<th>Case Story</th>
<th>Domain</th>
<th>Performance Standard</th>
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Evaluation of the Professional Standards

The Professional Standards for Neuroscience Nurses required endorsement by the ANNA membership. Thus, a national project for the evaluation of the Professional Standards was undertaken to obtain active participation and expert input from the ANNA membership.

- A discussion meeting was planned and held at the Australasian Neuroscience Nurses’ Association Annual Scientific Meeting in Broome in the year 2002.
- A survey instrument was developed and distributed to all members.

Refinement of the set of professional standards has been undertaken according to the survey findings. This draft document has been revised in August 2003 and re-presented to the membership at the Annual Scientific Meeting in Queenstown, New Zealand.

The Survey

The evaluation of the set of Professional Standards has been undertaken by a survey of the Australasian Neuroscience Nurses Association membership. The aim of the survey was to measure the degree to which the major
performance standards depict or describe the generic practice of the specialist neuroscience nurse.

The survey instrument was composed of a Likert Scale incorporating the major practice domains, performance standards and criteria (see Appendix II). The respondent rates each performance domain, standard and criterion according to the degree of match to his/her perception of own practice.

<table>
<thead>
<tr>
<th>Domain 1</th>
<th>5 Always relevant</th>
<th>4 Mostly relevant</th>
<th>3 Sometimes relevant</th>
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<td>Performance Standard 1.1</td>
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On completion of the survey, results have been collated and analysed by the Australasian Neuroscience Nurses’ Association. A summary report was printed in the newsletter of the Association, ‘Brainstem’ and distributed to all members.
Glossary of Terms

The patient
The patient is an individual who demonstrates actual or potential alteration in neurological health status requiring interventions from health care professionals.

Significant others
Family member(s) or person(s) who is (are) elected to be the patient's next-of-kin and/or significant carer(s). Variations in the definition of 'next-of-kin' must be reviewed with the appropriate legislation (such as the Coroner's Act and Organ and Tissue Donation legislation) in each state and country, when a legal definition is required.

The Neuroscience Nurse
A Registered Nurse who holds, or is working towards, professional qualifications in neuroscience nursing, and/or who demonstrates competence in the provision of holistic neuroscience nursing care through integrating knowledge, skills and humanistic values in the delivery of care to the patient and/or significant others. (ANNA, 1992; ACCCN, 1996)

The Neuroscience Environment
It is a health care setting where neuroscience health services are provided to the patient. The neuroscience environment holds the following specifics:

- A philosophy and/or mission statement
- Operational procedures and protocols considering the continuum of care, safety, mobility, nutrition, cognition, sensation, emotional support and educational needs of the patient and/or significant others.
- Appropriate staff and skill mix
- Documentation
- Equipment
- Resources (AANN, 1999)
Scope of Neuroscience Nursing Practice
A statement defines the sphere in which neuroscience nurses perform and the limits of the application of the Professional Standards for Neuroscience Nurses. (ANNA 1992)

- Roles: Clinical, Education, Consultative, Research
- Practice Settings: Critical care facilities, Acute specialty wards and high dependency units, Rehabilitation units, Long-term care facilities, Community settings

A Philosophy of Neuroscience Nursing
A statement describing the patient population, scope of neuroscience nursing practice, and desired patient and significant others’ outcomes. (AANN, 1999)

Professional Performance
The ability of the nurse to perform activities in accordance with the professional standards expected and ability to demonstrate the attributes to integrating the knowledge, skill and humanistic values necessary for performance. (ANF, 2001)

Standard of Nursing Practice
A standard of nursing practice is a desired and achievable level of performance against which actual performance can be compared. This reflects the philosophical values of the profession and clarifies what the nursing profession expects of its members (Saskatchewan Registered Nurses’ Association 1999).

Domains
Domains are major areas of nursing pertaining to the specialty of neuroscience nursing.

Performance Standard
A cluster of performance behaviours underpinning a specific area of nursing practice (ANF, 2001); or a desired and achievable level of performance against which actual performance can be compared, reflecting the philosophy and values of the profession and clarification of what the nursing profession expects of its members. (Saskatchewan,1999).
Performance Criteria
A group of specific performance behaviours within a designated performance standard, which is regarded as evidence of competent professional performance in the workplace. (ANF, 2001)

Professional and Academic Development Portfolio
The portfolio will provide evidence of attendance and participation in professional development and academic education activities. Refer to the continuing professional development (CPD) requirements stipulated by the Nursing and Midwifery Board of Australia and the Australian Health Practitioner Registration Agency.
Bibliography

2013


ACCC (2002). Competency Standards for the Specialist Critical Care Nurse (2nd ed.). Sydney, Australia: Australian College of Critical Care Nurses Inc.


