

Australian College of PeriAnaesthesia Nurses (ACPAN)

PREAMBLE

ACPAN is the representative organisation embodying the professional interests of perianaesthesia nurses in Australia and exists to facilitate the highest quality, cost effective care for patients and their families through professional standards of practice, education and research. The Nursing and Midwifery Board of Australia (NMBA) has professional standards of practice that describe the responsibilities of all nurses, but additionally as a specialty organization, we are defining standards for our specific practice. These standards, while reflecting best practice, are intended to represent a realistic level of practice that may be applied to all nurses who practice in the perianaesthesia domain. They reflect professional values and priorities and provide specific direction for nursing practice, including a framework for practice evaluation to promote the advancement of perianaesthesia nursing practice in Australia. The standards which reflect our values and direction for nursing practice, should be used in conjunction with local policies, protocols and guidelines to provide a framework to enable practice evaluation. Review and revision of standards will occur every 2 years. This document includes both ACPAN Practice Standards and ACPAN Education Standards.

ACPAN Standards of Practice and ACPAN Education Standards are designed for application in all settings of perianaesthesia practice supporting our vision of promoting the highest standards of perianaesthesia care. They are based on the Nursing and Midwifery Board (NWB) of Australia's Professional Standards which define the practice and behaviour of nurses and midwives required for the practice of all nurses in Australia.

The seven standards are as follows:

- a. Thinks critically and analyses nursing practice.
- b. Engages in therapeutic and professional relationships.
- c. Maintains the capability for practice.
- d. Comprehensively conducts assessments.
- e. Develops a plan for nursing practice.
- f. Provides safe, appropriate and responsive quality nursing practice.
- g. Evaluates outcomes to inform nursing practice.

ACPAN thanks Barna, ASPAN and IFNA for their kind permission to use their documents on standards as guides for this document.

VISION STATEMENT

We promote the highest standards of perianaesthesia care based on evidence, consultation, collaboration and specialist consensus through education, knowledge translation, audit and research.

MISSION STATEMENT

The Australian College of PeriAnaesthesia Nurses will be the industry leader for the professional development of perianaesthesia nurses across Australia through regular study days, educational forums, publication of newsletters, and provision of education and research grants to its members. ACPAN partners with international perianaesthesia nursing and medical organisations to ensure its members have access to both national and international best practice trends and promotes best practice standards for the Australian workforce and the Australian public.

PERIANAESTHESIA PROFESSIONAL PRACTICE DOMAINS

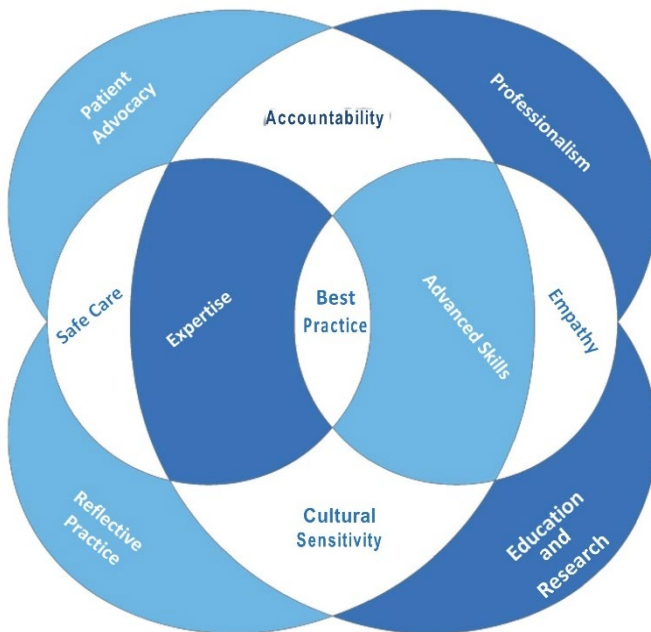


Figure 1: ACPAN Professional Practice Model, 2018.

CONCEPTUAL FRAMEWORK

ACPAN Standards of Practice are designed for application in all settings of perianaesthesia practice supporting our vision of promoting the highest standards of perianaesthesia care. They are based on:

2. the Nursing and Midwifery Board (NWB) of Australia's Professional Standards which define the practice and behaviour of nurses and midwives required for the practice of all nurses in Australia. The seven standards are as follows:

- a. Thinks critically and analyses nursing practice.
- b. Engages in therapeutic and professional relationships.
- c. Maintains the capability for practice.
- d. Comprehensively conducts assessments.
- e. Develops a plan for nursing practice.
- f. Provides safe, appropriate and responsive quality nursing practice.

- g. Evaluates outcomes to inform nursing practice.

ROLE DEFINITIONS

The CanMEDS Framework describes the core knowledge, skills and abilities of professionals in medicine in general and within other healthcare professions such as nursing. CanMEDS identifies and describes seven different roles that together lead to optimal health care outcomes (See Figure 2). This has been adapted for use in these standards.

Specialist Role

The centre role of the Specialist integrates all of the CanMEDS roles. The role requires applying medical and nursing knowledge and clinical, technical, and nontechnical skills. Perianaesthesia nurses are involved in preoperative, intraoperative, and postoperative anaesthesia care. They prepare and check anaesthesia machines, monitors, drugs, materials, and equipment for all anaesthesia procedures, and they participate in the administration of general and regional anaesthesia to all ages and categories of patients and surgical procedures. They are familiar with a broad variety of anaesthesia techniques, anaesthetic agents, adjunctive and accessory drugs, as well as with pain management and safe sedation procedures.

