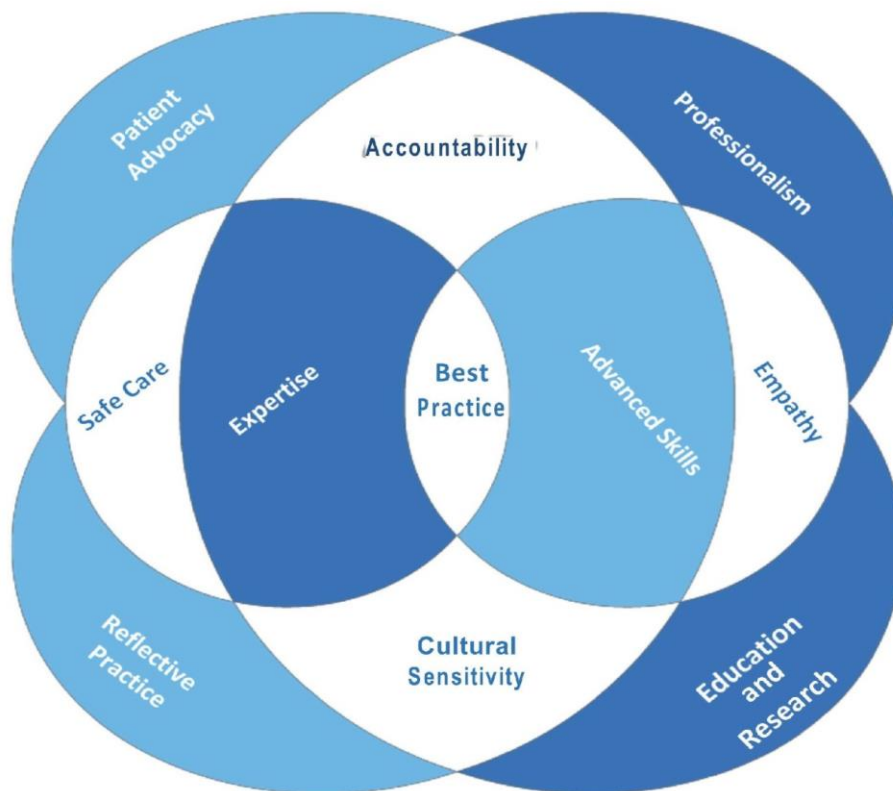


# ACPAN LEVEL 1 ANAESTHESIA NURSES



## Study guide for Level 1 Anaesthesia Nurses

## CURRICULA

As the peak organisation, representing the professional interests of anaesthetic and post-anaesthetic nurses, The Australian College of PeriAnaesthesia Nurses (ACPAN) aims to promote the highest standards of perianaesthesia care, based on available evidence, consultation, and expert consensus. These documents have been developed in consultation with ANZCA and form the basis for credentialing perianaesthesia nurses in Australia. Additionally, the education standards and education schedule comply with ANZCA PS08 and PS04 and are benchmarked against ANZCA and IFNA guidelines, policies and standards.

The ACPAN curricula intends to produce anaesthesia, PACU and perianaesthesia nurses who:

- Provide perianaesthesia care under direct or indirect supervision, and in cooperation with physician anaesthetists.
- Collaborate with other members of the perioperative team.
- Maintain patient safety and transparency to the public.
- Maintain quality of care and outcomes.
- Participate in adequate continuous education and training.
- Comply with ANZCA and ACORN guidelines

### **ACPAN Support & Information for Credentialing**

- Online support by the ACPAN Education Council;
- ACPAN Education Curriculum Level 1 and Level 2 available;
- Availability of resources;
- Ongoing evaluations to improve the program;
- Online statements; and
- Schematic overview of ACPAN Education Levels.

## LEVEL 1 ANAESTHETIC NURSE – Curriculum outline

The focus of the Level 1 Anaesthesia Nurse curriculum will comprise the following procedures: ophthalmic, minor orthopaedic, plastic, general, gynaecology, urology, ENT, dental, obstetrics, day surgery, and regional anaesthesia. For each category, the topics and objectives are stated.

At the end of this chapter, resources are mentioned which are freely accessible and for your convenience to prepare for the online exam. The online exam questions are not based on these resources alone, but they may help you better understand the topic or give you a broader overview.

### **Category A: The Perianaesthesia Nurse Domain (CanMEDS: all roles)**

Topics:

History of the perianaesthesia nurse, legislation for the perianaesthesia nurse, scope of practice (standards), CanMEDS role model, professional regulation, ethics for the perianaesthesia nurse, cultural issues, and informed consent.

Objectives:

- To describe the historical development of perianaesthesia nurse practice;
- To analyse major legal and ethical issues related to the specialty;
- To describe the significance of scope of practice issues in perianaesthesia nursing;
- To describe the CanMEDS role model and its implication for practice;
- To analyse collaboration and communication with respect to patient safety; and
- To describe characteristics of teamwork and collaboration.

