



# CERTIFICATION 2013

**CCI**

COMPETENCY & CREDENTIALING INSTITUTE®

*Creating Cultures of Safety*

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# CNOR® Certification

**CNOR® certification** is defined as “the documented validation of the professional achievement of identified standards of practice by an individual registered nurse providing care for patients before, during, and after surgery.”

## Objectives of CNOR certification include:

- Recognize the individual registered nurse who is proficient in perioperative practice.
- Strengthen conscious use of theory in assessing, planning, implementing, and evaluating patient care.
- Enhance professional growth through continued learning that results in broader knowledge and expanded skills.

## Purposes of CNOR certification include:

- Demonstrate concern for accountability to the general public for nursing practice.
- Enhance quality patient care.
- Identify registered nurses who have demonstrated professional achievement in providing perioperative nursing care.
- Provide employing agencies with a means of identifying an operating room nurses’s professional achievements.
- Improve nurses’s personal job satisfaction.

# CNOR® Eligibility Requirements

All of the following requirements must be met at the time of application.

A candidate must:

- Have a current unrestricted RN license.
- Be currently working full-time or part-time in perioperative nursing in the area of nursing education, administration, research or clinical practice.
- Have completed a minimum of 2 years and 2,400 hours of experience in perioperative nursing, with a minimum of 50% (1,200 hours) in the intraoperative setting.

### 2013 PRICING

| Regular Fee | AORN Member Fee |
|-------------|-----------------|
| \$385       | \$310           |

# Application Deadlines

| Jan          | Feb  | Mar                                       | Apr                                      | May                                     | Jun  | Jul   | Aug  | Sep  | Oct          | Nov   | Dec |
|--------------|--|---|--|---|--|---|--|--|--------------|---|-----|
| Apply in Jan | And you can test in: February, March, or April |   |  |   |  |   |  |  |              |   |     |
|              | Apply in Feb                                   | And you can test in: March, April, or May |  |   |  |   |  |  |              |   |     |
|              |  | Apply in Mar                              | And you can test in: April, May, or June |   |  |   |  |  |              |   |     |
|              |  |   | Apply in Apr                             | And you can test in: May, June, or July |  |   |  |  |              |   |     |
|              |  |   |  | Apply in May                            | And you can test in: June, July, or August |   |  |  |              |   |     |
|              |  |   |  |   | Apply in Jun                               | And you can test in: July, August, or September |  |  |              |   |     |
|              |  |   |  |   |  | Apply in Jul                                    | And you can test in: August, September, or October |  |              |   |     |
|              |  |   |  |   |  |   | Apply in Aug                                       | And you can test in: September, October, or November |              |   |     |
|              |  |   |  |   |  |   |  | Apply by <b>September</b> to test in 2013!           | Apply in Sep | And you can test in: October, November, or December |     |

All information, including fees and eligibility requirements, are subject to change without notice.

# CNOR Candidate Handbook

The CNOR Certification/Recertification Candidate Handbook contains important information and policies about certification and recertification, and can be found at: [www.cc-institute.org/cnor/about/handbook](http://www.cc-institute.org/cnor/about/handbook). The Handbook contains a list of domains, or major subject areas found in the exam, which may be used as a guideline for exam preparation.

## Steps to Becoming a CNOR®

### Assessment

CCI has several resources to help you determine your knowledge, strengths and weaknesses in the subject areas tested on the exam. The resources, including a self assessment tool and learning needs evaluation, can be found on the CCI website. The CNOR exam is structured as follows:

| Subject Area  | % of Questions |
|---|----------------|
| Patient assessment and diagnosis                      | 14%            |
| Identify expected outcomes and develop a plan of care | 9%             |
| Intraoperative activities                             | 31%            |
| Communication   | 9%             |
| Discharge planning                                    | 5%             |
| Cleaning, disinfecting, packaging, and sterilization  | 12%            |
| Emergency situations                                  | 8%             |
| Management of personnel services and material         | 6%             |
| Professional accountability                           | 6%             |

After assessing your strengths and weaknesses, you can develop an individualized study plan. CCI provides a free, downloadable sample CNOR Study Plan that you may use, or you may create your own. The CNOR Study Plan includes a bibliography of primary, recommended and additional references. AORN's Standards and Recommended Practices is the foundation for the exam.

### Prepare

CCI recommends that candidates prepare for the CNOR exam before applying. Successful candidates have told us that they prepared two to three months before taking the exam.

Nurses use many methods to prepare including: self study, partner/group study, review course(s), online course(s), reviewing current reference books and articles, among others. In addition, CCI offers several other test preparation tools and resources. See preparation resources on page 5.

## Steps to Becoming a CNOR® Continued...

### Apply

CCI offers monthly testing deadlines with a corresponding three month testing window to meet the needs of your demanding nursing schedule. For example, if you apply in the month of November, your testing window is December, January and February. The regular price of the CNOR exam is \$385. CCI offers a discount for AORN members, making their fee \$310.