They understand the effective analysis and utilisation of invasive and non-invasive monitoring data. To work in close collaboration with



Figure 2: CanMEDS Framework

anaesthetists, surgeons and other healthcare professionals in the perioperative domain, perianaesthesia nurses need good communication and cooperation skills. Perianaesthesia nurses recognize and take appropriate action when complications occur and immediately consult with appropriate others if patient safety requires it or if the incidence exceeds their scope of practice. They serve as resource persons in cardiopulmonary resuscitation, respiratory care, and other acute care needs.

Communicator

As Communicators, perianaesthesia nurses effectively facilitate the nurse-patient relationship and the dynamic exchanges that occur before, during, and after the anaesthesia care encounter. They maintain confidentiality and engage in effective interprofessional and intra-professional communication suitable for the interdisciplinary domain of operating theatres.

Collaborator

As Collaborators, perianaesthesia nurses effectively work within the healthcare team to achieve optimal patient care. They demonstrate appropriate knowledge and application of nontechnical skills.¹ They establish effective, collegial relationships with other health professionals and sustain cooperative relationships between perianaesthesia nurses, anaesthetists, and other members of the medical profession, the nursing profession, hospitals, and agencies representing a community of interest (e.g., patient associations). Perianaesthesia nurses respect roles and competencies of other team members to achieve the best possible patient outcome. They demonstrate knowledge of and adherence to the national, regional, and local legal regulations; accept the respective responsibility and accountability of perianaesthesia nurse; and seek consultation of appropriate others if a situation is beyond professional accountability.

Manager

As Managers, perianaesthesia nurses are integral participants in healthcare organizations. They use existing resources effectively and economically and consider fiscal and budgetary implications. They measure or participate in measuring client satisfaction, cost, clinical outcomes, nurse satisfaction, staff retention, and apply methods of quality assurance and improvement. Perianaesthesia nurses organise and plan for the correct ecological handling of wastes such as gases, drugs, sharps, and infectious materials.

Health Advocate

As Health Advocates, perianaesthesia nurses responsibly use their specialities, situation awareness, and influence to advance the health and well-being of individual patients and communities. They consider and evaluate various influences on patients' health status (e.g., biological, psychological, social, environmental, and cultural influences). Perianaesthesia nurses select health information appropriate to developmental level, health, literacy level, learning needs, readiness to learn, preferred learning style, and cultural values and beliefs.

Scholar

As Scholars, perianaesthesia nurses demonstrate a lifelong commitment to reflective learning by engaging in formal self-evaluation processes, seeking feedback regarding their own practice. They collect and/or advocate for the collection of cumulative anaesthetic data to facilitate the progressive enhancement of the safety, efficiency, effectiveness, and appropriateness of anaesthesia care. Perianaesthesia nurses lead and/or participate in activities that facilitate the public dissemination of research and participate regularly in scholarly professional activities.

Professional

As Professionals, perianaesthesia nurses are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour. They demonstrate methods of continuous professional development and role model perianaesthesia nurse practice. Perianaesthesia nurses encourage and support staff in professional achievements (e.g., perianaesthesia nurse mentoring, work in national and/or international professional associations). They maintain national

¹ Flin R. Glavin R. Maran N. and Patey R. *Anesthetists' Non-Technical Skills (ANTS) System Handbook v1.0*. Aberdeen, Scotland: Industrial Psychology Research Centre, School of Psychology, University of Aberdeen. 2003

certification in nurse anaesthesia, if required. They accept accountability for their own errors and identify and handle critical incidents by entering them into the relevant database for analysis and evaluation.

ACPAN's Professional Standards comprise five sections as follows:

1. Code of Ethics
2. Scope of Practice
3. Practice Standards
4. Anaesthesia Monitoring Standards
5. PACU Monitoring Standards
6. Education Standards

GLOSSARY OF TERMS

This glossary provides an alphabetical list of specialized terms with their definitions as used in the standards document.

Competency	This is the capacity of a person to understand a situation so as to act reasonably and effectively, indicating sufficient knowledge and skills.
Guideline	A guideline is a detailed plan, explanation, rule or principle to guide the setting of standards or determine a course of action and is advisory rather than prescriptive.
Perianaesthesia domain	Involves the assessment for, the diagnosis of, intervention for, and evaluation of physical or psychosocial problems or risks for problems that may result from the administration of sedation/analgesia or anaesthetic agents and techniques.
Standards	General consent as a model, example, or point of reference the standard of the reasonable person. A standard is used in order to judge the quality of something else.
Scope of Practice	Describes the procedures, actions, and processes that a healthcare practitioner is permitted to undertake in keeping with the terms of their professional license.
Statements	An official or formal announcement that is issued on a particular occasion.

ACPAN Perianaesthesia Practice Standards

The ACPAN Practice Standards aim to foster and support the role of the perianaesthesia nurse to promote the highest quality of anaesthesia care in conjunction and collaboration with the anaesthetist.

These Standards apply to all nurses working in the perianaesthesia domain. Depending on their education level this involves perianaesthesia nurses, anaesthesia nurses or postanesthesia care nurses (PACU nurses). In this document, the term perianaesthesia nurse is defined as a nurse who has completed education Level 1 Anaesthesia and/or Level 1 PACU. If a Standard solely applies to anaesthesia or PACU nurses, this is mentioned explicitly.

