CRNI®
Exam
Handbook

Contents

About Certification

Certification, as defined by the American Board of Nursing Specialties, is the formal recognition of the specialized knowledge, skills, and experience demonstrated by the achievement of standards, which are identified by a nursing specialty, to promote optimal health outcomes.

Infusion Nurses Certification Corporation, INCC, offers the only specialty certification for infusion nurses that is nationally recognized and accredited.

A CRNI® represents the highest standard of excellence and commitment to the practice of infusion therapy. Those who hold the prestigious CRNI® credential demonstrate a dedication to lifelong learning and a passion for patient care. They earn the recognition and respect of employers and peers, as well as the trust of those in their care. A CRNI® is, first and foremost, an advocate for improving the delivery and quality of care for every patient.

Benefits of Certification

Validate your experience by becoming a CRNI®. It is one of the most significant personal and professional decisions you can make. These are just a few of the benefits that result from becoming a CRNI®:

• Attaining the only credential available in the infusion profession that is built by infusion nurses, for infusion nurses.

• Demonstration of your commitment to the infusion nursing specialty.

• Ability to keep up to date with the latest advances within the field through recertification.

• Documents your ability to practice infusion therapy in any clinical setting.

• Exposure to the newest advances and latest technologies within the infusion therapy specialty.

Benefits for Patients and Employers

A Certified Registered Nurse Infusion (CRNI®), who has passed a rigorous exam covering the core areas of infusion nursing, is the most informed and qualified infusion nursing specialist. Nurses who earn this credential present a strong skill set and commitment to providing the best patient care possible. INCC's dual national accreditations serve to assure patients and caregivers that the CRNI® credential is a credible and reliable method of validating an infusion nurse's professional expertise. In addition, CRNI® recertification requirements assure the organization the CRNI® maintains a high-level of expertise in the infusion nursing specialty by engaging in continuing education and by staying informed about current trends and best practice.

• Patients' confidence in the standard of their care is increased when they are provided with a nurse with validated experience.

• Investing in nurses' education helps develop a stable and highly skilled workforce, leading to an improvement in retention rates.

• Less time can be spent on in-house training by establishing a quality mentor program led by nurses who are CRNI®s.

• Certification can have a positive influence on applications for distinction from organizations such as the American Nurses Credentialing Center's Magnet Program® and The Joint Commission.

About INCC and INS

INCC is committed to promoting the CRNI® credential as the standard of excellence that nurses seek to provide optimal infusion care. Through the development and administration of a comprehensive, evidence-based certification program, INCC is dedicated to promoting optimal health outcomes that the public expects, demands, and deserves.

While INCC is affiliated with INS and shares the same goals of providing the best infusion-related care, the two organizations are legally and financially independent.

The Infusion Nurses Society (INS) is a not-for-profit professional membership association designed to advance the specialty of infusion nursing. We set standards of practice, offer up-to-date clinical information, provide continuing education, as well as networking opportunities, with the goal of improving infusion-related care.

CRNI® Exam Basics

Eligibility Criteria

CRNI® exam applicants must document the following:

•   A current, active, unrestricted registered nurse (RN) license in the United States or Canada.

•   A minimum of 1,600 hours of experience in infusion therapy as an RN within the past two years. Nursing experience may be in the areas of nursing education, administration, research, or clinical practice within the infusion specialty. Direct bedside care is not a requirement.

Locations

Candidates will have access to the PSI secure testing network, consisting of 866 PSI Premier PLUS® computer-based test centers with a supplemental network of over 340 third-party authorized centers, for a total of 600 centers available to candidates in the US and Canada and an additional 570+ sites internationally.

For a current listing of PSI Assessment Centers, including addresses and driving directions, select the Infusion Nurses Certification Corporation program at https://test-takers.psiexams.com/incc.

Date and Time

The CRNI® exam is offered during the months of March and September (exclusive of Labor Day). Appointments are offered Monday through Saturday. Appointment starting times may vary by location. Appointments can be made approximately three weeks before the testing window, after appointment notifications are sent to candidates by PSI.

Appointment notifications are sent by email. Please ensure that INCC has your most current contact information.