2002 - 2003


ACCCN (1996). Competency Standards for Specialist Critical Care Nurses. Sydney, Australia: Confederation of Australian Critical Care Nurses Inc.

ACORN Ltd. (1999). Competency Standards for Perioperative Nurses. Adelaide, Australia: School of Nursing, University of South Australia.


## Appendices

### Case Exemplars

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Domain</th>
<th>Performance Standard</th>
<th>Criteria</th>
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<tr>
<td>Mr. Kelly is a 30 year old male, admitted to the Neurology Ward following a haemorrhagic stroke, which had occurred within the last 24 hours. His CT scan showed a large (8cm x 5 cm) haematoma in the left Basal Ganglia.</td>
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<td>Mr. Kelly's GCS was 15/15 at this stage. His main symptoms were sudden onset of severe generalized headache and lethargy. Mr. Kelly had been using IV illicit drugs and was going to attend drug rehabilitation tomorrow. The doctors suspected that his haemorrhagic stroke might have been caused by coagulopathy secondary to drug use.</td>
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<td>Mr. Kelly lives with his wife and a 3 year-old son. His brother and defacto wife were his next-of-kin. They were exhausted after spending over 10 hours in ED. They gave consent for the impending cerebral angiogram. I observed that they were extremely anxious when the doctor told them of the potential risks associated with Mr. Kelly's condition.</td>
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<td>I also recognised that the patient and next-of-kin would require the nurses to respond with a skilled and sensitive approach. I spent a lot of time explaining the physiological information; the care and interventions based on specialised knowledge to help with alleviating their concerns.</td>
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I introduced them to other senior nurses on the ward as points of contact and also ensured that they could speak with the doctors when they needed to or requested.

Mr. Kelly returned to the ward following a cerebral angiogram later that morning. He was fully conscious, GCS 15/15, and suffered no neurological deficits at this stage. Two hours later, he became obtunded, rousable to sternal rub. His GCS was recorded as 9 (E 2, V2, M5).

He was localising to pain with his left arm. His right arm was in spastic flexion and right leg in extension. His pupils were small and unequal, the right pupil was 3 mm with normal light response, the left pupil was 1 mm with sluggish reaction. I pressed the emergency alarm and initiated basic life support. BP 180/60, pulse 60/min and respirations 24/min on 1 full minute count. SpO2 was 97% on 8L oxygen via a facemask. The on-call Neurology Registrar was also contacted. When the Emergency Response Team arrived, I provided them with Mr. Kelly’s history of deteriorating clinical status.

The doctor was anxious and stated he would like to wait for the Neurology Registrar to manage the situation as Mr. Kelly had not suffered a cardiac arrest.

I spoke with the doctor, suggesting that IV Mannitol 20% 100 mL or Hypertonic Saline 20% 10 mL be given stat to Mr. Kelly prior to an urgent CT scan, while we waited for the Neurology Registrar. The doctor agreed.
The Mannitol was administered and an IDC was inserted to monitor urine output.

Mr. Kelly’s CT scan showed brainstem compression with midline shift indicating tentorial herniation. The Neurology Registrar ordered another 100 mL IV Mannitol be given stat.

Mr. Kelly was prepared for urgent evacuation of the haematoma and transferred to ICU prior to OR. His next-of-kin was informed of his current clinical status. The Neurology Registrar and the Neurosurgeon obtained informed consent for the operation from his wife.

The next day, Mr. Kelly was transferred to the Neurosurgical HDU. Apart from some cognitive deficits, he suffered minimal physical disabilities. Later that week, he was able to undertake ADLs with prompting and supervision. At the end of the following week, he was transferred to the neuro-rehabilitation facility.

Approximately 3 weeks later, Mr. Kelly’s brother and defacto wife returned to the ward to meet some of the RNs who had been closely involved in Mr. Kelly’s care. They informed us of his progress in rehabilitation and impending discharge. They thanked us and wanted to ensure that we understood how much they appreciated our care and sensitive approach to making their difficult time more bearable.
**Case 2**

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I observed one of the nursing staff always turned up late to work. He also regularly took food from patient meal trolleys. I decided to talk to the nurse. I collaborated with another Clinical Nurse and took time to discuss with the nurse his performance strengths, and specifically, areas for improvement.

The two behavioural issues and the importance of fulfilling the conduct requirement of the profession were also discussed.

The nurse agreed to make an effort to rectify the behaviour. I wished him the best, and encouraged him to self-monitor his progress and seek help from us when needed.

**Case 3**

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Mr. H was a middle-aged man in his late 50s. He was admitted to our ward at 0800 hr today with an ischaemic cerebral event occurring within the last 8 hours.

He suffered a mild right arm and leg weakness at the time of event, but remained conscious throughout the event. Mr. H, very fit and healthy, has no history of any illness.