Perianaesthesia Specialist	Competencies
Pre-anaesthesia patient assessment	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Perform and/or participate in the performance of pre-anaesthesia interviews by eliciting comprehensive histories and performing physical examinations based on patient's presenting symptoms. B. Assess and evaluate multiple variables (drugs taken, pre-existing diseases, allergies, previous anaesthetic experiences) that may affect the course of perianaesthesia care. Identify potential risks to patient safety. C. Participate in the formulation of a perianaesthesia care plan based on current knowledge, concepts, available evidence, and nursing principle. D. Provide accurate and understandable information to assist patients in informed decision making. E. Integrate evidence to explain possible anaesthetic and/or postanesthetic risks.
Anaesthesia management	<p>Anaesthesia nurses</p> <ul style="list-style-type: none"> A. Are assisting anaesthetists during anaesthesia management. B. Assist in the administration of general and regional anaesthesia to all patients for all surgical and medically related procedures. C. Assist in the preparation and administration of anaesthesia medication, anaesthesia procedures, and other interventions according to pre-existing disease and surgical procedure, demonstrating applied knowledge of human sciences, pharmacology, surgical, and anaesthesia procedures. D. Provide psychological support to help patients and their carers through the perioperative experience by using advanced communication skills to improve patient outcomes and design strategies to meet the patient's needs. E. Assist in the use a broad variety of techniques, anaesthesia agents, adjunctive and accessory drugs, and equipment when providing anaesthesia care and pain management. Exhibit a comprehensive knowledge of pharmacology and pharmacokinetics related to anaesthesia practice. F. Demonstrate confidence in their own abilities to identify normal and abnormal states in anaesthesia.
Risk management	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Take appropriate safety precautions including documentation to ensure the safe administration of anaesthesia care. B. Prepare anaesthetic plans, equipment, drugs and fluids according to standard operating procedures and local policies. C. Assist in taking appropriate actions during anaesthesia management by rapidly assessing a patient's situation through synthesis and prioritization of historical and available data. Knowledge and experience are demonstrated at all times. D. Engage in the development of guidelines, standard operating procedures, and checklists for equipment use.

Basic Life Support	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Take corrective action to maintain or stabilize the patient's condition and provide basic life support care. B. Assess and provide adequate basic life support. Use communication skills to inform the interdisciplinary team and collaborate with appropriate specialists C. Adhere to the national guidelines and accept responsibility for their own regular certified training in basic life support.
Advanced Life Support	<p>PACU nurses</p> <ul style="list-style-type: none"> A. Take corrective action to maintain or stabilize the patient's condition and provide advanced life support care. B. Assess and provide adequate advanced life support. Use communication skills to inform the interdisciplinary team, organize and collaborate with appropriate specialists, and use adequate equipment. C. Adhere to the national guidelines and accept responsibility for their own regular certified training in basic life support.
Equipment	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Prepare, use, and clean, the appropriate equipment in routine and critical incident situations.
Termination of anaesthesia or direct postanaesthesia care	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Assist in the evaluation of patient responses for readiness to move to next level of care by identifying patient situation. B. Check all essential data regarding the handover before transfer to the next level of care. C.
Postoperative care and pain management	<p>PACU nurses</p> <ul style="list-style-type: none"> A. Accept patients for care after a comprehensive handover and when care is within scope of practice and complies with regulation. B. Serve as a resource person in pain management and adequate postoperative care. C. Demonstrate advanced knowledge in pharmacology and pharmacokinetics of analgesic drugs in assessing and providing pain management. D. Assess and manage common postoperative complications such as respiratory, hemodynamic, neurological dysfunctions, and postoperative nausea and vomiting. E. Demonstrate confidence in their own abilities to identify normal and abnormal states during postanaesthesia care. F. Develop or participate in developing and revising standard operating procedures for all personnel covering postoperative care.
Infection control	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Apply practices such as proper hand hygiene and cleansing or sterilization of equipment. B. Maintain knowledge of and adhere to national and/or local standards of infection control to protect the patient and healthcare workers from infectious diseases. C. Participate in revision of infection control standards for all perianaesthesia procedures, and adhere to national standards for storing, handling, and administering drugs.

Documentation	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Provide prompt, complete, and accurate recording of pertinent information and action of care on the patient's record. B. Facilitate, through accurate recording, comprehensive patient care. Provide information for retrospective review and research data and establish a medical-legal record.
Communicator	Competencies
Communication and situation awareness	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Communicate in a calm, confident, and effective approach that brings comfort and emotional support to patients and their carers' and create a climate that supports informed decision making. B. Engage in effective interpersonal and intraprofessional communication using advanced communication skills suitable for the interdisciplinary domain of the workplace. C. Create awareness of specific and overlapping functions and the potential for interdisciplinary tensions and demonstrate strategies of conflict management, if necessary. D. Display crisis intervention skills when required and assure patient understanding, respect, empathy, and trust by maintaining confidentiality and discretion.
Collaborator	Competencies
Collaboration and teamwork	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Collaborate with others to identify innovative solutions to clinical and system problems. Advance patient care standards by partnering with interdisciplinary healthcare team members in research and educational activities. B. Implement new technologies that enhance patient care and promote patient safety goals. C. Establish effective, collegial relationships with other health professionals that reflect confidence in the contribution that anaesthetic nurses make to the system. D. Encourage cooperative relationships between perianaesthesia nurses, anaesthetists, and other members of the medical and nursing profession, allied health professionals, hospitals, and agencies representing a community of interest in nurse anaesthesia. E. Respect roles and competencies of other team members and demonstrate joint decision-making skills to achieve the best possible patient outcome. F. Provide feedback and constructively discuss team strengths and weaknesses, listen to others, and ensure consistent information flow to patients and colleagues. G. Demonstrate effective solutions to problems concerning team issues.
Manager	Competencies
Task management	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Anticipate and make decisions in advance for challenges by allocating appropriate time frames, organizing appropriate staffing, and preparing equipment and materials B. Use existing resources effectively and efficiently by designing or participating in designing evidence-based strategies to meet the multifaceted needs of patients. C. Consider budgetary implications in decision-making regarding practice and system modifications. D. Organize and plan for the correct ecological handling of wastes E. Evaluate and optimize the use and impact of products, services, and technologies on high quality patient care.

