



Certification in Infection Prevention and Control

CANDIDATE HANDBOOK

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CIC Online Application: *Please visit www.cbic.org/certification to apply online*

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General Information

About the Certification Examination

The infection control certification examination is the only standardized measurement of the basic knowledge, skills and abilities expected of professionals working in infection prevention and control in North America. The Computer Based Test (CBT), a computer-based certification examination intended for initial (first-time) certification, is available daily at Prometric testing centers throughout the United States and selected international sites. The CBT is available by computer only and is available only in English.

The CBT is an objective, multiple-choice examination consisting of 150 questions (135 of these questions are used in computing the score, as discussed later in this handbook). The examination content is based upon results of a practice analysis, which is a survey of practicing professionals in infection prevention and control that is conducted by the Certification Board of Infection Control and Epidemiology, Inc. (CBIC®) every 4-5 years. The practice analysis determines the scope of knowledge and responsibilities that are currently required by, and are representative of, individuals practicing infection prevention and control. It is important to recognize that examination content is based on this information, even though all elements of the examination may not seem to be directly relevant to every individual taking the exam.

CBIC is responsible for determining the examination content outline and the examination specifications, maintaining an item bank of approved examination questions, approving the individual examination for administration, and setting the passing score for successful achievement.

Individual eligibility for admission to the examination is based on criteria set by CBIC. Prometric is responsible for the computerized testing sites, examination security, examination administration, and the scoring and statistical analysis of the examination.

CBIC is a Charter member of the Institute for Credentialing Excellence (ICE), formerly known as the National Organization for Competency Assurance (NOCA). CBIC is accredited by the National Commission for Certifying Agencies (NCCA). NCCA accreditation signifies that the highest standards for establishing that a valid, reliable, and secure certification process have been fulfilled.

Objectives of Certification/Recertification

The purpose of the certification and recertification process is to protect the public by:

1. Providing standardized measurement of current essential knowledge needed for persons practicing infection prevention and control;
2. Encouraging individual growth and study, thereby promoting professionalism among professionals in infection prevention and control; and
3. Formally recognizing professionals in infection prevention and control who fulfill the requirements for certification and recertification.

Professionals in infection prevention and control must meet the eligibility requirements and pass the CBT to become certified for the first time. Certification in infection prevention and control is valid for five years from the year of successful examination. For example, candidates who certify in 2014 must recertify in 2019, 2024, etc. This is because changes in best practices for patient care, federal regulations, and accrediting standards occur frequently.

Certified professionals who do not recertify before their current certification period expires will lose their CIC[®] designation as of December 31st of the last year of the current certification period, and are prohibited from using the CIC[®] designation. They must reapply for and successfully pass the CBT before they can use the CIC[®] designation again.

Eligibility Requirements for Initial Certification

Successful certification indicates competence in the actual practice of infection prevention and control and healthcare epidemiology, and is intended for individuals whose primary responsibility within a healthcare setting is infection prevention and control within that setting. First time certification is not intended for individuals whose roles are tangentially related to infection prevention and control (e.g. industry, government), or for whom infection prevention and control is not the major focus of their role (i.e. general public health or epidemiology; infectious diseases; microbiology; environmental or nutrition services; pharmacy).

In order to qualify to sit for your initial (first-time) certification, you must apply to take the computer-based test (CBT). In order to be eligible to take the CBT, you must meet ALL of the following requirements:

1. Infection prevention and control is one of your primary roles / responsibilities in your current position: that is, you are actively involved in infection prevention and control activities and/or management, and are accountable for these within your organization, in your current position;

AND

2. You are a licensed or certified healthcare professional (including, but not limited to, registered nurse, licensed / registered practical nurse [LPN, RPN], nurse practitioner, physician, medical technologist, respiratory therapist) with current registration/certification in good standing with the appropriate licensing board /certification/ governing body (e.g. state/provincial medical licensure; state/provincial nursing association or board, etc.), OR have a minimum of a baccalaureate (Bachelor's) degree;

AND

3. You are currently working in a healthcare setting;

AND

4. You have had sufficient experience in infection prevention and control, which must include active roles in a, b, and c below:
 - a. Collection, analysis and interpretation of infection prevention outcome data; AND
 - b. Investigation and surveillance of suspected outbreaks of infection; AND
 - c. At least 3 of the following additional activities:
 - Planning, implementation and evaluation of infection prevention and control measures;
 - Education of individuals about infection prevention and control;
 - Development and revision of infection prevention and control policies and procedures;
 - Management of infection prevention and control activities;
 - Consultation on infection prevention and control risk assessment, and prevention and control strategies.

There is no specific time requirement that defines “sufficient experience”; however we emphasize that this certification examination is geared toward the professional who has had at least two years of full-time experience in infection prevention and control.

Renewing Lapsed/Expired Certification

If you fail to recertify when you are due and later decide that you would like to once again be certified,

1. You must meet the criteria for *initial* certification
2. You may no longer be eligible if you have changed positions to one where infection control is NOT your main area of responsibility

Recertification

Recertification by examination is required in order to maintain the CIC[®] designation. All currently certified (CIC[®]) professionals in infection prevention and control are eligible for recertification during the year that their current certification is due to expire.

Recertification can currently be achieved either by the CBT or by the Self-Achievement Recertification Examination (SARE).

Candidates who do not pass the CBT for recertification may not subsequently attempt to recertify by the SARE during their current recertification cycle, but must recertify by CBT before the current certification cycle ends.

Recertifying candidates who do not pass the SARE cannot apply to retake the SARE but can apply to recertify by CBT. They must recertify by CBT before the current certification cycle ends.

Attempt to Recertify by SARE

→Do not pass

→Recertify by CBT ONLY

Attempt to Recertify by CBT

→Do not pass

→Recertify by CBT ONLY

An individual may retake the CBT a maximum of four times per year, and no more than once every 90 days.

