


CIC - Understanding the Practice Analysis and Content Outline

Margaret Gallagher, Kathy Roye-Horn, Sharon Krystofiak,
A Webber Training Teleclass

CBIC
Certification in Infection Control
*Part 1- Understanding the Practice Analysis
and
Content Outline*

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Objectives

In order to familiarize newer ICPs with the certification exam process, we will

- Describe the Practice Analysis (PA) process for determining job specific tasks performed by the majority of ICPs.
- Identify how the Content Outline is derived from the PA to create an exam to measure basic knowledge needed for persons practicing infection control.
- Review the references useful for exam preparation in order to maximize learning with a few texts.

Other "opportunities"

- Introduction to the testing process
- Identify what type of test taker you are
- Assessment of your readiness to test

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In the beginning...

The Practice Analysis (PA)

- involves systematic collection of information that describes behaviors and activities performed by occupants of the job in question.
- Determines the core functions that should be assessed in a certification examination

Practice Analysis process

- Survey tool was developed by a panel of experienced ICPs
- Surveys were emailed to APIC and CHICA members
- Conducted every 5 years to reflect changes in practice
- Based on North American practice standards (US & Canada)

PA Rating Scale

In your role as an ICP, considering both **importance** and **frequency**, how significant is the task to safe and effective performance?

- **0** = Not necessary for the job
- **1** = Minimally significant
- **2** = Somewhat significant
- **3** = Quite significant
- **4** = Extremely significant

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In the 2005-2006 Survey

- 9590 electronic invitations were sent
- 1304 bounce-backs as undeliverable addresses
- 1809 responses received
- 21.8% response rate
- Decision rules were then applied to responses to include or eliminate content areas.

Tasks had to be...

- **Necessary** for the job
- **Significant** to moderately experienced ICPs, regardless of work setting, bed capacity, hours per week worked,
- Significance was **not** related to certification status

And then the PA results were

- Statistically analyzed to determine core elements that are essential for an ICP practicing with 2 years experience
- Used to develop the content outline for the certification exam



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The Content Outline

Major Content Categories

- I. Identification of infectious disease processes-27 questions
- II. Surveillance and epidemiologic investigation-32 questions
- III. Infection prevention and control- 36 questions
- IV. Program management and communication -17 questions
- V. Education -12 questions
- VI. Infection control aspects of employee health-11 questions

References

References have been categorized as primary and secondary sources but nearly all questions are based on chapters 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
2nd Edition, including Electronic Edition CD-ROM;
January 2005

• Heymann, David L. Control of Communicable Diseases Manual. Washington, D.C.: American Public Health Association. 18th Ed., 2004

The Questions

- Each exam consists of 150 questions
- 15 are "pre-test" questions- new questions that are being "tested" to see how they perform
- The candidate is, therefore, only marked on 135 questions

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Test Items are Divided into 3 Skill Levels

- **Recall:** basic recall of information that has been memorized (approx 25%)
- **Application:** simple application of facts / interpretation of data (50-60%)
- **Analysis:** evaluation of data, problem solving (remaining %)
- All questions are scored equally, no matter their level.



Insider tips

- While the exam is based on North American practice, it is being taken all over the world!!
- Don't bother to study U.S. specific standards. We've eliminated references to national organizations, such as OSHA and JCAHO.
- Questions should be applicable to the practice of infection prevention and control throughout the world.



More Tips

- Use the Content Outline
- Review the APIC Text and other pertinent references
- Prepare well in advance of the exam
- Read each question thoroughly- they are not intended to be tricky
- Stay calm ☺



More from Marge...

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The Testing process
many Test Centers are in H&R Block Offices



On the Day of the Test

- Official, current, government issued photo ID is required for admission- there will be a color photograph of the candidate on each score report
- No materials are allowed in the test center, except a calculator
- Audio and video surveillance continuously during examination
- All forms and options are scrambled by the computers



Carrel Arrangement

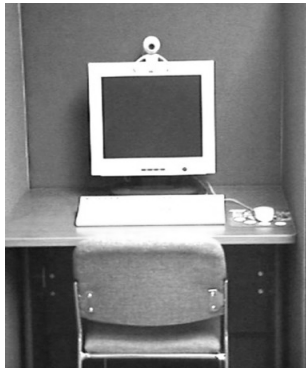


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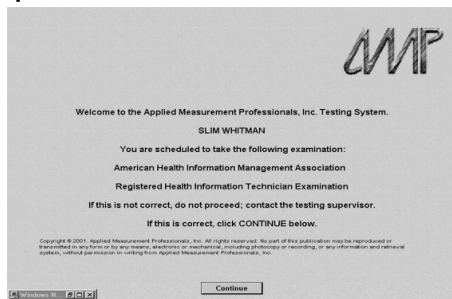
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A Single Testing Carrel

