

The Certification Board of
Nuclear Cardiology announces



2010 CANDIDATE BULLETIN

Recertification Examination in Nuclear Cardiology

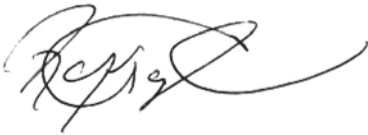
DECEMBER 13 - DECEMBER 18, 2010

Message from the CBNC President

On behalf of the CBNC Board of Directors, I applaud your decision to recertify in nuclear cardiology. Together we have come a long way since CBNC's inception in 1996. Our primary objective was then, and remains now, to *Establish a Benchmark of Quality* by which nuclear cardiology practitioners can be measured. This would not have been possible without the support from those early Candidates whose belief in the value of the credential propelled CBNC, and the field, forward.

In the fourteen years since its founding, CBNC has certified 7,629 individuals from more than 50 countries. Moreover, CBNC has received recognition within the U.S. and internationally from professional organizations, credentialing groups and insurance carriers. In addition, CBNC became the first certification organization to receive recognition from the U.S. Nuclear Regulatory Commission in 2001. Our certification program was recognized again in 2005, together with a number of other important certifying bodies.

We understand that maintaining your credential in nuclear cardiology involves time and money. We are glad you agree that the resulting value to you and to our field is worth the effort.



Robert J. Gropler, MD
CBNC President

Contact Information

Certification Board of Nuclear Cardiology

101 Lakeforest Boulevard, Ste. 401, Gaithersburg, MD 20877 USA

Tel: +240.631.8151 ❖ Fax: +240.631.8152

administration@cbnc.org ❖ www.cbnc.org

Prometric Exam Scheduling

Tel: 800.371.1989 *

www.prometric.com

* For contact information outside the United States, U.S. Territories or Canada, visit the Prometric Website



2010 Important Dates

Examination Testing Window

Monday, December 13 - Saturday, December 18, 2010

Recertification Application Postmark Deadlines

Regular - Friday, August 27, 2010 (\$595)

Late - Friday, October 15, 2010 (\$795)

Certification Board of Nuclear Cardiology Board of Directors

Representing the American Society of Nuclear Cardiology

Frank M. Bengel, MD - Munich, Germany and Baltimore, MD
Myron C. Gerson, MD - Cincinnati, OH
Thomas A. Holly, MD - Chicago, IL

Representing the American College of Cardiology

Kenneth A. Brown, MD - Burlington, VT

European Council of Nuclear Cardiology Liaison

Frank Bengel, MD - Munich, Germany and Baltimore, MD

At Large Directors

Ola O. Akinboboye, MD, MPH, MBA - New York, NY
James A. Arrighi, MD - Providence, RI
Edward P. Ficaró, PhD - Ann Arbor, MI
Robert J. Gropler, MD - St. Louis, MO
Christopher L. Hansen, MD - Philadelphia, PA
Howard C. Lewin, MD - Los Angeles, CA
Sally Schwarz, RPh, MS, BCNP - St. Louis, MO

Officers

Robert J. Gropler, MD - President
James A. Arrighi, MD - Vice President
Howard C. Lewin, MD - Secretary
Kenneth A. Brown, MD - Treasurer

Contents

Introduction; Purpose and Scope	Page 2
General Policies	Page 3
About the Examination	Pages 4 & 5
Eligibility Requirements	Page 5 & 6
Application Guidance & Policies	Pages 7 - 10
Guidance on CME Credit Hours	Page 11
References	Page 11
Examination Content Outline	Page 12
Filing Your Application	
Instructions for Completing the Application	Page 13
Table of Important Dates and Fees	Page 13
Checklist Page	Page 14
Application Forms	Pages 15 & 16
CBNC Address & Contact Information	Back Cover

Disclaimer

The information contained in the 2010 Candidate Bulletin is valid for 2010 only. The Board of Directors reserves the right to make changes in its Policies and Procedures, including eligibility requirements and fees, from year to year. The Board cannot assume responsibility for giving advance notice thereof.

Notice

When signing the application forms found in this bulletin or on the CBNC online application website, you are agreeing to all policies outlined in this booklet and on our site. You have the right and responsibility to request a complete set of CBNC policies prior to applying for the exam.

INTRODUCTION

Certification Board of Nuclear Cardiology

The Certification Board of Nuclear Cardiology (CBNC) is a not-for-profit corporation established in 1996 to develop and administer practice-related examinations in the field of Nuclear Cardiology and to award certification to those physicians who successfully complete the CBNC examination process. The mission of the CBNC is to support optimal patient care and enhancement of the field through a certification program that promotes quality, professionalism, and practice-based learning and improvement.

CBNC is a fully autonomous entity, independent of any other association, society, or academy. This independence allows the CBNC to maintain integrity concerning policy matters related to certification. Since 2003, CBNC has collaborated with the European Council of Nuclear Cardiology (ECNC) on development of the exams. ECNC has representation on the CBNC's Examination Committee.

The CBNC will issue a certificate to successful candidates who then may present themselves to the public as specialists in the field of Nuclear Cardiology. Successful candidates may designate on letterhead, cards, etc. that they are "Diplomates of the Certification Board of Nuclear Cardiology". A listing of certified physicians is available to medical groups and to the public on the CBNC website (www.cbnc.org). To date there have been 7,629 physicians certified by the CBNC.

The Purpose of Certification

The Certification Board of Nuclear Cardiology (CBNC) is committed to the certification of Nuclear Cardiology practitioners. Certification provides practice-based requirements against which members of the profession can be assessed. The purposes of the CBNC Certification Program are as follows:

- ◆ to establish the domain of the practice of Nuclear Cardiology for certification;
- ◆ to assess the level of knowledge demonstrated by Nuclear Cardiology specialists in a valid manner;
- ◆ to encourage professional growth in, and enhance the quality of, the practice of Nuclear Cardiology;
- ◆ to recognize formally individuals who meet the requirements set by CBNC; and
- ◆ to serve the public by encouraging quality patient care in the practice of Nuclear Cardiology.

