Study Strategies for the CIC Exam
Marie Kassi & Sharon Krystofiak, CBIC
A Webber Training Teleclass

Certification Board of Infection Control and Epidemiology (CBIC)

Study Strategies for the CIC Exam

Marie Kassai, RN, BSN, MPH, CIC
Sharon Krystofiak, MS, MT(ASCP), CIC

Hosted by Paul Webber
paul@webbertraining.com

www.webbertraining.com

Objectives

- **We hope to help you**
  - Develop study skills to prepare for taking the entry-level exam.
  - Stratify content outline sections to help in your preparation as an individual or as part of a group.
  - Review information that should be familiar to the practice, such as statistical calculations and isolation strategies.
  - Prioritize study objectives based on your knowledge and the relative number of exam questions included in the Content Outline.

As a review…

- We discussed different types of test takers in the first session-
  - Were you a rusher, a turtle, a lawyer or a squisher?
- We also presented improvement strategies for approaching the exam.
- Today we're going to help you figure out how you learn and how to study!

And now for the challenge- how well do you know yourself?

- Have you ever thought about how you learn new information?

There are different Learning Styles

- **Visual Learners…**

  learn through seeing...

- They may think in pictures and learn best from visual displays including:
  - Diagrams
  - Illustrated text books
  - Videos
  - Flipcharts
  - Hand-outs
  - Maps

Visual learners

- During a lecture or classroom discussion, visual learners often prefer to take detailed notes to absorb the information.
- They also tend to sit somewhere in the classroom that offers a clear view of the instructor in order to see their body language and facial expressions

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Visual learners

- Create lists to keep up and to organize thoughts.
- Often recognize words by sight.
- Often remember faces but forget names.
- May have well developed imaginations.
- Are easily distracted by movement or action in the classroom.
- But may be unaware of noise if they're interested in the topic.

Visual learners

- Use highlighters to add emphasis to important points in a text
- Make lists, draw charts or illustrate ideas as a picture
- Visualize information as a picture to aid memorization
- Use multi-media resources- computers, videos, and illustrated articles
- Study in a quiet place away from verbal disturbances

Auditory Learners…

learn through listening…

- Learn best through verbal lectures, discussions, talking things through and listening to what others have to say.
- They notice the tone of voice, pitch, speed and other nuances of their instructors.
- Written information may have little meaning until it is heard- auditory learners may benefit from reading text aloud and/or using a recording device.

Auditory Learners

- Often remember names but forget faces.
- Often do well working out solutions or problems by talking about them- even if it's never spoken aloud.
- Can be easily distracted by *extraneous* outside noise, so it helps to work where it is relatively quiet.

Auditory Learners

- Participate in class discussions or debates
- May use a tape recorder during lectures instead of taking notes
- Read text out aloud
- Create musical jingles to aid memorization
- Create mnemonics to aid memorization
- Use verbal analogies, and story telling to demonstrate a point
- Can comfortably make speeches and presentations

Tactile/Kinesthetic Learners…

…learn through moving, doing and touching...

- Learn best through a hands-on approach, actively exploring the physical world around them.
- May find it hard to sit still for long periods and may become distracted by their need for activity.

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Tactile/Kinesthetic Learners

- Do best by taking notes during a lecture or when reading something new or difficult.
- Often like to draw or doodle to remember.
- They also do well with hands-on activities, like projects, demonstrations, or labs.

Tactile/Kinesthetic Learners

- Take frequent study breaks
- Move around to learn new things- read while on an exercise bike, mold a piece of clay while trying to learn a new concept
- Chew gum while studying
- Use bright colors to highlight reading material or dress up your work space with posters
- If you wish, listen to music while you study
- Skim through reading material to get a rough idea what it is about before trying to read it in detail.

We may also have other "gifts"

Multiple Intelligence

Visual/Spatial Intelligence

The ability to perceive the visual.

