APIC Training Certification in Infection Prevention and Control (CIC) Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. **All 72 patients in a chronic hemodialysis center were tested for hepatitis C. Eight of the patients were identified as HCV positive. What is the prevalence of HCV among the patients at the center?**

   A. 8%

   B. 11%

   C. 72%

   D. 22%

2. **ESBL-producing bacteria show resistance to which class of antibiotics?**

   A. Macrolides

   B. Aminoglycosides

   C. Beta-lactam antibiotics

   D. Quinolones

3. **Which statement is not a signal of an out-of-control process on a control chart?**

   A. Two of three consecutive data points are above the upper control limit or below the lower control limit.

   B. Four of five consecutive data points are between one and two standard deviations above or below the mean.

   C. Four consecutive data points are increasing or decreasing.

   D. Nine consecutive data points are on one side of the mean.

4. **Which bodily fluid can be used for a simple, quick, and reliable antigen test to detect Legionella pneumophila serogroup 1?**

   A. Blood

   B. Urine

   C. Saliva

   D. Sputum

5. Which organism is most likely to be implicated in an outbreak associated with outpatient whirlpool wound therapy?

A. Pseudomonas aeruginosa

B. Staphylococcus aureus

C. Escherichia coli

D. Streptococcus pyogenes

6. Which infection had an SIR of 3.191?

A. Surgical site infections (SSIs)

B. Catheter-associated urinary tract infections (CAUTIs)

C. Central line-associated bloodstream infections (CLABSIs)

D. Laboratory identified C. difficile infections (CDIs)

7. Which positive test result for hepatitis B would indicate that an exposure to HBV has occurred in the source patient?

A. HBV surface antigen (HBsAg)

B. Anti-HBs

C. Anti-HBc

D. HBc IgM

8. A registered nurse needs to disinfect an IV pole after removing it from patient use to hand to another patient. Which action is essential to ensure proper disinfection?

A. Wipe with dry cloth

B. Adhere to the disinfectant's contact time

C. Rinse with water before use

D. Apply antiseptic cream after drying

9. Upon receiving an incident report that a pediatric nurse was scratched by a 'needle' in a patient's room while spiking an intravenous bag, what should be the first action?

A. Determine whether a blood or bodily fluid exposure actually occurred.

B. Notify the nurse's supervisor.

C. Begin antimicrobial prophylaxis immediately.

D. Document the incident and await further details.

10. Which factor is NOT typically considered when selecting an environmental disinfectant?

A. Performance criteria

B. Safety requirements

C. Cost effectiveness

D. Brand popularity

Answers

1. B
2. C
3. A
4. B
5. A
6. C
7. A
8. B
9. A
10. D

Explanations

1. All 72 patients in a chronic hemodialysis center were tested for hepatitis C. Eight of the patients were identified as HCV positive. What is the prevalence of HCV among the patients at the center?

A. 8%

B. 11%

C. 72%

D. 22%

Prevalence describes the proportion of people in a defined population who have a condition at a specific point in time. Here, eight patients are hepatitis C positive out of a total of seventy-two tested. So, 8 divided by 72 equals about 0.111, which is 11%. This is a snapshot of how widespread the infection is in that group at that moment, not the rate of new cases over time (incidence). The other percentages don't fit: 8% would correspond to roughly 6 people, 72% would be far more than eight, and 22% would be about 16, so the exact interpretation is about 11%.

2. ESBL-producing bacteria show resistance to which class of antibiotics?

A. Macrolides

B. Aminoglycosides

C. Beta-lactam antibiotics

D. Quinolones

ESBLs are enzymes that break the beta-lactam ring, so bacteria that produce them become resistant to antibiotics in the beta-lactam class. This includes penicillins and cephalosporins, and aztreonam as well. Carbapenems often remain active against many ESBL producers, though resistance can occur with some strains. The other antibiotic classes—macrolides, aminoglycosides, and quinolones—are not inactivated by these enzymes, so ESBL production specifically drives resistance to beta-lactam drugs rather than those other classes.

