Certification in Infection Control, Don’t Make it Harder Than it Has To Be
Sylvia Garcia-Houchins, University of Chicago Medical Center
A Webber Training Teleclass

Certification in Infection Control: Don’t Make It Harder Then It Has to Be...
Sylvia Garcia-Houchins, RN,MBA,CIC
Director, Infection Control Program
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Why be CIC™
- The Joint Commission recognizes it as
  “Note: Qualifications may be met through ongoing education, training, experience, and/or certification (such as that offered by the Certification Board for Infection Control [CBIC]) in the prevention and control of infections.” *
- Some employers require certification as a minimum qualification.

* CAMH Refreshed Core, January 2008

Why be CIC™
- Provides standardized measurement of an infection control professionals knowledge
- Sign of individual growth and professionalism
- Enhance credibility and prestige

How much does it cost to be CIC™
Certification Examination Fees
First-Time Candidates (applicants not certificited or lapsed-certificited) $100
Recertifying Candidates (recertifying within five-year cycle) $275
International Assessment Center Fee (additional) $55

- Many hospitals encourage certification and have programs for reimbursement of costs associated with certification and/or bonus programs for certification.

As of March 2007, from CBIC Candidate Handbook

Eligibility to Take the Certification Exam
Must meet A or B
A. Have a current license or registration certification as a medical technologist or clinical laboratory scientist, physician or registered nurse,
OR
B. Have a minimum of a baccalaureat degree.

* Candidates who do not meet the educational requirements must apply for an eligibility waiver

Eligibility to Take the Certification Exam
For initial certification
- a minimum of two years practice in infection control within the most current five year period
AND
- a minimum of 800 hours worked prior to the date of the examination.

This requirement cannot be waived.

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**Eligibility to Take the Certification Exam**

- Activities must include both:
  1. Analysis and interpretation of collected infection control data;
  2. The investigation and surveillance of suspected outbreaks of infection;
- And at least three of the following:
  3. The planning, implementation, and evaluation of infection prevention and control measures;
  4. The education of individuals about infection risk, prevention and control;
  5. The development and revision of infection control policies and procedures;
  6. The management of infection prevention and control activities; and
  7. The provision of consultation on infection risk assessment, prevention and control strategies.

**Taking the Exam**

- Administered at Assessment Centers throughout the United States sites listed at Applied Measurement Professionals web site, [www.goamp.com](http://www.goamp.com)
- 150 questions (135 count; 15 at trial test questions)

**www.goamp.com**

- Through this website you can
  - Download the candidate handbook
  - Purchase a practice exam
  - Locate test center (many are local HSR Block sites)
  - Register or reschedule the exam

**CBIC Candidate Handbook**

- Can also be downloaded from [www.cbic.org](http://www.cbic.org)

**Studying for the exam...Disclaimers**

- “It is a conflict of interest for CBIC to provide specific test guidance.”
- The APIC Study Guide has not been developed and is not endorsed by CBIC. Questions in the APIC Study Guide are not actual certification exam questions.
- The APIC Certification Review Course is not a course developed by CBIC. It is a course developed and offered only by APIC. CBIC has not offered content for the course.
- This presentation is based on my experience as an Infection Control Professional who has over 20 years of experience, is certified, and has prepared my employees to be prepared to take the CIC exam.

- CBIC Candidate Handbook, 2008

**My Opinion...**

- No matter who you are or how smart you are, you MUST study for this exam
- If you have been practicing infection control for more than 2.5 years
  - Get a study partner
  - Decide a date for taking the test
  - Set your study timeline based on the date

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Recommended References

APIC Text
- Go to www.apic.org click on Resources tab and select APIC Store
- Cost: $475 to $545 non-members ($375 to $429 for members) for
- Has a CD which makes it possible to print chapters so that you can read “on the go”
- This is a basic reference for all IC Programs

Do I have to read the entire text?
- My opinion: No, the CIC exam is a test for basic knowledge that an ICP with 2 years of experience should have
- Focus on
  - Volume I: Essential Elements
    - Sections I: Program
    - Section II: Infectious Process
    - Section III: Prevention
    - Section IV: Occupational Health