- These learners tend to think in pictures and need to create vivid mental images to retain information. They enjoy looking at maps, charts, pictures, videos, and movies.
- Architects, interior designers, mechanics and engineers generally have this trait.

Verbal/Linguistic Intelligence

The ability to use words and language.

- These learners have highly developed auditory skills and are generally elegant speakers.
- They think in words rather than pictures.
- Writers, teachers, lawyers, politicians and translators often possess this trait.

Logical/Mathematical Intelligence

The ability to use reason, logic and numbers.

- These learners think conceptually in logical and numerical patterns making connections between pieces of information.
- Always curious about the world around them, they ask lots of questions and like to do experiments.
- Scientists, engineers, computer programmers, researchers, accountants and mathematicians have this trait.

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Bodily/Kinesthetic Intelligence

The ability to control body movements and handle objects skillfully.

- These learners express themselves through movement.
- They have a good sense of balance and eye-hand co-ordination.
- Through interacting with the space around them, they are able to remember and process information.
- Athletes, phys- ed teachers, dancers, actors, and firefighters typically have these traits.

Musical/Rhythmic Intelligence

The ability to produce and appreciate music.

- Musically inclined learners think in sounds, rhythms and patterns.
- They immediately respond to music either appreciating or criticizing what they hear.
- Many of these learners are extremely sensitive to environmental sounds (e.g. crickets, bells, dripping taps).
- Musicians, disc jockeys, singers and composers have these skills.

These are gifts that can't be taught.

OK, Now think about ***your*** style

When you're teaching others, do you…

- Tell stories and make verbal analogies to demonstrate a point?
- Like participating in discussions?
- Provide oral directions rather than written ones?

Or when you're learning do you…

- Typically prefer written instructions rather than oral ones?
- Find yourself taking notes during a discussion to review later?

Have you figured yourself out yet?

- If you're not **auditory**, you would probably sit in a group learning session and not really remember much of what was discussed.
- If you're not **visual**, you may read a page then realize that you don't know what you just read. You then reread the page.

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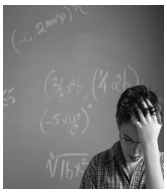
Have you figured yourself out yet?

- If you are not **tactual,** you rarely take notes or only for things that cannot be remembered easily such as numerical data.
- Once you understand your learning style, you can better decide how to prepare for anything!



Visual Learners

- Find diagrams, charts, schematics, photographs, or any other visual representation of the information you want to remember. If you can't find it, draw it yourself.
- Print different topics on different color paper.
- Print your Isolation Guidelines and study the chart.
- If you find that group study isn't helping you, rely on your visual skills.

Auditory Learners

- Study groups can be particularly effective- you gain understanding of material by hearing explanations.
- You learn even more when you do the explaining. If you have no one to talk with, read out loud to yourself or your cat!
- Try to attend lectures- Grand Rounds, Chapter meetings, etc.
- RE-listen to Webber Teleclasses ☺

Are you…**ACTIVE or REFLECTIVE?**

- Active learners tend to like group work more than reflective learners, who prefer working alone.
- If you're active- Work with others to guess what you will be asked on the test and figure out how you will answer. You will always retain information better if you find ways to do something with it.

Are you…**ACTIVE or REFLECTIVE?**

- If you're reflective- Don't simply read or memorize the material; stop periodically to review what you have read and to think of possible questions or applications.
- You might find it helpful to write short summaries of topics in your own words. This will take extra time but should enable you to retain the material more effectively.

Are you… **SEQUENTIAL or GLOBAL?**

- Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one.
  - Go through the APIC Text in the order of the chapters.
- Global learners tend to learn in large chunks, absorbing material randomly without seeing connections, and then suddenly "get it."
  - Pick out whatever chapters you need to help with your weaker areas of expertise.

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Are you… **SEQUENTIAL or GLOBAL?**

- Global - Before you begin to study the first section of a chapter in a text, skim through the entire chapter to get an overview. Doing so may be time-consuming initially but it may save you from going over and over individual parts later.
- Instead of spending a short time on every subject every night, you might find it more productive to immerse yourself in individual subjects for large blocks.