Scope of Certification

The eligibility requirements and examination materials for the CBNC Examination in Nuclear Cardiology have been developed based on substantial review and analysis of the current state of medical and scientific knowledge of Nuclear Cardiology as reflected in the medical literature. The CBNC Examination Committee, with the assistance and advice of professionals in relevant fields, has attempted to develop a certification that recognizes accepted levels of expertise in the profession with the goal of improving patient care. However, no certification program can guarantee competence or successful treatment to the public. In addition, given the rapid changes in medical knowledge and the speed of scientific developments, the CBNC cannot warrant that the examination materials will at all times reflect the most current state of the art. The CBNC welcomes constructive comments and suggestions from the profession. The CBNC Certification Program has been designed to comply with testing industry standards.

GENERAL RECERTIFICATION POLICIES

CBNC's certification is for a period of ten years, before the end of which diplomates must recertify in order to maintain their certification status. CBNC's recertification process allows candidates to sit for the recertification examination in years eight, nine and ten of their certification period. Candidates are permitted three opportunities to pass the recertification exam within their eligibility period without losing their certification status. For example, if a physician obtained initial certification in 2001, he or she may take the exam in 2009 (the first year of admissibility), 2010 and/or 2011.

Should a Diplomate not successfully sit or does not take the recertification examination prior to the expiration of his/her certification period, his/her certification will expire and CBNC's online verification service will display his/her certification as lapsed. However, individuals in this situation may apply to sit for the recertification examination by meeting the recertification requirements for up to 5 years following the lapse of his/her certification. There will be no back-dating of one's certification; there will simply be a gap between certifications. After that time, individuals will need to apply for the certification examination rather than the recertification examination.

Regardless of when the physician recertifies within the valid certification period, his or her certification will remain valid for ten years from the expiration of the original certification date, or most recent recertification date. For example, if certification expires December 31, 2010 and the physician recertifies in 2009, the new certification would still be valid through December 31, 2020.

Legal Notice

Candidates must at all times comply with posted test center rules and regulations, and with security requirements of CBNC and Prometric, published on the CBNC website (www.cbnc.org), and at Prometric test centers. Candidates who do not comply with test center rules will be excused from testing and escorted from the testing center. No refund will be made. In addition, candidates determined to have engaged in prohibited behavior will not have their exams scored and will be barred from testing for 3 years.

Nondiscrimination Policy

The CBNC does not discriminate against any person on the basis of age, gender, sexual orientation, race, religion, national origin, medical condition, physical disability, or marital status.

Diplomate Responsibilities

It is the responsibility of CBNC Diplomates to keep the CBNC office informed of address changes so that the online verification database contains the correct information. It is also the responsibility of CBNC Diplomates to maintain their certified status by applying at the appropriate time in order to recertify during the ten-year certification period. CBNC will make a good faith effort to contact Diplomates regarding changes in policy and procedure and to provide application material to recertify, but the onus is on Diplomates to maintain their certification status.

Revocation of Certification

The CBNC Board of Directors may, at its discretion, revoke certification if the Diplomate fails to maintain moral, ethical or professional behavior satisfactory to the Board or engages in misconduct that adversely affects professional competence or integrity. This includes, but is not limited to, the Diplomate losing his/her license to practice medicine either through suspension or termination or conviction of a felony or other serious crime.



ABOUT THE RECERTIFICATION EXAM

- The format is computer-based
- There are 100 multiple choice questions
- Examinees have 3 hours to complete the exam
- Images may be color or grayscale; motion or static
- Exams are administered in English
- Testing sites are located around the world
- There are no scheduled breaks but candidates may take a restroom break as needed

Audit Policy

To maintain the integrity of its certification program, CBNC randomly audits a number of candidate applications annually. CBNC may audit applications for up to one year following notification of successful certification or recertification. Candidates whose applications are audited will be asked to submit documentation supporting his/her eligibility to sit for the exam. In addition, CBNC may request clarification or conduct an audit during review of an application. In such cases, candidates will be contacted by CBNC and asked to submit additional information.

If fraud is discovered, the individual may have his/her Diplomate status revoked and/or be barred from sitting for the exam for up to 3 years.

The full audit policy can be accessed on the CBNC website (www.cbnc.org).

ABOUT THE EXAMINATION

Exam Development

A national analysis of the practice of Nuclear Cardiology was conducted in 1995 in order to define the responsibilities, tasks and knowledge necessary for physicians to practice in the field of Nuclear Cardiology. Subsequent Practice Analyses were conducted in 2001 and 2006 to ensure that the content of the CBNC examination continues to reflect accurately current practice in Nuclear Cardiology. The data for the studies were collected from a cross section of specialists in the field. The analysis of the 2006 data was used to update the examination specifications and determine the content of the current examination. The examination content outline can be found on Page 12 of this booklet

The examination questions were developed by the CBNC Examination Committee, an expert panel of the CBNC, under the guidance of Knapp & Associates International, Inc. The examination question pool is updated on a regular basis to reflect current knowledge. Individual questions are modified or deleted based on statistical analysis of the examination.

The CBNC retains Knapp & Associates International, Inc. of Princeton, NJ, to provide assistance in the development of the examinations. Knapp & Associates International is a research and development firm that serves certification bodies by planning, developing, and administering assessment procedures and programs designed to measure professional competence.

Examination Format and Content

The format of the 2010 examinations in nuclear cardiology is electronic, administered on computer workstations. CBNC has contracted with Prometric to host the CBNC exam in its test centers at locations around the world.

Candidates will be monitored by no less than one (1) proctor for every twenty (20) candidates at all times, using at least one (1) of the following methods:

- Direct viewing of Testing area, and/or
- Video monitoring, with or without audio.