Quality management	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Participate in measuring patient satisfaction, cost, clinical outcomes, nurse satisfaction, and retention by applying methods of quality assurance and improvement. B. Foster an interdisciplinary approach to quality improvement, evidence-based practice, research, and transition of research into practice.
Health Advocate	Competencies
Patient information	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Detect health related, anaesthetic and postoperative risk factors through assessment and promote individual health by patient education.
Patient education	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Participate in the education of patients, other members of the health team and members of the community before, during, and after the perioperative period. B. Design or select health information and patient education appropriate to developmental level, health, literacy level, learning needs, readiness to learn, preferred learning style, and cultural values and beliefs. C. Facilitate patient and family understanding of the risks, benefits, and outcomes of proposed anaesthesia regimen to promote informed decision-making.
Patient advocacy	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Support and preserve the rights of patients for privacy by protecting information of a confidential nature from those who do not need such information for patient care. Support the rights of patients for independence of expression, decision, and action.
Scholar	Competencies
Continuous professional development	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Commit to continuous professional development. B. Accept responsibility and accountability for practice and engage in lifelong professional educational activities. C. Engage in a formal self-evaluation process, seeking feedback regarding their own practice from patients, peers, anaesthetists, professional colleagues, and others. Develop and implement strategies for lifelong learning. D. Are aware of and address individual needs for clinical inquiry through continuous professional development activities. E. Demonstrate knowledge of and adherence to the national legal regulations, accepting the respective responsibility and accountability of Division 1 Registered Nurse or Division 2 Enrolled Nurse.
Research	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Incorporate evidence-based techniques and knowledge, as well as national guidelines and standards in clinical performance. B. Protect the rights of patients or animals involved in research projects and conduct the projects according to ethical research and reporting standards.

Education	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Facilitate and teach based on national and international standards of education and practice. B. Contribute to learning experiences for all professionals and students within their spheres of influence, and interact with colleagues at the local, national, governmental, and regulatory levels to enhance professional practice. C. Assist healthcare professionals in identifying their educational needs related to perianaesthesia and acute care needs. D. Provide peers, colleagues, students, and staff with constructive feedback regarding practice with the goal of facilitating improved outcomes and professional development.
Professional	Competencies
Professionalism	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Provide safe and patient-centred care based on available evidence. Recognises the responsibility of professional practice and maintains a high level of quality in knowledge, judgement, technological skills, and professional values prerequisite to deliver patient-centred care. B. Accept responsibilities and correctly delegate responsibilities to other team members or healthcare professionals. C. Demonstrate self-appraisal activity. D. Identify opportunities for generating and using research and/or continuous professional development activities.
Advancement of perianaesthesia care	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Demonstrate leadership by disseminating outcomes of perianaesthesia care through presentations and publications and participation in local and national perianaesthesia nurse organisations. B. Promote and facilitate the awareness of public and professional policy issues that affect perianaesthesia nursing. Serve as a role model for perianaesthesia nurses and encourage and support staff in professional achievements. C. Use quality, satisfaction, and cost data to modify patient care, perianaesthesia practice, and systems. Accept accountability for own errors. Identify and handle critical incidents by entering them into critical incident reporting systems.
Accountability	<p>Anaesthesia and PACU nurses</p> <ul style="list-style-type: none"> A. Maintain credentials as mandated by AHPRA and ACPAN. B. Respect the confidentiality of information about patients learned during clinical care, demonstrate overall respect, and maintain the basic rights of patients, showing concern for personal dignity and human relationships. C. Are aware of individual, ethnic, cultural, and religious differences, and provide appropriate care to deliver the best possible patient outcomes.

ACPAN Anaesthesia Monitoring Standards

The ACPAN Anaesthesia Monitoring Standards aim to foster and support the role of the anaesthesia nurse to promote the highest quality of anaesthesia care in conjunction and collaboration with the anaesthetist. Adherence to the monitoring standards will assist the anaesthetic nurse in providing quality, consistent and safe anaesthesia care in collaboration with the anaesthetist. These standards apply to all patients undergoing general, regional, or monitored anaesthesia care. Patients have the right to expect to be safe and protected from harm during their medical care, and anaesthesia has a key role to play in improving patient safety perioperatively. The funders of healthcare are entitled to expect that perioperative anaesthesia care will be delivered safely; therefore, they must provide appropriate resources.

Anaesthesia nurses monitor and utilise data obtained from the use of current invasive and non-invasive monitoring modalities using critical thinking and clinical judgment. Identify priorities quickly using context-specific knowledge and accurately identify parameters for the safety of patients. Respond constructively to unexpected or rapidly changing situations and develop flexible and creative approaches to manage challenging clinical situations.

