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CCI presents this publication in the hope that it will enhance the knowledge and skill level of the RN First Assistant who strives to demonstrate professional achievement in practice.

This study guide is designed to function as one of several tools that will assist you in reaching your goal of CRNFA certification. The first four chapters are the domains from the Job Analysis. The Job Analysis describes the overall functions and responsibilities, as well as the underlying knowledge and skills that are essential to ensure proficiency as a first assistant. The Task and Knowledge statements are listed within each chapter. These statements describe manual, verbal, or mental manipulation of data, people, or things and embody observable, quantifiable, and measurable performance characteristics.

Chapter 5, “Strategies for Success: Getting Prepared and Being Test-Wise,” provides information about planning a personalized study program. You will find information on the processes involved in answering multiple-choice test questions and developing skills in test-taking strategies. This chapter is meant to provide the candidate with tools on how to be successful in passing the CRNFA certification examination.

Good luck as you embark on this exciting phase of your career.

Nancy Lilliott, MSN, RN, CNOR, CRNFA, APRN-BC
CCI Board of Directors,
CRNFA Test Development Liaison, 2009-2010

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Chapter 1:

**Basic Science**

Sharon A. Van Wicklin, MSN, RN, CNOR, CRNFA, CPSN

**PURPOSE**

It is beyond the capacity of this study guide to extensively address the scope of the basic sciences. This chapter demonstrates how the RN first assistant (RNFA) integrates the basic sciences into daily practice and to prepare the RNFA for the CRNFA certification examination.

**TASK AND KNOWLEDGE STATEMENTS**

1. Anatomy and Physiology
2. Chemistry
3. Microbiology
4. Pathophysiology
5. Pharmacology
6. Psychology
7. Sociology
8. Nutrition

**BASIC SCIENCES DOMAIN**

When preparing for the CRNFA exam, it is important to review the eight knowledge statements within the domain of “Basic Science.” The knowledge statements, listed on this page, were derived from the comprehensive Job Analysis and were identified as knowledge necessary to perform tasks required of a CRNFA.

The RN seeking to pursue the RNFA expanded role must first examine the AORN Position Statement on RN First Assistants. The Position Statement includes: Activities included in first assisting are further refinements of perioperative nursing practice and are executed within the context of the nursing process. First assisting behaviors are based on an extensive body of scientific knowledge. Certain of these behaviors include delegated medical functions that are unique to the perioperative RN qualified to practice as an RNFA.

The RN who desires to practice as an RNFA must be willing to pursue the knowledge needed to perform the role professionally and competently. It is further stated in the Position Statement that the “complexity of knowledge and skill required to effectively care for recipients of perioperative nursing services compels nurses to be specialized and to continue their education beyond generic nursing programs.” Throughout the course of practice, the RNFA is obliged to continue to pursue relevant educational courses and other methodologies that will further enhance his or her perioperative knowledge and skill level.

The AORN RNFA Specialty Assembly has developed Competency Statements for the RN First Assistant. The RNFA Competency Statements provide a written description of the fundamental knowledge and technical skills associated with the RNFA role as well as professional behavioral expectations. The competencies are divided into the four domains of the Perioperative Nursing Data Set (PNDS) model and an associated Competency Statement:

**Domain 1: Safety**

**Competency Statement:** The RN first assistant establishes and maintains a safe perioperative environment.

**Domain 2: Physiologic Responses**

**Competency Statement:** The RN first assistant is competent to function as first assistant during surgical incision, excision, and repair of pathology; and throughout the perioperative period.

**Domain 3A: Behavioral Responses — Patient and Family:**

Knowledge
Chapter 1: Basic Science

Competency Statement: The RN first assistant is knowledgeable about the impact of the perioperative processes on the patient and family from a psychosocial, sociological, and spiritual aspect.

Domain 3B: Behavioral Responses — Patient and Family: Rights and Ethics
Competency Statement: The RN first assistant supports the patient’s right to ethical, legal, and competent patient care.

Domain 4: Health System
Competency Statement: The RN first assistant demonstrates knowledge of the perioperative environment within the greater health system environment.

Each domain contains interventions that are measurable criteria of the competency statement and recommendations for validation of the competency. The RN preparing for the CRNFA certification exam should be knowledgeable of the Competency Statements and Interventions as Measurable Criteria.

The RNFA who performs in the perioperative role must be able to assess the patient by applying his or her knowledge of the basic sciences. In addition, the RNFA must use a level of clinical judgment and diagnostic reasoning beyond that which is taught in most generic nursing programs. Diagnostic reasoning and clinical judgment skills are obtained from advanced education and clinical experience in the expanded RNFA role.

The diagnostic reasoning utilized by the RNFA is a systematic approach to patient care that moves from general data collection to specific data collection. The basic sciences are incorporated into the practice of the RNFA as follows.

I. Anatomy and Physiology

The science of anatomy involves the study of the various organs and structures of the body. Physiology includes the study of the physical and chemical processes involved in the function of the various organs and structures of the body.