### Schedule Testing Date

Once CCI has processed your application and determined that you have met all eligibility requirements, we will notify you via email with your “Authorization To Test” (ATT). Your ATT email has all the information you need to schedule your testing date and location within your testing window. CCI uses a professional testing service, Prometric Inc., to administer the CNOR exam. To locate the nearest testing center nearest to you:

1. Visit [www.prometric.com/cci](http://www.prometric.com/cci)
2. In the “Get Started” box, select “schedule your test”.
3. Search by state
4. Have eligibility ID number ready (this ID number is located on your ATT Letter)

Testing is available Monday through Saturday, except holidays, at hundreds of locations nationwide.

### Test

You have three hours and 45 minutes to complete the 200 multiple choice questions on the CNOR exam. The questions test a candidate’s ability to apply knowledge and skills to current perioperative practice.

### Results

You will receive your official results instantly at the testing center. If you pass, CCI will email your CNOR certificate 5 to 7 days from the date you have taken the exam. If you do not pass, you will receive a score report indicating which subject areas need improvement.

## Recertification

The CNOR credential is valid for five years. All eligible candidates must recertify by July 1st of the year their credential expires. CCI currently has four ways for certificants to renew their certification:

1. Contact Hours
2. Points
3. Exam
4. Portfolio

Each method requires you to commit the time and effort to further your knowledge to stay current with perioperative practice standards.

# CNOR® Application Instructions

1. **Complete your application online.** The process will take you about 10 to 15 minutes and will ask you for the following information:

- Personal contact information - address, email and phone number (home and work)
- Last four digits of your social security number
- Birth year
- Highest degree earned
- AORN information (if applicable) - username, password and membership number
- Employer contact information - facility name, phone number
- RN information - RN license issue date, state licensed to practice
- Perioperative work history - last two years, date began working in the OR, current position, and current practice area
- Supervisor contact information (name, address, email, phone number)
- Payment information (check or credit card)

2. After your application has been received, processed, and approved by CCI, you will receive a confirmation email.

3. Approximately 24 hours after receipt of your email confirmation, CCI will email you an ATT notification, which includes your eligibility number, a telephone number, and a web address to schedule the CNOR exam.

4. Receipt of the ATT email indicates that the professional computer-based testing service has received your testing information. Once you have received this information you may schedule your exam. Please do not contact the testing organization before receiving the ATT email. If you do not receive the email within 72 hours of you submitted application, login to your profile at [www.cc-institute.org](http://www.cc-institute.org) to print out your ATT notification.

## Audit Policy

CCI randomly audits 10% of all certification applications. Applicants selected for audit are notified by email. CCI will call or email the point of contact you have provided to verify employment and eligibility information.

# Policies and Procedures for Rescheduling and Cancelling



## Changing Test Appointment

You may reschedule your appointment and no fee will be charged.

no fee

You may reschedule your appointment for a fee of \$50 each time you reschedule your appointment.

\$50

You are unable to reschedule or cancel. You must appear and sit for the exam, or all fees are forfeited.

X

## Transfer of Test Window

Contact Prometric and cancel your appointment (if you have already made your testing appointment). A fee of \$50 will be charged.

\$50

Transfer from your testing window to the next testing window by logging on to your CCI account and submitting a transfer request. A fee of \$75 will be charged.

\$75

## Cancellation

You may cancel your appointment with no fee applied.

no fee

You may cancel your appointment for a fee of \$50.

\$50

You are unable to cancel. You must appear at your scheduled time and sit for the exam, or all fees are forfeited.

X

## Withdrawing

Contact Prometric and cancel your appointment (if you have already made your testing appointment). No fee will be charged.

Withdrawal from your testing window by logging on to your CCI account and submitting a withdrawal application. \$75 of your exam fee is non-refundable.

\$75

You may cancel your appointment with Prometric for a fee of \$50.

\$50

You are unable to withdraw. You must appear at your scheduled time and sit for the exam, or all fees are forfeited.

X

## Late for Testing Appointment / No Show

Fees will be forfeited if:

- You are late for your test appointment by more than 15 minutes.
- Miss your scheduled appointment date.
- Never make an appointment for the exam.

Contact Prometric at 800-896-6037 or [www.prometric.com](http://www.prometric.com)

# Preparation Resources

## Primary Reference

The CNOR exam, administered from January 1, 2013 to June 30, 2013, is based on the 2012 AORN Perioperative Standards and Recommended Practices, AORN, Inc. The CNOR exam administered from July 1, 2013 to June 30th, 2014 is based on of the 2013 AORN Perioperative Standards and Recommended Practices, AORN, Inc.