To be considered for recertification, the CBT or SARE must be completed by 11:59pm EST on December 31 of the recertifying year. If a candidate fails to successfully recertify by the December 31 deadline, his/her certification will be considered to be expired and the CIC[®] designation can no longer be used. The candidate will then be required to apply for and pass the CBT examination to renew certification and to be able to use the CIC[®] designation again.

The SARE is offered online only in English in a web-based format.

Copyrighted Examination Questions

All examination questions are the copyrighted property of CBIC. It is forbidden under federal copyright law to copy, reproduce, record, distribute or display these examination questions by any means, in whole or in part. Doing so may subject the candidate to civil and criminal penalties. Candidates are forbidden from describing the content of questions on the examination.

Certification by Computer-Based Test (CBT)

Applying for the Examination

To apply online:

Go to www.cbic.org and select the "Examination Application" link under the Certification, Recertification or My Certification tabs.

To apply using a paper application:

Complete the paper application and mail or fax it, along with the required documents, to the CBIC Office: 555 East Wells St., Suite 1100, Milwaukee, WI 53202. Fax: 414/276-3349.

You must include ALL of the following with your completed application form:

1. Proof of current licensure or certification (hard copy of current standing or submission of a webpage or weblink for source verification). For those who are not licensed/certified healthcare professionals, a copy of your baccalaureate diploma/degree or transcript is required.
2. Completed attestation statement form signed by the applicant's supervisor / director, attesting that the applicant meets all of the eligibility requirements above (see Eligibility Requirements).
3. For self-employed applicants only:
Please provide names of three references (clients) for whom you have provided infection prevention and control consultation in the past 2 years. Clients should be asked by the candidate to complete an attestation form and then forward the completed form directly to the CBIC office (not to the applicant). CBIC Office: 555 East Wells St., Suite 1100, Milwaukee, WI 53202.
4. Payment of the required fees for the examination. If using a paper application, payment in U.S. dollars may be made by personal check, cashier's check, money order or credit card.

CBIC reserves the right to verify information supplied by the candidate. An application is considered complete only if all requested information is complete and accurate; if the fees are submitted; and if the candidate is determined to be eligible for the examination. You will receive an automatically generated e-mail from CBIC informing you of submission of your application once the application has been processed. Once submitted, your application is reviewed and if the application material is questioned you will be contacted by CBIC staff.

Examination fees for ineligible applications will be refunded minus a \$72 processing fee.

Examination Fees

Candidates must submit the appropriate fee(s) with a complete examination application.

Examination fees will be forfeited and will not be refunded if the eligible candidate who is approved to take the examination 1) does not schedule an examination within the 90-day eligibility period; 2) requests to reschedule the examination less than five days before the scheduled test date; 3) fails to report for an examination appointment; 4) arrives more than 30 minutes late for an appointment; 5) fails to present appropriate identification on the day of the examination. If fees have been forfeited and the candidate still wishes to take the examination, a new application and the appropriate examination fee must be resubmitted.

Confirmation of Eligibility

Your examination application should not be considered complete until you receive a confirmation notice of eligibility with instructions on how to schedule your examination. A confirmation notice of eligibility is sent by CBIC via e-mail or letter (if email address is not provided) to the candidate within seven (7) business days of receipt of the application. If eligibility is denied, you will be contacted by CBIC. If a confirmation notice is not received within three weeks of submission, contact CBIC at 414/918-9796 or info@cbic.org.

The confirmation notice will include a web address and toll-free telephone number (US, US Territories, and Canada) for Prometric, and instructions about how to schedule your exam.

Scheduling the Examination

A candidate's eligibility is valid for 90 days after receiving the confirmation notice from CBIC. **The examination must be scheduled and taken within this 90 day period.** A candidate who fails to schedule an appointment for examination **within the 90-day eligibility period** forfeits his/her examination fees, and must submit a new completed application and the appropriate examination fee in order to schedule an examination appointment.

Candidates can schedule their examination by one of two methods:

1. By phone (US, US Territories, and Canada toll free at) 800-278-6222 (times are in Eastern Time):
Monday through Friday 8am-8pm
2. Online at www.prometric.com/cbic 24 hours a day, 7 days a week.

To schedule an exam online:

- 1 Access www.prometric.com/cbic
- 2 Click on “**Schedule My Test**”
- 3 **Select the location in which you would like to test**
- 4 Follow the instructions on the screens for finding and selecting a test center location and test date and time

To schedule an exam by phone:

- 1 Call 800-278-6222 between 8 a.m. and 8 p.m. (Eastern Time), Monday through Friday.
- 2 At the end of the call, you will be given a number confirming your appointment. Record and keep this confirmation number for your records.

Rescheduling Your Appointment

You may reschedule or cancel your appointment on line at www.prometric.com/cbic or by calling 800-278-6222.

Rescheduling fees are as follows:

- Rescheduling 30 days or more in advance – No Charge
- Rescheduling between 5 and 29 days in advance - \$30 Fee
- No rescheduling or cancellations are allowed within 5 days of your appointment; examination fees will be forfeited

Emergency Closings

Severe weather or an emergency could require canceling scheduled exams. If this occurs, Prometric will attempt to contact you by phone or e-mail; however, you may check for testing site closures by calling Prometric or logging on to <https://www.prometric.com/en-us/pages/sitestatus.aspx>. If the site is closed, your exam will be rescheduled without a rescheduling fee.

If a testing center is open for testing and you choose not to appear for testing, your fee will be forfeited and you will need to pay another full exam fee. Please call CBIC with any concerns regarding missed appointments due to unforeseen circumstances.

Special Arrangements for Candidates with Disabilities

If you require any special accommodations, please contact CBIC at info@cbic.org.

Taking the CBT

What to Bring to the Exam

You should arrive at least **30 minutes before** your scheduled exam appointment.