The first assistant must be knowledgeable about the operative procedure, anatomy of related structures, and the potential for injury to tissues and their underlying and surrounding structures. Proper selection and utilization of exposure methods are essential.3

The role of the RNFA includes, but is not limited to, the functions of handling tissue, providing exposure, using instruments, suturing, and providing hemostasis. These functions cannot be performed safely and effectively without a thorough and extensive knowledge of anatomy and physiology.

The RNFA also must have an expanded knowledge of surgical procedures as well as the approaches and techniques associated with each procedure and the indications for each approach.

Example

Age would be a consideration for the approach in a mitral valve replacement procedure. If the patient is 80 years old, the standard approach is a medial sternotomy. This is the easiest approach, because the patient is not likely to be returning for a coronary bypass grafting procedure, and a mid-line chest incision is probably not a concern for the patient. However, if the patient is 40 years old, the approach may be a right lateral thoracotomy, or a minimally invasive right parasternal approach. This is because the patient is younger and may require subsequent cardiovascular surgery, either to replace the valve a second time or for a future bypass surgery. Another indication to use the lateral thoracotomy approach is that it causes fewer adhesions than a medial sternotomy approach.

Regardless of the surgical procedure being performed, the RNFA must have detailed knowledge of the planned procedure, including, but not limited to:

- position,
- incision approach,
- skin preparation and draping,
- anatomic landmarks,
- surgical technique,
- structure and function of the organ, and
- wound closure.

It is the responsibility of the RNFA to use resources available to review the planned procedure and be as prepared as possible so that the patient has a positive outcome.
Chapter 2: 

ASSESSMENT TECHNIQUES

JoAnn B. Cundy, MSN, ARNP, CNOR, CRNFA

PURPOSE

The nursing process is critical to the RN first assistant (RNFA) who is seeking to effectively meet the individual health care and nursing needs of perioperative patients. Assessment is the first step in the nursing process, followed by nursing diagnosis, planning, implementation, and evaluation. In its entirety, the process is cyclical, with the steps being interrelated, interdependent, and recurrent. AORN’s RNFA competency statements incorporate the application of the nursing process into the four domains of the Perioperative Nursing Data Set (PNDS) as it pertains to the RNFA role. The four domains include: Safety, Physiologic Responses, Patient and Family Behavioral Responses (Knowledge & Rights and Ethics) and the Health System.

BACKGROUND

Assessment is the deliberate, systematic, and continual collection of relevant patient data to determine a patient’s health status and to identify any potential health problems. Data may be classified as either subjective or objective. Subjective data are not measurable or observable, but are data that the patient tells you. Objective data are measurable or observable, such as that obtained by examining a patient. Completion of the initial assessment process includes validation, organization, and retrievable documentation of the data collected.

TASK AND KNOWLEDGE STATEMENTS

1. Normal and abnormal laboratory values

2. Diagnostic procedures (e.g., imaging studies, invasive/non-invasive procedures; information provided by these procedures to plan surgery)

3. Hemodynamic monitoring

4. Nursing assessment skills (e.g., focus on communication skills)

5. History and physical examination (interpret and relate information to surgery; determination if history of present illness [HPI] is complete)

6. Environmental safety of patient care areas (e.g., operating room suite, home environment)

7. Psychosocial issues (e.g., support systems, financial resources; insurance implications)

ASSESSMENT DOMAIN

When preparing for the CRNFA exam, it is important to review the seven knowledge statements within the domain of “Assessment Techniques.” The knowledge statements, listed above, were derived from the comprehensive Job Analysis and were identified as knowledge necessary to perform tasks required of a CRNFA.

1. Normal and Abnormal Lab Values

Interpretation and relevance of normal and abnormal laboratory values and diagnostic procedures is an essential component of the initial assessment of the perioperative patient. The competitive quality and cost-conscious health care atmosphere of today has redirected preoperative laboratory and diagnostic screening to become a clinically relevant practice. It is the responsibility of the RNFA to be familiar with the studies and the clinical significance specific to the particular perioperative patient and the proposed surgical procedure. As in other areas of practice, the RNFA must exercise critical thinking skills in their assessment of laboratory and diagnostic studies. Most preoperative lab studies and diagnostic procedures are ordered by the surgeon, while others may be requested by the anesthesia provider or mandated by the institution. This is completed to fulfill quality of care considerations, such as preoperative pregnancy tests...
on all menstruating female patients, or the timing of studies before the surgical procedure.

It is important to understand that not all preoperative lab values or diagnostic studies need to be within normal ranges. Abnormal studies may be indicators of an acute diagnosis or a previously diagnosed disease process or may actually reveal information that leads to the diagnosis of a new disease process. Ongoing assessment of these studies will also continue as the patient progresses through the perioperative period. The following are just a few examples of potential situations.

- Preoperative elevated white blood count may be an indicator for surgery in a patient with suspected appendicitis, while it may be an indicator for an infectious disease work-up in the preoperative aortic valve surgery patient.

- Elevated preoperative blood glucose may be a sign of poorly controlled diabetes or of diabetes that has yet to be diagnosed.

- Preoperative elevated creatinine may be of no concern as it is an indicator of a known chronic renal insufficiency, or it may be reflective of severe dehydration or an undiagnosed renal insufficiency.

