



**Association for Professionals in
Infection Control and Epidemiology**

Preparing for Certification

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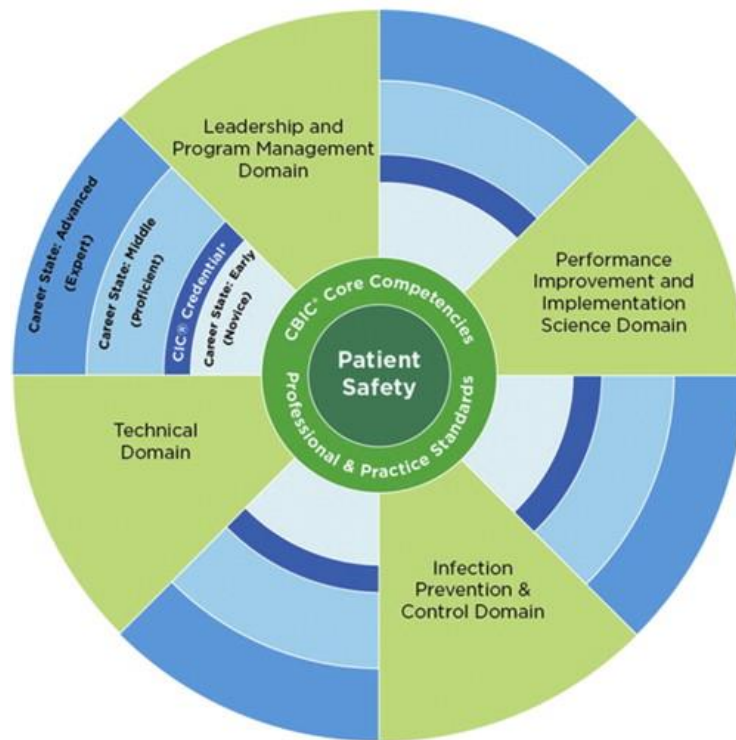
Declarations

- I have nothing to declare

What is Certification?

- Provides standardized measurement of IP knowledge
- Encourages individual growth and study, promoting professionalism
- Recognizes professionals

APIC Competency Model
for the Infection Preventionist



Green areas indicate critical competencies required for the expanding IP role.

* The CIC® Credential is available from CBIC®
The Certification Board of Infection Control
and Epidemiology, Inc.

Why Should I be Certified?

- Enhances professional credibility and prestige
 - See Saint, et al. (2013)
- Lower infection rates
 - Krein, et al. (2007)
 - Pogorzelska, Stone, and Larson (2012)
 - Murphy, et al. (2012)
 - Pogorzelska-Maziarz, M., & Kalp, E. L. (2017)
- Provides highest quality of care
- Personal goals and satisfaction

Certification Process


- Make sure you are eligible to apply
- Apply online
- Study!
- Take the exam
- Start using your new CIC title

- Post-secondary degree
- Sufficient experience (2 years recommended)
- Experience in at least 2 of the following:
 - Employee / Occupational Health
 - Management and communication
 - Education and research
 - Environment of Care
 - Disinfection and Sterilization

- You must be actively employed in Infection Prevention
 - All applications will be reviewed for current job title
 - Attestation signed by employer or supervisor

- Computer-based test
- Administered in a testing facility
- 3 hours to complete
- 150 total questions
 - 135 test questions
 - 15 analysis questions

The CIC Exam



Test Taker
Certification in Infection Control (CIC)

Time Remaining: 00:14:40

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Multiple choice items

This test uses multiple choice items. To answer each multiple choice question in your exam, click your answer with the mouse.

Practice on the sample question by doing the following:

1. Select an answer. Notice that the open circle next to the answer you chose is now filled in.
2. Change your answer by selecting different choices.

Sample Question


What is the color of the sky?

- ☒ A. Purple
- ☐ B. Yellow
- ☐ C. Green
- ☐ D. Blue

Click on the 'Next' button to continue.