Exam Application Deadlines and Fees

Early Bird Deadline		Member	Non-Member
		Member	**Non-Member**
March Exam	By November 10	$335	$475
September Exam	By June 10		
Regular Deadline			
		Member	**Non-Member**
March Exam	November 11 - January 10	$385	$525
September Exam	June 11 - July 10		
Late Deadline			
		Member	**Non-Member**
March Exam	After January 10	$435	$575
September Exam	After July 10		
International Site Fee	Additional Fee	$140	$140

International Applicant Information

Eligibility Requirements

• Documentation of a current, active, unrestricted registered nurse (RN) license in the country in which the applicant practices.

• A minimum of 1,600 hours of experience in infusion therapy as an RN within the past two years; 1,600 hours of direct bedside care are not required. Nursing experience may be in the areas of nursing education, administration, research, or clinical practice within the infusion specialty.

• Online applicants must upload RN license documentation.

• Correspondence will be primarily through email. Please ensure that INCC has your correct e-mail address and that incc@incc1.org is approved through your email server.

Locations

The CRNI® exam is offered at more than 283 international locations in 85 countries. An additional $140 international site fee is required. A full listing of locations is available under the Infusion Nurses Certification Corporation program at https://test-takers.psiexams.com/incc. Other locations may be available; however, additional fees may apply. Contact INCC for information.

Application Process

Requirements

• State and expiration date of RN license.

• Supervisor's contact information. INCC may contact the employer to verify clinical experience.

Acceptance

INCC will e-mail a receipt and confirmation letter of eligibility to all applicants within 7 to 14 days of processing an exam application. If you do not receive a confirmation letter after you submitted your application, e-mail incc@incc1.org or call (781) 440-9408 to confirm that your application was successfully processed. The confirmation letter will include your unique ID number, which is required to log onto PSI's website to schedule your exam appointment and to register at the test site. **NOTE: The first digit of your unique ID number is the letter I. It's a capital "i" for infusion.**

Applications are not considered complete until the applicant receives a confirmation letter from INCC. Applicants who are found to be ineligible to take the exam will be notified. Ineligibility decisions may be appealed by submitting a written request for appeal to INCC within 15 calendar days of the denial of eligibility to sit for the exam. A copy of the full Applicant Appeals Process policy is available from INCC on request.

Application Submission Policy

INCC reserves the right to verify information supplied by or on behalf of a candidate. Any misrepresentation of information shall be considered grounds for prohibition from testing or revocation of certification. An application is considered complete only if all information required is complete, legible, and accurate; if the candidate is eligible for the exam; and if the appropriate fee accompanies the application. Applications should not be considered accepted until a confirmation letter from INCC is received. Applications not received by published deadlines are not guaranteed acceptance and may be subject to a $50 late fee.

Applications are processed in the order they are received.

INCC does not discriminate among candidates on the basis of age, gender, race, religion, national origin, disability, sexual orientation, or marital status.

Retake Discount

Candidates who were previously unsuccessful CRNI® exam candidates automatically qualify for a $50 discount. CRNI®s who are recertifying by exam are not eligible. If you do not receive your $50 discount, please contact INCC.

Special Accommodations

In compliance with the Americans with Disabilities Act of 1990, all reasonable special requests will be accommodated. Complete the Special Accommodation section on your exam registration page online and upload a current letter from a health care or education professional explaining your requirements. Request for special accommodation must be received by regular deadlines. Exam appointments can be made only by calling PSI at (833) 333-4755.

Scheduling an Examination

After eligibility requirements are approved and the candidate has received confirmation from PSI, approximately three weeks before the testing window, the candidate can schedule an appointment to take the exam. Appointments are available on a first-come, first-served basis, Monday through Saturday, appointment starting times may vary by location. Schedule your exam promptly to secure your preferred testing date and time. You must schedule your testing appointment at least two business days before your preferred testing appointment.

There are two ways to schedule an appointment to take the CRNI® Examination:

Online - The candidate may schedule a testing appointment online by using PSI's Online Application/Scheduling service at https://test-takers.psiexams.com/incc.

Telephone - Call PSI at (833) 333-4755 to schedule a testing appointment. This toll-free number is

available from 7:00 am to 9:00 pm (Central Time) Monday through Thursday, 7:00 am to 7:00 pm on Friday, and 8:30 am to 5:00 pm on Saturday. Hours are subject to change.