Some questions include interpretation of images, which may be one of several types of graphics, including, but not limited to slices, polar maps, activity curves, ECGs, etc. Images may be in grayscale or color; static or motion (cine). Each question contains four options or choices, only one of which is the correct or best answer.

The recertification examination is composed of 100 multiple-choice questions. Examinees will have three (3) hours to complete the examination.



DETERMINATION OF SCORE

Candidates are measured against a standard of knowledge, not against the performance of other individuals taking the exam.

The recertification examination is approximately two-thirds length of the certification exam (100 questions in 2010).

With two exceptions, the content areas are the same as in the certification exam. The modifications to content are in the areas of *Instrumentation and Physics* and *Radiation Safety*, which each comprise ten percent of the questions in the certification exam, but will constitute five and fifteen percent of the total in the recertification examination respectively.

The recertification exam incorporates the same mix of difficulty and cognitive ability levels as the certification exam.

Note: There are no scheduled breaks but candidates may take a restroom break as needed.

Determination of Passing Score and Reporting

The passing score is based on an expected level of knowledge; it is not related to the distribution of scores obtained during a particular examination administration (i.e., the CBNC examinations are not “graded on a curve”). Thus, in any given year, a candidate has the same chance of passing the examination whether the group taking the examination at that time tends to have high scores or low scores. In other words, each candidate is measured against a standard of knowledge, not against the performance of the other individuals taking the examination.

Approximately ten (10) weeks following the administration of the examination, the CBNC will mail each candidate his or her examination results. Results will not be available onsite at the test centers and RESULTS WILL NOT BE GIVEN OVER THE TELEPHONE OR BY FAX.

Following determination of the passing score, all candidates will receive: (a) a letter indicating the number of correct questions needed to pass the examination and the number of questions they answered correctly, and (b) a diagnostic report showing their performance in each content area. Candidates who pass the examination will receive a certificate suitable for framing. These will be mailed by April 1, 2011.

ELIGIBILITY REQUIREMENTS FOR RECERTIFICATION

Requirement 1: Certification in Nuclear Cardiology

Applicants must, at the time of application, have successfully passed the CBNC certification examination no earlier than eight (8) years prior to application. Candidates may sit for the exam in any (or all) of years eight (8), nine (9) or ten (10) of his or her ten-year certification period. If a Diplomate does not succeed in passing the recertification examination by the date of the expiration of his or her ten-year certification period, he or she will no longer be certified and CBNC’s online verification service will display his/her certification as lapsed.

However, individuals in this situation may sit for the exam for up to 5 years following the lapse of his/her certification and there will be no back-dating of one’s certification; there will simply be a gap between certifications. After that time, individuals will need to apply for the certification examination rather than the recertification examination.

Requirement 2: Licensure

Applicants must, at the time of application, hold a current, unconditional, unrestricted license to practice medicine and must provide a copy of the current license with expiration date.

Requirement 3: Board Certification

U.S. applicants must, at the time of application, have current board certification in Cardiology, Nuclear Medicine or Radiology*, by a board which holds membership in either

the American Board of Medical Specialties, or the Bureau of Osteopathic Specialists of the American Osteopathic Association.

***If you were not originally certified by CCNC or CBNC under one of these three specialties, please state this as part of your application.**

Requirement 4: Documented Evidence of CME in Nuclear Cardiology

Candidates must submit documented evidence of 25 hours of Category I Continuing Medical Education (CME) credit in nuclear cardiology, **taken within 36 months of application**. The 25 hours of CME credit must be completed by the time of application.

General cardiology, nuclear medicine or other similar courses do not qualify to meet this requirement; **the CME hours must be specific to nuclear cardiology**. However, lectures attended on nuclear cardiology topics at conferences such as ACC, SNM or other related meetings do qualify to meet this requirement but must be individually documented by the sponsor. Documentation may include certificates of completion or other record provided by the course sponsor. A list of courses alone is not sufficient to qualify as documented evidence.

Consult Page 11 of this Bulletin or CBNC’s website (www.cbnc.org) for more information and examples of what can be used to meet this requirement. CBNC has the final say on what will or will not count toward the CME credit criterion.

Requirement 5: Candidate Attestation

Candidates must submit a signed statement attesting to ongoing practice and/or teaching in nuclear cardiology. The attestation must be on appropriate letterhead. See sample letter below.

SAMPLE ATTESTATION LETTER FOR RECERTIFICATION CANDIDATES

Date
Certification Board of Nuclear Cardiology:
I hereby attest that I have actively participated in the practice and/or teaching of nuclear cardiology during my certification period. I declare that this statement is true and accurate.
Sincerely,
<u>[Signature of Applicant]</u>
[Name of Applicant]
Title

APPLYING FOR THE EXAMINATION



APPLY ONLINE

CBNC is now accepting applications online. Creating an online account allows you to check status, receive information and make changes such as address updates.

Attention Applicants:

It is CBNC Board policy that applicants must have completed ALL requirements before submitting an application.

For questions on your application, contact the CBNC office. Staff are there to assist you.

Applicants who apply to sit for the CBNC certification or recertification examinations must submit complete applications and all required supporting documents. Supporting documents are listed on the Application Checklist Page.

Do not send your application until all elements have been collected and are complete. Incomplete or incorrect applications will incur a resubmission fee of \$50 (Fifty Dollars).

Applicants are urged to provide a valid email address so staff can contact you promptly with any questions. CBNC also uses e-mails to send automated messages regarding the status of your application.

Applicants who submit an application that has errors, is incomplete or missing any supporting documentation will be contacted by CBNC detailing what is needed to make the application complete. To become eligible, applicants must submit the required information by the date indicated and pay the \$50 resubmission fee.