You will be required to present one valid, government-issued ID (e.g., driver's license or passport, other federal or military ID), with your signature and a recognizable photograph. The identification document must be in Latin characters. If you are testing outside of your country of citizenship, you must present a valid passport.

All other personal items, including all watches, must be locked in a locker for test security purposes, so please limit what you bring to the testing center. You will be screened with a metal detector during check-in. Please review the testing rules and regulations found [here](#).

Important If you do not provide correct identification at the time of the exam, it is considered a missed appointment. You will be required to pay another full exam fee before choosing another appointment.

Test Center Regulations

To ensure that all candidates are tested under equally favorable conditions, the following regulations and procedures will be observed at each test center. Failure to follow any of these security procedures may result in the disqualification of your examination. Prometric reserves the right to audiotape and videotape any examination session.

References:

No reference materials, papers or study materials are allowed at the test center. If you are found with these or any other aids, you will not be allowed to continue the exam and your answers will not be scored.

Personal Items:

Prometric is not responsible for items left in the reception area of the test center. While lockers are provided, it is recommended that personal items not be brought into the test center. Note the following:

- Electronic equipment— cell phones, PDAs, pagers, cameras, tape recorders, etc.—are not permitted in the testing room and must be powered off while stored in a locker.
- Other personal items—watches, outerwear such as sweaters and jackets not being worn while testing, briefcases, purses, etc.—are not permitted in the testing room.

Breaks:

- Every time you enter the test room, you will be asked to turn your pockets inside out to confirm that you have no prohibited items. The test center administrator will collect any materials that are in violation of the rules.
- If you leave the testing room while an exam is in progress, you must sign out/in on the roster and you will lose exam time.
- You are not allowed to use any electronic devices or phones during breaks

Visitors:

- No guests, visitors or family members are allowed at the test center.

Misconduct or Disruptive Behavior:

- Candidates who engage in any kind of misconduct or disruptive or offensive behavior may be dismissed from the examination. Examples are: giving or receiving help, taking part in an act of impersonation, removing test materials or notes from the testing room, using rude or offensive language and behavior that delays or interrupts testing.

Weapons:

Weapons are not allowed at the test center.

Copyrighted Questions. All test questions are the property of the Certification Board of Infection Control and Epidemiology, Inc. (CBIC) and are protected by copyright. Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted materials.

Test center administrators are not allowed to answer any questions pertaining to the exam content. If you do not understand a question on the examination, you should answer the question to the best of your ability.

Recertification by the Self-Achievement Recertification Examination (SARE)

Recertification

Recertification for currently certified (CIC[®]) professionals can be achieved either by the CBT or by the Self-Achievement Recertification Examination (SARE).

Candidates who do not pass the CBT for recertification may not subsequently attempt to recertify by the SARE during their current recertification cycle, but must recertify by CBT before the current certification cycle ends.

Recertifying candidates who do not pass the SARE cannot apply to retake the SARE but can apply to recertify by CBT. They must recertify by CBT before the current certification cycle ends.

About the SARE

The SARE is a 150-question, multiple-choice, computer-based examination designed to assess the knowledge of professionals in infection prevention and control and epidemiology. SARE questions have been developed by CBIC specifically for the purposes of the SARE. Like the CBT, SARE questions are based on the most current CBIC practice analysis, and the content outline used is identical to that used for the CBT. The questions developed are held to the same standards as are used for the CBT.

The SARE is geared toward the advanced infection prevention and control recertifier (who has, at minimum, five years of experience in infection prevention and control), so questions may be more difficult than those on the CBT, which is geared toward the two-year practitioner. Unlike the CBT, the SARE has no time limit provided it is completed by December 31 of the year in which certification expires. Candidates taking the SARE can log into and out of the exam site repeatedly, and are able to research the answers to the questions prior to submitting their responses. The purpose/goal of the SARE is to demonstrate continued knowledge mastery in the field of infection prevention and control.

Applying for the SARE

Application for the SARE must be submitted in the same calendar year the candidate is due for recertification.

To apply online:

Go to www.cbic.org and proceed to the Recertification tab, and then to the Online Application link.

To apply using a paper application:

Complete the paper application and mail or fax it to the CBIC Office: 555 East Wells St., Suite 1100, Milwaukee, WI 53202 Fax: 414/276-3349.

Payment in U.S. dollars must be included with the application. Payment can be made by personal check, cashier's check, money order or credit card. The fee is non-refundable.

The deadline to purchase the SARE is December 1 of the year in which current certification expires. The web-based SARE must be completed by December 31 of the same year. There are no extensions to this deadline for any reason. Candidates should allow themselves ample time to complete the SARE, researching information as needed.

SARE Schedule

Purchase Deadline	December 1
Completion Deadline	11:59pm EST on December 31

Taking the SARE

Within seven (7) business days of receipt of an application for the SARE, the candidate will receive a confirmation e-mail with specific instructions on how to log in to the SARE. Candidates will be able to log in and out as many times as necessary, prior to certification expiration, to complete the examination; responses provided during previous log ins will be saved, however, it is important to read all instructions prior to exiting each session

Following the CBT or SARE

Score Report

For candidates taking the CBT and the SARE, an instant score report will indicate a “pass” or “fail.” Score reports provide raw scores by major content category. A raw score is the number of questions answered correctly. Pass/fail status is determined by the raw score.

Even though the examination consists of 150 questions, the candidate’s score is based on 135 questions. Fifteen questions are “pretest” questions and are used as part of the item evaluation for inclusion in subsequent exams. The method used to set the minimum passing score is the Angoff method, in which content experts have evaluated each examination question and determined how many correct answers are necessary to demonstrate the knowledge and skills required to pass.