PREVIOUS

NEXT

 **Test Taker**
Certification in Infection Control (CIC)

Time Remaining: 00:14:31

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Marking questions for later review

Your score is determined by the number of questions you answer correctly. Therefore it is to your advantage to answer every question. If you are unsure of your answer, you can mark the question to review if time permits.

To mark a question
Click the **Mark** button.

To unmark a question
Click the **Marked** button. This button will only appear if you have marked the question.

Unmark each question when you are satisfied with your answer choice. If you forget to unmark the question, it's okay. The scoring process does not differentiate between marked and unmarked questions.

You can also leave a question unanswered (Incomplete). Marked and Incomplete questions will be highlighted in a Review Questions screen before you exit the exam, and you will have the opportunity to go back to those if you have time remaining.


Click on the 'Next' button to continue.

MARK

MARKED

PREVIOUS

NEXT



Test Taker
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Time Remaining: 00:14:12

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Reviewing items

Question	Marked	Incomplete	Complete
Question 1			Yes
Question 2	Yes	Yes	
Question 3		Yes	
Question 4			Yes

Symbols Key

 = Marked question
 = Completed question
 = Incomplete question

At the end of the examination, you will see a scrollable listing of all the question numbers. This list displays each question number and indicates if the question has been marked for review, completed or skipped.

To review questions
Click on the **Review All** button. You will be moved to the first question. Clicking on the **Next** button will cause you to move to the next question. You can also double-click on the question number in the list to move to a particular question.

To review marked questions
Click on the **Review Marked** button. You will be moved to the first marked question. Clicking on the **Next** button will cause you to move to the next marked question.

To review incomplete questions

PREVIOUS

NEXT

What is on the Exam?

- **Identification of Infectious Disease Processes (22 items)**
 - Interpret diagnostic and laboratory reports
 - Practices for specimen collection, handling, and storage
 - Correlate clinical s/s with infectious disease processes
 - Differentiate colonization, infection, and contamination
 - Differentiate prophylactic, empiric, and therapeutic uses of antimicrobials

What is on the Exam?

- **Surveillance and Epidemiologic Investigation (24 items)**
 - Design of Surveillance Systems
 - Collection and Compilation of Surveillance Data
 - Interpretation of Surveillance Data
 - Outbreak Investigation

What is on the Exam?

- **Preventing/Controlling the Transmission of Infectious Agents (25 items)**
 - Develop evidence-based/informed infection prevention and control policies and procedures
 - Collaborate with relevant groups and agencies in planning community/facility responses to biologic threats and disasters
 - Identify and implement infection prevention and control strategies

What is on the Exam?

- **Employee/Occupational Health (11 items)**
 - Develop screening and immunization programs
 - Evaluate data and develop work restriction recommendations related to communicable diseases and/or exposures
 - Recognize healthcare personnel who may represent a transmission risk to patients, coworkers, and communities
 - Assess risk of occupational exposure to infectious diseases (e.g., *Mycobacterium tuberculosis*, bloodborne pathogens)

What is on the Exam?

- **Management and Communication (13 items)**
 - Infection Prevention program planning
 - Communication and Feedback
 - Evaluate and facilitate compliance with accreditation standards/regulatory requirements
 - Quality Performance Improvement and Patient Safety

What is on the Exam?

- **Education and Research (11 items)**
 - Education
 - Assess needs, develop goals and measurable objectives
 - Prepare, present, or coordinate educational content that is appropriate for the audience
 - Research
 - Conduct a literature review
 - Critically appraise the literature
 - Facilitate incorporation of applicable research findings into practice

What is on the Exam?

- **Environment of Care (14 items)**
 - Elements important for a safe care environment
 - Assess infection risks of design, construction, and renovation
 - Evaluation and monitoring of environmental cleaning and disinfection
 - Selection and evaluation of environmental disinfectant products

What is on the Exam?

- **Cleaning, Sterilization, Disinfection, Asepsis (15 items)**
 - Identify and evaluate appropriate cleaning, sterilization and disinfection practices
 - Collaborate with others to assess products under evaluation for their ability to be reprocessed
 - Identify and evaluate critical steps of cleaning, high level disinfection, and sterilization

What is on the Exam?