- A preoperative chest x-ray that indicates cardiomegaly may be an expected variant in a patient with known cardiac disease, but it may warrant a complete work-up and cardiac clearance in another.

Therefore, it is essential that the RNFA have an understanding of the patient’s health history before evaluating preoperative laboratory studies and diagnostic procedures. The application of this knowledgebase is then carried over into both intraoperative and postoperative care.

The following tables on pages 21 to 27 review common preoperative laboratory studies, normal adult values, and the clinical significance of abnormal values. Each individual lab facility will report their own normal values and will include varying studies in each of their testing profiles. The RNFA should keep these variations in mind when reviewing lab studies.

**Chapter 2: Assessment Techniques**

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**2. Diagnostic Procedures**

The following list reviews common diagnostic procedures and testing examples with which the RNFA should be familiar.

*Plain x-ray*

Single exposure radiographic film that evaluates bone and soft tissue. Films vary by density and anatomic location. May be taken from different angles anterior/posterior, lateral or oblique.

*Examples: Chest x-ray, extremity film, abdominal flat plate film.*

*Fluoroscopy*

Radiology technique that allows real-time visualization; may or may not involve use of intravenous or oral contrast media.

*Examples: Intravenous pyelogram, fluoroscopy for placement of pulmonary artery catheter, upper GI study, cholecystography.*

*Computed tomography (CT)*

Cross sectional radiographs of a portion of the body performed with or without contrast media.

*Examples: CT of head, brain, sinuses, abdomen.*

*Computed tomographic angiography (CTA)*

A CT combined with the use of a contrast material to specifically examine blood vessels in key areas of the body.

*Arthrogram*

X-ray study involving injection of contrast medium into a joint cavity allowing visualization of joint structures.

*Example: Arthrogram of knee.*

*Discogram*

X-ray study that involves injection of a contrast medium into the nucleus pulposus allowing visualization of intervertebral disk abnormalities.

*Example: Lumbar discogram.*

*Cytology studies*

Pathology study that examines cell structure for abnormal cellular changes, growth and cell type.

*Examples: Urine cytology, surgical specimen cytology to determine pathology of tumor.*

*Karyotyping*

Analysis of the chromosome arrangement of cells.

*Examples: To determine fetal sex, prenatal chromosomal disorders.*

*Sinogram*

Involves taking an x-ray after a contrast media has been injected into a sinus tract allowing visualization of the areas involved.

(continued on page 28)
# Table 1: Common Preoperative Hematologic and Coagulation Laboratory Studies

<table>
<thead>
<tr>
<th>Hematologic/Coagulation Test</th>
<th>Normal Value</th>
<th>Clinical Implications of Increased Values</th>
<th>Clinical Implications of Decreased Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>White blood cell count (WBC)</td>
<td>5,000-10,000/mm³</td>
<td>Acute infection, leukemia, hemorrhage, trauma/tissue injury, malignant disease, steroid usage, toxins, uremia, coma, eclampsia, thyroid storm, drugs, serum sickness, circulatory disease, tissue necrosis/inflammation</td>
<td>Viral infections, hyper-spleenism, bone marrow suppression due to drugs, heavy metals and radiation, primary bone marrow disorders, immune-associated neutropenia, marrow occupying diseases such as fungal infections and metastatic tumor</td>
</tr>
<tr>
<td>Neutrophils (Bands)</td>
<td>60-70% or 3,000-7,000/mm³</td>
<td>Infection</td>
<td></td>
</tr>
<tr>
<td>Eosinophils</td>
<td>1-4% or 50-250/mm³</td>
<td>Allergies, parasitic diseases</td>
<td>Increase adrenal steroid production</td>
</tr>
<tr>
<td>Basophils</td>
<td>0.5%-1.0% or 25-100/mm³</td>
<td>Granulocytic and basophilic leukemia, myeloid metaphasia</td>
<td>Allergic reactions, hyperthyroidism, prolonged steroid therapy, stress reactions with MI or bleeding, PUD</td>
</tr>
<tr>
<td>Monocytes</td>
<td>2-6% or 100-600/mm³</td>
<td>Recovery from acute infection, viral infections, subacute bacterial endocarditis, parasitic infections, collagen diseases, hematologic disorders</td>
<td>Prednisone treatment, hairy cell leukemia, rheumatoid arthritis, HIV infection</td>
</tr>
<tr>
<td>Lymphocytes</td>
<td>20-40% or 1,000-4,000/mm³</td>
<td>Infectious lymphocytosis, infectious mononucleosis, cytomegalovirus, respiratory viral diseases, infectious hepatitis, some bacterial infections, acute and chronic lymphocytic leukemia, toxoplasmosis, Graves disease</td>
<td>Hodgkin’s disease, lupus after ACTH or cortisone, burns, trauma, chronic uremia, Cushing’s, acute radiation syndrome, chronic and acquired immunodeficiency, aplastic anemia, tuberculosis</td>
</tr>
<tr>
<td>Red blood cells (RBC)</td>
<td>Men: 4.2-5.4/mm³ Women: 3.6-5.0/mm³</td>
<td>Polycythemia, dehydration, acute poisoning, severe diarrhea, pulmonary fibrosis, during and immediately following hemorrhage</td>
<td>Anemia, Hodgkin’s, multiple myeloma, leukemia, lupus, Addison’s disease, rheumatic fever, subacute endocarditis</td>
</tr>
<tr>
<td>Hematocrit (HCT)</td>
<td>Men: 40-50 % Women: 37-47%</td>
<td>Polycythemia, erythrocytosis, severe dehydration, shock</td>
<td>Anemia, leukemia, hyperthyroidism, cirrhosis, acute massive blood loss, hemolytic reaction</td>
</tr>
<tr>
<td>Hemoglobin (HGB)</td>
<td>Men: 13.5-17.5g/dl Women: 12-16g/dl</td>
<td>Hemoconcentration of blood, COPD, congestive heart failure</td>
<td>Anemias, hyperthyroidism, cirrhosis of liver, severe hemorrhage, hemolytic reactions</td>
</tr>
<tr>
<td>Reticulocyte count</td>
<td>Men: 0.5%-1.5% Women: 0.5%-2.5%</td>
<td>Hemolytic anemias, 3-4 days after hemorrhage, treated anemias</td>
<td>Iron-deficiency anemia, aplastic anemia, untreated pernicious anemia, chronic infection, radiation therapy, endocrine problems, tumor in marrow, myelodysplastic syndromes</td>
</tr>
<tr>
<td>Mean corpuscular volume (MCV)</td>
<td>87-103 fl</td>
<td>Macrocytic anemias</td>
<td>Microcytic anemias</td>
</tr>
</tbody>
</table>
Chapter 3: INTRAOPERATIVE