It is the applicant's responsibility to assure that he or she meets all requirements and to supply the required and correct material to document this. It is staff's responsibility to review the material and determine whether eligibility has been met. It is not the responsibility of CBNC staff to research and/or obtain material for applicants. Staff are happy to respond to questions or review documents in advance of application to help applicants be certain their materials are correct.

Guidance on Application Process and Test Center Information

The 2010 examinations will be taken in Prometric testing centers. CBNC shares Prometric test centers with many other certification and licensure programs. The earlier you apply, the sooner your application will be reviewed for eligibility and the sooner you will receive an Authorization to Test (ATT) letter (if eligible) so that you can schedule the exam for the date, time and location of your convenience within the testing window.

Applications must be submitted directly to the CBNC. Once eligibility has been determined, candidates will receive a letter indicating that they may register for a seat time at one of Prometric's test centers. Only those with complete applications will receive ATT letters with the information necessary to schedule a seat. Those with incomplete applications will be contacted about what is required to complete his or her application. Applicants are urged to provide a valid email address so that staff can contact applicants promptly with any questions.

2010 Testing Window and Test Center Locations

The 2010 Certification and Recertification examinations will be offered during a testing window between Monday, December 13 and Saturday, December 18, 2010. Tests may be scheduled for any available Prometric seat during hours of operation in the testing window.

Prometric currently has more than 300 test centers throughout the United States, U.S. territories and Canada, as well as locations throughout the world available to host the CBNC

examinations. Candidates can review testing center locations on the Prometric website (www.prometric.com). Workstations at all Prometric test centers available to host the CBNC exam conform to Board-approved specifications.

Candidates are urged to apply early. Candidates will not be able to schedule their test time until their application is complete and their Authorization to Test Letter (ATT) has been received. ATT letters will not be faxed or emailed. Prometric will assess a \$25 change fee for appointments rescheduled or cancelled between 3-29 days of examination in the U.S., U.S. Territories & Canada and 6-29 days outside the U.S., U.S. Territories and Canada.

Filing Your Application

CBNC reserves the right to limit the number of candidates taking the examination. Limitations due to seating availability at Prometric test centers during CBNC's testing window may also apply.

Only the application form found in this Candidate Bulletin or on CBNC's website can be accepted for application to sit for the 2010 examination. **Before mailing your application, please review carefully the information and specific instructions included with this Bulletin.**

Application Fees for the 2010 Recertification Examination

For regular applications, your complete application and all necessary papers, plus the fee of \$595, must be postmarked or overnight shipment dated NO LATER THAN August 27, 2010. For late applications, your complete application and all necessary papers plus the fee of \$795 must be postmarked or overnight shipment dated NO LATER THAN October 15, 2010.

Payment of the examination fee must accompany your application. Payment may be made by check or money order and must be made payable to the Certification Board of Nuclear Cardiology. American Express, MasterCard, VISA, and Discover payments are also accepted and may be made by using the form on the Checklist page (Page 14). Candidates whose checks are returned for non-sufficient funds will be subject to a \$35 fee. Incomplete applications require a \$50 resubmission fee to be eligible.

Prometric will assess a \$25 change fee for appointments rescheduled or cancelled between 3-29 days of examination in the U.S., U.S. Territories & Canada and 6-29 days outside the U.S., U.S. Territories and Canada.

Refunds in the amount of \$495 will be made in response to written, signed requests until December 3, 2010. No refunds will be made after that date. Non sufficient funds, administrative fees, late fees and resubmission fees will not be refunded.

If for some reason you fail to meet the eligibility requirements, your application and documentation will be returned to you with a refund of \$495. For questions on eligibility, please contact the CBNC office.

Special Testing Arrangements

CBNC, in accordance with the Americans With Disabilities Act (ADA, 1990), provides reasonable and appropriate accommodations for disabled individuals who supply appropriate documentation.

Reasonable accommodations provide disabled candidates with a fair and equal opportunity to demonstrate their knowledge and skill in the functions being measured by the exam. Reasonable accommodations do not include actions that alter the purpose or nature of the exam. Reasonable accommodations are generally provided for candidates who have a physical or mental impairment that substantially limits that person in one or more major life activities (e.g., walking, talking, hearing and performing manual tasks); have a record of such physical or mental impairment; or is regarded as having a physical or mental impairment.



SPECIAL TESTING ARRANGEMENTS

Candidates requiring special testing arrangements must inform CBNC relative to their needs at the time of application.

Reasonable accommodations are decided upon based on the individual's specific request, disability, documentation submitted and the appropriateness of the request. The most frequent requests involve providing the candidate with extended time and/or a separate room. No additional cost is placed on the candidate.

Candidates requesting special accommodations must submit CBNC's Request for Special Accommodations Form with their application (refer to www.cbnc.org for form). Medical documentation from an appropriate licensed professional or certified specialist who diagnosed the disability of specific needs must accompany the request. The documentation must be submitted on the professional's letterhead, provide a diagnosis of the disability and the test(s) used to determine the disability.

Prometric cannot comply with special accommodation requests made by candidates taking the examination outside the U.S., U.S. territories or Canada where local operating conditions or local laws and customs render such request unlawful, impossible or economically unfeasible to perform.

After Receipt of your Application at CBNC

Following receipt of your application CBNC will send an automated email notifying you that your application has been received. It is therefore critical that you include a valid email address on your application. If your application is complete and all eligibility requirements are met, you will receive an automated email advising you that you have been approved to sit for the exam and alerting you to look for your Authorization to Test (ATT) letter to be delivered to your address of record via USPS. Your ATT letter will include your CBNC Candidate ID number. The letter will be accompanied by CBNC's 2010 Testing Information and Policies booklet which contains information about scheduling an exam appointment, pre and post exam policies, including cancellation policies and other critical exam information. The ATT letter and Testing Booklet are important documents which Candidates will want to safeguard through the exam date and beyond in case of questions on policy or procedure. ATT letters will not be faxed or emailed.