When scheduling an exam, be prepared to confirm a location, a preferred date and time for testing and to provide the unique identification number you will be assigned at the time of exam application. Once scheduled you will receive an appointment confirmation. When you contact PSI to schedule an exam appointment, you will be notified of the time to report to the center. Please make note of it because you will not receive an admission letter.

Exam Withdrawal

Cancellations – If written notification of cancellation is submitted to INCC before regular deadlines (see table below), the payee will receive a refund of the exam fee, minus a $75 processing fee. No refunds can be issued after regular deadlines.

Cancellation Deadlines	March Exam	September Exam
You must notify INCC by:	By January 10	By July 10

Transfers – Applicants may transfer their exam registration to the next exam. **To request a transfer, applicants**

must complete the following:

1. Complete a Transfer Request Form

2. Pay a $75 administrative fee which must be processed by the deadlines listed below

3. You will be required to select your preferred exam administration at the time of the transfer

If you request to transfer after the date listed below, you will be subject to an additional $75 late fee and are not guaranteed acceptance. **Transfers are offered only once. Refunds are not permitted.**

Transfer Deadlines	March Exam	September Exam
You must notify INCC by:	By February 1	By August 1

Missed Appointments and Cancellations

A candidate will forfeit the application and all fees paid to take the exam under the following circumstances:

• The candidate does not submit a written request to withdraw or transfer according to policies.

• The candidate wishes to reschedule an exam but fails to contact PSI at least **two** business days before the scheduled testing session.

• The candidate wishes to reschedule a second time.

• The candidate appears more than 15 minutes late for an exam.

• The candidate fails to report for an exam appointment.

A complete application and exam fee are required to reapply for the exam.

Inclement Weather, Power Failure, or Emergency

In the event of inclement weather or unforeseen emergencies on the day of an exam, PSI will determine whether circumstances warrant the cancellation and subsequent rescheduling of an exam. The exam will usually not be rescheduled if the Assessment Center personnel are able to open the Assessment Center. If power to a testing center is temporarily interrupted during an administration, your exam will restart where you left off, and you may continue the exam. Candidates may contact PSI's Weather Hotline at (800) 380-5416 (24 hours a day) or visit https://www.psiexams.com/test-takers/openings/ before the exam to determine if PSI has been advised that any Assessment Centers are closed. Every attempt is made to administer the exam as scheduled; however, should an exam be cancelled at an Assessment Center, all scheduled candidates will receive notification regarding rescheduling or reapplication procedures.

Test Day

The CRNI® Examination will be administered by computer at a PSI Assessment Center. Candidates do not need any computer experience or typing skills to take the exam. On the day of your testing appointment, report to the Assessment Center no later than your scheduled testing time. Look for the signs indicating PSI Assessment Center Check-In. A candidate who arrives more than 15 minutes after the scheduled testing time will not be admitted.

Identification

To gain admission to the Assessment Center, candidates need to present two forms of identification, one with a current photograph. Both forms of identification must be current and include the candidate's current name and signature. The candidate will be required to sign a roster for verification of identity. Acceptable forms of photo identification include a current driver's license with photograph, a current state identification card with photograph, a current passport, or a current military identification card with photograph. Employment ID cards, student ID cards, and any type of temporary identification are not acceptable as the primary form of identification.

 You must have proper identification to gain admission to the Assessment Center. Failure to provide appropriate identification at the time of the exam is considered a missed appointment. There will be no refund of your testing fee.

Security

PSI administration and security standards are designed to ensure that all candidates are provided the same opportunity to demonstrate their abilities. The Assessment Center is continuously monitored by audio and video surveillance equipment for security purposes.

 The following security procedures apply during the examination:

• Examinations are proprietary. No cameras, notes, tape recorders, pagers, or cell phones are allowed in the testing room. Possession of a cell phone or other electronic devices is strictly prohibited and will result in dismissal from the examination.

• Only silent, nonprogrammable calculators without alpha keys or printing capabilities are allowed in the testing room.

• No guests, visitors, or family members are allowed in the testing room or reception areas.