A candidate’s ability to pass the examination depends on the knowledge and skill he/she displays, and not on the performance of other candidates. Passing scores may vary slightly for each version of the examination. To ensure fairness to all candidates, a process of statistical equating is used. This involves selecting an appropriate mix of individual questions for each version of the examination that meets the content distribution requirements of the examination content blueprint. Because each scored question has been pretested, a difficulty level can be assigned. The process then considers the difficulty level of each question selected for each version of the examination, attempting to match the difficulty level of each version as closely as possible. Slight variations in difficulty level between different versions of the exam are addressed by adjusting the passing score up or down, depending on the overall difficulty level statistics for the group of scored questions that appear on a particular version of the examination.

Details of incorrectly answered examination questions, and correct answers to questions, will not be provided to the candidate. This practice is in accordance with best practices in the field of professional accrediting.

Candidates Who Pass the Examination

Candidates who pass the CBT or the SARE are allowed to use the designation CIC[®] after their name for the five-year period in which their certification is valid.

CBIC reserves the right to recognize publicly any candidate who has successfully completed a CBIC certification examination, thereby earning the certification credential. Official certificates will be mailed four to six weeks after completion of the exam.

Annually, a listing of successful candidates will be published and a listing of certified infection prevention and control professionals is maintained on the CBIC

website (www.cbic.org). Information on the current certification status of an individual will be provided in writing upon request.

Candidates Who Do Not Pass the Examination

First Time Applicants or Lapsed Applicants

Candidates who do not pass the CBT must submit a new application, including appropriate documentation and fees, and be determined eligible to retake the CBT. An individual may retake the CBT a maximum of four times per year, and no more than once every 90 days.

Recertifying Applicants

Candidates who do not pass the CBT for recertification may not subsequently attempt to recertify by the SARE during their current recertification cycle, but must recertify by CBT before the current certification cycle ends to maintain their CIC®.

Candidates who do not pass the SARE cannot apply to retake the SARE but can apply to recertify by CBT and must recertify by CBT before the current certification cycle ends to maintain their CIC®. An individual may retake the CBT a maximum of four times per year, and no more than once every 90 days.

Scores Cancelled by CBIC or Prometric

CBIC and Prometric are responsible for the 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. CBIC and Prometric are committed to rectifying such discrepancies as expeditiously as possible. CBIC may void examination results if, upon investigation, violation of its regulations is discovered.

Revocation of Certification

Certified professionals or persons wrongfully using the CIC® designation are subject to disciplinary action as defined in CBIC's Judicial and Ethics Policy and Procedures for the following types of actions: falsification of an application, violation of examination procedures or misrepresentation of the certification status. A copy of the Judicial and Ethics Policy and Procedures can be found on the website at <http://www.cbic.org/about-cbic/judicial--ethics> or by contacting the CBIC Office:

555 East Wells Street
Suite 1100
Milwaukee, WI 53202-3823
info@cbic.org
www.cbic.org

Appeals Process

Our goal is to provide a quality exam and a pleasant testing experience for every candidate. If you are dissatisfied with either and believe we can correct the problem, we would like to hear from you. We provide an opportunity for general comments at the end of your exam. Our personnel will review your comments, but you may not receive a direct response.

If your concern is regarding the content of the exam, or you feel your concern was not resolved at the testing center, you must mail your comments in writing to CBIC. Your appeal letter must provide your name and identification number, the exam title, the date you tested and the details of your concern, including all relevant facts. Be sure to include your signature and return address. Mail your appeal letter to:

CBIC Office:

555 East Wells Street

Suite 1100

Milwaukee, WI 53202-3823

info@cbic.org

www.cbic.org

Preparing for the Examination

CBIC Content Outline

The expanded examination content outline included is best used for course and curriculum preparation and to judge the relevance of topics to the content of the examination; it is not necessarily a useful study tool.



2014 Examination Content Outline

The current infection control certification examination is based on a content outline developed from a practice analysis completed in 2010. The content outline is presented here in its entirety. The number of examination questions on the examination from each content area is provided by each major (1 - 6) content heading. In addition to the 135 items (questions) used to compute candidates' scores, all examination forms will include 15 unscored pretest items, interspersed throughout the examination. All items are also classified by the cognitive level that is expected of the candidates. Among the 135 scored items, approximately 25 percent require recall of information, 60 percent require application of knowledge, and 15 percent require analysis of a situation.

1. Identification of Infectious Disease Processes (18)

- A. Differentiate among colonization, infection, and contamination
- B. Identify occurrences, reservoirs, incubation periods, periods of communicability, modes of transmission, signs and symptoms, and susceptibility associated with the disease process
- C. Interpret results of diagnostic/laboratory reports
- D. Recognize limitations and advantages of types of tests used to diagnose infectious processes

- E. Recognize epidemiologically significant organisms for immediate review and investigation
- F. Differentiate among prophylactic, empiric, and therapeutic uses of antimicrobials
- G. Identify indications for environmental microbiologic monitoring

2. Surveillance and Epidemiologic Investigation (38)

- A. Design of Surveillance Systems
 - 1. Develop a surveillance plan based on the population served, services provided, and regulatory or other requirements

2. Evaluate periodically the effectiveness of the surveillance plan and modify as necessary
3. Identify appropriate critical/significant lab results and implement a notification system
4. Determine data needed to calculate specific rates
5. Integrate surveillance activities within health care settings (e.g., ambulatory, home health, long term care, acute care)
6. Establish mechanisms for identifying those with communicable diseases requiring follow-up and/or isolation

B. Collection and Compilation of Surveillance Data

1. Use standardized definitions for the identification of outcomes and processes
2. Use a systematic approach to record surveillance data
3. Determine numerators, denominators, and constants for calculations of rates for outcomes and processes
4. Organize and manage data in preparation for analysis
5. Determine the incidence or prevalence of infections
6. Calculate specific infection rates (e.g., provider-specific, unit-specific, device-specific, procedure-specific)
7. Calculate risk stratified rates
8. Incorporate post-discharge surveillance findings into calculation of rates