Note: Communications sent via email from the CBNC may be filtered by certain personal and enterprise spam filters; this is beyond the control of CBNC. Please be sure to enable your spam filter to allow email from the "cbnc.org" domain, and/or check your Junk Mail folder often to ensure email from CBNC has not been filtered. If you do not receive notification from CBNC by email within 10 business days of mailing your documents, feel free to contact the office at 240-631-8151.

Applicants with incomplete applications will not receive an ATT letter and will not be able to schedule an exam until their applications are complete. Applications will be deemed ineligible for any of the following reasons:

- ◆ Failure to meet eligibility requirements.
- ◆ Failure to meet deadlines.
- ◆ Failure to submit a complete application, including all supporting documents.
- ◆ Applicants who submit incomplete applications may have an opportunity to correct deficiencies if time permits; however, they will be assessed a \$50 resubmission fee. Applicants will be contacted; those who do not rectify the application deficiencies by the date indicated will be deemed ineligible and issued a refund of \$495. Non sufficient funds, administrative fees, late fees and resubmission fees will not be refunded.



SCHEDULING AN EXAM TIME

Candidates will be able to schedule their exam once their eligibility has been established. Candidates will receive an ATT letter with instructions on how to schedule an exam time within the 2010 window. Prometric will assess a \$25 change fee for appointments rescheduled or cancelled between 3-29 days of examination in the U.S., U.S. Territories & Canada and 6-29 days outside the U.S., U.S. Territories and Canada.

Scheduling an Examination Seat and Time

To obtain your preferred testing date, time and location, candidates are encouraged to schedule an exam appointment as soon as the Authorization to Test (ATT) letter confirming successful application for the examination is received. This letter will include instruction for scheduling a seat and time to sit for the CBNC examination between test window dates of December 13 - December 18, 2010. **This document will include your full name; the test you have been approved to take; and your CBNC Candidate number. You will need these data exactly as printed on your ATT letter.**

You must register for a seat and time no later than sixty (60) days prior to the exam window.

After that time, seats for the CBNC examinations cannot be guaranteed by Prometric. Seats are limited; those who register early will have the best opportunities to schedule their exam at a time and location convenient to them. Prometric will assess a \$25 change fee for appointments rescheduled or cancelled between 3-29 days of examination in the U.S., U.S. Territories & Canada and 6-29 days outside the U.S., U.S. Territories and Canada.

Exam Format Tutorial

CBNC has prepared a tutorial to help candidates prepare for the examination format. The CBNC Examination Preparation Tutorial is available at no cost on CBNC's website (www.cbnc.org). This demonstration tutorial mimics the computer screens as examinees will see them during the exam and allows candidates to review buttons and graphics to understand how to navigate through the electronic format. Candidates should not expect to be able to learn electronic exam navigation onsite at the exam, and should arrive having reviewed the tutorial previously.

This tutorial does not address examination content.

Cancelling Your Application/Examination

To withdraw from participation in the exam, you must cancel **no later than Friday, December 3, 2010**. If you have scheduled your exam appointment, you must first cancel with Prometric, either online or by contacting the Prometric Scheduling (800-371-1989 in the U.S.), **no later than December 3, 2010**. Prometric will assess a \$25 cancellation fee for appointments cancelled between 3-29 days prior to the exam. You must then notify CBNC **in writing, with signature**, and provide your Prometric cancellation number in order to receive a refund of \$495. Non sufficient funds, administrative fees, late fees, and resubmission fees will not be refunded.

If you cancel after December 3, 2010, or for any reason do not appear at the exam site where you have registered to sit for the examination, you will forfeit all fees paid and no refund will be provided.

Errors and Disruptions in Examination Administration

Occasionally issues arise in the creation, administration, and scoring of examinations. For example, power failures, hardware and software problems, human errors, or weather problems may interfere with some part of the examination process or delay the reporting of scores. When such problems occur, CBNC may provide the affected candidates with an opportunity to take the examination at the next scheduled examination date for a reduced or waived examination fee. This shall be the candidate's sole remedy. CBNC shall not be liable to any candidate for inconvenience, expense, or other damage, including consequential, incidental, special, or exemplary damages, caused by any problems in the creation, administration, or scoring of an examination, including delays in score reporting. In no circumstance will CBNC reduce its standards or overturn the candidate's score as a means of correcting a problem in examination administration.

Issues or problems arising during the administration of examination must be reported to Prometric test center staff by the candidate experiencing the issue or problem at the time the exam is being administered and prior to the candidate departing the test center site on the day the examination is scheduled. Candidates must also notify CBNC of any issues or problems with the administration of the examination within 48 hours of candidate's scheduled examination time.

GUIDANCE ON COUNTING CME CREDIT HOURS FOR RECERTIFICATION

Recertification candidates must document 25 hours of Continuing Medical Education (CME) SPECIFIC to nuclear cardiology taken within 36 months of application. For U.S. Applicants, the CME hours must be AMA PRA Category I CME. CME courses completed after the final application deadline cannot be accepted.

What May Be Used:

- Any program **specific to nuclear cardiology** which carries AMA PRA category I CME credit, including (but not limited to):
 - Meetings and Conferences
 - Grand Rounds
 - Online Tutorials
 - Educational Products
 - Nuclear Cardiology Working Group meetings, if they carry CME credit
- Nuclear cardiology specific **sessions** at conferences such as ACC, AHA, SNM etc, may be counted, including satellite sessions.