Personal Belongings

• No personal items, valuables, or weapons should be brought to the Assessment Center. Only wallets and keys are permitted. Coats must be left outside the testing room. You will be provided with a soft locker to store your wallet and/or keys with you in the testing room. You will not have access to these items until after the examination is completed. Please note the following items will not be allowed in the testing room except when securely locked in the soft locker:

- Watches

- Hats

- Reference Calculators

- Once you have placed everything in the soft locker, you will be asked to pull out your pockets to ensure they are empty. If all personal items will not fit in the soft locker, you will not be able to take the test. The site will not store any personal belongings.

If any personal items are observed in the testing room after the examination has started, the administration will be forfeited.

Examination Restrictions

- Pencils will be provided during check in

- You will be provided with one piece of scratch paper at a time to use during the examination, unless noted on the sign-in roster for a particular candidate. You must return the scratch paper to the supervisor at the completion of the examination, or you will not receive your score report

- You will have access to an online calculator

- No documents or notes of any kind may be removed from the Assessment Center

- No questions concerning the content of the examination may be asked during the examination

- Eating, drinking, or smoking will not be permitted in the Assessment Center

- You may take a break whenever you wish, but you will not be allowed to make up for time lost during breaks

- Please refer to https://test-takers.psiexams.com/incc FAQs for further information

Practice Exam

After your identification has been confirmed, you will be directed to a testing carrel desk. You will be instructed on screen to enter your unique identification number. Your photograph, taken before beginning the examination, will remain on screen throughout your exam session. This photograph will also be printed on your score report. Before attempting the timed exam, you will be given the opportunity to practice taking an exam on the computer. The time you use for this practice exam is not counted as part of your exam time or score. When you are comfortable with the computer testing process, you may quit the practice session and begin the timed exam.

Timed Exam

Following the practice exam, you will begin the actual exam. Before beginning, instructions for taking the exam are provided on screen.

The 2.5-hour, computer based CRNI® exam consists of 140 items. Candidates are scored on 120 items. Twenty items are pretested for future use.

The computer monitors the time you spend on the exam. The exam will terminate if you exceed the time allowed. You may click on the **Time** box in the lower right portion of the screen to monitor your time. A digital clock indicates the time remaining for you to complete the exam. The **Time** feature may be turned off during the exam.

Only one exam item is presented at a time. You may change your answer as many times as you wish during the testing time limit.

An exam question may be left unanswered and returned to later in the testing session. Questions may also be bookmarked for later review by clicking in the blank square to the right of the **Time** button. When the exam is completed, the number of exam questions answered is reported. If all questions have not been answered and there is time remaining, return to the exam and answer those questions. Be sure to provide an answer for each exam question before ending the exam. There is no penalty for guessing.

Candidate Comments

During the exam, you may make comments for any question by clicking on the comment button to the left of the **Time** button. This opens a dialogue box where comments may be entered. Comments will be reviewed, but individual responses will not be provided.

Any problems during testing should be directed to the testing supervisor.

Misconduct

If you engage in any of the following conduct during the examination you may be dismissed, your scores will not be reported, and examination fees will not be refunded. Examples of misconduct are when you:

- create a disturbance, are abusive, or otherwise uncooperative.
- display and/or use electronic communications equipment such as pagers and cell phones.
- talk or participate in conversation with other examination candidates.
- give or receive help or are suspected of doing so.
- leave the Assessment Center during the administration.
- attempt to record examination questions or make notes.
- attempt to take the examination for someone else.
- are observed with personal belongings; or
- are observed with notes, books, or other aids without it being noted on the roster.

Copyrighted Exam Questions

All exam questions are the copyrighted property of INCC. It is forbidden under federal copyright law to copy, reproduce, record, distribute, or display these exam questions by any means, in whole or in part. Doing so may subject you to severe civil and criminal penalties.

Scoring the Exam

After completing the exam, candidates are asked to complete a short evaluation of their testing experience. Candidates are then instructed to report to the testing supervisor to receive their score report. You may also access your score report through PSI at https://test-takers.psiexams.com/incc.

Your score report will indicate a pass or fail. Additional detail is provided in the form of raw scores by major content category. A raw score is the number of questions you answered correctly. Your pass-fail status is determined by your raw score.