In ED, his GCS was 15/15, no neurological deficits except a mild pronator drift noted in his right arm. His ECG was normal and in sinus.
rhythm. CT scan showed no intracranial haemorrhage. He was given aspirin 300mg orally and allowed normal diet and fluids.

At 1200 hrs, I went into Mr. H’s room to look for his bedside charts. As I was reading his neuro observation chart, I heard a crash. I immediately looked up and saw the tea cup on the wet floor. Mr. H and his wife were apologetic. The wife then reported that Mr. H’s right hand and arm had suddenly ‘given’ way while he was drinking from the cup. She also stated that Mr. H had reported his deteriorating arm function to his nurse at morning teatime.

I quickly undertook a neurological assessment on Mr. H and found his right arm was much weaker and his right hand was in a dystonic posture. I also identified a rapid and irregular heart rate. I reassured them and advised Mr. H. to stay in bed. I also explained to them about the identified problem and contacted the doctor to come and reassess the situation.

I requested Mr. H’s nurse to do an ECG on Mr. H immediately after explaining to her Mr. H’s clinical status. The nurse requested me to phone the doctor.

I suggested that I would get the resident doctor on the ward to see Mr. H immediately, and I would phone the Neurology Registrar who had seen Mr. H in ED prior to admission.
I informed the Neurology Registrar of Mr. H's current clinical status deviation from the baseline (right arm and hand dysfunction, rapid heart rate of 110/min and oxygen 3L was given via NP, saturating at 98%).

He prescribed a bolus of IV heparin 5000 units followed with a heparin infusion 25,000 units running at 21 mL per hour. Check APTT in 6 hours and aim to achieve APTT parameter between 60 to 80 sec. I promptly informed the resident doctor of the prescribed therapy and facilitated the nurse to implement the treatment.

When the Neurology Registrar arrived on the ward, he examined Mr. H and explained his clinical condition in detail and those changes might be related to intermittent AF. After the Neurology Registrar left the room, I noted Mr. H's wife was very anxious and started crying. I took her out of the room and got her a cup of tea. I encouraged her to talk about her feelings and reassured her that her husband was in good hands to help alleviate her distress. I got another cup of tea in a heat-insulated mug for Mr. H.

On returning to Mr. H, I explained and ensured that they understood the importance of preventing the risk of scalding. Mr. H and his wife thanked us and expressed their gratitude and appreciation for the expert and sensitive care they received.

Later on in the afternoon, I requested to have a coffee break with Mr. H's nurse. I openly asked her about her feelings and perception of the event. The nurse expressed appreciation and the desire for further development in her ability to recognise and manage rapid changes in

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I briefly explained the pathophysiological information for Mr. H and ensured she understood the importance of reporting the changes in clinical signs promptly. I then advised her to further her development by enrolling in the Neuroscience Nursing program conducted in the hospital.

### Case 4

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On the Neurology ward we have many patients who are prescribed subcutaneous heparin therapy for the management of thromboembolic diseases. I observed many incidents of extensive skin bruising of large sizes (100 – 200 mm²) and received many patient reports of injection-site pain.

I realised the limitations of our knowledge about subcutaneous Heparin and the injection technique. I informed other nurse colleagues of this issue and undertook extensive literature review. I undertook a pilot trial of an alternate subcutaneous heparin injection technique and found significant reduction in site-pain and skin bruising sizes.

I communicated this finding to colleagues and sought enrolment into the Master of Science Nursing by thesis program. I developed a research proposal and undertook the research in our neurology setting.

The research demonstrated a significant reduction of site-pain and skin bruising sizes.
bruising sizes (0 – 9 mm²) using the alternate subcutaneous heparin injection technique. Slow administration resulted in a significant improvement in patient comfort. I communicated the research finding to significant clinical and educational settings ensuring the introduction of this change in practice, which is evidence-based.

I also submitted a manuscript for publication, which was accepted and published in 2001 September issue of the Journal of Advanced Nursing. Since the publication of my research I have received many positive comments and expressions of interest to implement the alternate subcutaneous heparin injection technique and requests to replicate my research project in other clinical settings nationally and internationally.

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Alteration in bladder function is one major consequence of disease processes of the nervous system. Often, the patient’s ability to maintain urinary continence is used as one of the key feasibility indicators for acute rehabilitation. Thus, it is important for neuroscience nurses to effectively promote the patients’ ability to regain urinary continence during the acute care phase.

In the neurology setting, nurses are gaining more insight and developmental opportunities to deal with bladder dysfunction of varying severity. While I was in the role of SDN in an acute Neurology and Stroke Unit, I had identified the possibility of increasing our nursing effectiveness in bladder management to achieve best patient outcomes.