Domain	Monitoring Competencies
1. Facilities, equipment, and medications	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Assist in the evaluation of anaesthesia equipment and materials to ensure safe delivery of anaesthetics and continuous monitoring of vital functions. B. All equipment including suction equipment is checked according to standard operating procedures and checklists. C. Prepare appropriate and complete equipment and consumables, adequate both in quantity and quality, wherever any kind of anaesthesia or sedation and recovery from it is undertaken. This includes outside traditional hospital operating room suites such as imaging departments, outpatient facilities, or offices. D. Accept full responsibility for their adequate and regular in-service training and ability to use a specific piece of equipment or material correctly and safely. E. Ensure that their workplace provides ways of formal certification as documentation of the training activities or develop or cooperate in developing such a documentation format. F. Acknowledge, apply, and adhere to the relevant national and international standards for equipment, monitors, and materials.
2. Personell	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Are constant vigilance during the anaesthesia phase. B. Assist anaesthetists whenever needed and have a proactive approach.
3. Pre-anaesthesia checks	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Ensure that every patient is anaesthetically evaluated and has consented before administration of an anaesthesia. B. Prepare all necessary equipment and check for correct functions before induction of anaesthesia. C. Adhere to appropriate checklists of the anaesthesia systems, equipment, and supplies before the start of each operating list and document. D. Accept the responsibility to establish or take part in establishing equipment checklists in each anaesthesia service. The checklists should be based on evidence-based practice and guidelines of the relevant national and/or international associations. E. Identify equipment and system failures and demonstrate adequate troubleshooting skills. F. Apply and adhere to the relevant components of the World Health Organization Safe Surgery Checklist. G. Assess interdisciplinary practice for collaboration and use of evidence based on best practice guidelines.

4. Airway	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Monitor, assess, evaluate, and adapt the adequacy of the airway continuously at least by observation of the chest.
5. Ventilation	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. When a breathing circuit is used, the reservoir bag must be observed for normal function and adequate measures taken if function is assessed abnormal. B. Are vigilant for sufficient ventilation by monitoring at least respiratory volume, capnography and alarm for low inspiratory oxygen concentration. C. Confirm the correct placement of an endotracheal tube or other airway device, assess the adequacy of ventilation by continuous measurement display capnography, and maintain continuous interpretation of the expired carbon dioxide. D. Advocate for a set a “disconnect alarm” throughout the period of mechanical ventilation when mechanical ventilation is employed. If possible, the inspiratory and/or expiratory gas volumes and the concentration of volatile agents are measured continuously.
6. Oxygenation	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Monitor and assess the adequacy of tissue oxygenation continuously by pulse oximetry. B. Observe skin colour, colour of the blood in the surgical field/wound, and arterial blood gas and analyse as indicated. C. Ensure adequate illumination and exposure of the patient whenever feasible. D. Check and verify the integrity of the oxygen supply. The inspired oxygen concentration is continuously monitored throughout each anaesthetic with an instrument fitted with a low oxygen concentration alarm. E. Make sure that an oxygen supply failure alarm and a device protecting against the delivery of a hypoxic gas mixture are in place and functioning properly. Systems with interlocks (tank yokes, hose connection, etc) should be used to prevent misconnections of gas sources.
7. Circulation	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Monitor and assess circulation with at least three of the following measures: skin colour, capillary refill, palpation of pulse, auscultation of heart sounds, blood pressure, pulse oximetry, and continuous intra-arterial pressure monitoring, if indicated. B. During anaesthesia, measure, assess, and monitor blood pressure and heart rate and monitor the electrocardiogram. C. Monitor, assess, and interpret continuously, the cardiac rate and rhythm, the pulse wave with the pulse oximeter, and the capnography wave as applicable. D. Ensure that a defibrillator is available at all times.
8. Depth of anaesthesia	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Assess and evaluate the degree of anaesthesia/sedation regularly by clinical observation. B. Apply continuous measurement of inspired and expired concentrations of anaesthetic gases and volatile agents, if available. C. Consider the application of an electronic device intended to measure cerebral function, particularly in cases with high risk of awareness under general anaesthesia.

9. Neuromuscular function	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Measure, assess, and score neuromuscular function by a neuromuscular monitor (if available) when neuromuscular blocking agents are being used. B. Assess and evaluate neuromuscular function and the effectiveness of reversal agents by neuromuscular monitor and by hand grip or sustained head or leg lift.
10. Body temperature	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Apply adequate means of body temperature measurements during every general and regional anaesthetic on all patients. B. Monitor body temperature in patients in whom a change is anticipated, intended, or suspected continuously. Electronic measurement is recommended. C. Check, maintain, and correctly use body and fluid warming devices. D. Assess and interpret changes in body temperature and adapt the warming or cooling regimen accordingly. E. Recognize the symptoms and signs of malignant hyperthermia, and immediately initiate the correct procedures and treatment. Ensure that relevant emergency protocols and drugs for the treatment of malignant hyperthermia are readily available, and all involved personnel know the location of the drugs and are instructed in the application of the treatment protocols.
11. Clinical assessment and vigilance	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> A. Attend, assess, and evaluate the patient clinically and technically until care can be transferred to another qualified healthcare professional. Continuous clinical observation and vigilance are the cornerstones of perianaesthesia safety.
12. Positioning	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> B. Monitor and assess positioning of patients to assure optimal physiological function and patient safety by using adequate materials, positioning techniques, and protective measures.
13. Records	<p>Anaesthetic nurses</p> <ul style="list-style-type: none"> C. Participate in maintaining a record of care provided in the perianaesthesia period and ensure it is preserved with the patient's medical record. This record also includes all details of the preoperative assessment and the postoperative course. D. Advocate for the collection of cumulative perianaesthesia data to facilitate the progressive enhancement of the safety, efficiency, effectiveness, and appropriateness of anaesthesia care.

ACPAN PACU Monitoring Standards

Adherence to the monitoring standards will assist the PACU nurse in providing consistent and safe postanesthesia care in collaboration with the anaesthetist. These standards apply to all patients undergoing general, regional, or monitored anaesthesia care. Patients have the right to expect to be safe and protected from harm after their intervention. The funders of healthcare are entitled to expect that postoperative care will be delivered safely; therefore, they must provide appropriate resources.