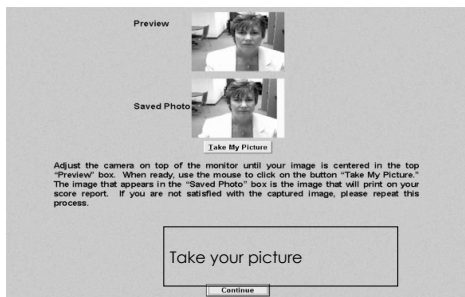
Notice the Camera on Top of the Monitor



Sample Welcome Screen



Taking Your Picture

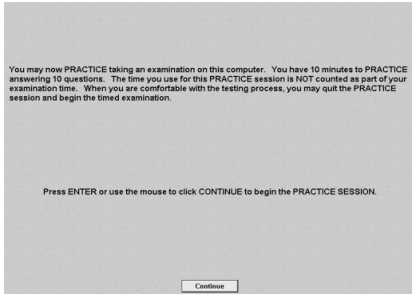


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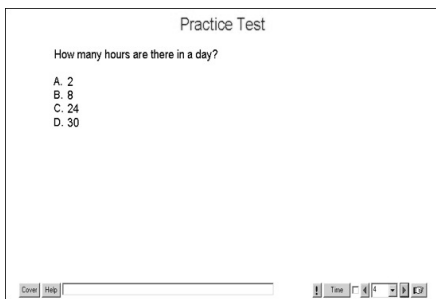
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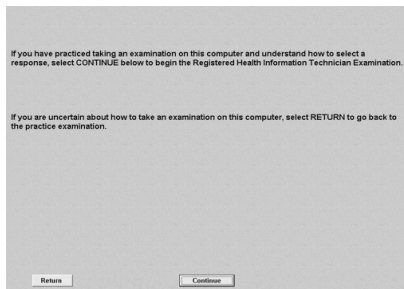
Complete a few Practice Items



Use the mouse or keyboard to respond.



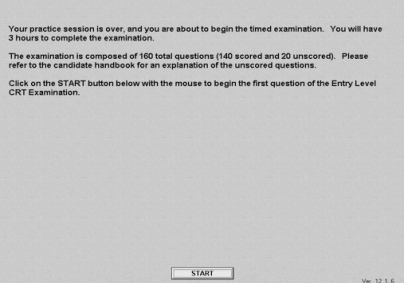
Before starting the test, you must indicate you are ready.



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Timing begins when you actually start the test



Use the keyboard or click the mouse to choose a response

Which of the following is usually caused by a poor floor plan in a house?

- A. curable physical deterioration
- B. incurable physical deterioration
- C. incurable external obsolescence
- D. incurable functional obsolescence



Which of the following is usually caused by a poor floor plan in a house?

- A. curable physical deterioration
- B. incurable physical deterioration
- C. incurable external obsolescence
- D. incurable functional obsolescence

**Best to use the
"hand" key to
proceed to the next
unanswered item**



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Help Screen

What is the minimum age for a non-provisional license in California?

A. 16
 B. 18
 C. 21
 D. None of the above.

Annotations:

- Click or type to indicate your **RESPONSE**.
- Some tests will let you provide your **COMMENTS** on the item.
- Click to **MARK** the item for returning later on.
- Click to go to the previous, a specific, or the next item.
- When you are finished entering your responses, click **COVER** to **EXIT** the test.
- Some tests will let you **GRADE** an item individually upon response, other tests will not.
- Click to display the **TIME** left on a timed-test, or the current time on an untimed-test.
- Click here to go to the next **UNANSWERED** item, or an item you have **MARKED**.

APPLIED MEASUREMENT PROFESSIONALS, INC.
 American Health Information Management Association

You have answered 0 of 150 questions
 You have used 0 of 210 minutes

Are you ready to end this examination?

When finished, touch "Quit"

Select Test to review your answers or continue the examination.

Select Quit to end the examination session.

Post Test Survey

Was the testing software easy to use?

A. Yes
 B. No

For security purposes, your picture appears on screen during testing

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What Type of Test Taker are you?