## CCI Preparation Resources

CCI offers several free resources, which are available for download on the CCI website, including:

- CNOR Candidate Handbook
- CNOR Exam Content Outline

CCI also maintains a complimentary listing of CNOR preparation courses on our website.

In addition, CCI publishes the following tools to help you prepare for the CNOR exam:

- CNOR Exam Study Guide
- Practice Question CD-Rom
- Self Assessment Evaluation (launch date Spring 2013)
- Mobile Practice Question App
- CNOR Exam Flashcards
- Contact Hour Study Bundle
- CNOR Study Group Materials

## Reference Books

CCI recommends using one of the following comprehensive perioperative reference books in addition to AORN Standards and Recommended Practices.

- Competency for Safe Patient Care During Operative and Invasive Procedures, Mark Phippen, Brenda Ulmer, Maryann Wells, CCI, 2009
- Alexander's Care of the Patient in Surgery, Rothrock, J.C., 14th ed., 2010
- Berry and Kohn's Operating Room Technique, Phillips, N., 12th ed., 2011

## Perioperative Nursing Question of the Week on Facebook

Looking for additional ways to study for the exam? Follow the daily discussion on the Perioperative Nursing Question of the Week (QotW) on Facebook. The QotW is an easy and fun way to participate in and learn from evidence-based discussions. References are provided to sharpen your clinical practice.

# Sample CNOR® Exam Questions

The following sample questions are representative of actual test content and question format.

1. A local anesthetic with epinephrine should not be injected into digits because it causes:
  - A. Vasodilation.
  - B. Vasoconstriction.
  - C. Neuropathy.
  - D. Increased absorption of the anesthetic agent.

Correct answer is B. Reference: Phippen, M.L., Ulmer, B.C., and Wells, M.P. (2009). Competency for safe patient care during operative and invasive procedures, p. 340. Denver, CO: CCI.

Rationale: Epinephrine is a potent vasoconstrictor; its use in digits can result in ischemia and tissue necrosis. Its vasoconstrictive property prolongs the action of the drug by decreasing its rate of absorption.

2. When considering delegation of a nursing task to unlicensed assistive personnel, all of the following should be taken into account *except*:
  - A. Competency of the delegate.
  - B. Potential for harm.
  - C. State board's practice act.
  - D. Age of the patient.

Correct answer is D. Reference: Rothrock, J. (2011). Alexander's care of the patient in surgery, p. 10. St. Louis, MO: Elsevier/Mosby.

Rationale: Appropriate delegation is governed by state boards of nursing. Delegated tasks must not require nursing judgment and should be assigned to staff with demonstrated competence.

3. The *best* method for maintaining a patient's hemodynamic status while moving her from the lithotomy to supine position is to remove the legs from the stirrups, bring them together simultaneously, and lower them:
  - A. As rapidly as possible.
  - B. Slowly, and one leg at a time.
  - C. Slowly, and both legs at the same time.
  - D. With the knees flexed and hips adducted.

Correct answer is B. Reference: AORN. (2012). Recommended practices: Positioning the patient. In Perioperative standards and recommended practices, p. 433. Denver, CO: Author.

Rationale: To maintain hemodynamic status, legs should be slowly returned to the bed and one at a time if possible.

4. The *primary* priority in moving an anesthetized patient is:
  - A. Patency of IV lines.
  - B. Correct body alignment.
  - C. Maintenance of a patient airway.
  - D. Protection of bony prominences.

Correct answer is C. Reference: AORN. (2012). Recommended practices: Positioning the patient. In Perioperative standards and recommended practices, p. 428. Denver, CO: Author.

Rationale: Attention should be given to protecting the patient's airway at all times during patient transfer and positioning.

(Continued on next page)

5. Which of the following will *decrease* the risk of fire during a laser tonsillectomy?
- A. Placing the laser in standby mode when not in use.
  - B. Having a carbon dioxide fire extinguisher in the room.
  - C. Using an uncuffed endotracheal (ET) tube.
  - D. Providing dry towels for draping the patient's head.

Correct answer is A. Reference: Rothrock, J. (2011). *Alexander's care of the patient in surgery*, pp. 236,673. St. Louis, MO: Elsevier/Mosby.

Rationale: A fire extinguisher is used to extinguish a fire, not to prevent its occurrence. Cuffed tubes should be used; cuff should be filled with saline and a dye to enable rapid identification of a puncture. Wet towels should be used near the laser target area.

# CNOR® Exam Study Plan

The Competency & Credentialing Institute often receives requests for information on how to study and what to study when preparing for the CNOR exam. The following information is being offered as an example of how to organize topics and references in developing a study plan. Subjects are arranged by their relationship to commonly encountered perioperative tasks, knowledge, and abilities. The key words can be used to further identify not only what is included in each topic but also act as a reference for individual learning needs.