The minimum passing score required to pass the CRNI® Examination is established by the *Angoff* method, a criterion-referenced methodology in which expert judges estimate the passing probability of each question on the examination. These ratings are averaged for a "base form" of the examination to determine the minimum passing score (i.e., the number of correctly answered questions required to pass the examination), to ensure that those who pass have demonstrated the expertise deserving of the credential. Since different forms of the examination will be developed, the level of expertise required to pass is preserved through pre-equating. This procedure involves evaluating the performance characteristics of items on a new form, specifically the difficulty and discrimination indexes to determine the passing point on the new form that best represents the same amount of knowledge as was required to pass the base form. Because the new forms can vary somewhat in difficulty, the passing point may be slightly higher or lower than that of the base form.

Score Cancellation

INCC and PSI are responsible for the validity and integrity of the scores they report. On occasion, occurrences such as computer malfunction or misconduct by a candidate may cause a score to be suspect. INCC and PSI reserve the right to void or withhold exam results if, on investigation, violation of its regulations is discovered.

If You Pass the Exam

The CRNI® credential becomes effective April 1 for successful candidates of a March exam and expires three years later on April 1. The credential becomes effective October 1 for successful candidates of a September exam and expires three years later on October 1.

After receiving official notification of CRNI® certification, the credential may be used only as long as certification remains valid and in good standing. Individuals may not use the CRNI® until they have received specific written notification that they have successfully completed all requirements, including passing the examination and documenting the specified experience. Certificants must comply with all recertification requirements to maintain use of the credential. The Certification is a non-transferable, revocable, limited, non-exclusive license to use the certification designation "CRNI®" subject to compliance with the policies and procedures, as may be revised from time to time.

If You Do Not Pass the Exam

Those who do not pass the exam can reapply for the next exam administration by submitting another complete application with the appropriate fee to INCC. Unsuccessful candidates who retake the CRNI® Examination qualify for a $50 discount. Candidates may take the exam an unlimited number of times as long as they continue to meet the eligibility requirements.

Individuals who do not pass the exam and believe that their exam was incorrectly graded, that the exam was administered in a manner inconsistent with INCC policies, or who experienced a major disruption of the exam process may file an appeal. Adverse testing conditions and disruptions should be reported on exam day to the testing supervisor. Appeals must be submitted in writing to INCC within 15 days of receipt of the exam result. A full copy of the Applicant Appeals Process is available on the INCC website.

Confidentiality

Information about candidates and their exam results is considered confidential. Studies and reports concerning candidates will not contain information identifiable with any candidate unless authorized by the candidate.

INCC will verify the certification status of an individual. Verification will include the individual's name and whether he or she is currently certified as a CRNI® in good standing. Verification requests can be made at https://www.ins1.org/crni/verify-a-crni and must include the certificant's name and address.

Duplicate Score Report

Candidates may purchase additional copies of their results at a cost of $25 a copy. Requests must be submitted to PSI in writing within 12 months after the exam. The request must include the candidate's name, unique identification number, mailing address, telephone number, date of exam, and exam taken. Submit this information with the required fee payable to PSI in the form of a money order or cashier's check. Mail requests to PSI, Examination Services Department, 18000 W. 105th Street, Olathe, KS 66061-7543.

Revocation of the CRNI® Credential

INCC may withdraw certification status or impose other sanctions if a CRNI® loses his or her RN license, misrepresents his or her credential(s), or practices in a manner deemed morally or ethically unacceptable by the INCC Board of Directors. Alleged violations will be investigated by the INCC Disciplinary Committee. In the event of an unfavorable decision, appeals may be directed to the INCC Board of Directors, who are the final authority in INCC disciplinary matters. A complete copy of the Disciplinary Action and Appeals for Misrepresentation and Non-Compliance policy is available on the INCC website.

Frequently Asked Questions

1. What constitutes 1,600 hours of clinical infusion therapy experience?

    The requirement of 1,600 hours of clinical infusion therapy experience ensures that the RN has sufficient exposure to infusion technologies and has the skill set required for knowledge of the infusion practice. Experience may be within one or several of the three core areas; 1,600 hours of direct clinical bedside experience is not required. RNs functioning as educators, researchers, administrators, or managers are eligible; if you have regularly practiced infusion therapy in any of those capacities within the past two years, you have more than likely obtained the requisite hours.