PACU nurses monitor and utilize data obtained from the use of current invasive and non-invasive monitoring modalities using critical thinking and clinical judgment. Identify priorities quickly using context-specific knowledge and accurately identify parameters for the safety of patients. Respond constructively to unexpected or rapidly changing situations and develop flexible and creative approaches to manage challenging clinical situations.

Domain	Monitoring Competencies
1. Facilities, equipment, and medications	<p>PACU nurses</p> <ol style="list-style-type: none"> Assist in the evaluation of PACU equipment and materials to ensure safe delivery of postoperative care and continuous monitoring of vital functions. All equipment including suction equipment is checked according to procedures and checklists. Prepare appropriate and complete equipment and consumables, adequate both in quantity and quality, wherever any kind of postanesthesia care from it is delivered. This includes outside traditional hospital. Accept full responsibility for their adequate and regular in-service training and ability to use a specific piece of equipment or material correctly and safely. Ensure that their workplace provides ways of formal certification as documentation of the training activities or develop or cooperate in developing such a documentation format. Acknowledge, apply, and adhere to the relevant national and international standards for equipment, monitors, and materials.
2. Personell	<p>PACU nurses</p> <ol style="list-style-type: none"> Are constant vigilance during the postanesthesia phase. Assist medical staff whenever needed and have a proactive approach.
3. Pre-admission to PACU checks	<p>PACU nurses</p> <ol style="list-style-type: none"> Prepare all necessary equipment and check for correct functions before admitting a patient to the postanesthesia care unit. Accept the responsibility to establish or take part in establishing equipment checklists in each anaesthesia service. The checklists should be based on evidence and guidelines of the relevant national and/or international associations. Identify equipment and system failures and demonstrate adequate troubleshooting skills. Assess interdisciplinary practice for collaboration and use of evidence based on best practice guidelines.
4. Airway	<p>PACU nurses</p> <ol style="list-style-type: none"> Monitor, assess, evaluate, and adapt the adequacy of the airway continuously at least by observation of the chest.
5. Ventilation	<p>PACU nurses</p> <ol style="list-style-type: none"> Are vigilant for sufficient breathing by monitoring at least respiratory rate. Confirm the correct placement of a nasal prongs, masks, oropharyngeal, nasopharyngeal or supraglottic airway devices, assess the adequacy of breathing by at least continuous measurement of SpO₂ and preferable expired carbon dioxide and capnography.

6. Oxygenation	<p>PACU nurses</p> <ol style="list-style-type: none"> Monitor and assess the adequacy of tissue oxygenation continuously by pulse oximetry. Observe skin colour, colour of the blood in the surgical field/wound, and arterial blood gas and analyse as indicated. Ensure adequate illumination and exposure of the patient whenever feasible. Check and verify the integrity of the oxygen supply. Make sure that an oxygen supply failure alarm and a device protecting against the delivery of a hypoxic gas mixture are in place and functioning properly. Systems with interlocks (tank yokes, hose connection, etc) should be used to prevent misconnections of gas sources.
7. Circulation	<p>PACU nurses</p> <ol style="list-style-type: none"> Monitor and assess circulation with at least 3 of the following measures: skin colour, capillary refill, palpation of pulse, auscultation of heart sounds, blood pressure, pulse oximetry, and continuous intra-arterial pressure monitoring, if indicated. During the postanaesthesia care stage 1, measure, assess, and record blood pressure and heart rate at least every 15 minutes and continuously monitor, assess and interpret the electrocardiogram. Monitor, assess, and interpret the plethysmography with the pulse oximeter continuously. Monitor and assess for deep vein thrombosis and neurovascular function. Ensure that a defibrillator is available at all times.
8. Consciousness	<p>PACU nurses</p> <ol style="list-style-type: none"> Assess and evaluate the degree of consciousness regularly by clinical observation.
9. Neuromuscular function	<p>PACU nurses</p> <ol style="list-style-type: none"> Assess and evaluate neuromuscular function and the effectiveness of reversal agents by hand grip or sustained head or leg lift.
10. Body temperature	<p>PACU nurses</p> <ol style="list-style-type: none"> Apply adequate means of body temperature measurements during every general and regional anaesthetic on all patients. Monitor body temperature in patients in whom a change is anticipated, intended, or suspected continuously. Electronic measurement is recommended. Check, maintain, and correctly use body and fluid warming devices. Assess and interpret changes in body temperature and adapt the warming or cooling regimen accordingly. Recognize the symptoms and signs of malignant hyperthermia, and immediately initiate the correct procedures and treatment. Ensure that relevant emergency protocols and drugs for the treatment of malignant hyperthermia are readily available, and all involved personnel know the location of the drugs and are instructed in the application of the treatment protocols.
11. Pain relief	<p>PACU nurses</p> <ol style="list-style-type: none"> Make every effort for all patients to receive appropriate medication and modalities to prevent and alleviate postoperative pain. Monitor, evaluate, and manage pain without delay wherever they see patients, and anticipate their needs for pain management after surgery and discharge, as well as for transports.
12. Postoperative nausea and vomiting (PONV)	<p>PACU nurses</p> <ol style="list-style-type: none"> Make every effort for all patients to receive appropriate medication and modalities to prevent and alleviate PONV. Monitor, evaluate, and manage PONV without delay wherever they see patients, and anticipate their needs for PONV management after surgery and discharge, as well as for transports.