This tool may be modified for individuals as a self-paced learning aid or used in group settings as part of a CNOR exam prep curriculum. This plan is to be used as a guide only and is not meant to serve as an exhaustive review of all available literature. Information on specific specialties is not included in this plan. Additional methods and resources for studying should be explored based on the needs and experience of the applicant.

## Required Reference:

- AORN *Perioperative Standards and Recommended Practices*, 2012 edition

## Highly Recommended References (any of the following):

- *Competency for Safe Patient Care During Operative and Invasive Procedures*, Mark Phippen, Brenda Ulmer, Maryann Wells, Editors, CCI, 2009.
- *Alexander's Care of the Patient in Surgery*, Jane Rothrock, Editor, 14th Edition, Elsevier, 2011.
- *Berry and Kohn's Operating Room Technique*, Nancy Marie Phillips, Editor, 12th Edition, Elsevier, 2013.

## Optional References:

- *CNOR Exam Study Guide*, Competency and Credentialing Institute, 2012.
- *Pathophysiology: The Basis of Disease in Adults and Children*, K.L. McCance & S.E. Huether, 2010.
- *Mosby's Manual of Diagnostic and Laboratory Tests*, K.D. Pagana and J.T. Pagana, 2010.

## Key:

- Alexander's – *Alexander's Care of the Patient in Surgery*
- AORN SRP – *Perioperative Standards and Recommended Practices*
- Berry & Kohn's – *Berry and Kohn's Operating Room Technique*
- Phippen, Ulmer & Wells – *Competency for Safe Patient Care During Operative and Invasive Procedures*

| TOPIC                                  | KEY WORDS   | RECOMMENDED REFERENCES  |
|--|---|---|
| INTRODUCTION TO PERIOPERATIVE PRACTICE | Professional Standards<br>Roles/responsibilities of perioperative team members<br>Standards of perioperative clinical practice  | <ul style="list-style-type: none"> <li>• AORN SRP Section I &amp; II: Introduction</li> <li>• Phippen, Ulmer &amp; Wells, Chapter 1, 2</li> <li>• Alexander's, Chapter 1</li> <li>• Berry &amp; Kohn's, Chapters 2,4</li> </ul>   |
| MAINTAINING ASEPSIS                    | Causes of infection<br>Draping<br>Drug resistant organisms<br>Hand hygiene<br>Patient skin prep<br>Sterile field<br>Standard precautions<br>Surgical attire<br>Traffic patterns | <ul style="list-style-type: none"> <li>• AORN SRP Section II: Aseptic Practice</li> <li>• AORN SRP Section II: Equipment and Product Safety (selection of gowns and drapes)</li> <li>• AORN SRP Section II: Patient Care (pre-operative patient skin antisepsis)</li> <li>• Phippen, Ulmer &amp; Wells, Chapter 9</li> <li>• Alexander's, Chapter 3</li> <li>• Berry &amp; Kohn's, Chapters 10, 14, 15, 16, 26</li> </ul> |

| TOPIC                               | KEY WORDS  | RECOMMENDED REFERENCES   |
|-------------------------------------|--|--|
| HEALTHY WORKPLACE PRACTICES         | Culture of safety<br>Environmental controls<br>Ergonomics<br>Room cleaning and turnover  | <ul style="list-style-type: none"> <li>• AORN SRP: Section II: Patient and Worker Safety (Environment of Care; Environmental Cleaning)</li> <li>• AORN SRP: Section III: Environmental Responsibility; Creating a Patient Safety Culture</li> <li>• Phippen, Ulmer, &amp; Wells, Chapter 14</li> <li>• Alexander's, Chapters 3, 30</li> <li>• Berry &amp; Kohn's, Chapters 12, 13</li> </ul>   |
| INSTRUMENT SELECTION & PROCESSING   | Cleaning and care<br>Disinfection<br>Endoscopes<br>Packaging<br>Power equipment<br>Sterilization including methods and parameters<br>Sterilization indicators  | <ul style="list-style-type: none"> <li>• AORN SRP, Section II, Equipment and Product Safety (product selection)</li> <li>• AORN SRP, Section II, Sterilization and Disinfection</li> <li>• AORN SRP, Section III, Reuse of Single Use Devices</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 11, 14</li> <li>• Alexander's, Chapters 3, 6</li> <li>• Berry &amp; Kohn's, Chapters 17, 18, 19 &amp; 20</li> </ul>  |
| PATIENT OUTCOMES: FREEDOM FROM HARM | Electrical and fire hazards<br>Laser safety<br>Perioperative complications (i.e. MH, respiratory/cardiac arrest, venous stasis, latex allergy, hypothermia)<br>Prevention of infection<br>Blood administration<br>Medication administration<br>Radiation safety<br>Universal protocol<br>Tourniquets | <ul style="list-style-type: none"> <li>• AORN SRP, Section II, Equipment and Product Safety (Electrosurgery, Laser safety, Tourniquets), Patient and Worker Safety (Reducing Radiological Exposure, Transmissible Infections), Patient Care (Prevention of Hypothermia)</li> <li>• AORN SRP, Section III, Guidelines: Latex, Malignant Hyperthermia, and Prevention of Venous Stasis</li> <li>• AORN SRP, Section IV, Position Statement: Correct Site Surgery</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 6, 13 and 14</li> <li>• Alexander's, Chapters 2, 3, 4, 5, 7, 19, 28, 30</li> <li>• Berry &amp; Kohn's, Chapters 13, 31</li> </ul> |
| SPONGES, SHARPS, INSTRUMENTS        | Counts (Prevention of retained surgical items)<br>Prevention of sharps injury  | <ul style="list-style-type: none"> <li>• AORN SRP, Section II: Patient and Worker Safety (Retained Surgical Items-Prevention of)</li> <li>• AORN SRP, Section III, Sharps Injury Prevention</li> <li>• Phippen, Ulmer &amp; Wells, Chapter 10</li> <li>• Alexander's, Chapters 2, 6, 30</li> <li>• Berry &amp; Kohn's, Chapter 25</li> </ul>   |
| PATIENT ASSESSMENT & DIAGNOSIS      | Fluids and electrolytes<br>Physiologic monitoring<br>Pre-op preparation  | <ul style="list-style-type: none"> <li>• AORN SRP, Section III, Pre-op Patient Care</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 5, 13</li> <li>• Alexander's, Chapters 1, 2</li> <li>• Berry and Kohn's, Chapters 21, 27</li> </ul>  |