2. What should I use to study for the exam?

    See Studying for the Exam on page 16, and visit our **Exam Preparation** page at **https://www.ins1.org/crni/exam/prepare/** for more detailed information.

3. When will my CRNI® credential become effective?

    The CRNI® credential becomes effective April 1 for March passers and October 1 for September exam passers.

4. What are my recertification options?

    CRNI®s recertify by exam or continuing education. Those choosing to recertify by exam must take the exam during their final year of certification. CRNI®s choosing to recertify by continuing education can begin earning recertification units from the date their credential becomes effective: either April 1 or October 1. A total of 40 CRNI® recertification units (not contact hours or CEs), including 30 earned at national INS meetings or through INS Virtual Education Conferences are required.

CRNI® Content Outline

The CRNI® examination is scored on 120 multiple-choice questions in 3 core areas of infusion therapy. The test specifications that follow are based on a job analysis—a survey that determines the activities and job requirements for an infusion nurse. To ensure the exam is current, a job analysis is conducted approximately every five years. The findings of INCC's most recent job analysis, conducted in 2019, were implemented with the March 2020 exam.

The exam consists of four-option, multiple-choice questions. Items are written at different cognitive levels even for the same knowledge content:

1. Recall items: primarily test the recognition or recall of information. Such items require predominantly an effort of memory. They include the recall of specific facts, concepts, principles, processes, procedures, or theories. To simplify, such an item will ordinarily be asking: "What is X?"
2. Application items: primarily test the interpretation or evaluation of the given data. It is an application of known or presented information to solve or address situations, problems, and scenarios. Items could require examinees to make judgments concerning the effectiveness, appropriateness, or best course of action for a particular situation. Items at this level will ordinarily be asking: "Given the following information about X, what is Y?

1. Principals of Practice   36

A. Anatomy and Physiology
B. Infection Prevention and Control
  1. Epidemiology
  2. Chain of infection (e.g., standard precautions)
  3. Blood stream infections (e.g., CLABSI, CRBSI)
C. Phlebotomy
  1. Blood sampling
  2. Therapeutic

2. Access Devices   36

A. Technology and Clinical Applications
  1. Equipment
   a. Solution containers
   b. Administration sets
   c. Filters
   d. Add-on devices
   e. Administration devices (electronic, nonelectronic)
   f. Vein location devices (e.g., transillumination, ultrasound)
   g. Navigational tools (e.g., tip locating system)
  2. Infusion Access Devices
   a. Peripheral
    1. Short peripheral
    2. Midline
   b. Central
    1. Peripherally inserted central catheter (PICC)
    2. Tunneled
    3. Non-tunneled
    4. Implanted (i.e., ports)
   c. Subcutaneous
B. Special Populations
  1. Older adults
  2. Pregnancy
  3. Chronic renal conditions

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A. Pain Management
B. Cardiovascular
C. Antineoplastic
D. Biologics/Immunologic
E. Anti-infectives
F. Blood Products
G. Fluid and Electrolyte Balance
  1. Body composition
  2. Fluid volume excess and deficit
  3. Electrolyte disorders
  4. Maintenance and replacement

H. Parenteral Nutrition
  1. General solution composition
    a. Formulas
    b. Additives
  2. Complications
    a. Infectious
    b. Metabolic

Total 120

- Each test form will include 1 set of 20 unscored pretest items in addition to the 120 scored items.
- 2.5 hours (150 minutes) of testing time.
- Passing points are established through pre-equating.

CRNI® Tasks

Items on the examination are not specifically developed to target the following tasks. However, items on the exam that target specific knowledge areas will reference the relevant task(s) that may be required to competently apply that knowledge.

