

Exam Blueprint and Specialty Competencies

Introduction – Blueprint for the Perioperative Nursing Certification Exam

The primary function of the blueprint for the CNA Perioperative Nursing Certification Exam is to describe how the exam is to be developed. Specifically, this blueprint provides explicit instructions and guidelines on how the competencies are to be expressed within the exam in order for accurate decisions to be made on the candidates' competence in perioperative nursing.

The blueprint has two major components: (1) the content area to be measured and (2) the explicit guidelines on how this content is to be measured. The content area consists of the list of competencies (i.e., the competencies expected of fully competent practising perioperative nurses with at least two years of experience), and the guidelines are expressed as structural and contextual variables. The blueprint also includes a summary chart that summarizes the exam guidelines.

Description of Domain

The CNA Perioperative Nursing Certification Exam is a criterion-referenced exam.¹ A fundamental component of a criterion-referenced approach to testing is the comprehensive description of the content area being measured. In the case of the Perioperative Nursing Certification Exam, the content consists of the competencies of a fully competent practising perioperative nurse with at least two years of experience.

This section describes the competencies, how they have been grouped and how they are to be sampled for creating an exam.

Developing the List of Competencies

The final list of competencies was approved by the Perioperative Nursing Certification Exam Committee.

Assumptions

In developing the list of competencies for perioperative nurses, the following assumptions were made:

¹ Criterion-referenced exam: An exam that measures a candidate's command of a specified content or skills domain or list of instructional objectives. Scores are interpreted in comparison to a predetermined performance standard or as a mastery of defined domain (e.g., percentage correct and mastery scores), independently of the results obtained by other candidates (Brown, 1983).

The Operating Room Nurses Association of Canada (ORNAC) standards, guidelines and position statements apply to the perioperative environment. It is the responsibility of the users of this document to apply it in the context of their individual setting (ORNAC, Section 0, 2019).

The Environment

- The perioperative nurse's practice occurs in any area where a patient is undergoing a surgical procedure. Examples include, but are not limited to, surgical suite/operating rooms, ambulatory care settings, clinics and health practitioners' offices.
- The surgical suite/operating room is a controlled, consistently monitored, highly technical area including the operating rooms, post-anesthetic care unit/recovery room and support facilities.
- The surgical suite/operating room accommodates scheduled and unscheduled patient care.
- The surgical suite/operating room is designed to support the safety of the patient and the personnel working within the suite.
- The surgical suite/operating room and related areas are regularly maintained and cleaned according to standards.

The Perioperative Patient

- The perioperative patient possesses their own value system influenced by, but not limited to, age, gender identity, culture, ethnicity, socio-economic level, family dynamics, health perceptions, disability and spiritual beliefs.
- The perioperative patient's ability to communicate and comprehend may be compromised by, but not limited to, health status, age or culture.
- The perioperative patient may experience stress due to a variety of factors (e.g., anesthesia, unfamiliarity with the surgical suite, fear of the unknown, loss of control).
- The perioperative patient has the ability to acquire information about the surgical procedure from outside sources such as the Internet, videos and libraries. They may have high expectations and arrive with specific questions about the procedure and outcomes.
- The perioperative patient has provided informed consent.
- The perioperative patient may have an advance health-care directive.
- When a perioperative patient has been deemed incapable, a substitute decision maker

is required.