| TOPIC  | KEY WORDS   | RECOMMENDED REFERENCES   |
|--|---|--|
| PATIENT POSITIONING                                  | Risks<br>Equipment<br>Patient transfer<br>Pressure points<br>Standard positions   | <ul style="list-style-type: none"> <li>• AORN SRP, Section II: Patient Care (Positioning the Patient)</li> <li>• AORN SRP, Section III: Safe Patient Handling and Movement</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 6, 8</li> <li>• Alexander's, Chapter 5</li> <li>• Berry &amp; Kohn's, Chapter 26</li> </ul>   |
| PHARMACOLOGY & ANESTHESIA                            | Anesthesia types<br>Pain management<br>Responsibilities of the monitoring nurse<br>Medications  | <ul style="list-style-type: none"> <li>• AORN SRP: Section II, Patient Care (Managing the Patient receiving Moderate Sedation/ Analgesia; Managing the Patient receiving Local Anesthesia)</li> <li>• AORN SRP, Section III, Safe Medication Practices; Do Not Use Abbreviations</li> <li>• AORN SRP, Section IV, Pediatric Medication</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 7, 12, 13, 36</li> <li>• Alexander's, Chapters 4, 9, 29; Pharmacology index p. 1288</li> <li>• Berry &amp; Kohn's, Chapters 23, 24</li> </ul> |
| SKIN INTEGRITY & WOUND MANAGEMENT                    | CDC wound classifications<br>Risk factors for delayed wound healing (including drugs, diseases)<br>Surgical Care Improvement Project (SCIP)<br>Stages of wound healing<br>Surgical Site Infections (SSI's)<br>Tissue handling | <ul style="list-style-type: none"> <li>• AORN, SRP, Positioning the Patient (Chart, Pressure Ulcer Stages)</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 16, 17</li> <li>• Alexander's, Chapter 8</li> <li>• Berry &amp; Kohn's, Chapters 28, 29</li> </ul>  |
| DOCUMENTATION  | Hand-off<br>Privacy issues<br>Specimens<br>Surgical tissue banking  | <ul style="list-style-type: none"> <li>• AORN SRP: Section II: Patient Care (Documentation, Transfer of Patient Care Information, Specimen Care and Handling)</li> <li>• AORN SRP: Section II: Equipment and Product Safety (Surgical Tissue Banking)</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 6, 15</li> <li>• Alexander's, Chapter 2</li> <li>• Berry &amp; Kohn's, Chapters 2, 3</li> </ul>  |
| POST ANESTHESIA CARE                                 | Discharge planning<br>Nursing management of post-op complications<br>Postoperative assessment   | <ul style="list-style-type: none"> <li>• AORN SRP: Section III: Post-op Patient Care</li> <li>• Phippen, Ulmer &amp; Wells, Chapter 18</li> <li>• Alexander's, Chapter 9</li> <li>• Berry &amp; Kohn's, Chapter 30</li> </ul>  |
| PATIENT & FAMILY EDUCATION AND PSYCHOLOGICAL SUPPORT | Age specific care<br>Cultural competencies<br>Patient learning needs<br>Pre- and post-op instructions   | <ul style="list-style-type: none"> <li>• Phippen, Ulmer &amp; Wells, Chapter 5, 14, 18</li> <li>• Alexander's, Chapters 9,25,26</li> <li>• Berry &amp; Kohn's, Chapter 21</li> </ul>   |
| SPECIAL POPULATIONS                                  | Geriatrics<br>Bariatric<br>Pediatrics<br>Trauma   | <ul style="list-style-type: none"> <li>• Phippen, Ulmer &amp; Wells, Chapters 20, 32, 37, 38</li> <li>• Alexander's, Chapters 10, 25, 26, 27</li> <li>• Berry &amp; Kohn's, Chapters 8, 9</li> </ul>   |