Mary K. Weis, MSN, RN, APRN-BC, CNOR, CRNFA

PURPOSE

This chapter explores the intraoperative domain of the RNFA. It is in this phase that the RNFA synthesizes all the knowledge and skills and incorporates those into the tasks that are an integral part of performing the role of first assistant in surgery. RNFA competencies will be found throughout the chapter. Intraoperative is the third domain in the CRNFA test blueprint.

Much of the information in this chapter is taken directly from CCI’s textbook, Competency for Safe Patient Care During Operative and Invasive Procedures.

BACKGROUND

The Knowledge/Skill Statement and Related Tasks and the AORN RNFA Competencies are used in combination to provide additional guidelines on which to build assessment skills. The RNFA will understand how these are applied as the chapter progresses, but assessment without communication to the other members of the surgical team does not offer the patient optimal care. The use of the Perioperative Nursing Data Set (PNDS) allows the clinician to communicate with nursing colleagues using the same language. It is evidence based and allows the care that is performed to be documentable and demonstrable.

TASK AND KNOWLEDGE STATEMENTS

1. Surgical procedures
2. Patient positioning principles
3. Draping principles
4. Interdisciplinary resource utilization (e.g., X-ray, lab)
5. Exposure techniques
6. Hemostatic techniques
7. Handling of instruments
8. Suture selection, suturing and knot-tying techniques
9. Tissue-handling and dissection techniques
10. Wound closure techniques including wound healing
11. Surgical dressing applications
12. Supportive/immobilization devices

INTRAOPERATIVE DOMAIN

When preparing for the CRNFA exam, it is important to review the 12 knowledge statements in the domain of “Intraoperative.” These knowledge statements were derived from the comprehensive Job Analysis and were identified as knowledge necessary to perform tasks required of a CRNFA.

1. Knowledge of Surgical Procedures

In the intraoperative domain, knowledge of the scheduled surgical procedure is critical to planning and implementing care. The recent explosion of information and new knowledge has made it nearly impossible for clinical nurses to keep up with current knowledge. Evidence-based practice is essential in patient safety and can be incorporated into practice by:

1. Becoming computer literate, a key skill to being able to keep practice current is the use of information technology.
2. Reading widely and critically to stay on top of important developments in a specialty area.
3. Asking, “Why?” — There should always be a reasonable answer to that question.

4. Attending professional conferences.

5. Being receptive to change. Don’t be surprised to learn a procedure has changed.

6. Participating in research data collection or evidence-based guideline development.  

General surgery open procedures have remained classic and timeless; however, advancements in minimally invasive and robotic procedures have revolutionized surgery during this past decade. As new methods and practices emerge, less invasive procedures will be a more common choice for patients than previous open and invasive procedures. The RNFA role requires understanding of the procedure to provide the best care to the patient. If the procedure is one that is unfamiliar, the RNFA must use all available resources to gather information and share this information with the rest of the surgical team. This may require collaboration with industry partners. Web-based education and pertinent online information is always available. Armed with this knowledge, the RNFA can proceed with planning and implementing the patient’s care.

**Example**

A general surgeon scheduled a Chamberlain procedure for a 45-year-old male. An internet search provided information that an anterior thoracotomy incision is used for diagnostic purposes. The internet search also provided information about the procedure: patient prep, positioning, and instrumentation needed. Given this extra information, the RNFA, anesthesia care provider, and the rest of the surgical team were prepared, and a double lumen endotracheal tube was used so the lung could be deflated. Chest instrumentation, chest tubes, underwater chest suction drainage, and the sternal saw were available in the room.