The Perioperative Nurse

- The perioperative nurse practises with a surgical conscience and promotes patient safety.
- The perioperative nurse understands “that the worldviews, values, beliefs of self and others will have a profound impact on each encounter and health outcomes.”
- The perioperative nurse “provides care that is gender-responsive, inclusive of all identities and differences, trauma-informed and culturally safe.”
- The perioperative nurse maintains professional accountability through orientation, ongoing education, application of relevant evidence-based research findings and skills development.
- Perioperative nursing encompasses competent clinical practice and knowledge of both scrub and circulating roles and may participate in administration, education and research.
- The perioperative nurse participates as a leader in clinical decision-making.
- The perioperative nurse may assume organizational leadership roles (i.e., manager).
- The perioperative nurse recognizes the importance of risk assessment and sentinel event/near miss reporting within the perioperative phases of care.
- The perioperative nurse respects and values the knowledge and perspectives of other health-care providers.
- The perioperative nurse actively collaborates with other health-care team members in order to maximize outcomes for the patient.
- The perioperative nurse shares knowledge and provides preceptorship, mentorship and/or guidance to nursing students and other nurses.
- The perioperative nurse provides guidance to other health-care team members.
- The perioperative nurse contributes to the assessment, formulation, implementation, evaluation and periodic revision of quality improvement activities.
- The perioperative nurse respects each individual, acts as a patient advocate and provides the best possible care.
- The perioperative nurse supports the surgical patient “to pursue their own goals and when possible to pursue health, supportive relationships, quality of life and recovery, according to the patient’s definition.”
- The perioperative nurse practises according to the *Canadian Nurses Association Code of Ethics for Registered Nurses*.
- The perioperative nurse practises according to licensure within their

province/territory.

- The perioperative nurse practises according to the policies and procedures of the health-care facility by which they are employed.
- The perioperative nurse promotes practices as outlined by the *Operating Room Nurses Association of Canada Standards, Guidelines and Position Statements for Perioperative Registered Nurses*.
- The perioperative nurse practises within their scope of practice and level of competence.
- The perioperative nurse complies with legislation to protect the privacy and confidentiality of all information gained in the context of the professional relationship.
- The perioperative nurse promotes their professional nursing specialty to the community through education and communication.

Health

- Health is a personal concept that is fluid and dynamic and is viewed holistically throughout the lifespan.
- Health is defined as a continuum and is not merely the absence of disease.
- Health is influenced by the patient's environment in biological, psychological, socio-economic, cultural and spiritual spheres.

Competency Categories

The competencies are classified under a six-category scheme commonly used to organize perioperative nursing.

Some of the competencies lend themselves to one or more of the categories; therefore, these six categories should be viewed simply as an organizing framework. Also, it should be recognized that the competency statements vary in scope, with some representing global behaviours and others more discrete and specific nursing behaviours.

Competency Sampling

Using the grouping and the guideline that the Perioperative Nursing Certification Exam will consist of approximately 165 questions, the categories have been given the following weights in the total examination.

Table 1: Competency Sampling

Categories	Approximate weights in the total examination
Ethical and Professional Practices	10-15%
Safety	20-30%
Infection Control/Protection	20-25%
Perioperative Phases/Anesthesia	15-25%
Exceptional Clinical Events	10-15%
Managing Resources	5-10%

Technical Specifications

In addition to the specifications related to the competencies, other variables are considered during the development of the Perioperative Nursing Certification Exam. This section presents the guidelines for two types of variables: structural and contextual.

Structural Variables: Structural variables include those characteristics that determine the general appearance and design of the exam. They define the length of the exam, the format and presentation of the exam questions (e.g., multiple-choice format) and special functions of exam questions (e.g., case-based or independent questions).

Contextual Variables: Contextual variables specify the nursing contexts in which the exam questions will be set (e.g., patient culture, patient health situation and health-care environment).

Structural Variables

Exam Length: The exam consists of approximately 165 multiple-choice questions.

Question Presentation: The multiple-choice questions are presented in one of two formats: case-based or independent. Case-based questions are a set of approximately four questions associated with a brief health-care scenario (i.e., a description of the patient's health-care situation). Independent questions stand alone. In the Perioperative Nursing Certification Exam, 75 to 85 per cent of the questions are presented as independent questions and 15 to 25 per cent are presented within cases.

Taxonomy for Questions: To ensure that competencies are measured at different levels of cognitive ability, each question on the Perioperative Nursing Certification Exam is aimed at one of three levels: knowledge/comprehension, application and critical thinking.²

1. Knowledge/Comprehension

This level combines the ability to recall previously learned material and to understand its meaning. It includes such mental abilities as knowing and understanding definitions, facts and principles and interpreting data (e.g., knowing the effects of certain drugs or interpreting data appearing on a patient’s record).