| TOPIC   | KEY WORDS   | RECOMMENDED REFERENCES   |
|---|---|--|
| AMBULATORY SURGERY/<br>MINIMALLY INVASIVE<br>PROCEDURES | Endoscopic<br>Laparoscopic<br>Outpatient surgery<br>Robotics  | <ul style="list-style-type: none"> <li>• AORN SRP: Section III: Pre and Post-op Patient Care in the Ambulatory Surgery Setting</li> <li>• Phippen, Ulmer &amp; Wells, Chapter 19</li> <li>• Alexander's, Chapter 7</li> <li>• Berry &amp; Kohn's, Chapters 11, 32</li> </ul>   |
| LEGAL, REGULATORY,<br>LEGISLATIVE, AND<br>PROFESSIONAL  | Accountability, delegation<br>DNR, Ethics<br>Informed consent<br>National patient safety goals<br>Patient rights<br>Regulatory agencies<br>"Time Out"©<br>Scope of practice<br>Standards, Roles | <ul style="list-style-type: none"> <li>• AORN SRP, Section I, Exhibit B, ANA Explications for Perioperative Nursing</li> <li>• AORN SRP, Section IV, Perioperative Care of Patients with DNR Orders</li> <li>• Phippen, Ulmer &amp; Wells, Chapters 2, 4</li> <li>• Alexander's, Chapter 1, 2</li> <li>• Berry &amp; Kohn's, Chapters 1, 2, 3, 4, 7</li> </ul> |

# CNOR<sup>®</sup> Exam Content Outline

## Domain 1: Preoperative Patient Assessment and Diagnosis

Questions on the CNOR Exam will cover with the following topics:

1. Advance directives and Do Not Resuscitate (DNR)
2. Age and culturally appropriate health assessment techniques
3. Anatomy and physiology
4. Approved nursing diagnoses (North American Nursing Diagnosis Association [NANDA])
5. Perioperative Nursing Data Set [PNDS]
6. Cultural/diversity assessment
7. Diagnostic procedures and results
8. Pain measurement techniques
9. Pathophysiology
10. Pharmacology
11. Universal protocol
12. Surgical consent

### Required Elements of Domain 1

- Confirm patient identity with two patient identifiers, procedure and operative site, side/site marking
- Verify the surgical consent
- Conduct an individualized physical assessment including but not limited to skin integrity and mobility deficits
- Use age and culturally appropriate health assessment and interview techniques
- Collect, analyze and prioritize patient data (allergies, lab values, other medical conditions, previous relevant surgical history, chart review, NPO status)
- Review medication history (preoperative meds, home meds, alternative and herbal supplements, medical marijuana use, alcohol use, recreational drug use)
- Perform a pain assessment
- Confirm Advance Directive and DNR status
- Formulate nursing diagnoses
- Document preoperative assessment

## Domain 2: Identify Expected Outcomes and Develop an Individualized Plan of Care

Questions on the CNOR Exam will cover the following topics:

1. Age-specific needs
2. Behavioral responses to the operative/invasive experience
3. Communication skills
4. Community and institutional resources
5. Disease processes
6. Legal and ethical responsibilities and implications for patient care
7. Nursing process
8. Patient rights and responsibilities
9. Perioperative safety
10. Perioperative Nursing Data Set (PNDS)
11. Physiological responses to the surgical experience

## Domain 2: Identify Expected Outcomes and Develop an Individualized Plan of Care Continued

Questions on the CNOR Exam will cover the following topics:

1. Resources for patient/family education
2. Transcultural nursing theory, including cultural and ethnic influences, family patterns, spirituality, and other related practices
3. Teaching/learning needs of patients and families

### Required elements of Domain 2

- Identify potential physiological responses (e.g. infection, tissue perfusion, thermal regulation) to the operative/invasive experience
- Assess behavioral responses of patient and family (comfort, anxiety, medication, pain management, cultural, and spiritual issues) to the operative/invasive procedure
- Incorporate age-specific needs into the plan of care
- Specify diversity needs and requirements (language barriers, attire)
- Perform preoperative teaching
- Collaborate with the interdisciplinary healthcare team
- Appraise legal and ethical guidelines related to patient care
- Apply principles of perioperative safety, e.g., chemical exposure, radiation, fire, laser, and positioning to plan of care
- Identify and communicate measurable patient outcomes across the continuum of care (hand offs)