**2. Patient Positioning Principles**

The RNFA, along with other members of the surgical team, is responsible for the anatomic positioning of the surgical patient, remembering that the primary goal at the end of the procedure is that the patient is free from injury. Proper positioning is essential because it allows for accurate operative site preparation, appropriate draping, and adequate exposure of the operative site. Knowledge of proper positioning techniques is essential for the patient’s musculoskeletal and neurological safety, skin and tissue integrity, body alignment, and optimal physiological functioning of the respiratory and circulatory system during the operative or invasive procedure. The goal is to avoid adverse outcomes while providing optimal positioning for the intended procedure.

**Measurable Criteria**

The RNFA demonstrates competency for positioning a patient by:

- Identifying the patient’s risk for adverse outcomes related to positioning.
- Complete assessment of the patient:
  - skin integrity
  - range of motion
  - restriction of previous injury
  - age
  - medical conditions
  - presence of implants or prostheses
- Care plan that includes specific action plan.
- Selecting the appropriate supplies and equipment based on the patient’s identified needs.
- Preparing the bed.
- Centering the patient on the bed.
- Placing the arms on the arm boards.
- Using positioning devices according to the established practice recommendations and the manufacturer’s recommendations.
- Padding bony prominences.
- Moving the anesthetized patient.
- Communicating and documenting risk factors, nursing diagnoses, expected outcomes, the plan of care, interventions, and evaluation.
- Evaluating the patient at the end of the procedure based on the expected outcome criteria.
- Placing the patient in various positions for operative and invasive procedures.
Chapter 3: Intraoperative

- Supine
- Trendelenburg
- Reverse Trendelenburg
- Lithotomy (Low and High)
- Prone
- Jackknife
- Lateral
- Fowler (sitting)
- Semi-Fowler (beach chair)
- Fracture Table
- Spine Table

• Evaluating the patient at the end of the procedure based on the expected outcome criteria.

Positioning manuals are used to instruct the RNFA in the correct patient position in unfamiliar procedures, and also are useful in reinforcing the practitioner’s knowledge in routine cases. An array of manuals should be readily available for reference, including, but not limited to, AORN’s “Recommended Practices for Positioning the Patient in the Perioperative Practice Setting,” “Assisting in Surgery: Patient Centered Care,” and Competency for Safe Patient Care During Operative and Invasive Procedures.” It is extremely important that the RNFA review the correct patient position before the start of the procedure and is constantly vigilant to comply with standards. When delegating any part of the patient positioning to another surgical team member, the RNFA must reassess the patient before the procedure begins.

Positioning the patient for the procedure has the potential for compromising or causing injury to the patient. During the assessment, the nurse identifies at-risk body structures by evaluating the following systems: respiratory, circulatory, neurological, musculoskeletal, and integumentary. Areas for risk of increased pressure are the skin and underlying tissue and the musculoskeletal, nervous, cardiovascular, and respiratory systems. Other areas of pressure vulnerability are the eyes, breasts, perineum, and fingers. Stretching and compressing nerves can result in neuropathies in the upper and lower extremities, head and neck, and pelvis and spine. Compression injuries induced by pressure depend on the amount and duration of pressure.

Supplies and equipment needed for positioning the patient depend on patient variables such as height, weight, physiological condition, and the required position for the procedure. The RNFA plans for the positioning equipment before the procedure. This is part of the knowledge base needed for safe patient care. This is accomplished by reviewing the planned procedure, the physician’s preferences, and the patient’s condition.

Example

A 65-year-old patient is scheduled for a repeat lumbar laminectomy at several levels. The patient is anesthetized and placed in the prone position on the OR bed with chest rolls. Arms and knees are padded appropriately, and genitalia are freed from compression. The patient’s face is placed on a foam doughnut, and the endotracheal tube brought out to the side. A nasogastric tube was inserted when the patient was supine and was taped to the forehead to prevent dislodging while turning.

The surgery proceeded without incident, but the length of the surgery was seven hours. When the patient was returned to the supine position, the nares had a pressure necrosis at the tip caused by the nasogastric tube. The necrosis progressed to “sloughing” of the nasal tip, and subsequent surgery was needed to compose a flap to cover the deformity.

3. Draping Principles

The RNFA, along with the surgeon and the scrub person, is responsible for the sterile draping of the patient for the planned surgical procedure. The circulating nurse, because of his or her expanded view of the field, becomes more of an overseer and maintains constant vigilance for breaks in technique.

Measurable Criteria

The RNFA demonstrates competency for draping a patient by

• Ensuring the procedure site has been aseptically prepared before applying surgical drapes.

• Allowing 2 to 3 minutes for the alcohol-based prep to completely dry and fumes to evaporate before applying sterile drapes.

• Using impervious fluid-proof drapes to provide an effective sterile barrier when soaking, splashing, or spraying of blood or bloody fluids are a potential risk.