2. Application

This level refers to the ability to apply knowledge and learning to new or practical situation. It includes applying rules, methods, principles and theories in providing care to patients (e.g., applying nursing principles to the care of patients).

3. Critical Thinking

The third level of the taxonomy deals with higher-level thinking processes. It includes the abilities to judge the relevance of data, to deal with abstraction and to solve problems (e.g., identifying priorities of care or evaluating the effectiveness of interventions). The perioperative nurse with at least two years of experience should be able to identify cause-and-effect relationships, distinguish between relevant and irrelevant data, formulate valid conclusions and make judgments concerning the needs of patients.

The following table presents the distribution of questions for each level of cognitive ability.

Table 2: Distribution of Questions for Each Level of Cognitive Ability

Cognitive Ability Level	Percentage of questions on Perioperative Nursing Exam
Knowledge/Comprehension	10-20%
Application	45-55%
Critical Thinking	30-40%

² These levels are adapted from the taxonomy of cognitive abilities developed in Bloom (1956).

Contextual Variables

Patient Age: One of the contextual variables specified for the Perioperative Nursing Certification Exam is the age of the patient. Providing specifications for the use of this variable ensures that the patients described in the exam represent the demographics characteristics of the population encountered by perioperative nurses.

Patient Culture: Questions are included that measure awareness, sensitivity and respect for different cultural values, beliefs and practices, without introducing stereotypes.

Patient Health Situation: In the development of the Perioperative Nursing Exam, the patient is viewed holistically. The patient health situations presented reflect a cross-section of the most common health situations encountered by perioperative nurses.

Health-Care Environment: It is recognized that perioperative nursing is practised in a variety of settings. For the purpose of the Perioperative Nursing Certification Exam, the primary health-care environment will be the hospital setting unless otherwise specified.

Conclusions

The blueprint for the Perioperative Nursing Certification Exam is the product of a collaborative effort between CNA, YAS and a number of perioperative nurses across Canada. Their work has resulted in a compilation of the competencies required of practising perioperative nurses and has helped determine how those competencies will be measured on the Perioperative Nursing Certification Exam. A summary of these guidelines can be found in the summary chart Perioperative Nursing Certification Development Guidelines.

Perioperative nursing practice will continue to evolve. As this occurs, the blueprint may require revision so that it accurately reflects current practices. CNA will ensure that such revision takes place in a timely manner and will communicate any changes in updated editions of this document.

Summary Chart

Perioperative Nursing Exam Development Guidelines

STRUCTURAL VARIABLES		
Exam Length and Format	Approximately 165 multiple-choice questions	
Question Presentation	Independent questions:	75-85% of questions
	Case-based questions:	15-25% of questions
Category	1. Ethical and Professional Practices	10-15% of questions
	2. Safety	20-30% of questions
	3. Infection Control/Protection	20-25% of questions
	4. Perioperative Phases/Anesthesia	15-25% of questions
	5. Exceptional Clinical Events	10-15% of questions
	6. Managing Resources	5-10% of questions
Cognitive Ability Levels of Questions	Knowledge/Comprehension	10-20% of questions
	Application	45-55% of questions
	Critical Thinking	30-40% of questions
CONTEXTUAL VARIABLES		
Patient Age	Pediatric (0-18 years old)	10-15%
	General (19-64 years old)	45-55%
	Geriatric (65+ years)	10-15%
	Obstetric (Any age)	10-15%
	Bariatric (Any age)	10-15%
Patient Culture	Questions measuring awareness, sensitivity, and respect for different cultural values, beliefs, and practices, without introducing stereotypes, are included on the exam.	
Patient Health Situation	In the development of the Perioperative Nursing Certification Exam, the patient is viewed holistically. The patient health situations presented reflect a cross section of the most common health situations encountered by perioperative nurses.	
Health-Care Environment	For the purpose of the Perioperative Nursing Certification Exam, the primary health-care environment will be the hospital setting unless otherwise specified.	