What May Be Used, depending:

- Courses that are on **mixed topics**, such as CT **and** Nuclear Cardiology or Overviews of Diagnostic Imaging, can count only the sessions where nuclear cardiology was a principle part of the session. **Examples:**
 - Nuclear Cardiology v Echo - What to use when - **YES**
 - Getting the most out of your CT data - **NO**
 - Recent Advances in Clinical Nuclear Cardiology and Cardiac CT Featuring Case Review With the Experts - **DEPENDS**
 - Nuclear sessions - YES
 - Nuclear/CT sessions - YES
 - Sessions exclusively on CT - NO

What Cannot Be Used:

- Courses specific to CT, or other modalities, even when sponsored by groups such as ASNC or other nuclear cardiology organizations
- Industry sponsored sessions with no CME credit
- Case reviews with no CME credit
- ICNC, for those applying from the U.S. (ICNC sessions do not carry CME credit)

For those applying from outside the U.S., nuclear cardiology-specific courses without Cat I CME may be counted. Examples:

- ICNC
- Programs or products offered by the ESC or EANM specific to nuclear cardiology
- Conferences of national nuclear cardiology organizations
- Conferences of local working groups
- Nuclear Cardiology specific sessions from conferences of national Cardiology or Nuclear Medicine associations

Nota Bene:

If the CME certificate does not state specifically that the course was nuclear cardiology related, CBNC staff may require a copy of the syllabus or program to review. CBNC shall have the final word on whether or not the activity meets the requirements.

References

A list of references and guidelines that may be helpful in reviewing for the examination can be found on CBNC's website (www.cbnc.org). The CBNC does not intend the list to imply endorsement of these specific references, nor are the test questions taken from these sources. Links to publishers and associations are provided from the Reference page on CBNC's website.

EXAMINATION CONTENT OUTLINE

The following is a detailed outline of the nine major content areas of the examination, with an indication (in parentheses) of the approximate percentage of the examination devoted to each area:

I. PHYSICS AND INSTRUMENTATION (5%)

- A. Basic physics as applied to clinical imaging (e.g., isotope decay, decay modes, generators, high energy imaging)
- B. Gamma cameras, collimation, and equipment quality control procedures
- C. Interactions of radiation with matter
- D. Attenuation correction, including transmission and CT methods

II. RADIOPHARMACEUTICALS (8%)

- A. Radiotracer kinetics and characteristics (e.g., thallium-201 and technetium-99m)
- B. PET agents
- C. Red blood cell tagging

III. RADIATION SAFETY (15%)

- A. Radiopharmaceutical receiving, handling, monitoring, and containment
- B. Handling radiopharmaceutical spills and waste
- C. Storage and calibration of radiopharmaceuticals
- D. Dosimetry and MIRD
- E. Radiation exposure and ALARA
- F. Governmental regulations

IV. NUCLEAR CARDIOLOGY DIAGNOSTIC TESTS AND PROCEDURES/PROTOCOLS (15%)

- A. Image acquisition (e.g., first pass and equilibrium RNA, gating, SPECT)
- B. Image processing (e.g., filtering, reorientation, reconstruction, motion correction)
- C. Standard conventions as to how images are displayed
- D. Exercise and pharmacologic stress protocols
- E. Pharmacologic stress agents
- F. Artifacts and causes of false-positive and false-negative results
- G. Quality control of image processing
- H. Quality assurance of interpretation
- I. Quantitative aids to interpretation

V. GENERAL CARDIOLOGY AS IT RELATES TO IMAGE INTERPRETATION (10%)

- A. Coronary anatomy and pathophysiology
- B. Unique characteristics of patient subgroups (e.g., patients with diabetes, elderly patients, male vs. female patients)
- C. Coronary angiography
- D. Stress physiology and testing; ECG and clinical parameters with rest and stress
- E. Measurements of left ventricle systolic and diastolic function
- F. Valvular disease, cardiomyopathy, hypertension, CHF, myocarditis
- G. Endothelial dysfunction
- H. Coronary artery disease

- I. Medical therapy, percutaneous coronary intervention, and coronary bypass surgery
- J. Indications for the use of alternative diagnostic techniques (Echo, MRI, coronary calcification, CT angiography)
- K. Bayes' theorem, pre- and post-test likelihood, sensitivity, specificity, and referral bias
- L. Statistical analyses (e.g., kappa value, Bland-Altman, ROC curves, Kaplan-Meier)
- M. Cost-effectiveness of diagnostic tests and principles of outcome studies

VI. RISK STRATIFICATION (10%)

- A. Coronary artery disease
- B. Unstable angina
- C. Acute myocardial infarction
- D. Acute chest pain
- E. Candidates for noncardiac surgery
- F. Diabetes
- G. Chronic renal disease
- H. Women
- I. Post revascularization: percutaneous coronary intervention and CABG
- J. Evaluation of medical therapy

VII. MYOCARDIAL PERFUSION IMAGING INTERPRETATION (22%)

- A. Interpretation of perfusion images with technetium-99m-labeled tracers and thallium-201
- B. Interpretation of images with rubidium-82 and N-13-ammonia
- C. Relationship of perfusion abnormalities to clinical, hemodynamic, ECG and exercise parameters
- D. Relationship of perfusion abnormalities to coronary anatomy
- E. Combined function-perfusion imaging

VIII. VENTRICULAR FUNCTION IMAGING (10%)

- A. Rest and stress first-pass radionuclide ventriculography
- B. Rest and rest/stress equilibrium radionuclide ventriculography (planar and SPECT), including volume measurements and systolic and diastolic function
- C. ECG-gated SPECT myocardial perfusion imaging
- D. Effect of arrhythmia on ECG gating
- E. Implications of ventricular function testing for clinical management

IX. MYOCARDIAL VIABILITY (5%)

- A. Thallium-201 imaging
- B. Technetium-99m imaging
- C. FDG imaging
- D. Outcome data related to myocardial viability
- E. Relationship to other imaging methods (e.g., echo, MRI)

INSTRUCTIONS FOR COMPLETING THE 2010 RECERTIFICATION APPLICATION FORM

IMPORTANT NOTICE: The 2010 exams will be given at Prometric test centers around the world during a testing window of **Monday, December 13 - Saturday, December 18, 2010**. It is very important that your application form be completed carefully and accurately. Applicants will not receive an Authorization to Test (ATT) letter until the application is complete. The ATT letter is required to schedule a test at Prometric test centers.