C. Interpretation of Surveillance Data

1. Generate, analyze, and validate surveillance data
2. Use basic statistical techniques to describe data (e.g., mean, standard deviation, rates, ratios, proportions)

3. Recognize statistical significance of surveillance data
4. Monitor and interpret antibiotic resistance patterns
5. Recognize the need for an epidemiologic study to investigate a problem (e.g., case control, cohort studies)
6. Compare surveillance results to published data or other benchmarks
7. Prepare and report findings of surveillance or epidemiologic investigation to customers, using analyzed data, tables, graphs, or charts, as appropriate
8. Develop and implement corrective action plans based on surveillance findings

D. Outbreak Investigation

1. Verify existence of outbreak
2. Collaborate with appropriate persons to establish the case definition, period of investigation, and case-finding methods
3. Define the problem using time, place, person, and risk factors
4. Formulate hypothesis on source and mode of transmission
5. Implement and evaluate control measures, including ongoing surveillance
6. Prepare and disseminate reports

3. Preventing/Controlling the Transmission of Infectious Agents (39)

- A. Develop and review infection prevention and control policies and procedures

- B. Collaborate with public health agencies in planning community responses to biological agents (e.g., anthrax, influenza)

C. Identify and implement infection prevention and control strategies related to:

1. Hand hygiene
2. Cleaning, disinfection, and sterilization
3. Specific direct and indirect care settings (e.g., patient care units, operating room, ambulatory care center, respiratory therapy)
4. Infection risks associated with therapeutic and diagnostic procedures and devices (e.g., dialysis, angiography, bronchoscopy, endoscopy, intravascular devices, urinary drainage catheter)
5. Recall of potentially contaminated equipment and supplies
6. Initiation and discontinuation of isolation/barrier precautions when indicated
7. Patient placement, transfer, and discharge
8. Environmental hazards
9. Use of patient care products and medical equipment
10. Immunization programs for patients
11. Construction and renovation in patient care settings
12. The influx of patients with communicable diseases (e.g., bioterrorism, emerging infectious diseases)

4. Employee/Occupational Health (10)

- A. Review and/or develop screening and immunization programs
- B. Provide counseling, follow up, work restriction recommendations related to communicable diseases or following exposures
- C. Assist with analysis and trending of occupational exposure incidents and information exchange between

Occupational Health and Infection Prevention and Control departments

D. Assess risk of occupational exposure to infectious diseases (e.g., TB, bloodborne pathogens)

5. Management and Communication (Leadership) (16)

A. Planning

1. Conduct an infection risk assessment of the organization
2. Develop, evaluate, and revise a mission and vision statement, goals, measurable objectives, and action plans for the Infection Prevention and Control Program
3. Recommend specific equipment, personnel, and resources for the Infection Prevention and Control Program
4. Participate in cost benefit assessments, efficacy studies, and product evaluations
5. Recommend changes in practice based on clinical outcomes and financial implications

B. Communication and Feedback

1. Provide infection prevention and control findings, recommendations, annual reports, and policies and procedures to appropriate individuals, committees, departments, and units
2. Communicate with internal and external customers (e.g., related to Infection Prevention and Control issues of continuity of care, reporting communicable diseases)
3. Collaborate with Risk Management/Quality Management in the identification and review of adverse and sentinel events
4. Evaluate accreditation/regulatory issues and facilitate compliance

C. Quality/Performance

Improvement and Patient Safety

1. Participate in quality/performance improvement and patient safety activities related to infection prevention and control
2. Demonstrate quality/performance improvement projects through the use of graphic tools (e.g., “fishbone” diagram, Pareto charts, flow charts)

6. Education and Research (14)

A. Education

1. Assess needs, develop goals and measurable objectives, and prepare lesson plans for educational offerings
2. Apply principles of adult learning to educational strategies and delivery of educational sessions
3. Prepare, present, or coordinate educational workshops, lectures, discussion, or one-on-one instruction on a variety of Infection Prevention and Control topics
4. Evaluate the effectiveness of education and learner outcomes (e.g., behavior modification, compliance rate)
5. Instruct patients, families, and other visitors about methods to prevent and control infections

B. Research

1. Apply critical reading skills to evaluate research findings
2. Incorporate research findings into practice through education and consultation

CBIC References

References have been categorized as primary and secondary sources for content information. Nearly all questions are based on material in the primary references. Secondary references may be useful to help clarify more detailed issues in specific practice settings or content areas such as microbiology.

Primary References:

- *APIC Text of Infection Control and Epidemiology*, 3rd ed., *Volume I (Essential Elements)* and *Volume II (Scientific and Practice Elements)*, APIC, Washington, DC, 2009, including on-line version 2010.
- Kulich P, Taylor D, eds. *The Infection Preventionist's Guide to the Lab*, APIC, Washington, DC, 2012.
- Heymann, D., ed. *Control of Communicable Diseases Manual*, 19th ed., Washington, DC: American Public Health Association; 2008.
- Brooks, Kathy. *Ready Reference for Microbes*, 3rd ed., APIC; 2012.

Secondary References:

- Current Recommendations of the Advisory Committee on Immunization Practices (ACIP).
- Current guidelines, standards, and recommendations from CDC, APIC, SHEA, and Public Health Agency of Canada.
- Pickering, Larry K, ed. *Red Book*, 29th ed., Elk Grove Village, IL: American Academy of Pediatrics; 2012.

Please note: In both the CBT and SARE, the term “standard precautions” is equivalent to the Canadian term “routine practices.”

CBIC Practice Examination

The only study material sponsored by CBIC is the online Practice Examination available through the CBIC website at www.cbic.org. The online Practice Examination is a 70-question computer-based test that approximates the content, cognitive levels, and difficulty of the CBT. The online Practice Examination allows purchasers to familiarize themselves with the testing software and provides scores and feedback by major content area. It is an excellent tool for applicants to become comfortable with the computer-based testing format and may help in assessing their readiness to take the CIC[®] examination.