The Perioperative Nursing Certification Exam List of Competencies

1. Ethical and Professional Practices

The perioperative nurse:

- 1.1 Demonstrates leadership skills by communicating, collaborating and promoting evidence-based practice.
- 1.2 Practices advocacy for privacy, dignity and confidentiality for the patient/family (e.g., privacy legislation, CNA Code of Ethics).
- 1.3 Practices surgical conscience.
- 1.4 Collaborates with other health-care team members.
- 1.5 Demonstrates continuing education/teaching.
- 1.6 Demonstrates preoperative, immediate intraoperative and immediate postoperative education/teaching for the patient.
- 1.7 Ensures complete, accurate and contemporaneous documentation according to health-care facility policies and professional standards (e.g., event times, procedures, surgical count, medications, positioning, specimens, equipment, electrosurgical unit [ESU]).
- 1.8 Communicates patient care information and accountability to the receiving health-care team during care transitions (e.g., standardized communication tool).
- 1.9 Supports the psychosocial needs of the patient (e.g., altered body image, apprehension).
- 1.10 Addresses the communication needs of the patient (e.g., language and sensory limitations, cognitive impairment).
- 1.11 Respects and responds to the individual belief systems of the patient (e.g., cultural and spiritual practices).
- 1.12 Recognizes and reports situations that require disclosure (e.g., wrong site surgery, retained foreign bodies).
- 1.13 Participates in research and adheres to specified protocols (e.g., consent for research, ethics approval).
- 1.14 Verifies visitors have permission to enter the surgical suite/operating room (e.g., law enforcement, health-care industry representatives, family members).
- 1.15 Promotes and contributes to a respectful workplace (e.g., reduce background noise, limit social networking, report horizontal violence, identify inappropriate behaviours).

- 1.16 Recognizes interpersonal conflict and applies resolution strategies (e.g., de-escalate, separate/remove parties).
- 1.17 Identifies, documents and reports unprofessional behaviour (e.g., verbal abuse, harassment).
- 1.18 Adapts to technological advances within the health-care system that impact perioperative practices (e.g., emerging informatics, interactive technology, robotics, black box).
- 1.19 Complies with perioperative nurses' scope of practice according to provincial/territorial licensure and recognizes limitations (e.g., firing laser, cauterizing, dissecting).
- 1.20 Participates in quality improvement activities that promote better patient outcomes (e.g., surgical site infection prevention, wound classification, surgical safety checklist [SSCL]).
- 1.21 Recognizes personal learning needs and seeks opportunities for learning and improvement (e.g., new policies and procedures, in-services, conferences).

2. Safety

The perioperative nurse:

- 2.1 Anticipates the needs of the patient to support care.
- 2.2 Identifies perioperative environmental hazards:
 - 2.2a Biological hazards (e.g., latex sensitivity/allergy, intraoperative imaging and radiation)
 - 2.2b Chemical hazards (e.g., anesthetic agents, sterilizing agents, bone cement and cytotoxic substances)
 - 2.2c Physical hazards (e.g., fire, explosion, body mechanics, construction)
 - 2.2d Environmental hazards (e.g., lighting, noise, HVAC)
 - 2.2e Psychological hazards (e.g., workplace violence and harassment)
- 2.3 Applies safety/risk prevention strategies in the perioperative environment for staff/patient:
 - 2.3a WHMIS (e.g., biohazardous and cytotoxic substances, bone cement)
 - 2.3b Personal protective equipment (PPE) (e.g., fluoroscopy, radiation, surgical/laser plume)
 - 2.3c Sharps management
 - 2.3d Waste management
 - 2.3e Fire safety
 - 2.3f Occupational health and safety (e.g., stress management leave, employee assistance program [EAP], ergonomics [e.g., safe patient handling, equipment handling], footwear policy)
- 2.4 Participates in the surgical safety checklist with the interprofessional health-care team:
 - 2.4a Briefing
 - 2.4b Timeout
 - 2.4c Debriefing