Steps for everyone…

- We all come from different settings and backgrounds. Try to relate infection control subjects to things you already know.
- Never lose faith in yourself; you will eventually understand different material and be ready to successfully complete the exam!
- Besides, it makes you a much more complete infection control resource.

The Content Outline (again)

I. IDENTIFICATION OF INFECTIOUS DISEASE PROCESSES (27)

- Interpret results of diagnostic findings/testing (lab, xray, other tests)
- Interpret Gram stains and microbiology culture and sensitivity reports
- Recognize sentinel events and epidemiologically significant organisms for immediate review and investigation

Suggestions

- **Visuals**- Write yourself notes on lab reports, check text books to see what *Neisseria meningitidis* looks like on a Gram stain.
- **Verbals-** Talk to colleagues in the Lab or a physician about the results.
- **Kinesthetics**- Visit the lab and ask someone to show you the culture plates.

IDENTIFICATION OF INFECTIOUS DISEASE PROCESSES, cont.

Assess patient and employee status regarding:

1. signs and symptoms of infections
2. exposure to communicable disease
3. laboratory results
4. risk of transmission
5. host risk factors

- **Tip for everyone-** Heymann, David L. Control of Communicable Diseases Manual. Washington, D.C.: American Public Health Association. 18th Ed., 2004

From the Candidate Handbook
(online at www.CBIC.org)

Sample Question 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.*

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Suggestions-

Review information on foodborne infections...

- **Visuals**- List the organisms responsible and the average incubation period.
- **Verbals-** Talk to your ID physician about food poisoning.
- **Kinesthetics**- Check your refrigerator at home. Visit the facility's kitchen and talk with the manager. You'll be surprised how much they know about food poisoning!

Now look at the rest of the Content Outline…

II. SURVEILLANCE AND EPIDEMIOLOGIC INVESTIGATION (32)
III. INFECTION PREVENTION AND CONTROL (36)
IV. PROGRAM MANAGEMENT AND COMMUNICATION (17)
V. EDUCATION (12)
VI. INFECTION CONTROL ASPECTS OF EMPLOYEE HEALTH (11)

Strategy is everything

- Each section has different numbers of questions based on what ICPs indicated was important in their lives on the last Practice Analysis.
- Figure out what your weaknesses are by reviewing the various task statements.
- Now that you know how you learn, devise a way to maximize your retention and understanding of the areas of practice.
- Do some calculations using a simple calculator rather than your computer.

In Summary…

- **We hope we helped you**
  - Identify study skills to prepare for life long learning.
  - Look critically at the Content Outline sections to help in your preparation- whether you decide to work as an individual or as part of a group.
  - Review specifics in the Content Outline that should be familiar to the practice, such as statistical calculations and isolation strategies.
  - Prioritize study objectives based on your knowledge and learning style.

Thank you for your interest today.

- Check the CBIC website (www.CBIC.org) to download a copy of the Candidate Handbook.
- Good luck!

Teleclass Education, April . . . Around the World

April 3 ***The Human and Environmental Toxicity of Microbicidal Chemicals: Are Safer Alternatives Available***
Dr. Susan Springthorpe, University of Ottawa

April 10 ***Disease Problems in the Global Food Supply***
Dr. Corrie Brown, University of Georgia

April 16 ***Antibiotic Resistance - Can We Hold Back the Tide?***
Dr. Mark Thomas, Auckland District Health Board

April 17 ***Study Strategies for the CIC Exam***
CBIC Board Members and Guests

April 22 ***Decontamination in the Western Cape in an Era of TB***
Prof. Shaheen Mehtar, South Africa

April 24 ***Case Study - What I Learned in Kindergarten Was Very Useful in Controlling a Large VRE Outbreak***
Dr. Dick Zoutman, Queen's University

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