## Domain 3: Intraoperative Activities

Questions on the CNOR Exam will cover the following topics:

1. Anatomy and physiology
2. Anesthesia management and anesthetic agents
3. Aseptic technique
4. Documentation of all nursing interventions
5. Environmental cleaning (spills, room turnover, terminal cleaning)
6. Environmental factors (temperature, humidity, air exchange, noise, traffic patterns)
7. Ergonomics and body mechanics
8. Equipment use per manufacturer's instructions
9. Expected outcomes related to identified interventions
10. Implants and explants (handling, tracking, sterilization)
11. Intraoperative blood salvage
12. Instruments, supplies, and equipment relating to surgical procedure
13. Medication management, including the five rights
14. Pain management
15. Patient's rights
16. Pharmacology
17. Physiologic responses to the surgical experience
18. Potential complications
19. Preoperative patient preparation activities
20. Prevention of retained surgical items (counts)
21. Principles of infection control
22. Principles of patient/personnel safety

## Domain 3: Intraoperative Activities Continued

Questions on the CNOR Exam will cover the following topics:

1. Principles of wound healing
2. Problem solving skills
3. Professional standards of care
4. Regulatory guidelines
5. Requirements for handling hazardous materials
6. Requirements for handling specimens
7. Role as a patient advocate
8. Skin antisepsis
9. Smoke plume
10. Standard and transmission-based precautions
11. Surgical procedure
12. Universal protocol
13. Wound classification

### Required Elements of Domain 3

- Comply with components of universal protocol
- Assist with anesthesia management
- Monitor and evaluate the effects of pharmacological and anesthetic agents
- Label solutions, medications and medication containers
- Perform proper patient positioning
- Utilize proper body mechanics
- Prepare the surgical site
- Maintain the dignity, modesty and privacy of the patient
- Select procedure-specific protective barrier materials
- Assess expiration date and package integrity of products
- Maintain a sterile field utilizing aseptic technique
- Perform counts
- Optimize physiological responses of the patient to the operative/invasive procedure
- Conduct and document intraoperative blood salvage
- Optimize behavioral responses (e.g., anxiety, spiritual and cultural needs) of patient and family by providing comfort, pain management, etc. throughout the operative/invasive procedure
- Monitor and maintain patient and personnel safety (chemical, fire, smoke plumes, radiation, laser, positioning)
- Identify and control environmental factors (noise, temperature, traffic)
- Test and use equipment according to manufacturer's recommendations
- Confirm, prepare and present implants to sterile field
- Prepare explants for final disposition
- Prepare, label, and transport specimens
- Perform or supervise environmental cleaning for room turnover, spills, and terminal cleaning
- Utilize professional standards of care
- Utilize problem solving skills to facilitate patient care
- Protect patient confidentiality
- Advocate for and protect patients' rights
- Maintain accurate patient records/documentation related to plan of care and nursing interventions

## Domain 4: Communication

Questions on the CNOR Exam will cover the following topics:

1. Collaborative reporting to interdisciplinary healthcare providers (e.g. critical lab values, medical condition, medications, allergies, implants/implantable devices, hand off, read back verbal orders, communication barriers)
2. Communication techniques
3. Interdisciplinary plan of care
4. Interviewing techniques
5. Medication reconciliation
6. Proper use of documentation tools
7. Regulatory guidelines (e.g. confidentiality)
8. Universal protocol

### Required Elements of Domain 4

- Identify patient barriers to communication and incorporate effective solutions
- Communicate patient status and changes to the interdisciplinary healthcare providers (critical lab values, medical condition, medications, allergies, implants/implantable devices)
- Utilize best practices for effective communication, including hand offs and read back for verbal orders
- Maintain patient confidentiality
- Provide information to the patient/family according to HIPAA guidelines (status, updates)

## Domain 5: Transfer of Care

Questions on the CNOR Exam will cover the following topics:

1. Coordination of interdisciplinary care services
2. Documentation of the transfer of care
3. Patient postoperative follow up communication following regulatory guidelines
4. Perioperative patient education techniques
5. Postoperative complications
6. Transfer of care criteria

### Required Elements of Domain 5

- Evaluate patient status to facilitate transfer to the next level of care (PACU, ICU, home)
- Collaborate with interdisciplinary services (nutrition, wound care, social work, visiting nurse referrals, and transportation)
- Document perioperative education
- Document transfer of care
- Provide and document post discharge follow up communication according to regulatory guidelines