<p>13. Clinical assessment and vigilance</p>	<p>PACU nurses</p> <ol style="list-style-type: none"> a. Attend, assess, and evaluate the patient clinically and technically until care can be transferred to another qualified healthcare professional. Continuous clinical observation and vigilance are the cornerstones of postoperative safety. b. Assess and evaluate the surgical site, drains and catheters frequently.
<p>14. Positioning</p>	<p>PACU nurses</p> <ol style="list-style-type: none"> a. Monitor and assess positioning of patients to assure optimal physiological function, comfort and patient safety by using adequate materials, positioning techniques, and protective measures.
<p>15. Records</p>	<p>PACU nurses</p> <ol style="list-style-type: none"> a. Participate in maintaining a record of care provided in the perianaesthesia period and ensure it is preserved with the patient's medical record. This record also includes all details of the preoperative assessment and the postoperative course. b. Advocate for the collection of cumulative perianaesthesia data to facilitate the progressive enhancement of the safety, efficiency, effectiveness, and appropriateness of anaesthesia care.

Purpose of the ACPAN Education Standards

The educational standards for preparing perianaesthesia nurses are based on the CanMeds role model (see section on Conceptual Framework for Anaesthetic Nurse Practice). The model was chosen because it is well suited to picture the various roles perianaesthesia nurses must fulfil and to prepare students for the actual perianaesthesia practice in a complex interdisciplinary environment. The ACPAN Educational Standards are based on the IFNA Education Standards 2016 and incorporate the 7 CanMEDS roles (specialist, communicator, collaborator, professional, manager, health advocate, and scholar) in the curriculum. They are part of the integrated specialist role, and reference to them is made in the graduate and practice standards where applicable. Perianaesthesia practice is sufficiently complex and advanced to be beyond the scope of general nursing practice. Specialty is obtained through a professionally approved advanced education program that leads to a recognized qualification. The ACPAN Education Standards refer to the three levels of education: Level 1 (Anaesthesia and Postanaesthesia Care), 2 (perianaesthesia) and 3 (perianaesthesia).

Domain	Topic
I. Standard: Prerequisites	Minimum prerequisites for applicants/candidates for perianaesthesia nurse programs are completion of a basic nursing education program of at least 18 months in length and nursing experience of at least 1 (one) year, preferably in an acute care setting.
II. Standard: Selection process	All candidates for perianaesthesia nurse educational programs must be evaluated based on a qualifying procedure such as: <ul style="list-style-type: none"> ▪ Professional dossier, portfolio, or professional resume ▪ Examination (this depends on national legislation issues and may not be mandatory) ▪ Interview and review of candidates' knowledge base of anatomy, physiology, pathophysiology, chemistry, physics, biochemistry, pharmacology, ethics, communication and collaborator skills, and philosophy of nursing ▪ The selection of candidates is performed by a committee of academic and clinical teachers that include perianaesthesia nurses.
III. Standard: Curriculum	<p>Program content</p> <p>As a minimum, the program curriculum will contain the following topics or courses as they relate to the practice of perianaesthesia nurses.</p> <p>Specialist role:</p> <ul style="list-style-type: none"> c. Advanced anatomy, advanced physiology, and pathophysiology of all ages and pre-existing diseases related to perianaesthesia practice and the perioperative period. d. Advanced pharmacology including anaesthesia agents such as hypnotics, analgesics, sedatives, neuromuscular blocking agents and their antagonists, volatile anaesthetics, local anaesthetics, adjunctive and accessory drugs, as well as all drugs that may have an impact on the effect of any anaesthetic agent being used. e. Chemistry and physics in perianaesthesia related to respiration, circulation, monitoring, and ventilation techniques. f. General anaesthesia techniques. g. Regional anaesthesia techniques. h. Monitoring techniques, non-invasive and invasive (see section on Monitoring Standards). i. Functioning principles of monitors, ventilators, and other medical devices and materials. j. Operation, maintenance, troubleshooting ability, and checking of ventilators, monitors, and all medical devices and materials used in perianaesthesia. k. Patient assessment, evaluation, and management preoperatively, intraoperatively, and postoperatively. l. Anaesthesia techniques for different ages (paediatrics to geriatrics) and categories (healthy to morbid) of patients and the full range of surgical and medically related procedures when anaesthesia is required. m. Resuscitation (basic and advanced cardiac life support) and other life-sustaining procedures such as intubation, ventilation, arterial and intravenous punctures, administration and monitoring of vasoactive substances, catecholamine, and blood-fluid resuscitation.