1.	Assess the patient's clinical condition and disease state
2.	Review patient's medical history
3.	Review laboratory and other diagnostic data
4.	Apply anatomy and physiology principles to the therapy plan
5.	Verify patient identity
6.	Obtain or confirm informed consent
7.	Participate in patient care planning with the collaborative healthcare team
8.	Maintain established infection control practices
9.	Select devices and equipment based on therapy and characteristics of the patient
10.	Insert access device
11.	Monitor access device
12.	Educate patient and/or caregivers regarding therapy
13.	Verify appropriateness of therapy
14.	Verify matching of the product to the patient
15.	Administer therapy
16.	Evaluate patient's response to therapy
17.	Perform care and maintenance based on access type

18.	Assess and troubleshoot access devices
19.	Identify and manage complications (local and systemic)
20.	Discontinue therapy
21.	Remove the access device
22.	Dispose of hazardous materials
23.	Document processes and procedures
24.	Participate in product evaluation
25.	Practice based on laws and regulatory agencies (e.g., OSHA, TJC)
26.	Incorporate and apply evidence-based practice (e.g., standards, guidelines, policies and procedures)
27.	Participate in performance improvement process

Studying for the Exam

The CRNI® Examination is comprehensive, covering three core areas of infusion nursing. Daily nursing practice does not always expose the RN to all core areas; therefore, most candidates need to study for the CRNI® Exam. Choice of study aid depends upon learning style and current knowledge base.

See the Exam Preparation page at https://www.ins1.org/crni/exam/prepare/for more information on preparing for the CRNI® exam, including a list of additional references.

Please note: INCC does not endorse these references and is not involved in their development. They are not required for certification.

Study Resources

CRNI® Academy
CRNI® Exam Study Guide and Practice Questions, 2020 edition
Core Curriculum for Infusion Nursing, 5th edition
Infusion Nursing: An Evidence-Based Approach, 3rd edition
Infusion Therapy Standards of Practice
Policies and Procedures for Infusion Therapy: Acute Care, 6th edition
Policies and Procedures for Infusion Therapy: Ambulatory Infusion Centers, 2nd edition
Policies and Procedures for Infusion Therapy: Home Infusion, 2nd edition
Policies and Procedures for Infusion Therapy: Neonate to Adolescent, 3rd edition
Policies and Procedures for Infusion Therapy of the Older Adult, 4th edition

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Infusion Nurses Society. Policies and Procedures for Infusion Therapy of the Older Adult. 3rd ed. Norwood, MA: Infusion Nurses Society; 2016. ISBN-10: 0996594817, ISBN-13: 978-0996594813

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Gorski L. Phillips's Manual of I.V. Therapeutics: Evidence-Based Practice for Infusion Therapy. 7th ed.;2018 ISBN-13: 978- 0803667044

Abbreviations

Refer to the website for a listing of approved abbreviations.

Sample Items

The following items illustrate the types of questions found on the examination. The answer key follows at the end of this section.

1. What is the flow rate to infuse 240 mL of fluid in 1 hour, if the administration set delivers 15 drops/mL?

A. 15
B. 30
C. 45
D. 60

2. A 1.2-micron filter is used for the administration of 3-in-1 TPN solution because it is

A. effective in removing candida albicans.
B. a sterilizing filter.
C. an eliminator of air and particulates.
D. effective in removing pseudomonas.

3. A homecare oncology patient is to receive continuous therapy via an implanted port. Prior to infusion, the I.V. nurse should

A. instruct the patient regarding bleeding precautions.
B. encourage mobility during the infusion.
C. send the patient for port dye studies.
D. ensure patency of the implanted port.

4. An intensive care patient with a head injury is 3 days post trauma. Routine nursing assessment reveals a temperature of 102 F, flushed skin, and restless and irritable movements. The most appropriate FIRST action is to obtain an order for

A. a serum sodium level.
B. a blood culture.
C. administration of 0.9% sodium chloride.
D. rapid administration of D5W.

5. An unconscious elderly patient is brought into the emergency department and is found to have a serum glucose of 600 mg/dL. An infusion of 0.9% sodium chloride is initiated and two hours later the serum glucose is 275 mg/dL. At this time, it would be appropriate to change the IV solution to

A. 5% dextrose in 0.45% sodium chloride.
B. Lactated Ringer's.
C. 5% dextrose in Ringer's injection.
D. 0.45% sodium chloride.