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With the help of a Neurologist and a Radiologist, I learnt to use a portable ultrasound to measure bladder volume. I designed a bladder management program incorporating the ultrasound noninvasive bladder volume measurement technique (bladder scanning) for patients admitted with acute stroke.

I also designed an in-service education program to educate our nurses regarding the bladder management program and enabled them to gain the competence of using bladder scanning to measure bladder volume accurately.

I also designed a research project, aiming to evaluate the accuracy of bladder volume measurement by bladder scanning and by intermittent catheterisation, and identify the implications of bladder scanning in nurse decision-making on bladder management strategies. When all nurses were competent in bladder scanning, I conducted the research.

The significant findings of the research were that (1) bladder scanning volumes were similar to the intermittent catheterization volumes for both total bladder volumes and residual bladder volumes, a total error rate was only 8% or less; and (2) Nurses’ decisions on the appropriate bladder management strategies based on bladder scanning volumes were accurate.

Consequently, this nurse-driven bladder management strategy resulted in better patient outcomes and significant cost savings in nursing time and reduction in unnecessary intermittent catheterisations. To promote

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bladder management in stroke patients, I submitted the research paper, which was published in an international nursing journal in 1993.

In order to verify the positive patient outcomes, I designed and undertook a quality improvement project aiming to evaluate the efficiency and effectiveness of the new bladder management program for patients with acute stroke. The results demonstrated more than 84% of the patients with bladder dysfunction had regained total urinary continence within a month following a stroke, 13% by discharge and the remaining 3% required further management in the long-term care facilities.

This project and its findings were published in the international neuroscience nursing journal in 1997.

This neuroscience nurse-driven innovation is now widely utilised in all areas of health care facilities. Bladder scanning is acknowledged as an important technique for the nursing management of patients suffering urinary incontinence.

At the 1997 Stroke Conference, a Consultant Urologist acknowledged the result of this research during his presentation on the bladder management in the acute phase of stroke.

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Case 6: Community Example

The community mental health nurse of a semi-rural team referred a 50-year-old man born in the Netherlands to the Huntington Disease CNC on her next rural outreach trip to the area. He was being treated for schizophrenia with paranoid elements. The nurse had noticed some occasional twitches of his shoulders and other involuntary movements of his legs and feet. He reminded her of a patient with HD she had nursed in a psychiatric institution but that patient had also been dysphagic and slurred his speech in between gulping air. She compared notes with the team leader and, with the patient’s consent, made the referral.

Having been brought up in Indonesia his childhood had been disrupted by the Second World War when his father was killed during the Invasion of Indonesia and he had spent years with his mother in a concentration camp.

During the assessment visit by the CNC he denied any contact with family, was antisocial, suspicious and uncommunicative. He appeared to have an executive functioning deficit as evidenced by his poor personal hygiene, torn clothes and lack of food in the house, and was always talking about the same subject. In addition to the movements, his gait was wide based and hesitant. He could not protrude his tongue easily and was unable to track without turning his head.

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He reported that his paternal uncle had died in a psychiatric hospital in Holland and his paternal aunt had committed suicide. Following written and verbal liaison with his mental health case manager, and after discussion of the case at the Outreach Team Clinical Review Meeting, the CNC accompanied the patient to the specialist local HD clinic where the neurologist ordered a diagnostic DNA test for Huntington Disease.

In time, he was given a gene positive result, and the diagnosis of HD. As he demonstrated lack of insight (organic unawareness), the CNC, in addition to others, provided reports supporting the appointment of a surrogate decision maker (guardian), with accommodation and medical functions, who supported the necessity for his admission to an aged care hostel.

There followed 2 failed placements as arranged by the ACAT and mental health teams, because he would unexpectedly hit other residents who came too close. He showed no insight into any of the signs he displayed and was withdrawn and unhappy.

Following a case conference with the Outreach nurse, he was placed in a facility, which had received HD specific education including information of his high caloric requirements and strategies to reduce his irritability. They also had a flexible approach to routines and spent much time trying to provide recreational activities, which were age appropriate.

Much to his joy, the nurse located his ex-wife and during an emotional family meeting, his adult children were sensitively informed of his HD.
status and provided with material on the local genetic counselling services.

The nursing home was encouraged to take him to the HD clinic for regular follow-up, which included medication reviews and monitoring of aggressive outbursts. The case was discussed regularly at the Outreach Clinical Review Meetings and as his signs and symptoms changed the nurse referred him for speech pathology, dietetics, and physiotherapy assessments.

As the outbursts continued, the CNC was available for debriefing sessions and also participated with the other nurses on the team in a literature search project to locate the latest nursing research on the management of aggressive outbursts in HD and shared these articles with the Nursing Home.

Huntington Outreach, WSAHS

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