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| | <p>n. Perioperative fluid and blood therapy such as crystalloids, colloids, blood, and coagulation products.</p> <p>o. Preoperative, intraoperative, and postoperative pain management (assessment and adequate treatment according to WHO guidelines).</p> <p>p. Infection control and hygiene (WHO and national standards of infection control).</p> <p>q. Record keeping and documentation.</p> <p>Communicator role:</p> <p>a. Communication between perianaesthesia nurses, anaesthetists, surgeons, theatre nurses, and other members of the medical profession, the nursing profession, hospitals, and agencies representing a community of interest (e.g., patient associations), and the Australian College of Perianaesthesia nurses (ACPAN).</p> <p>b. Communication and negotiation skills in the perioperative environment.</p> <p>c. Conflict management strategies concerning the overlapping functions and the potential for interdisciplinary tensions in operating theatres.</p> <p>d. Crisis intervention strategies suitable for patients facing anaesthesia and surgery and for interdisciplinary tensions and problems.</p> <p>Collaborator role:</p> <p>a. Systems and subsystems in healthcare (eg, hospital systems, operating room systems).</p> <p>b. Means of collaboration with all disciplines involved in the perioperative period.</p> <p>c. Disciplinary and interdisciplinary issues of patient safety.</p> <p>d. Collaboration with interdisciplinary team members in research and educational activities and the implementation of new technologies that enhance patient care.</p> <p>Manager role:</p> <p>a. Methods to provide direction and leadership to increase staff participation in professional development.</p> <p>b. Assessment and evaluation of protocols, regimens, and guidelines using best practice evidence to improve patient outcomes and enhance effectiveness of care.</p> <p>c. Teaching and mentoring skills.</p> <p>d. Organization and planning skills.</p> <p>e. Cost and implementations of ecological issues (e.g., anaesthetic gases, disposal of sharps, toxic waste, etc.).</p> <p>f. Decision-making and anticipation skills.</p> <p>g. Performance evaluation skills.</p> <p>Professional role:</p> <p>a. Leadership, team building, negotiation, and conflict resolution skills.</p> <p>b. Utilization and dissemination skills of research and practice outcomes.</p> <p>c. Reflective practice.</p> <p>d. Presentation skills.</p> <p>e. Information on the function and tasks of ACPAN and IFNA.</p> <p>f. Legal aspects of practice and ethical issues in practice (see Code of Ethics).</p> <p>g. Principles of education to support anaesthetic nurse students in participating in continuous professional development.</p> <p>h. Theories of quality assurance and improvement.</p> <p>i. Management of critical incidents and the critical incident reporting system.</p> <p>j. Cultural safety (consideration toward culture, race, gender, religion, and other possible differences).</p> <p>k. Stress management and self-management.</p> <p>Health advocate role:</p> <p>a. Health promotion.</p> <p>b. Risk assessment on various influences of patients' health status (e.g., biological, psychological, social, socioeconomic, environmental, and cultural influences).</p> <p>c. Organization and change management of health related and anaesthetic risk factors (e.g., instruction of smoking cessation, risks of obesity).</p> <p>d. Patient education methods.</p> <p>e. Principles of ethics (see Code of Ethics).</p> |
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	<p>Scholar role:</p> <ol style="list-style-type: none"> Research principles and evidence-based practice. Application of measurement instruments that are critiqued for effectiveness and clinical applicability to evaluate interventions. Analysis and participation in analysis of sources of evidence-based guidelines. Presentation and publication skills. Utilization of research in practice. Self-learning skills. <p>Clinical practicum requirements</p> <ol style="list-style-type: none"> The clinical practicum requirements shall be designed to provide the students with clinical experience inherent in the list of the graduate standards for perianaesthesia nurses for which they are being prepared. At least 50% of the program is devoted to clinical learning experiences involving direct patient care. The Level 1 curriculum of the Level 1 for Perianaesthesia nurses clinical practice mirrors the theory curriculum and includes all the skills and techniques required for competent practice.
IV. Standard: Graduate competencies	For providing competent, safe perianaesthesia care to patients requiring such services, only those nurses who have successfully completed the Level 1 exam or who are supervised students within such educational programs, should be allowed to perform or participate in the performance of perianaesthesia services. At the end of the educational program, students must be able to demonstrate the competencies described as advanced beginner.
V. Standard: Location	The clinical experience for Level 1 is in a hospital setting with acute care. The Fellowship program is conducted in a university setting or its equivalent, while assuring adequate access to clinical resources for the clinical practicum.
VI. Standard: Length of the program	The length of the program shall be based on the actual competencies for which the perianaesthesia nurse is prepared. Fulfillment of optimal competencies for PACU and Anaesthesia require 18 fulltime months.
VII. Standard: Faculty/teaching personnel requirements	<ol style="list-style-type: none"> The perianaesthesia nurse component of the educational program for preparing perianaesthesia nurses shall be directed by a perianaesthesia nurse. Other faculty/teachers may include other perianaesthesia nurses, physicians, physiologists, pharmacologists, and other professionals. Clinical education of perianaesthesia nurse students shall be provided by perianaesthesia nurses, anaesthetists, and other qualified specialists.
VIII. Standard: Evaluation	Regular evaluation of the student's academic and clinical progress is required in order to make adaptation and changes. Aspects of evaluation should contain: <ol style="list-style-type: none"> Achievement of the learning objectives. Appropriateness of the program's content. Course administration and venues. Learning support (theory). Adequate clinical practice opportunities. Learning support (clinical practice). Support provided by ACPAN/faculty/teachers. Achievement of the graduate competencies.
IX. Standard: Graduation	Upon graduation, based on a final theoretical and clinical evaluation, the graduate will be provided an ACPAN registration as Anaesthesia, PACU or Perianaesthesia Nurse, Perianaesthesia Professional (Level 2), or Perianaesthesia Master (Level 3), designating the graduate as qualified to provide perianaesthesia nurse services.

References:

- International Federation of Nurse Anesthetists. 2016. IFNA Standards 2016.
- Australian and New Zealand College of Anaesthetists (ANZCA). 2018. Statement on the Post-Anaesthesia Care Unit, PS04.
- Australian and New Zealand College of Anaesthetists (ANZCA). 2016. Statement on the assistant for the anaesthetist, PS08.

Related documents:

- Australian and New Zealand College of Anaesthetists (ANZCA). 2013. Statement on the handover responsibilities of the anaesthetist, PS53.
- Australian and New Zealand College of Anaesthetists (ANZCA). 2013. Statement on acute pain management, PS41.
- Australian and New Zealand College of Anaesthetists (ANZCA). 2018. Guideline for the perioperative care of patients selected for day stay procedures, PS15.