- 2.5 Manages the surgical counts:
 - 2.5a Identifies safe handling of surgical sponges (e.g., to load small sponges on instruments, not cutting sponges, use of radiopaque sponges)
 - 2.5b Performs and documents surgical count with appropriate personnel (e.g., scrub nurse, surgeon, student nurses)
 - 2.5c Identifies the correct method of counting for:
 - i) sponges
 - ii) therapeutic packing
 - iii) sharps
 - iv) miscellaneous instruments
 - 2.5d Performs surgical count at appropriate phases of the surgery (e.g., initial count, before closure of cavity/incision, completion of procedure)
 - 2.5e Performs a surgical count at the time of permanent relief of scrub and/or circulating nurse
 - 2.5f Determines the extent of the surgical count related to surgical procedures (e.g., full, multiple procedures, cavity within a cavity)
 - 2.5g Responds to a surgical count discrepancy (e.g., recount, surgeon notification, X-ray, documentation)
 - 2.5h Responds to emergency surgical cases where count is not performed (e.g., surgeon notification, X-ray, documentation)
- 2.6 Facilitates safe patient transfers (e.g., wheelchair, OR/ICU beds, stretcher, via transfer devices).
- 2.7 Applies principles of safe surgical positioning:
 - 2.7a Performs an assessment and factors into the surgical patient's plan of care the risks for skin breakdown and pressure ulcer/injury according to the perioperative phases of care:
 - i) preoperative (e.g., immobility, comorbid conditions)
 - ii) intraoperative (e.g., hypothermia, surgical position, positioning devices, length of procedure)
 - iii) postoperative (e.g., hemodynamic status, ability to mobilize)
 - 2.7b Implements the principles of positioning/repositioning in relation to the preoperative assessment, anatomy and physiology, potential complications and surgical site accessibility, including, but not limited to:
 - i) supine
 - ii) prone
 - iii) lateral
 - iv) lithotomy
 - v) reverse Trendelenburg
 - vi) Trendelenburg
 - 2.7c Selects and applies positioning devices and equipment (e.g., padding, stirrups, backrest, prone/lateral supports) appropriate for the surgical patient and surgical procedure.
 - 2.7d Assesses, in collaboration with the surgeon and anesthesia care provider, the final patient position prior to commencement of surgery.
 - 2.7e Performs and documents system assessment and evaluation of the patient prior to transfer.

- 2.8 Implements the safe use of equipment, including, but not limited to:
 - 2.8a Operating room bed and accessories/attachments
 - 2.8b Electrosurgical unit (ESU)
 - 2.8c Video systems (e.g., video light cord)
 - 2.8d Alternate energy devices (e.g., ultrasonic systems, ablation systems, radio frequency)
 - 2.8e Laser (e.g., eye safety, fire, controlled area)
 - 2.8f Pneumatic tourniquet (e.g., limb occlusion pressures, duration of use)
 - 2.8g Powered equipment (e.g., electric, battery-powered)
 - 2.8h Compressed gas (e.g., nitrogen tank)
 - 2.8i Insufflation equipment (e.g., CO₂)
 - 2.8j Thermoregulation devices (e.g., forced air warmer, slush machine, fluid warming unit)

- 2.9 Demonstrates the principles of electrosurgery such as:
 - 2.9a Dispersive electrode/capacitive-coupled electrode pad:
 - i) location (e.g., muscle mass, metallic object, skin assessment)
 - ii) adhesion
 - iii) size
 - 2.9b Monopolar/bipolar applications:
 - i) power settings
 - ii) alarms
 - iii) prep solutions (e.g., dry time, flammability, fumes)
 - iv) active electrode isolation (cautery holster)
 - v) surgical plume evacuation
 - 2.9c Compatibility with implantable electronic devices (e.g., pacemaker/implantable cardioverter device, neurostimulator, cochlear implant)
 - 2.9d Minimally invasive surgery:
 - i) capacitive/direct coupling
 - ii) instrument insulation check

- 2.10 Implements safe medication practises (e.g., preparation, verification, labelling, delivery, the Rights of Medication Administration, documentation).