Please note: Good performance in this practice examination does not guarantee that candidates will pass the CIC[®] exam.

For more information and for purchasing the CBIC Practice Examination visit the following link: <http://www.cbic.org/onlinepracticeexam.asp>.

Sample Examination Questions

The following sample questions are illustrative of the format found in the examination, but do not necessarily represent the level of difficulty.

1. In an outbreak of probable foodborne illness, patients developed symptoms two to four hours after eating turkey salad. The MOST likely causative organism is:

- A. *Salmonella enteritidis*.
- B. *Staphylococcus aureus*.
- C. *Vibrio parahaemolyticus*.
- D. *Clostridium perfringens*.

2. The presence of which of the following antibodies to hepatitis A virus confirms the diagnosis of acute hepatitis A?

- A. IgG
- B. IgM
- C. IgE
- D. IgD

3. In investigating an epidemic, cases should be categorized according to:

- A. time, place, and person.
- B. agent, host, and environment.
- C. agent, host, and date of onset.
- D. time, person, and date of onset.

4. The lengths of stay for patients with nosocomial infections are 12, 12, 12, 13, 15, 15, 16, 20, and 30 days. What is the median length of stay?

- A. 12 days
- B. 15 days
- C. 16 days
- D. 25 days

5. The risk of healthcare-associated urinary tract infections in spinal cord injury patients is BEST reduced by:

- A. prophylactic antibiotics.
- B. bladder instillation of antiseptic.
- C. intermittent catheterization.
- D. placement of all patients with urinary catheters in the same area.

6. Which of the following precautions MUST be taken when using respiratory ventilators?

- A. Use gloves while assembling equipment.
- B. Use only disposable equipment.
- C. Use only sterile fluids in reservoirs.
- D. Discard unused portions of medication daily.

7. A student demonstrates appropriate tracheostomy suctioning technique to an instructor. This is an example of:

- A. cognitive learning.
- B. psychomotor learning.
- C. affective learning.
- D. theoretical learning.

8. Which of the following societal problems increases the risk of tuberculosis spread?

- I. increasing homeless population
 - II. overcrowding in prisons
 - III. increasing teenage tobacco use
 - IV. TB skin test reactions from BCG vaccination in immigrants
- A. I and II only
 - B. III and IV only
 - C. I, II, and III only
 - D. I, II, III, and IV

ANSWERS

- 1. B 5. C
- 2. B 6. C
- 3. A 7. B
- 4. B 8. A

Certification Examination Fees

First-Time Certifiers (applicants not yet certified or lapsed certifiers)	\$350
Lapsed Certifiers (applicants previously certified but whose certification has expired).....	\$350
Recertifying Candidates (CBT and SARE)	\$325
International Testing (CBT).....	\$350

Application and Order Forms

Online Application Form

Please visit www.cbic.org/certification to apply online

Paper Application Form

- Initial Certification and Lapsed Certificants
- Recertification by CBT
- Self-Achievement Recertification Examination (SARE)

Attestation Form

Client Attestation Form (Self-Employed)

Special Accommodations

- Request for Special Accommodations
- Documentation of Disability Related Needs

EXAMINATION APPLICATION

INITIAL CERTIFICATION AND LAPSED CERTIFICANTS

PRINT NAME		
Last:	First:	MI:
Designation(s):		Current Title:
Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Date of Birth: Mo: ____ Day: ____ Yr: ____		
HOME MAILING ADDRESS		
Street/P.O. Box:		City:
State/Province:	Country:	Zip/Postal Code:
Daytime Telephone No.:	Evening Telephone No.:	Fax No.:
()	()	()
BUSINESS ADDRESS		
Organization Name:		
Street/P.O. Box:		City:
State/Province:	Country:	Zip/Postal Code:
Business Telephone No.:	Business Fax No.:	E-mail: (required)
()	()	
Preferred Address: <input type="checkbox"/> Home <input type="checkbox"/> Business		Have you previously taken the CBIC examination? <input type="checkbox"/> Yes, and passed <input type="checkbox"/> Yes, and did not pass <input type="checkbox"/> No If yes, on what date was the examination last taken: _____
Certification for which the candidate is eligible: <input type="checkbox"/> initial certification <input type="checkbox"/> lapsed certification		
<p>Successful certification indicates competence in the actual practice of infection prevention and control and healthcare epidemiology, and is intended for individuals whose primary responsibility within a healthcare setting is infection prevention and control within that setting. First time certification is not intended for individuals whose roles are tangentially related to infection prevention and control (e.g. industry, government), or for whom infection prevention and control is not the major focus of their role (e.g. general public health or epidemiology; infectious diseases; microbiology; environmental or nutrition services; pharmacy).</p> <p>In order to qualify to sit for your initial (first-time) certification, you must apply to take the computer-based test (CBT). In order to be eligible to take the CBT, you must meet ALL of the following requirements:</p> <p>1. Infection prevention and control is one of your primary roles / responsibilities in your current position; i.e. you are actively involved in infection prevention and control activities and/or management, and are accountable for these in your current position;</p> <p>AND</p> <p>2. You are a licensed or certified healthcare professional (including, but not limited to, registered nurse, licensed / registered practical nurse [LPN, RPN], nurse practitioner, physician, medical technologist, respiratory therapist) with current registration/certification in good standing with the appropriate licensing board /certification/ governing body (e.g. state/provincial medical licensure; state/provincial nursing association or board, etc.), OR have a minimum of a baccalaureate (Bachelor's) degree;</p> <p>AND</p> <p>3. You are currently working in a healthcare setting;</p> <p>AND</p>		
<p>4. You have had sufficient experience in infection prevention and control, which must include active roles in a, b, and c below:</p> <p>a. Collection, analysis and interpretation of infection prevention outcome data; AND</p> <p>b. Investigation and surveillance of suspected outbreaks of infection; AND</p> <p>c. At least 3 of the following additional activities:</p> <ul style="list-style-type: none"> • Planning, implementation and evaluation of infection prevention and control measures; • Education of individuals about infection prevention and control; • Development and revision of infection prevention and control policies and procedures; • Management of infection prevention and control activities; • Consultation on infection prevention and control risk assessment, and prevention and control strategies. <p>There is no specific time requirement that defines "sufficient experience"; however we emphasize that this certification examination is geared toward the professional who has had at least two years of full-time experience in infection prevention and control.</p>		