6. A patient is to be discharged on vancomycin HCl (Vancocin). Patient education related to potential side effects of this drug would include all the following EXCEPT

A. tinnitus.
B. constipation.
C. nephrotoxicity.
D. hypotensive reaction.

7. The most common adverse effect of furosemide (Lasix) is which of the following?

A. Hypokalemia
B. Hyperuricemia
C. Ototoxicity
D. Hypercalcemia

8. When administering phenytoin sodium (Dilantin) by IV push to an adult patient, the rate should NOT exceed

A. 5 mg/min.
B. 10 mg/min.
C. 50 mg/min.
D. 100 mg/min.

9. A patient with severe osteomyelitis receiving ceftriaxone (Rocephin) develops severe diarrhea after 1 week. Which of the following is the most likely cause?

A. Crohn's disease
B. Red man syndrome
C. Ulcerative esophagitis
D. Pseudomembranous colitis

10. Which of the following drugs should only be used via a central vascular access device?

A. potassium chloride 40 mEq in 500 mL of D5W
B. dopamine HCl (Intropin) 200 mg in 250 mL of D5W
C. hydrochloric acid 100 mEq in 1,000 mL of D5W
D. isoproterenol HCl (Isuprel HCl) 2 mg in 250 mL of 0.9% sodium chloride

1.D; 2.C; 3.D; 4.A; 5.A; 6.B; 7.A; 8.C; 9.D; 10.C

Recertification Basics

The CRNI® recertification requirements are designed to enhance the continued competence of nurses and to ensure that certificants receive exposure to all three core areas, identified by INCC, during each recertification cycle.

The CRNI® recertification requirements support INCC's commitment to promoting excellence in infusion nursing by requiring nurses to remain up-to-date and knowledgeable about innovations and changes in the infusion nursing field.

Please review the following information carefully. It is the CRNI®'s professional responsibility to understand and meet recertification requirements. INCC's policies and procedures for recertification will be strictly enforced.

Expiration of Credential and Deadlines

The CRNI® credential is valid for three years, contingent upon continuous RN licensure. The three-year renewal cycle is based on INCC's assessment of the frequency of significant changes in infusion nursing. The CRNI® credential becomes effective April 1 for successful candidates of the March exam and expires three years later on April 1. The credential becomes effective October 1 for successful candidates of the September exam and expires three years later on October 1. Recertification Units (RUs) must be earned between the date the credential became effective and the date the credential expires.

	Member	Non-Member
CRNI®s who passed the March Examination **Deadline:** Received by March 31st		
CRNI®s who passed the September Examination **Deadline:** Received by September 30th	$200	$325

Failure to successfully recertify by the deadline will result in the revocation of the CRNI® credential. You will need to sit for the CRNI® Exam and pass to regain the CRNI® credential. A complete application and exam fee are required to reapply for the exam.

Additional recertification information and reminders will be mailed or emailed throughout the certification period. Information is also available at **www.incc1.org**. **It is the professional responsibility of the CRNI®** to meet recertification requirements and submit a complete recertification application and appropriate fee before published deadlines.

Late applications may be accepted but will be subject to a $50 late fee.

Recertification Options

A CRNI® can recertify by either continuing education or exam. Eligibility requirements for recertification are as follows:

Documentation of 1,000 hours of clinical experience in infusion therapy within the previous three years. Clinical bedside experience is not a requirement. Nursing experience may be in the areas of nursing education, administration, research, or clinical practice within the infusion specialty.

Documentation of a current, active, unrestricted RN license.

Recertification by Exam

To recertify by exam, a CRNI® must pass the CRNI® Exam during the final year of certification. If you elect to recertify through exam, the option to recertify by continuing education is forfeited. Applications will become available in the last year of your certification cycle under your CRNI® Certification profile online.

Recertification by Continuing Education

To recertify by continuing education, 40 CRNI® Recertification Units (RUs) (not continuing education credits) must be earned within the three-year recertification period, and a complete recertification application with appropriate fee

should be submitted by your specific recertification deadline. Applications will become available in the last year of your certification cycle under your CRNI® Certification profile online.

At least 30 of the 40 CRNI® RUs must be obtained through attendance at national INS meetings or INS Virtual Education Conferences. This ensures that CRNI®s receive exposure to continuing education covering all core areas.

Details regarding the options are available on the [recertification](#) page of the website. INS' [Learning Center](#) offers RU approved, low -cost and complimentary educational programs for INS members.