- 2.11 Demonstrates safe care and handling of surgical specimens:
 - 2.11a Use of appropriate personal protective equipment (PPE)
 - 2.11b Verification, labelling, documentation, delivery to destination
 - 2.11c Preservation (e.g., fresh, fixed)
 - 2.11d Special considerations (e.g., forensic, research, disposal)

3. Infection Prevention and Control

The perioperative nurse:

3.1 Practices infection prevention and control strategies:

- 3.1a Routine practices
- 3.1b Routine practices with additional precautions:
 - i) airborne (e.g., tuberculosis)
 - ii) droplet (e.g., influenza)
 - iii) contact (e.g., multi-drug-resistant organisms)
 - iv) prion diseases
- 3.1c Traffic control
- 3.1d Surgical attire
- 3.1e Skin preparation (e.g., hair removal, selection of solution, application/sequence)
- 3.1f Construction/renovation (e.g., dust, *aspergillous*)

3.2 Collaborates with surgical team to reduce surgical site infections (e.g., clipping, normothermia, glycemic control, antibiotic prophylaxis).

3.3 Manages factors that establish an aseptic environment:

- 3.3a Monitors and responds to environmental factors that affect sterility (e.g., temperature, humidity, air exchanges)
- 3.3b Verifies appropriate environmental cleaning practices (e.g., bioburden)
- 3.3c Practices the principles of asepsis:
 - i) surgical scrubbing, gowning, gloving
 - ii) dispensing sterile supplies
 - iii) draping
 - iv) creating, maintaining and monitoring sterile field (continuous surveillance)
- 3.3d Recognizes and responds to breaks in aseptic technique by taking corrective actions (e.g., contaminated surgical attire, compromised surgical field)
- 3.3e Demonstrates knowledge of quality controls for sterilization (e.g., biological/chemical indicators)
- 3.3f Demonstrates knowledge of different forms of sterilization (e.g., steam, chemical)
- 3.3g Demonstrates appropriate care and handling of contaminated equipment and instruments (e.g., isolation technique, transportation to reprocessing)
- 3.3h Implements under emergent conditions, if applicable, immediate use steam sterilization (IUSS) according to standards (e.g., parameters, indicators/integrators, instrument preparation, containment device, documentation requirements)

3.4 Assesses and verifies the surgical wound classification of the procedure.

4. Perioperative Phases/Anesthesia

The perioperative nurse:

- 4.1 Assesses the patient preoperatively and creates an individualized plan of care for the surgical patient, verifying:
 - 4.1a Two unique patient identifiers
 - 4.1b Precautions (e.g., airborne, contact)
 - 4.1c Consent
 - 4.1d Surgical site verification/markings
 - 4.1e Fasting status
 - 4.1f Blood, blood products and plasma volume expanders
 - 4.1g Allergies
 - 4.1h Dental work, prostheses and implantable electronic devices (e.g., pacemaker/implantable cardioverter device, neurostimulator, cochlear implant)
 - 4.1i Body adornments (e.g., piercings, tattoos, hair extensions)
 - 4.1j Laboratory values
 - 4.1k Physiological status (e.g., comorbidities, anatomical limitations, medications/herbal supplements, prewarming)
 - 4.1l Psychosocial status (e.g., cognitive function, emotional needs, cultural/spiritual needs, language barrier)
 - 4.1m Venous thrombolytic prophylaxis (VTE)
- 4.2 Interprets and communicates abnormal findings to the interprofessional health-care team (e.g., laboratory values).
- 4.3 Considers the following for all types of anesthesia:
 - 4.3a Knowledge and understanding of commonly used medications in anesthesia
 - 4.3b Knowledge of invasive (e.g., vascular access) and non-invasive monitoring devices (e.g., ECG, pulse oximetry), potential complications related to line insertion and required supplies/equipment
 - 4.3c Maintains ongoing awareness of patient monitoring and communicates with the anesthesia care provider/surgeon
- 4.4 Knowledge of the anesthesia plan of care including the following:
 - 4.4a General:
 - i) supportive environment (e.g., reduce background noise)
 - ii) preoxygenation and airway management (e.g., laryngeal mask airway/endotracheal tube, extubation)
 - iii) difficult intubation, cricoid pressure and rapid sequence intubation, assistive devices (e.g., fibre-optic scope)
 - iv) special considerations (e.g., pediatric, bariatric, geriatric, obstetric)
 - v) potential complications (e.g., bronchospasm/laryngospasm, malignant hyperthermia)
 - 4.4b Regional (e.g., spinal, epidural, caudal, block):
 - i) Positioning
 - ii) Potential complications (e.g., toxicity, anaphylaxis)