- know yourself
- identify the type of test taker you are
- utilize the improvement strategies suggested

RUSHER: *rushes to complete the test before facts are forgotten ; arrives early, anxious*

- **PITFALLS**
Unable to read question completely
High risk for misreading, misinterpreting, and mistakes
Likely to make quick, not well thought out guesses

- **IMPROVEMENT STRATEGIES**
Relaxation techniques
Develop study plan
Avoid cramming / last minute studying
Use practice tests to slow down
Read instructions slowly



TURTLE: *moves slowly thru each question; repeated re-reading*

- **PITFALLS**
Last to finish, may not complete exam
Quickly completes last questions, increasing chance of error


- **IMPROVEMENT STRATEGIES**
Practice tests, focusing on time spent per item
Place watch in front of you
Mark answer sheet for halfway point




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PERSONALIZER: *mature person who has insight from personal experiences*

<ul style="list-style-type: none"> • <u>PITFALLS</u> Risk of relying on experiences, possible false understandings Personal beliefs may not be the norm 	<ul style="list-style-type: none"> • <u>IMPROVEMENT STRATEGIES</u> Focus on standards that support nursing practice Focus on generalities, not experiences 	
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SQUISHER: *views exams as threats, preoccupied with grades, accomplishments*

<ul style="list-style-type: none"> • <u>PITFALLS</u> Procrastinates in studying Ineffective studying because it is done at the last minute Increased anxiety 	<ul style="list-style-type: none"> • <u>IMPROVEMENT STRATEGIES</u> Plan for disciplined study Defined time frames for study Read carefully, return to difficult items 	
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PHILOSOPHER: *academically successful person, well disciplined, intensity during exam, searches for hidden meanings, anxiety over not knowing all*

<ul style="list-style-type: none"> • <u>PITFALLS</u> Loses sight of actual intent of question Reads information into question 	<ul style="list-style-type: none"> • <u>IMPROVEMENT STRATEGIES</u> Focus on question as it is written Initial response usually correct Avoid multiple re-readings of questions Practice with sample tests 	
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SECOND GUESSER: *answers questions twice, believes second look will allow correct answer, frequently changes initial responses (grades self)*

<p>• PITFALLS Altering initial response results in incorrect answer Changes answers due to pattern of response (too many "true" answers)</p>	<p>• IMPROVEMENT STRATEGIES Re-read only the few items of which one is unsure Avoid changing initial responses Take exam carefully first time, no re-reading Study facts Avoid reading into questions</p>	
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LAWYER: *attempts to place words or ideas into question, occurs most frequently when asked for most appropriate response*

<p>• PITFALLS Veers from obvious answer Provides response from own point of view Reads question, jumps to conclusion</p>	<p>• IMPROVEMENT STRATEGIES Focus on question, not on what is read into question Choose response to express feelings, clarifies, identifies or avoids negating or confronting feelings</p>	
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PREPARATION FOR EXAM

- **Develop thinking skills**
 - ☞ Concentrate on learning subject
 - ☞ Develop memory skills (EGBDF)
 - ☞ Exercise the analysis of memorized facts (small groups)
- **Know the content**
 - ☞ Prepare for studying, be organized
 - ☞ Actual study: short intervals, correct content not details, use study plan, take notes, use study guides, know when to quit

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PSYCH YOURSELF UP FOR THE EXAM, USE STRESS REDUCTION METHODS

- Good attitude
- Keep goals in mind
- Think positively
- Positive self talk, expect success
- Know yourself
- Persevere, endurance
- Develop strategies to reduce anxiety

Kathy will be discussing.....

- The benefits of certification as related to patient safety
- Assessment of your readiness to test
- More methods of preparing for the exam
- Content areas of the current exam

IOM Report

- Linked continuing competency of health care providers with patient safety
- Recommended "health professional licensing bodies should implement periodic reexaminations....of doctors, nurses & other key providers".
- Made a clear link between competency of health care providers & patient outcomes, including deaths.

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A Growing Body of Evidence...

- "Various studies have added to evidence supporting the validity of the certifying exam. These lend support to the concept that **fund of knowledge** is related to **quality of practice.**"

Norcini et al. Medical Education, Sept. 2002.
Certifying examination performance & patient outcomes following acute MI

So - How Do You Know
If You're Ready?



The exam is designed for the newer ICP Do You Have?