Meeting eligibility requirements is an essential part of CBNC's certification program. The information provided on the application forms and in any supporting documents required should be completed **legibly and in full**. The attestation letter and other materials are used by CBNC to determine eligibility to sit for the examination. Incomplete applications, including those with missing or incorrectly worded documents, require a \$50 resubmission fee to be eligible.

If accepted, your acknowledgment and your examination results will be sent to the mailing address (#3) indicated on the form. **If you change your address after you have been accepted to sit for the exam, it is most important that you notify the CBNC office in writing of this address change so correspondence will reach you promptly.**

Type or print clearly in ink all information requested, except signatures.

Checks returned to CBNC for non-sufficient funds are subject to a \$35 fee.

Candidates with Social Security numbers are not required to disclose them on the Application Form (#12) other than on a voluntary basis. The numbers are useful as a secondary check in matching registration information to scores to ensure that they are reported correctly.

Candidates are strongly encouraged to provide a valid email address so that CBNC staff can contact you if there are questions regarding your application. CBNC is pledged to contact applicants in a timely manner; however, CBNC is not responsible for mail and/or email lost or late due to incomplete, invalid or otherwise incorrect contact information. CBNC requires **written** and documented supporting materials in cases of dispute (e.g., delivery confirmation receipt, fax confirmation, etc.).

Information on test center locations is available on the Prometric website (www.prometric.com). However, it is not possible to determine what times might be available until the candidate receives his or her ATT letter with the CBNC ID Number.

Mail the completed checklist, application form, fee, and all documentation together to the CBNC Office. **FAXED APPLICATIONS WILL NOT BE ACCEPTED.**

Recertification Examination Testing Window: Monday, December 13 - Saturday, December 18, 2010

Application Postmark Deadlines:

Regular applications - Friday, August 27, 2010

Late applications - Friday, October 15, 2010

Application and Test Fees:

Regular applications (postmarked or overnight shipment dated by August 27, 2010) - \$595 (U.S. Funds)

Late applications (postmarked/overnight shipment dated August 28 through October 15, 2010) - \$795 (U.S. Funds)

Cancellation/Withdrawal Deadline:

Friday, December 3, 2010. After this date, no refunds can be made.

Incomplete applications, including those with missing or incorrectly worded documents, require a \$50 resubmission fee to be eligible. Checks returned to CBNC for non-sufficient funds are subject to a \$35 fee. Refunds in the amount of \$495 will be made until December 3, 2010. Non sufficient funds, administrative fees, late fees, and resubmission fees will not be refunded.

Applicants should contact the CBNC office with any questions prior to submitting their applications.

RECERTIFICATION EXAM APPLICATION INFORMATION AND CHECKLIST

Before completing this form, please read the sections entitled “Applying to Take the Examination” and “Instructions for Completing Application Form” in the Candidate Bulletin. Review the requirements on pages 7 & 13 for the requirements pertaining to your situation.

Applicants must meet ALL Eligibility Criteria prior to Applying to sit for the Exam.

Mail this page, with check (✓) marks in all applicable boxes and include the completed application forms, a check, money order or credit card payment, and supporting documentation to CBNC at the address listed. FAXed APPLICATIONS WILL NOT BE ACCEPTED. The application, including all documentation, must be postmarked or overnight shipment dated by one of the two deadlines.

Applications with missing or incorrect support materials WILL be subject to a \$50 Resubmission Fee.

Include with your application:

- This page with check (✓) marks in all applicable boxes.
- Completed and signed application form, pages 15 and 16 (incomplete forms will be returned).

Payment (check type) in U.S. Funds for \$595, or \$795 if application will be mailed between August 28 and October 15, 2010 (postmark date used), **payable to the Certification Board of Nuclear Cardiology.** (Checks returned for non-sufficient funds will be subject to a \$35 fee):

Check Money Order Credit Card - Type: MasterCard VISA American Express Discover \$595 \$795

Card Number: _____ Expiration Date: _____ Billing Address Zip Code: _____

Signature: _____ Name on card: _____

- Copy of your **current, unconditional and unrestricted** medical license (or certificate in NY) which **must include an expiration date.**
- For U.S. applicants, a copy of your **ABMS or osteopathic certificate** if you are board certified in the United States (e.g., Cardiology, Nuclear Medicine, Radiology board certificate). This is not required for international applicants.
 - If you are not board certified in CD, NM or R,** you must provide a statement on this to the CBNC.
- Documented evidence of **25 hours of Continuing Medical Education (CME) in nuclear cardiology** taken within the last 36 months (see Page 11 for guidance on what can be used).
- Candidate Attestation** of ongoing practice and/or teaching in nuclear cardiology, on appropriate letterhead, signed and dated.

APPLICATION FORM - 2010 CBNC RECERTIFICATION EXAM

Please note that the application forms constitute just one part of the required documentation. Be sure that you include all documents listed on the "Application Information and Checklist" page.