### **Category B: Economics and Organisation (CanMEDS: manager, communicator)**

Topics:

Situational awareness about the different roles in the perioperative environment.

Objectives:

- To analyse the organization and roles within the perioperative environment;
- To demonstrate features of collaboration, workplace and team organisation as well as ethical and professional aspects;
- To demonstrate knowledge of cleaning/sterilisation requirements and indicators of sterility for reusable equipment; and
- To demonstrate knowledge of the basic principles of risk management.

### **Category C: Principles of Anaesthesia (CanMEDS: all roles)**

Perianaesthesia principles associated with specific specialty procedures; management of ASA 1 – 3 patients for elective basic surgery.

Topics:

Non-invasive monitoring, airway anatomy, preoperative assessment, fluid and blood component therapy, patient positioning and transfer, sedation and general anaesthesia, basic ventilation modes and monitoring, documentation, universal precautions and infection control, collaboration, communication, anxiety management and health education.

Objectives:

- To outline the components, perform equipment checks and demonstrate procedures for safe use of the anaesthesia machine and adjunctive equipment;
- To synthesise information obtained in a preoperative evaluation and formulate a basic anaesthesia plan of care, including positioning, fluid administration, basic monitoring, and airway management;
- To synthesise appropriate and safe anaesthetic management plans based on the patient's, pathophysiology and surgical procedure;
- To differentiate surgical and equipment issues, monitoring, and pharmacological considerations unique to the procedures presented;
- To differentiate anatomical and physiological features and positioning considerations associated with procedures presented;
- To demonstrate knowledge of inadvertent perioperative hypothermia and its complications, intraoperative temperature monitoring and utilising appropriate active warming equipment. Knowledge of the difference between active and passive warming on core temperature;
- To synthesise information obtained during perioperative monitoring: data, common interference and signs related to perioperative crisis management;
- To synthesise information obtained from assessing a patient for: airway, ventilation, oxygenation, circulation, depth of anaesthesia, temperature and neuromuscular function;
- To differentiate between sedation and general anaesthesia and the related (monitoring) requirements; and
- To synthesise information obtained during anaesthesia to facilitate a safe and efficient emergence of anaesthesia.

#### **Category D: Basic Science (CanMEDS: specialist, professional)**

Applied sciences that introduces the basic principles of chemistry, physics and neuroscience and the integration of these principles into the practice of perianaesthesia nursing.

Topics:

Pressure, tension, flow, solubility, gas laws, diffusion, osmosis, vaporization, electricity, anaesthetic agents, mechanisms of general anaesthesia and physiology of acute pain, active and passive warming and gas cylinders/pipelines.

Objectives:

- To synthesise physical principles and their relationship to the practice of anaesthesia;
- To analyse and integrate select principles of organic and inorganic chemistry to the practice of anaesthesia; and
- To understand heat losses in relation to conduction, convection, radiation and evaporation.

#### **Category E: Pharmacology (CanMEDS: specialist)**

Drug mechanisms, pharmacological effects, drug-receptor site interactions, therapeutic uses and adverse effects of agents used in the perioperative period.

Topics:

Pharmacokinetics/pharmacodynamics of induction drugs, inhalational anaesthetics, benzodiazepines, anxiolytics, intravenous analgesic agents, local anaesthetics, neuromuscular blocking agents and reversals, commonly used autonomic pharmacology cardiovascular pharmacology, antiemetics and NSAIDS.

Objectives:

- To explain the major principles of pharmacokinetics and pharmacodynamics as they relate to inhalational and intravenously administered drugs;
- To analyse the mechanism of action and the pharmacologic effects of specific anaesthetic agents;
- To analyse the mechanism of action and the pharmacologic effects of adjunctive agents used in the perioperative period such as commonly used autonomic pharmacology cardiovascular pharmacology, NSAIDS and antiemetic's;
- To discuss the uses, limitations and contraindications of depolarizing and non-depolarizing neuromuscular blocking agents, local anaesthetics, recognising differences in onset, duration of action, clearance, and side effects; and
- To synthesise appropriate and safe anaesthesia management protocols utilizing the anaesthetic agents discussed.

### **Category F: Physiology (CanMEDS: specialist)**

Topics:

Cardiovascular, respiratory, and cellular physiology, with emphasis on how these systems relate to anaesthesia management.

Objectives:

- To describe the important anatomical structures for each of the body systems presented;
- To discuss the major functions and processes of each of the major body systems;
- To synthesise the complex regulatory processes that produce homeostasis for each of the body systems discussed; and
- To analyse the effects of anaesthesia on select physiologic systems.

### **Category G: Pathophysiology (CanMEDS: specialist)**

Pathophysiologic disorders with emphasis on the surgical patient and implications for safe anaesthesia management.