• Ensuring drapes are handled as little as possible; avoid shaking, fanning, or haphazard unfolding.
Nurses are accountable to the public, their professional colleagues, and themselves. That accountability is one of the defining characteristics of a profession. It is evident in the application of knowledge to the solution of problems, the performance of activities judged to be appropriate interventions, and the acceptance of responsibility for the results of those actions. \(^1\) Professional practice is the fourth domain in the CRNFA test blueprint.

**TASK AND KNOWLEDGE STATEMENTS**

1. Legal, regulatory, and policy guidelines (e.g., scope of practice; HIPAA; The Joint Commission; OSHA; state departments of health; CMS regulations).

2. Research application to practice (e.g., interpretation of reports; evidence-based practice).

3. Ethics (e.g., implications of a DNR; application of the Code of Ethics).

4. Risk management, liability, and malpractice issues (e.g., scope of practice; delegation of duties; reporting and follow-up on near misses, such as a mistake that almost happened and/or no injury to patient incident).

5. Leadership, collaborative relationships, and mentoring (e.g., leadership role in operating room; communication among team members).

6. AORN standards, recommended practices, and guidelines that apply to the RNFA.

**PROFESSIONAL PRACTICE DOMAIN**

When preparing for the CRNFA exam, it is important to review the six knowledge statements within the domain of “Professional Practice.” The knowledge statements, listed on this page, were derived from the comprehensive Job Analysis and were identified as knowledge necessary to perform tasks required of a CRNFA.\(^2\)

**1. Legal, Regulatory, and Policy Guidelines**

When first attempting to describe the legal and regulatory guidelines related to the practice of an RNFA, one must realize that the RNFA who implements the nursing process is practicing within the scope of perioperative nursing practice and thereby practicing within legal and regulatory boundaries. The application of the nursing process during all phases of the patient experience (i.e., preoperative, intraoperative, postoperative) is conducted within the framework of the expanded RNFA role. In 1984, the AORN House of Delegates issued an official statement confirming that in the absence of a qualified physician, RNs with appropriate knowledge and skill are the best qualified non-physicians to act as first assistants in surgery.\(^3\) The role of the RN first assistant is now recognized by the state boards of nursing in all 50 states as being within the scope of nursing practice.\(^4\) It is vital that the RNFA knows what the scope of practice is for the state in which they are practicing.

The *RN First Assistant Guide to Practice* was developed to introduce the career planning aspects of being an RN first assistant.\(^5\) Information in this book includes RNFA competency statements, certification and credentialing reimbursement, and evidence-based practice for RNFAs. In addition, the qualifications expected of an RNFA, issues to consider when choosing an RNFA education program, and guidelines for obtaining privileges at a health care facility are discussed.

In general, the RNFA is committed to following policies, which provide guidelines to create a safe environment. Preventing patient injury throughout the surgical experience is a critical component of RNFA practice.
The practice of continual assessment of allergies, skin condition, medication regimen, and mobility enable appropriate intervention by the RNFA to prevent patient injury.

The RNFA should be able to recognize signs and symptoms of intraoperative complications related to surgical procedures, medication side effects, and/or blood product administration. The RNFA uses communication skills and follows appropriate communication policies and procedures to evaluate the individualized plan of care to ensure continuous quality improvement. The RNFA bases professional practice behaviors on knowledge of the role and practicing within the scope of practice as defined by state, legal, and professional practice standards, and by facility guidelines. RNFA secure and maintain liability insurance to protect themselves individually. They participate in professional activities to gain knowledge directed toward improving patient care and maintaining competency (e.g., certification).

A hierarchical authority governs the practice of an RNFA, first by the RNFA’s state nurse practice act and then by the health care facility credentialing the RNFA to practice. Each hospital/surgical facility should have a policy on non-physician surgery assistants that complies with legal and professional standards and regulatory guidelines. Credentialing requirements may vary from state to state and from facility to facility.

After credentialing is established, the RNFA must be familiar with current practices to guide professional performance. One point of reference is The Joint Commission’s National Patient Safety Goals, which provide guidance for administrative and clinical practice policy development within institutions.\(^6\)

The 2009 Joint Commission patient safety goals relate to: \(^6\)

- **Patient identification.** The RNFA follows established policy related to perioperative patient identification, surgical time out, and blood product administration within the perioperative suite.

- **Communication among caregivers.** The RNFA may be involved in transcribing and facilitating hand-off information to the next caregiver such as the postanesthesia care unit (PACU) nurse.

- **Abbreviations for writing orders.** According to facility guidelines, the RNFA may write orders and must be familiar with facility standard abbreviations and acronyms with standard order sets for specific populations.

- **Improvements in the safety use of high-alert medications.** The RNFA should be familiar with the indications and potential side effects associated with medications and implement safety systems to prevent medication errors.

- **Elimination of wrong site, wrong patient, wrong procedure surgery.** The RNFA must comply with policies for preoperative verification and site marking, facilitate preoperative preparation, and obtain x-ray films or other diagnostic imaging (and laboratory) studies for use in verification procedures.