3. Which statement is not a signal of an out-of-control process on a control chart?

A. Two of three consecutive data points are above the upper control limit or below the lower control limit.

B. Four of five consecutive data points are between one and two standard deviations above or below the mean.

C. Four consecutive data points are increasing or decreasing.

D. Nine consecutive data points are on one side of the mean.

Control charts look for nonrandom patterns that indicate the process is out of control. Signals come from consistent shifts or patterns relative to the center line and the sigma bands, not from a couple of points just crossing the limits in a small window. The well-known rules include: a single point outside the control limits; two of three consecutive points beyond two standard deviations on the same side of the mean; four of five consecutive points beyond one standard deviation on the same side; nine consecutive points on one side of the mean; and four consecutive points that are all increasing or all decreasing. The statement about two of three consecutive points being above the upper control limit or below the lower control limit doesn't align with these rules. It relies on the control limits themselves in a short window, which can occur by chance and is not considered a standard signal of an out-of-control process. The other statements describe recognized patterns: consistent movement beyond a sigma boundary, a clear trend, or a long run on one side of the mean. If you want, we can walk through a small example to see how each pattern appears in data.

4. Which bodily fluid can be used for a simple, quick, and reliable antigen test to detect Legionella pneumophila serogroup 1?

A. Blood

B. Urine

C. Saliva

D. Sputum

Urine is the best sample for a rapid, simple, reliable antigen test for Legionella pneumophila serogroup 1 because the test detects a soluble bacterial antigen that is shed into the bloodstream and filtered into the urine. This makes collection easy and results fast, which is crucial for guiding early treatment in suspected Legionnaires' disease. The test is highly specific for serogroup 1, the serogroup most commonly associated with illness. While other specimens like blood or sputum can be used for culture or molecular tests, they are not as convenient or validated for quick antigen detection. Be aware that the test mainly detects serogroup 1 and may miss infections caused by other Legionella serogroups or species, and false negatives can occur early in infection or after antibiotics.

5. Which organism is most likely to be implicated in an outbreak associated with outpatient whirlpool wound therapy?

A. Pseudomonas aeruginosa

B. Staphylococcus aureus

C. Escherichia coli

D. Streptococcus pyogenes

Outpatient whirlpool wound therapy outbreaks are classically caused by organisms that thrive in moist environments and resist routine disinfection. Pseudomonas aeruginosa fits this scenario perfectly. It loves warm, damp settings like whirlpool devices and plumbing, and it readily forms biofilms on surfaces, which protect it from sanitizers and allow ongoing contamination of the water used on wounds. When contaminated water comes into contact with open or healing wounds, this organism can invade and establish infection, leading to outbreaks that are difficult to treat because Pseudomonas is often naturally resistant to multiple antibiotics. While Staphylococcus aureus is a common skin inhabitant and can cause wound infections, it is not as characteristically linked to water-logged medical equipment as Pseudomonas. Escherichia coli and Streptococcus pyogenes are typically associated with other routes of transmission, such as fecal contamination or non-waterborne wound infections, and are less likely to be the primary culprits in whirlpool-related outbreaks.

6. Which infection had an SIR of 3.191?

A. Surgical site infections (SSIs)

B. Catheter-associated urinary tract infections (CAUTIs)

C. Central line-associated bloodstream infections (CLABSIs)

D. Laboratory identified C. difficile infections (CDIs)

Understanding what the Standardized Infection Ratio (SIR) represents helps you interpret this value. The SIR compares what was observed to what was expected, after adjusting for risk. An SIR of 3.191 means there were about 3.19 observed infections for every predicted infection. That indicates a substantial excess and signals a potential issue that needs investigation and corrective action. Among the infection types listed, central line–associated bloodstream infections are directly tied to intravascular devices. When central line care or maintenance isn't optimal, the risk of bloodstream infections rises, which can push the SIR well above 1.0. A value like 3.191 fits this pattern, pointing to CLABSIs as the most plausible source of an elevated rate. In practice, such a signal would prompt a review of line insertion practices, maintenance care, hand hygiene, daily line necessity assessments, and adherence to central line care bundles to bring the rate back toward expected levels. The other infections have different transmission routes and typical baselines, so they're less likely to produce this specific high SIR in most surveillance datasets.