APIC Text: Focus on
- Volume II: Scientific & Practice Elements
- Sections VI: Advanced Program Management
- Sections VII: Patient Populations (Neonates, Pediatrics, Geriatrics)
- Sections VIII: Practice Settings (Intensive Care, Surgical Services, Endoscopy, Dialysis, Ambulatory Care, Behavioral Health)

APIC Text: Focus on
- Section X: Organisms and Presentations (Bacteria, Viruses, Other Pathogens [CID])
- Section XI: Clinical Syndromes (Skin and Soft Tissue Infections, Food-related Illness, Diarrheal Diseases)
- Section XII: Care Environment
- Section XIII: Advanced Occupational Health
- Section XIV: Local and International Community (Public Health, Disaster Management, Bioterrorism)

Control of Communicable Disease Manual
- Available through most book vendors
- List Price is $33 – cheaper on-line
- My opinion: not essential to have the most recent edition but every practicing ICP should have a copy

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Control of Communicable Disease Manual: Focus On
- Pediculosis
- Pertussis
- Scabies
- Smallpox
- Staphylococcal Disease
- Streptococcal Disease
- Syphilis
- Tuberculosis

Other resources...
- CBIC has developed a Practice Exam available for purchase at www.cbic.org
  50-70 retired questions previously used on certification exams
- Familiarizes candidate with
  - the type and complexity of the questions asked on a certification exam
  - the computer technology for taking the exam

Other resources...
- APIC Certification Study Guide (available at same link as APIC Text - $49)
- Old Self-Assessment Recertification Exams (ask ICPs who have recertified–remember the SARE is meant for someone with 7 years of experience)

Test Specifics
1. Identification of Infectious Disease Processes (27 questions)
2. Surveillance and Epidemiologic Investigation (32 questions)
3. Infection Prevention and Control (36 questions)
4. Program Management and Communication (17 questions)
5. Education (12 questions)
6. Infection Control Aspects of Employee Health (11 questions)

Test Specifics
- Exam questions test application not memorization
- For example...

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Identification of Infectious Disease Processes
Differentiate among
- **Colonization** refers to the multiplication of microorganisms in a host without tissue invasion or injury.
- **Infection** refers to the multiplication of microorganisms in the tissues of a host; infections can be asymptomatic or symptomatic.
- **Contamination** refers to the presence of microorganisms on or in inanimate objects or transiently transported on body surfaces such as hands.

Possible test question
A patient has an increased temperature with no other symptoms and the physician orders urine, blood, and endotracheal (ET) aspirate cultures.
The results are as follows:
- Urine: 10,000 cfu/ml E. coli
- Blood: No growth
- ET aspirate: Many *S. aureus*, Few *E. coli*, Few *Acinetobacter*
- Gram stain: No WBCs
Based on these results this patient most likely has
A. Respiratory infection with *S. aureus*, *E. coli*, and *Acinetobacter*
B. Respiratory colonization with *Acinetobacter*
C. Urinary tract infection caused by *E. coli*
D. Respiratory infection with *S. aureus*

Identification of Infectious Disease Processes
- Interpret Gram stains and Microbiology Culture Results

Possible test question...
A patient is suspected of having meningitis and has spinal fluid obtained for gram stain and culture. Gram stain shows rare white blood cells and many gram positive cocci in pairs. The most likely cause of this patient’s meningitis is
A. *Neisseria meningitidis*
B. *Streptococcus pneumonia*
C. *E. coli*
D. *Staphylococcus aureus*

Identification of Infectious Disease Processes
Identify appropriate laboratory tests to detect immunity to infectious disease.
- The five major types of antibodies are:
  - IgA antibodies protect body surfaces that are exposed to outside foreign substances.
  - IgG antibodies are the only type of antibody that can cross the placenta in a pregnant woman to help protect her fetus. This type of antibody most often indicates immunity.
  - IgM antibodies are the first type of antibody made in response to an infection.
  - IgE antibodies cause the body to react against foreign substances such as pollen, fungus spores, and animal dander.