- **Improvements in the effectiveness of clinical alarm systems.** The RNFA should have working knowledge of equipment and pertinent alarms within the OR and postanesthesia care units and be cognizant of noise level so that the alarms are sufficiently audible. A Joint Commission Alert urges greater understanding when technology may or may not be applicable, choosing the right technology, and understanding the impact the technology may have on the quality of safe patient care. The RNFA must remain current on the technology used.

- **Reduction in the risk of health care–acquired infections.** The RNFA should follow hospital procedures for hand hygiene, surgical scrubs, and other OR attire. The RNFA also must maintain sterile technique during placement of indwelling catheters and during surgical procedures.

Another area of attention, in relation to specific hospital and state policies, is advanced directives, which legally protect the patient’s right to autonomy and self-determination. Advanced directives ensure each patient has the right to determine the care they receive; the RNFA has the obligation to respect the patient’s decisions for that care.\(^7\)

The AORN “RNFA Competencies” provide guidelines for implementing RNFA practice policy related to assessment, maintaining a safe environment, intraoperative assistance, teamwork, and professional development.\(^5\) These references also provide information related to establishing and maintaining clinical privileges for practice.
Chapter 4: Professional Practice

2. Research Application to Practice

Perioperative RNs use standards, knowledge, judgment and skills based on scientific principles, and use evidence as the foundation for practice.9 Using outdated information for patient care decisions has the potential to cause harm to the patient. Taking current research findings and translating it into practice is essential for the continued development of nursing science. Without current research to guide practice decisions, nurses rely on rituals and outdated information in their patient care decisions.10 From a professional credibility point of view, there are dangers in relying on ritualistic practices, as they quickly may become obsolete and potentially dangerous. Currently, involvement in nursing research is generally accepted as one of the major components of nursing professional development, and practitioners are committed to using and promoting evidenced-based practices.

Few nursing programs prepare students to participate in nursing research. However, the public expects nursing practice decisions to be based on the best practices derived from recent research. Nurses are encouraged to be consumers of research, provide consultation about a specific clinical area to researchers, and function in the investigative role. Education about the research process itself is imperative for implementing research outcomes into the clinical setting.10

The research process is a systematic method of asking a question, gathering facts, submitting findings to a rigorous analysis, and then applying conclusions. The usefulness of research findings is determined by the ability to generalize results to other clinical populations and on the communication of the findings to other practitioners.10

RNFAQs can assume one of two roles as a researcher in the perioperative setting. One role involves conducting the actual research; another role is that of the consumer of research. Research cannot make a difference in practice if it exists only in the journals and is not applied to practice. Research knowledge utilization must be a conscious aspect of a care delivery system wherein RNFAQs are continually questioning the basis of their actions.

3. Ethics

The RNFAQ’s primary ethical and professional responsibility is to the patient. This responsibility is clearly articulated in the ANA Code of Ethics: Explications for Perioperative Nursing.11 This document provides a framework for RNFAQs to use in ethical analysis and decision-making. By virtue of the nurse-patient relationship, the RNFAQ has an obligation to provide safe, professional, and ethical patient care. As the patient advocate, the RNFAQ must ask the question, “What should be done for this patient.” One of the AORN RNFAQ competency statements states, “. . . acts as a patient advocate by protecting the patient from incompetent, unethical, or illegal practices.”

4. Risk Management, Liability, and Malpractice Issues

One of the most important responsibilities of the RNFAQ is to ensure that safety is an integral component of practice. Whether verifying the correct patient, procedure, and site; or establishing and maintaining a safe perioperative environment, the RNFAQ plays a critical role in advocating for the patient. The RNFAQ’s first duty — legally, ethically, and professionally — is to the patient. An RNFAQ is professionally accountable for their actions through their license. Practicing outside the scope of practice may result in loss of license, loss of job, or a lawsuit.

RNFAQs have a duty to themselves, as well as to society, to secure and maintain professional liability insurance for their protection. However, the RNFAQ should know that liability insurance may not cover their actions if they practice outside the scope of their license. Factors influencing liability issues include, but are not limited to, state laws, educational preparation, whether established policies were followed, and circumstances surrounding the incident.12

5. Leadership, Collaborative Relationships, and Mentoring

Two of the stated competencies for RNFAQs are:8

- “works as a professional colleague with the perioperative team and influences multidisciplinary relationships by enhancing collaborative processes,” and
- “serves as educator, mentor, consultant, and resource to colleagues and other health care professionals in relation to RNFAQ activities.”

By partnering with the surgeon and other members of the health care team to prepare for the operative pro-
Achieving success on the CRNFA certification examination requires that the individual registered nurse first assistant has a thorough and sound foundation of the knowledge and skills required for expert clinical practice in providing care for patients before, during, and after surgery, as well as an understanding of the test-taking process necessary for successfully completing a certification program.

Knowledge is attained through work experiences, formal educational programs, and prior CNOR certification. The experiential knowledge component requires that an individual who is eligible to take the CRNFA certification examination has a minimum of 2,000 hours of first assisting and has completed a CCI-acceptable RNFA program. The knowledge component is acquired through a variety of learning activities, including formal education, self-study, and continuing education programs, all aiming to promote continuing competency. It is the combination of experiential and cognitive knowledge that forms the foundation of expert clinical practice.