7. Which positive test result for hepatitis B would indicate that an exposure to HBV has occurred in the source patient?

A. HBV surface antigen (HBsAg)

B. Anti-HBs

C. Anti-HBc

D. HBc IgM

Understanding hepatitis B serology requires linking what each marker means to infection status. The surface antigen (HBsAg) appears in the blood when the virus is actively replicating. Its presence signals an active HBV infection and that the person is contagious, which is the clearest indication that exposure to HBV has occurred and led to infection in the source patient. In contrast, antibodies like anti-HBs indicate immunity (either from vaccination or recovery), not current infection. Anti-HBc shows that the person has been exposed to HBV at some point, but by itself it doesn't confirm an active infection. HBc IgM points to a recent acute infection, but the strongest marker for ongoing exposure with infection is the surface antigen.

8. A registered nurse needs to disinfect an IV pole after removing it from patient use to hand to another patient. Which action is essential to ensure proper disinfection?

A. Wipe with dry cloth

B. Adhere to the disinfectant's contact time

C. Rinse with water before use

D. Apply antiseptic cream after drying

Disinfection effectiveness hinges on keeping the surface wet with the disinfectant for the exact contact time specified by the product. This exposure period is what inactivates the pathogens. Wiping dry or rinsing would remove or shorten that contact time, reducing the chance of complete disinfection. Applying antiseptic cream after drying is intended for skin, not for environmental surfaces, so it doesn't aid in disinfecting the pole. The essential step is to ensure the disinfectant remains on the surface for the labeled contact time and then let it dry or air-dry as directed before reuse.

9. Upon receiving an incident report that a pediatric nurse was scratched by a 'needle' in a patient's room while spiking an intravenous bag, what should be the first action?

A. Determine whether a blood or bodily fluid exposure actually occurred.

B. Notify the nurse's supervisor.

C. Begin antimicrobial prophylaxis immediately.

D. Document the incident and await further details.

Assessing whether there was actual exposure to blood or bodily fluids is the first action after a potential needle-stick incident. This determination guides all subsequent steps: if exposure is confirmed, you immediately activate the post-exposure protocol, which includes reporting the event, evaluating the source patient, obtaining baseline tests, and considering post-exposure prophylaxis based on the risk. If no exposure occurred, you can document the incident and review practices without triggering prophylaxis or extensive follow-up. Antimicrobial prophylaxis isn't started automatically; it's used only after a risk assessment shows a meaningful exposure. While notifying a supervisor and documenting the incident are important, they follow the initial exposure determination. The essential point is that the first action is to determine whether exposure occurred to guide the correct next steps.

10. Which factor is NOT typically considered when selecting an environmental disinfectant?

A. Performance criteria

B. Safety requirements

C. Cost effectiveness

D. Brand popularity

When choosing an environmental disinfectant, you rely on objective, evidence-based criteria about how well the product works, how safe it is, and whether it makes economic sense in practice. The most important questions are: does it reliably kill the target organisms within the specified contact time on the surfaces in use, and is it compatible with the materials and environment? You also assess safety for workers and occupants, including toxicology, required precautions, and potential residues. Cost effectiveness matters too, looking at price per use, dilution requirements, storage, and waste disposal. Brand popularity isn't a reliable predictor of performance or safety. A product from a popular brand may have excellent marketing, but that doesn't guarantee it meets the necessary efficacy data, regulatory labeling, or real-world compatibility. Different products can have different active ingredients and claims even within the same brand, so decisions should be based on objective efficacy, safety data, and cost considerations rather than popularity.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://apictrainingcic.examzify.com

We wish you the very best on your exam journey. You've got this!