Topics:

Respiratory disease and cardiovascular diseases.

Objectives:

- To analyse the pathophysiologic basis, manifestations, and treatment options for the disorders discussed; and
- To integrate information regarding the presented pathophysiology with perioperative and anaesthesia management.

### **Category H: Emergency management**

Recognising and assisting in emergency care effectively.

Topics:

Basic Life Support, hypothermia, difficult airway management and CICO, massive blood transfusion, anaphylaxis, local anaesthetic toxicity (lipid rescue), malignant hyperthermia.

Objectives:

- To recall appropriate algorithms for CPR, difficult airway (including failed intubation and can't intubate, can't oxygenate), massive blood transfusion, anaphylaxis, toxicity of local anaesthetics and malignant hyperthermia; and
- To describe the role of the anaesthetic nurse in emergency care.

# ACPAN LEVEL 1 ANAESTHESIA NURSE - Credentialing

ACPAN Level 1 Anaesthesia Credentialing is designed for practicing anaesthesia nurses who would like to demonstrate their specialisation and compliance with the practice guidelines of the Australian and New Zealand College of Anaesthesia (ANZCA) Statement on the Assistant for the Anaesthetist (PS08; 2016). The process is suitable for Division 1 Registered Nurses and Division 2 Enrolled Nurses with a minimum of 1-year full-time 1900 hours (or equivalent part-time) anaesthetics experience. Once the process is finalised you will be registered as Anaesthesia Nurse in the ACPAN register which is accessible on the ACPAN website and visible for the public.



**It is also possible to apply for level 1 Perianaesthesia Nurse. See for more information the study guide for Perianaesthesia Nurses level 1.**

## 1. Prerequisite

To be eligible for credentialing as an ACPAN Level 1 Anaesthesia Nurse **all** the following essential criteria must be met:

- ACPAN Anaesthesia Clinical Criteria Statement signed and dated by a consultant anaesthetist and clinical nurse or educator in anaesthesia;
- ACPAN Anaesthesia Experience Statement signed and dated by employer (nurse manager or equivalent) and consultant anaesthetist: This constitutes 1900 hours' experience in anaesthesia and emergency care competency as per PS08 2016;
- 3 Reflective Logs including corresponding data from ACPAN Clinical Log APP;
- Current Membership of ACPAN; and
- Current full AHPRA registration.

## 2. ACPAN Clinical Criteria Statement

To be successful for credentialing, your employer and consultant anaesthetist must sign and date the ACPAN Anaesthesia Clinical Criteria Statement which validates you are competent in certain clinical skills. This is a standardised statement which you can be downloaded from the ACPAN website. Other statements are not valid.

- Airway
  - Demonstrates competence in assisting anaesthetist with general anaesthesia using supraglottic airway devices, endotracheal tubes, videolaryngoscopy.
  - Demonstrates competence in bag mask ventilation, preoxygenation and airway adjuncts.
  - Prepares and assists in the introduction of the different airway options available in the department.
  - Demonstrates a proactive approach to airway difficulties and pre-emptive in ensuring use of Guedel airways, bougies, stylets and patient positioning between intubation attempts.
  - Demonstrates competence in rapid sequence intubation with cricoid pressure.
  - Demonstrates competence in BURP manoeuvre to assist anaesthetist with intubation.
- Care:
  - Performs a pre-anaesthetic assessment and formulates an anaesthesia care plan.
  - Manages fluid and blood component therapies.
  - Performs blood sampling.
  - Participates in the positioning of patients to prevent injuries. Ensuring anatomical alignment of patients during positioning, use of appropriate equipment and surgical support, assessment of pressure areas and documentation of any concerns.

- Monitors intraoperative temperature and utilises appropriate active warming equipment.
- Anaesthesia:
  - Assists in administration of general anaesthesia to patients ASA 1 -3.
  - Assists in the administration and management of spinal and epidural anaesthesia and regional blocks.
  - Assists in the management of complications of spinal and epidural anaesthesia and regional blocks: recognises signs and symptoms of total spinal, local anaesthetic toxicity, itching.
  - Prepares and assists in insertion of arterial line and central venous line catheters including flushing and zeroing.
  - Assists in ultrasound techniques for nerve and vascular location.
- Safety and legal practice:
  - Verifies consent and patient identification and relevant perioperative nursing documentation.
  - Performs the surgical safety check (sign-in, time-out and sign-out).
  - Utilises standard precautions and appropriate infection control measures.
  - Conducts appropriate equipment checks.
  - Checks consumables and equipment for sterility.
  - Adheres to safety standards, identifies problems and takes appropriate actions.
  - Acts to ensure patient's preferences are met, upholds patient's rights and dignity.