Office Use
Received: _____
Amount: _____
Type: _____ Reviewer: _____

PLEASE TYPE OR PRINT LEGIBLY (This information MUST be provided to determine eligibility)

MD DO Other _____ Year of Last CCNC/CBNC Certification: _____

1. Print **Official Name BELOW** as listed on the Government Issued Photo ID you will use to identify yourself at the testing site (First, Middle/Middle Initial, Last, Suffix):

2. Print Name below as you wish it to appear on your certificate if you pass the Examination (may be different from Official Name):

3. Preferred Address: Home Office (check ONLY one)

Facility Name (list above if applicable)

Street (list above)

Suite/Apt Number

City (list above)

State

Postal Code

Country

4. Office Tel: _____ 5. Mobile Tel #: _____

6. Fax #: _____ 7. Home #: _____

8. Email (used to contact applicant ONLY): _____

9. Preferred Contact Method for Questions: Home Phone Office Phone Mobile Phone Email Address

10. Date of Birth (mm/dd/yyyy): _____ 11. Gender: M F 12. Social Security # (Optional): _____

13. I hold a current, unconditional, unrestricted license to practice medicine in the following state(s) or country(ies):

14. Board Certification:

I am board-certified by a board which holds membership in either the American Board of Medical Specialties (ABMS), or the Bureau of Osteopathic Specialists of the AOA or hold a non U.S. specialty certificate. (Please list no more than 3 certifications):

1. _____ Date Certified: _____

2. _____ Date Certified: _____

3. _____ Date Certified: _____

I do not reside or practice in the United States.

15. My primary professional setting is (check all that apply)

Private Practice, Group

Medical School Based Physician

Private Practice, Solo

Other (Please Specify): _____

Hospital Practice Based Physician

I have carefully reviewed CBNC's Eligibility Requirements and my supporting documentation. I have enclosed the necessary written documentation. I understand that documentation which does not meet CBNC's requirements as outlined in this booklet or which does not include the required information cannot be accepted. If my documentation is incorrect or incomplete I will be charged a resubmission fee of \$50. I am aware that I can contact the CBNC office for guidance on submission of my documentation prior to submitting my application. _____ Initials

Complete Page 2

16. Indicate your PRIMARY type of practice (CHECK ONLY ONE):

Cardiology Nuclear Medicine Radiology Other _____

17. CBNC candidate and Diplomate contact data is treated confidentially; CBNC never sells or rents the names or address of such individuals. However, as a service to candidates, information on educational programs, such as board review courses, may be available prior to the exam. Check below whether you wish CBNC to provide your address to sponsors of such programs.

NOTE: CBNC does not sponsor educational activities. Any such courses are planned and offered entirely external of CBNC, CBNC Board members or members of CBNC's Exam Development and/or Review Committees. CBNC neither endorses nor warrants the quality of any educational course or program, nor makes any statement that any course or program will or will not aid individuals in preparation for the CBNC certification or recertification examinations in nuclear cardiology.

I wish do not wish to receive information on educational programs prior to the exam.

18. Candidates with Disabilities: Candidates requiring modifications in the examination administration because of a disability must submit documentation outlining the reason why special accommodations must be provided. **This request MUST be included at the time of application.** CBNC must work with Prometric's Special Accommodations Department for any special needs testing.

PLEASE READ AND SIGN THE FOLLOWING STATEMENT

I hereby apply for recertification offered by the Certification Board of Nuclear Cardiology (CBNC) in accordance with and subject to its rules and policies. I understand that it is my responsibility to meet CBNC's eligibility requirements and to provide such material as is required to document this.

I understand that the information acquired in the recertification process may be used for statistical purposes and for evaluation of the certification and/or recertification program. I further understand that the information in my records will be treated confidentially. To the best of my knowledge, the information contained in the application is true, complete, correct, and is made in good faith. I understand that CBNC reserves the right to verify any or all information on this application and that any incorrect or misleading information may constitute grounds for rejection of my application, revocation of my certification, or other disciplinary action.

I, the undersigned applicant, recognize the Board of Directors of the Certification Board of Nuclear Cardiology as the sole and only judge of my qualifications to receive and to retain a certificate issued by the CBNC and to have my name included in any list or directory in which the names of diplomates of specialty examinations are published. I further agree to hold harmless, individually and collectively the officers, directors, staff and appointed examiners of the Certification Board of Nuclear Cardiology for any decision or action in pursuance of their duties in connection with this application, the examination, the score or scores given with respect to any examination or for the failure of said CBNC to issue me a certificate.

I understand and agree that in the consideration of my application my moral, ethical and professional standing may be reviewed and assessed by the CBNC; that the CBNC may make inquiry of such persons as the CBNC deems appropriate with respect to my moral, ethical and professional standing; that if information is received that would adversely affect my application, I will be so advised and given an opportunity to rebut such allegations, but I will not be advised as to the identify of the individuals who have furnished adverse information concerning me; and that all statements and other information furnished to the CBNC in connection with such inquiry shall be confidential, and not subject to examination by me or by anyone acting on my behalf.

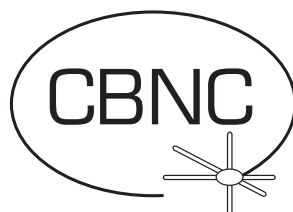
I also pledge myself to the highest ethical standards in the practice of Nuclear Cardiology. I fully understand that if I engage in any practice or activity which, in the determination of the CBNC is deemed to be in violation of this pledge, that the CBNC has full authority to withdraw my certification. Furthermore, I understand that if I engage in any form of exam impropriety before or during the exam, my exam will not be scored. I understand also that, should any impropriety on my part occur, I will not be allowed to re-apply until three (3) years have passed and that a new application and Candidate fees will be required.

I understand and agree to the following: that CBNC will produce a demonstration tutorial to explain the electronic exam and questions format; that CBNC STRONGLY encourages that candidates take this tutorial prior to the exam; and that if I elect not to review the tutorial in advance, I do so at my own risk and that no additional time will be granted during the examination.

I have read the 2010 Candidate Bulletin and agree to abide by all policies and rules of the Certification Board of Nuclear Cardiology. I understand that I have the right to request and review any CBNC policy prior to signing this document. I attest that I meet all of the Eligibility Requirements for recertification as outlined in the 2010 Candidate Bulletin.

Signature

Date



Certification Board of Nuclear Cardiology
101 Lakeforest Boulevard, Suite 401 • Gaithersburg, MD 20877
Tel: +240.631.8151 • Fax: +240.631.8152 • www.cbnc.org