Year Started in Infection Prevention and Control: _____	If payment is made by check or money order, submit it with this application. Make CHECK or MONEY ORDER payable in U.S. dollars drawn from a U.S. bank to "CBIC". If payment is made by credit card, provide the following: <input type="checkbox"/> Visa <input type="checkbox"/> MasterCard <input type="checkbox"/> American Express <input type="checkbox"/> Discover I agree to pay above amount according to card issuer agreement.** Credit Card No.: _____ Exp. Date: _____ Signature: _____ <i>* A charge of \$20 will apply to checks returned for insufficient funds. ** If rebilling of a credit card charge is necessary, a \$25 processing fee will be charged.</i>
<p>SPECIAL CONSIDERATIONS</p> <p>Because of functional limitations imposed by a disability, special arrangements will be necessary for the candidate to complete the certification examination.</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, please complete and submit the "Request for Special Accommodations" and "Documentation of Disability" forms located online under the Candidate Handbook tab with your exam application and fees at least 45 calendar days prior to the desired examination date. Please inform AMP of the need for special accommodations when scheduling an examination time.</p>	
<p>Please indicate examination location and fee:</p> <p><input type="checkbox"/> United States Assessment Center\$325</p> <p><input type="checkbox"/> International Assessment Center\$350</p>	

Please return this application and appropriate documents and fees to:

Examination Services
 CBIC
 555 E. Wells St. Suite 1100
 Milwaukee, WI 53202
 F: 414/276.3349



SELF-ACHIEVEMENT RECERTIFICATION EXAMINATION (SARE) ORDER FORM

To order a SARE, complete the form below and submit it with the fee to the CBIC Executive Office, 555 East Wells Street, Suite 1100, Milwaukee, WI 53202-3823.

For Recertification: The SARE for recertification is an alternative to the examination that may be taken by the recertifying practitioner at his/her recertifying interval. To be considered for recertification, the SARE must be completed by December 31 of the recertifying year.

Fee: \$325 in U.S. funds

The deadline to purchase the SARE is December 1.

Those wishing to sit for the proctored computer-based (CBT) examination may still continue to do so at their regular recertifying interval (See the Candidate Handbook for paper application).

Please send me the link to the CBIC Self-Achievement Recertification Examination (SARE) to the following e-mail address (required) below. I have enclosed payment in U.S. funds for the fee listed below.

PRINT NAME		
Last:	First:	MI:
Designation(s):	Current Title:	Certification # (if known):
Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth: Mo: ____ Day: ____ Yr: ____	
HOME MAILING ADDRESS		
Street/P.O. Box:	City:	
State/Province:	Country:	Zip/Postal Code:
Daytime Telephone No.: ()	Evening Telephone No.: ()	Fax No.: ()
BUSINESS ADDRESS		
Organization Name:		
Street/P.O. Box:	City:	
State/Province:	Country:	Zip/Postal Code:
Business Telephone No.: ()	Business Fax No.: ()	E-mail: (required)
PLEASE PROVIDE THE FOLLOWING INFORMATION:		PROFESSIONAL LICENSE OR REGISTRATION/CERTIFICATION:
Education level (choose highest level):		(choose up to two)
<input type="checkbox"/> Associate's Degree in Nursing		<input type="checkbox"/> LPN or RPN Year obtained: _____
<input type="checkbox"/> Bachelor's Degree in Nursing		<input type="checkbox"/> Medical Technologist Year obtained: _____
<input type="checkbox"/> Bachelor's degree (other/non-Nursing)		<input type="checkbox"/> Physician Year obtained: _____
<input type="checkbox"/> Master's degree in:		<input type="checkbox"/> Registered Nurse Year obtained: _____
<input type="checkbox"/> Nursing		<input type="checkbox"/> Respiratory Therapist Year obtained: _____
<input type="checkbox"/> Microbiology		<input type="checkbox"/> Other (specify) Year obtained: _____
<input type="checkbox"/> Medical Technology		_____
<input type="checkbox"/> Doctorate in Nursing		<input type="checkbox"/> None
<input type="checkbox"/> Doctorate in Medicine		
Specialty: _____		
<input type="checkbox"/> Other (specify) _____		

PRACTICE SETTING:

(Please choose at least one of the following:)

- Ambulatory Care
- Acute Care/Hospital
- Behavioral Health
- EMS/Public Health

- Home Care
- Long-Term Care
- Veteran Affairs
- Self-Employed/Consultant
- Other: _____

Year Started in Infection Prevention and Control: _____

Recertifying by SARE: \$325

Method of Payment: Check payable to CBIC* VISA** MasterCard** American Express** Discover**

Account Number: _____

Expiration Date: _____

Cardholder's Name (please print): _____

Signature: _____

* A charge of \$20 will apply to checks returned for insufficient funds.