## Domain 6: Cleaning, Disinfecting, Packaging, Sterilizing, Transporting and Storing Instruments and Supplies

Questions on the CNOR Exam will cover the following topics:

1. Documentation requirements for sterilization, biological and chemical monitoring
2. Environmental conditions of sterilization and storage areas
3. Handling and disposition of biohazardous materials (e.g., blood, infectious pathogens such as Creutzfeldt-Jakob Disease [CJD])
4. Handling and disposition of hazardous materials (e.g. chemotherapy drugs, radioactive materials)
5. Microbiology and infection prevention
6. Regulatory requirements for tracking of materials and instruments brought in from outside the facility
7. Principles of cleaning and disinfection
8. Principles of packaging and sterilizing
9. Principles of transporting and storage
10. Professional and regulatory standards - AORN Standards and Recommended Practices, Occupational Safety and Health Administration (OSHA), Centers for Disease Prevention and Control (CDC), Association for the Advancement of Medical Instrumentation (AAMI)
11. Standard and transmission-based precautions

### Required Elements of Domain 6

- Use appropriate Personal Protective Equipment (PPE)
- Choose the appropriate method for cleaning and disinfection of contaminated equipment and instruments
- Select appropriate packaging
- Determine appropriate sterilization method
- Select appropriate method(s) for biological/chemical monitoring
- Select appropriate methods for transporting and storage of processed supplies and instruments
- Monitor environmental conditions (e.g. humidity and temperature) of sterilization and storage areas
- Document actions related to cleaning, disinfecting, packaging, sterilizing, transporting, and storing instruments and supplies
- Describe appropriate handling and disposition of hazardous materials (e.g. chemotherapy drugs, radioactive materials)
- Describe appropriate handling and disposition of biohazardous materials (e.g. blood, infectious pathogens such as Creutzfeldt-Jakob Disease [CJD])
- Manage materials and instruments brought in from outside the facility

## Domain 7: Emergency Situations

Questions on the CNOR Exam will cover the following topics:

- I. Identification of, preparation for, and nursing interventions related to:
  - a. Anaphylaxis
  - b. Cardiac arrest
  - c. Environmental hazards, e.g., fire
  - d. Malignant Hyperthermia (MH)
  - e. Natural disasters e.g., hurricanes, floods, tornados, etc.
  - f. Terrorism

## Domain 7: Emergency Situations Continued

- g. Trauma
- II. Roles of interdisciplinary healthcare team members

### Required Elements of Domain 7

- Function as a member of the interdisciplinary healthcare team in the prevention or management of:
  - Anaphylaxis
  - Cardiac arrest
  - Environmental hazards e.g. fire
  - Malignant Hyperthermia (MH)
  - Natural disasters e.g., hurricanes, floods, tornados, etc.
  - Terrorism
  - Trauma

## Domain 8: Management of Personnel, Services, and Materials

### Questions on the CNOR Exam will cover the following topics:

1. Acquiring equipment, supplies, and personnel for proper room preparation
2. Basic management techniques and delegation
3. Environmental consciousness (“go green”)
4. Principles of product evaluation and cost containment
5. Role of the Healthcare Industry Representative (HCIR)
6. Role of non-OR personnel (e.g., visitors and students) in the OR
7. Scope of practice

### Required Elements of Domain 8

- Utilize critical thinking skills to anticipate the needs for and acquire equipment, supplies and personnel
- Delegate perioperative tasks to appropriate personnel according to regulatory agencies’ standards
- Monitor and implement cost-containment measures
- Practice environmental consciousness (“go green”)
- Supervise, educate and mentor healthcare team members
- Manage healthcare industry representative (HCIR) presence in the OR
- Supervise non-OR personnel, including visitors and students
- Participate in product evaluation/selection

## Domain 9: Professional Accountabilities

Questions on the CNOR Exam will cover the following topics:

1. Regulatory standards and voluntary guidelines (AORN Standards, Recommended Practices and Guidelines, OSHA, ANA Code of Ethics for Nurses with Explications for Perioperative Nurses, state Nurse Practice Act)
2. Scope of Practice
3. Resources for professional growth
4. Competence standards in perioperative nursing practice
5. Quality improvement activities for research
6. Quality improvement activities for evidence based practice
7. Quality improvement activities for performance improvement
8. Responsibilities regarding impaired and/or disruptive persons (patient/family, interdisciplinary healthcare team members)

### Required Elements of Domain 9

- Function within scope of practice
- Demonstrate competence in perioperative nursing practice
- Uphold and act upon ethical and professional standards
- Assess personal limitations and seek assistance as needed
- Identify and utilize resources for professional growth (i.e., participation in shared governance activities, hospital committees, professional organizations)
- Identify quality improvement activities that promote performance improvement, evidence based practice, and research
- Choose appropriate actions when intervening with impaired/disruptive behavior in patients and/or family members



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