- 4.4c Local (e.g., infiltration, topical):
 - i) Monitoring
 - ii) Documentation
 - iii) Potential complications (e.g., toxicity, anaphylaxis)
- 4.4d Procedural sedation:
 - i) Monitoring
 - ii) Documentation, as required
 - iii) Peripheral access
 - iv) Potential complications (e.g., toxicity, anaphylaxis, respiratory arrest, level of consciousness [LOC])

4.5 Continues to adapt the plan of care intraoperatively by:

- 4.5a Assessing the surgical patient (e.g., intake/output, blood loss, skin condition, pressure ulcer/injury, temperature)
- 4.5b Communicating findings to the interprofessional team
- 4.5c Responding to urgent and emergent events:
 - i) anaphylaxis (e.g., preparing medication)
 - ii) compromised airway (e.g., emergency tracheostomy)
 - iii) emboli (e.g., air/blood/fat)
 - iv) hemorrhage (e.g., lacerated artery, trauma)
 - v) minimally invasive surgery that converts to open procedure (e.g., additional instrumentation and supplies)
 - vi) toxicity
 - vii) seizure
 - viii) shock (e.g., hypovolemic, septic)
- 4.5d Implementing changes as required
- 4.5e Documenting

4.6 Assesses the patient postoperatively, verifying the following:

- 4.6a Requirements for safe transfer from the OR table (e.g., crib, transfer devices)
- 4.6b Physiological status (e.g., skin, thermoregulation)
- 4.6c Pain status
- 4.6d Requirements for safe transfer to receiving unit (e.g., oxygen, monitors)
- 4.6e Complete documentation

5. Exceptional Clinical Events

The perioperative nurse:

- 5.1 Recognizes and responds to exceptional clinical events, including, but not limited to:
 - 5.1a Malignant hyperthermia (MH) by following MH protocol
 - 5.1b Cardiac event (e.g., dysrhythmia) by following cardiac arrest (Code Blue) protocol
 - 5.1c Disseminated intravascular coagulation (DIC) by following therapeutic protocol
 - 5.1d Intraoperative death (e.g., expected, unexpected) by following hospital policy
 - 5.1e Organ and tissue procurement and transplantation by following Health Canada regulations and CSA standards for transplantation
 - 5.1f Gathering and preserving medicolegal evidence by following guidelines for collection of evidence

6. Managing Resources

The perioperative nurse:

- 6.1 Plans, organizes and prioritizes resources:
 - 6.1a Staffing (e.g., call-back, delegation, coordination)
 - 6.1b Equipment and instrument availability (e.g., video systems, integrated suites, image intensifier)
 - 6.1c Implant availability and validation
 - 6.1d Room/theatre availability
 - 6.1e Time
 - 6.1f Supplies (e.g., fiscal responsibility)
- 6.2 Promotes environmental sustainability through the principles of reduce, reuse and recycle.
- 6.3 Participates in trial evaluation of new products and equipment.
- 6.4 Recognizes inefficiencies in the workplace and recommends changes in perioperative practice to support continuous quality improvement (CQI) and improved resource management (e.g., LEAN).
- 6.5 Recognizes resource conflict and applies resolution strategies (e.g., time management, decision-making, competing equipment priorities).