### **3. Experience statement**

To be successful for credentialing, your employer and consultant anaesthetist have to sign the ACPAN Anaesthesia Experience Statement. This is a standardised statement which you can be downloaded from the ACPAN website. Other statements are not valid.

- You have completed a minimum 1900 hours of anaesthesia practice; and
- You are competent in assisting during CPR, difficult airway, CICO, cardiac defibrillation and cardioversion, massive blood transfusion, anaphylaxis and malignant hyperthermia as per ANZCA policy statements.

### **4. Reflective log and ACPAN APP Case Reports**

To be successful for credentialing, you must write 3 reflective logs and complete 3 case reports. The reflective log and case reports must be anaesthesia based. The cases should reflect on your professional practice while providing care in anaesthesia and should clearly demonstrate the application of theory to practice, decision-making and problem solving.

The reflective log template tool is available on the ACPAN website as well as an APP which can be downloaded to your smart phone/ device. The APP will record information about a specific case which will be stored as a case report. Once you have completed the minimum of 3 reflective logs and 3 APP case reports, you can upload these for your credentialing registration.

Possible topics may be:

- Provision of anaesthesia care based on sound principles and research evidence.
- Interpretation and utilisation of data obtained from non-invasive monitoring data.
- Recognition and appropriate response to post-anaesthetic complications (including equipment failure) that occur during the anaesthesia period.
- Utilisation of appropriate verbal, nonverbal, and written communication in the delivery of anaesthesia care. Delivery of culturally competent anaesthesia care.
- Function within appropriate legal requirements, accepting responsibility and accountability for practice.

When writing the reflective log, you can consider the following points:

- Record:
  - Describe the situation (the context),
  - Who was involved with the situation,
  - What did they have to do with the situation?
- Reflect:
  - Think about what are your reactions?
  - What are your feelings?
  - What are the good and the bad aspects of the situation?
  - What you have learned?
- Analyse, explain, gain insight:
  - What was really going on?
  - What sense can you make of the situation?
  - Can you integrate theory into the experience/situation?
  - Can you demonstrate an improved awareness and self-development because of the situation?
- Conclusions:
  - What can be concluded in a general and specific sense from this situation/experience and the analyses you have undertaken?
  - What are you going to do differently in this type of situation next time?
  - What steps are you going to take based on what you have learned?

## 5. Online exam

The online exam is the final step in the credentialing process. The exam will contain 100 true/false questions related to the Level 1 Anaesthesia Nurse education curricula.

The questions will be divided in 8 categories:

Category	Number of questions	Pass rate
The perianaesthesia nurse domain	10 questions	80%
Economics and organisation	10 questions	80%
Principles of anaesthesia	30 questions	80%
Basic science	10 questions	80%
Pharmacology	10 questions	80%
Physiology	10 questions	80%
Pathophysiology	10 questions	80%
Crisis management	10 questions	80%
<b>TOTAL</b>	<b>100 questions</b>	<b>80%</b>

The exam will take maximum 50 minutes and you will have to obtain an 80% pass for each category. If unsuccessful with the multiple-choice exam, you can apply for a resit after 4 weeks (costs \$50).

- Have pen, paper and a calculator available for the medication questions
- Use common sense and the knowledge you have gained during your 1900 hours experience in anaesthesia
- Use the study resources wisely





## **6. Cost**

Total cost of the ACPAN Credentialing Level 1 Anaesthesia Nurse is \$75 + GST. These costs include:

- Access to the online log book
- Review of your reflective log
- Study resources
- Online exam
- Registration fee for the Anaesthesia Nurse register.

Cost does NOT include internet or printing costs or other associated costs by undertaking the ACPAN credentialing process.

## **7. Application**

The ACPAN Level 1 Anaesthesia Nurse Credentialing application process involves three steps:

1. Complete the application form which will require you to upload your ID, AHPRA registration number, ACPAN membership number, ACPAN Clinical Criteria statement, ACPAN Experience Statement and your 3-reflective logs and 3 case reports.
2. Once you have completed your registration, you will receive your login details for the online exam per email.
3. Once you have passed the online exam, your name will be added to the ACPAN Anaesthesia Nurses register which is available to the public.

## **8. Re-credentialing**

Your credentialing will be valid for three years. After these three years, you can apply for re-credentialing:

- ACPAN experience statement: minimal 270 hours of anaesthesia within the last three years.
- 10 CPD points in Level 1 Anaesthesia related topics.
- ACPAN level 1 online exam
- Costs: \$75

## **9. Program evaluation**

The content of the examination is based on the ACPAN level 1 curriculum for anaesthesia and PACU nurses. The exam questions have been written by a large, representative group of experienced perianaesthesia nurses and are relevant to the current practice of perianaesthesia nursing in Australia. Each question is referenced, reviewed and updated bi-annually. Continuous upgrading of the question bank and relevant references is a task not undertaken lightly by the ACPAN Board and a stringent process is followed.