Possible test question...
An employee indicates that he has been exposed to chickenpox 14 days ago. The presence of which of the following antibodies would indicate immunity.
A. IgA
B. IgG
C. IgM
D. IgE

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Identification of Infectious Disease Processes

- Differentiate among:
  - Prophylactic antibiotic therapy is given to help prevent an infection.
  - Empiric antibiotic therapy is given when a patient is suspected of having an infection that requires treatment but precise knowledge of the infectious source or microbial species is unknown. This type of therapy must take into account host factors, the most likely organisms, and local antibiotic susceptibility patterns.
  - Therapeutic antibiotic therapy is given to treat a specific infection in which a pathogen and antibiotic susceptibility are known.

Possible test question...

A patient undergoes a total knee arthroplasty and is given a dose of cefazolin 2 hours prior to the incision. After surgery he is placed on cefazolin for 24 hours. This is an example of:

A. Inappropriate antibiotic therapy
B. Therapeutic antibiotic therapy
C. Empiric antibiotic therapy
D. Prophylactic antibiotic therapy

Identification of Infectious Disease Processes

- Chickenpox (Varicella)
  - Mode of Transmission: Direct Contact, Droplet and Airborne
  - Incubation Period: 10 to 21 days; commonly 14-16 days
  - Period of Communicability: usually 1-2 days before onset of rash, until lesions are dried and crusted
  - Prevention and Control:
    - Strict isolation in negative pressure room for hospitalized patients.
    - Vaccinate susceptible individuals with two doses of varicella vaccine (at least 4-6 weeks apart)
    - Vaccinate exposed susceptible individuals within 3 days of exposure

Possible test question...

An employee calls on Tuesday morning because they are concerned that they have contracted chickenpox. It looks like chickenpox. The employee has a pregnant wife at home and is concerned about giving her chickenpox. Which of the following steps should be taken?

I. Have the employee go to employee health for antibody testing
II. Have the employee go to employee health for immediate varicella vaccination
III. Confirm that the patient has varicella
IV. Tell the employee to have his wife notify her OB about the possible exposure

A. I and III only
B. II, I, and IV
C. I, III, and IV
D. I and III

So what are you chances of passing the test?

About 70% of first time takers pass:

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<th>Total</th>
<th>% Fail</th>
<th>% Absent</th>
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<td>23.9</td>
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<td>Registrars</td>
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<tr>
<td>Total</td>
<td>464</td>
<td>23.8</td>
<td>0.3</td>
<td>75.9</td>
</tr>
</tbody>
</table>

Source: CBIC News Winter 2006

What do you do if you do not pass the test?

- Do not panic! All tests results are confidential
- Think about the test questions:
  - ...was it the way they were phrased? Try CBIC on-line study questions or the APIC Certification Study Guide
  - ...was it knowledge of the content? Re-study the APIC test and work with a more experienced ICP to be sure you understand how to apply it, preferably someone who is CIC

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Where to Go for the FINAL Word...

Questions?

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Work Number: (773) 702-4856

The Next Few Teleclasses

20 Oct. 08
Certification in Infection Control
8:30 AM
Speaker: Dr. David Hammer, Canterbury District Health Board

29 Oct. 08
History of Infection Control
SPEAKER: Dr. Samira Ali, University of Chicago Medical Center

30 Oct. 08
Health Care Facility Maintenance for Infection Control
SPEAKER: Dr. Andy Steele, University of Minnesota

30 Oct. 08
Introduction to the HIC<br>LTC - How Maryland increased CIP Preparation & Long Term Care<br>SPEAKER: Dr. Deanna Rup, Maryland Department of Health and<br>Human Services

Teleclass sponsored by<br>Virus Technologies<br>www.virox.com

20 Nov. 08
Managing Indoor Air & Water Systems for Infection Control & Prevention<br>SPEAKER: Andrew Steele, University of Minnesota

4 Dec. 08
Marketing the Spread of HPAI H5N1 between Poultry Farms and<br>Long Term Care Facilities<br>SPEAKER: ISA

www.webbertraining.com/schedulep1.php

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