** If rebilling of a credit card charge is necessary, a \$25 processing fee will be charged.

Please return this form with payment to:

Examination Services

CBIC

555 East Wells Street

Suite 1100

Milwaukee, WI 53202-3823

Fax: 414/276-3349

Within seven (7) business days of receipt of an order for the SARE, the candidate will receive a confirmation e-mail with specific instructions on how to logon to the SARE. The e-mail will include a unique ID and password that must be used during the login process. Candidates will be able to login and out as many times as necessary, within the established testing window, to complete the examination; responses provided during previous logins will be saved. Candidate results will be provided online and will also be sent to the candidate's e-mail address. The SARE must be completed by 11:59 pm on December 31. Access to the web-based SARE will be denied after December 31.



Attestation Statement

To be filled out by employer or supervisor

Please complete this form, checking relevant boxes in each section of the form. Return the original signed form to the applicant, who will submit it to our office with a full application. If you have questions, please contact us at (414) 918-9796.

I verify that the following statement is accurate:

- The applicant named below has primary responsibility for the infection prevention and control program in his/her current position, i.e. he/she is actively involved in infection prevention and control activities and/or management, and is accountable for these in their current position;

I verify that the applicants practice includes the elements below. *Check applicable boxes for the required practice elements.* Practice must include all of the following infection control elements to be eligible:

- Collection, analysis and interpretation of infection prevention outcome data;
AND
- Investigation and surveillance of suspected outbreaks of infection;
AND
- At least 3 of the following additional activities:
 - Planning, implementation and evaluation of infection prevention and control measures;
 - Education of individuals about infection prevention and control;
 - Development and revision of infection prevention and control policies and procedures;
 - Management of infection prevention and control activities;
 - Consultation on infection prevention and control risk assessment, and prevention and control strategies.

Applicant's Name: _____

Employer/Supervisor's Name (please print): _____

Employer/Supervisor's Title: _____

Employer/Supervisor's Work phone (): _____

Employer/Supervisor's Email: _____

Employer/Supervisor's Organization: _____

Employer/Supervisor's Mailing Address: _____

Employer/Supervisor's Signature: _____ Date: _____

Client Attestation Statement

In order to be eligible to take the initial certification examination in infection prevention and control (CIC[®] examination), a self-employed candidate (i.e. independent consultant) must have the following information provided by at least three clients.

Please complete this form, checking relevant boxes in each section of the form. Return the original signed form to the CBIC Executive Office, who will add it to the candidate's application. If you have questions, please contact the CBIC Executive Office at (414) 918-9796.

Statement from client

I verify that the following statement is accurate (Check all that are applicable):

The applicant named below has provided infection prevention and control services to:

- my office
- organization
- company
- other _____

I verify that the applicant's services included all of the indicated elements I have marked below in a satisfactory and acceptable manner:

- Collection, analysis and interpretation of infection prevention outcome data; AND
- Investigation and surveillance of suspected outbreaks of infection; AND
- At least three** of the following infection control elements:
 - Planning, implementation, and evaluation of infection prevention and control measures
 - Education of individuals about infection prevention and control
 - Development and revision of infection prevention and control policies and procedures
 - Management of infection prevention and control policies and procedures
 - Consultation on infection prevention and control risk assessment and prevention and control strategies
 - Other – please explain:

Applicant's Name: _____

Client Name (please print): _____

Client Title: _____

Daytime phone (): _____

Client Email: _____

Client Organization: _____

Client Mailing Address:

Client Signature: _____

Date: _____

Please complete this form, checking relevant boxes in each section of the form. Return the original signed form to the CBIC Executive Office, who will add it to the candidate's application. If you have questions, please contact the CBIC Executive Office at (414) 918-9796.

*CBIC Executive Office
Attn: Examination Services
555 E. Wells Street
Suite 1100
Milwaukee, WI 53202
Phone: 414.918.9796
Fax: 414.276.3349
Email: info@cbic.org
www.cbic.org*



Request for Special Examination Accommodations

Please complete this form and the "Documentation of Disability-Related Needs" form so the accommodation for testing can be processed efficiently. The information provided and any documentation regarding the candidate's disability and need for accommodation in testing will be considered strictly confidential and will not be shared with any outside source without the candidate's express written consent. Candidates who have existing documentation of the same or similar accommodation(s) provided for them in another examination situation, may submit such documentation instead of completing and submitting the "Documentation of Disability-Related Needs" form.

Requested Examination Site: _____

Printed Name: _____

Address: _____

Daytime Telephone: _____ Email: _____

I request special accommodations for the administration of the CBIC examination on (date):

Please provide (check all that apply):

- Reader
- Extended testing time (normally 1.5 additional hours)
- Reduced distraction environment

Please specify if other special accommodations are needed: _____

Comments: _____

I give my permission for my diagnosing professional to discuss with AMP staff my records and history as they relate to the requested accommodation.

Signed: _____ Date: _____

Return this form with the examination application to:

Examination Services

CBIC

555 East Wells St., Suite 1100

Milwaukee, WI 53202

Fax: 414.276.3349

If you have questions, call 414.918-9796.



Documentation of Disability-Related Needs

Candidates who have a learning disability, a psychological disability, or other disability that requires an accommodation in testing, please have this section completed by an appropriate professional (education professional, doctor, psychologist, psychiatrist) to certify that the candidate's disabling condition requires the requested test accommodation. Candidates who have existing documentation of the same or similar accommodation provided for them in another examination situation, may submit such documentation instead of completing this form.

I have known _____ since ____ / ____ / ____
Candidate's Name *Date*

in my capacity as a _____
Professional Title

The applicant discussed with me the nature of the test to be administered. It is my opinion that because of this applicant's disability described below, he/she should be accommodated by providing the special arrangements listed below.

Description of disability: _____

Special arrangements required: _____

Printed Name: _____

Title: _____

Address: _____

Telephone: _____ Email: _____

Signed: _____ Date: _____

License # (if applicable): _____

Return this form with the examination application to:

Examination Services

CBIC

555 East Wells St., Suite 1100, Milwaukee, WI 53202

Fax: 414.276.3349

If you have questions, call 414.918-9796.