- At least 2 years of "practice" in Infection Control with a minimum of 800 hours worked prior to the date of the examination
 - Practice must be current - within 5 yrs

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'Practice' is defined as:

- Analysis & interpretation of collected IC data
- Investigation & surveillance of suspected outbreaks

Plus.....

'Practice'

- And 3 of these:
 - Planning, implementation & evaluation of IC measures
 - Education of individuals about infection risk, prevention & control
 - Development & revision of IC policies
 - Management of IC & P activities
 - Provision of consultation on infection risk assessment, prevention & control strategies

Getting Started

- Take another look at the 'Candidate Handbook'
- Review the exam content outline
- Consider your breadth of experience in Infection Control – are there gaps?
- Purchase the online Practice Exam from CBIC – it can't hurt, especially if you're a nervous tester!

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Common Gaps....and where to look for the information

- Micro
 - Obstetrics
 - Pediatrics
 - Sterilization & disinfection
 - Surgery
 - Statistics
- The IC literature**
- APIC Text
 - Control of Communicable Diseases Manual (Heymann)
 - Our Journals
 - AJIC
 - ICHE
 - Other IC texts

Other Help with Preparation

- Basic IC courses
- A 'Study Buddy'
- Local study groups
- APIC Certification Study Guide

Exam Content Topics (Handbook)

Identification of infectious disease processes

- Define terms: Colonization, infection, contamination, reservoir, incubation period, communicable period, susceptibility
- Interpret diagnostic tests: lab, X-ray, gram stains, C&S, molecular strain results
- Recognize need to act on sentinel events
- Describe collection, handling & transport techniques for specimens
- Differentiate among empiric, therapeutic and prophylactic antibiotic use
- Assess staff/patient status regarding exposure, risk of transmission, lab results, symptoms, host risk factors
- Identify pathogenesis & micro classification of microorganisms

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Surveillance & Epidemiologic Investigation

- Design of surveillance systems
- Collection of surveillance data
- Compiling surveillance data
- Interpretation of surveillance data
- Outbreak investigation

Statistics

- "Latest survey shows that 3 out of 4 people make up 75% of the world population."



Preventing & Controlling the Transmission of Infectious Agents

- IC policies & procedures
- IC strategies: hand hygiene, cleaning, disinfection, sterilization, specific settings/procedures & devices, regulated medical waste, recalls, OP settings
- Isolation: when to start & stop
- Patient placement, transfer, discharge
- Environmental inspections: practices & hazards
- New product review
- Immunization of patients
- Air & water quality

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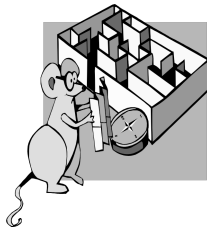
Program Management & Communication

- Program Planning & Resource Allocation
- Communication & feedback
- Human Resources
- Regulatory standards
- Quality/performance improvement

Education & Research

- **Education**
 - Assess learner needs
 - Develop programs
 - Evaluate effectiveness
 - Participate in orientation
- **Research**
 - Literature searches
 - Evaluate research
 - Incorporate into practice
 - Disseminate new information
 - Participate in research activities

Research: An Important Tool



“It was recently discovered that research causes cancer in rats (!)”

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IC Aspects of Employee Health

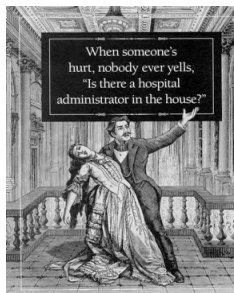
- Develop strategies to reduce risk between patients & HCW
 - Pre-placement screening
 - Other screening programs
 - Follow-up after exposures
 - Facilitate follow-up for EMS
 - Assess risk by job type/department
 - Assist Oc Health with analysis
 - Immunization program
 - Work restrictions
 - Counseling following exposures
- Implement a reporting system between Oc Health & IC

People Who Do Infection Control Should Feel Good About Themselves

- It's a hard job.
- It's an important job.
- It's stressful.
- It's fast-paced.
- And ever-changing.

Certification

- Helps you know you're good
- And lets others know you're good.



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Thank You!
See you again soon....

March 6
Microbiology 101

March 13
**The Basics of Cleaning,
Disinfection and Sterilization**

March 20
Outbreak Management

March 27
Surveillance Success

The Basics
Teleclasses for novice
infection control
professionals

Also ... two **FREE** teleclasses in March:
March 4 - Voices of the Infection Prevention Society
March 11 - Voices of CHICA