In addition to this evidenced-based clinical knowledge, you also need to have a firm understanding of the testing process. Being familiar with the testing process will not only prepare you to take the test, but will also acquaint you with the environment in which the test will be given. There is a definite skill in answering multiple-choice test questions and in preparing to take an important certification examination. Becoming familiar with these techniques will improve your chances of successful performance on the CRNFA certification examination.

This chapter provides information about planning your personalized study program, obtaining the necessary resources to assist in your preparation, understanding the processes involved with answering multiple-choice test questions, and developing sound test-taking strategies to lead to success on your CRNFA certification examination.

LEARNING OBJECTIVES

Upon completion of this chapter, the individual should be able to:

1. Identify specific content areas in the intraoperative phase of the surgical experience in which you need further knowledge.

2. Develop an action plan for acquiring additional knowledge in content areas where needed.

3. Identify resources that will be of assistance in preparing for the CRNFA certification examination.

4. Identify the major components of multiple-choice test questions.

5. Develop skill in applying test-taking strategies when answering multiple-choice test questions.

6. Plan a success-oriented action plan for taking the CRNFA certification examination.

DEVELOPING GOOD STUDY HABITS

Making the initial decision to take a certification examination is an important decision. For most test takers, becoming certified in a specialty area of nursing practice accomplishes both personal and professional goals. The personal goal is a feeling of accomplishment — tackling a task that may be difficult yet, at the same time, rewarding. Professionally, certification provides external recognition of excellence in nursing and may promote career advancements. In addition, certification is a symbol of achievement that distinguishes the credential holder from others in the field. The certificate holder can proudly state that he or she has met a standard of achievement established by experts in nursing and achieved only by the most qualified professionals.
The next step in the certification process is determining what your personal investment will be in preparing for the examination. And what a personal investment it is! The easiest tasks are completing the application and paying the examination fee. The more difficult task is determining realistically what you want to do and can do to prepare for the examination. Each person will need to decide what works best for them. Ultimately, when you go to your testing appointment, you want to be certain you are as prepared as you can be and are confident about your ability to demonstrate your command of intraoperative nursing knowledge and practices associated with first assisting.

Use the following five questions to determine what your personal investment in your preparation for your certification examination will be.

**Question 1 — Should I Study for the Examination?**

Studying for the examination is your choice and is, in no small way, a decision based on your years of experience as a first assistant during the intraoperative phase of the surgical experience and, to a lesser extent, in taking examinations. While experience is critical, your personal work experiences may not have provided you with the broad skills and knowledge needed to be successful on the certification examination. Remember, a certification examination is a general examination that will ask questions about many areas of perioperative nursing. Ask yourself whether your experiences in surgical nursing and first assisting have been sufficiently broad enough to prepare you for all content areas that will be included on the test. Are there areas of practice with which you have not had work experience or where standards of practice may have recently changed?

Generally, most candidates preparing to take the CRNFA certification examination will have at least one major content area in which they feel well prepared compared to other areas and at least one content area where they feel less well prepared.

So, do you need to study? Conduct a self-assessment to determine your chances for passing the certification examination. How do you do that?

An excellent starting point is to review critical documents, including the CRNFA Test Blueprint and the current *AORN Standards, Recommended Practices, and Guidelines*. For each major content area that is identified, assess your “level of competency.” Conduct this assessment before you register and schedule your examination to allow sufficient preparation time before the examination. Use a rating scale such as the one below to determine what you believe to be your current level of competency.

1 — **Very Certain**: I know this content area well and believe that my work experiences have fully prepared me. I am comfortable with current practices and believe I am up-to-date with new developments and advances. I am familiar with the most current literature and have had recent work experiences that align with this content.

2 — **Certain**: I am reasonably comfortable with this content area and believe that my work experiences have prepared me fairly well. I am somewhat familiar with recent literature and current practice standards and have had recent work experience in this content area.

3 — **Undecided**: I have some knowledge and some experiences in this area, but there may be a few content areas where I am not as strong or for which my work experiences have not fully prepared me. In reviewing the content areas, I can identify gaps in my knowledge base and areas where I have not had recent work experiences.

4 — **Uncertain**: I am aware that I have some knowledge deficits and/or a lack of work experience in this content area. I will need to engage in some study or other remediation to be comfortable with this content area.

5 — **Very Uncertain**: I am aware that I have many knowledge deficits and/or lack work experiences in this content area. This is an area of weakness for me and one that will definitely require me to remediate before taking the examination.

Apply this rating scale to each and every area of the CRNFA Test Blueprint. Be completely honest with your self-assessment — remember, it is intended to help you prepare for the CRNFA examination. If you rate all areas as 1 or 2, you may find that you will need little to no preparation before taking the examination. If, on the other hand, you find that you have a mixture of responses, rating some 1 and 2 and others 3, 4, or 5, you may find it very useful to develop an individualized study plan that will allow you sufficient time to prepare before taking the examination.