- Questions will be a mix of all categories
- You do not have to pass each category
 - You will receive a breakdown by category
- You will receive immediate feedback once the test is submitted

What is on the Exam?

- Practice Questions

1. In an outbreak of hepatitis A, immune globulin (IG) was administered to close contacts of the cases. This control measure is an example of

- A. pre-exposure prophylaxis
- B. passive immunization**
- C. active immunization
- D. producing herd immunity

Discussion:

1. What are the important clues in the question?
2. Is there a difference between prophylaxis and immunization?
3. What is the difference between active and passive immunization?

2. A new employee with a purified protein derivative (PPD/TST) skin test of 0 mm induration is exposed to pulmonary tuberculosis the first day on the job. When should the post-exposure PPD skin test be repeated?

- A. 1 week
- B. 8 weeks
- C. 12 weeks**
- D. 15 weeks

Discussion:

- 1. What is PPD testing?
- 2. Timing of immune response

3. An agency employing 230 homecare nurses reported eight needlestick injuries resulting from the use of lancets in spring-loaded devices. The FIRST intervention should be to

- A. design a poster on lancet use for each work site
- B. meet with the nurses individually to determine circumstances contributing to the injuries
- C. distribute the nurses' injury reports describing the circumstances of their injuries to the rest of the nursing staff
- D. call the manufacturer to report a product defect

Discussion:

1. What is the main problem?

4. A nurse has been found to be a hepatitis B carrier. Counseling should include all of the following recommendations EXCEPT

- A. avoid sharing razors and toothbrushes
- B. do not provide direct patient care
- C. do not donate blood
- D. advise hepatitis B immunization for spouse

Discussion:

1. What is the problem?
2. Is there a difference between carrier state and clinical disease?
3. What risk factors are involved?

5. A patient who has undergone cardiopulmonary resuscitation is subsequently diagnosed as having meningococcal meningitis. Which of the following employees should receive prophylaxis?

- A. anesthetist who performed endotracheal intubation
- B. physician who administered intravenous medications
- C. technician who performed the EKG
- D. nurse who performed chest compressions

Discussion:

1. What is the causative agent?
2. What risk factors are involved?

6. When prescribing empiric antibiotics, a facility's antibiogram is used to

- A. refine antibiotic choices for patients infected with resistant organisms
- B. assist in prescribing antibiotics while awaiting culture and sensitivity reports**
- C. guide antibiotic selection for patients with communicable diseases
- D. direct the use of pre-operative antibiotics in surgical procedures

Discussion:

1. What does an antibiogram tell us?

Sample Test Questions

7. An environmental service worker refuses to enter a patient's room because he suspects that the patient is infected. What is the infection control practitioner's MOST appropriate response to the situation?

- A. Make certain a universal precautions placard is visible in the patient's room
- B. Inform the worker that the patient's diagnosis is confidential
- C. Arrange to have the worker reassigned
- D. Discuss with the employee his concerns about this situation

Discussion:

1. What is the main issue?
2. Are there bad options?

Sample Test Questions

8. An ICP observes that a nurse in the intensive care unit wears a glove only on her dominant hand while suctioning the airway of a patient who is being mechanically ventilated. The ICP should suspect that the nurse has

- A. adequate infection control knowledge
- B. adequate concern for airway clearance
- C. inadequate concern for the patient's risk
- D. inadequate concern for her personal risk**

Discussion:

1. What is the question asking?
2. What is the greatest risk in this situation?

9. At a facility with 2500 employees, 1500 are at risk for bloodborne pathogen exposure. Over the past 10 years, 250 of the 503 needlestick injuries involved exposure to known bloodborne pathogens. The ICP reports the percent of employees who seroconverted after exposure was 0.4%. How many employees became infected?

- A. 1
- B. 2
- C. 6
- D. 10

Discussion:

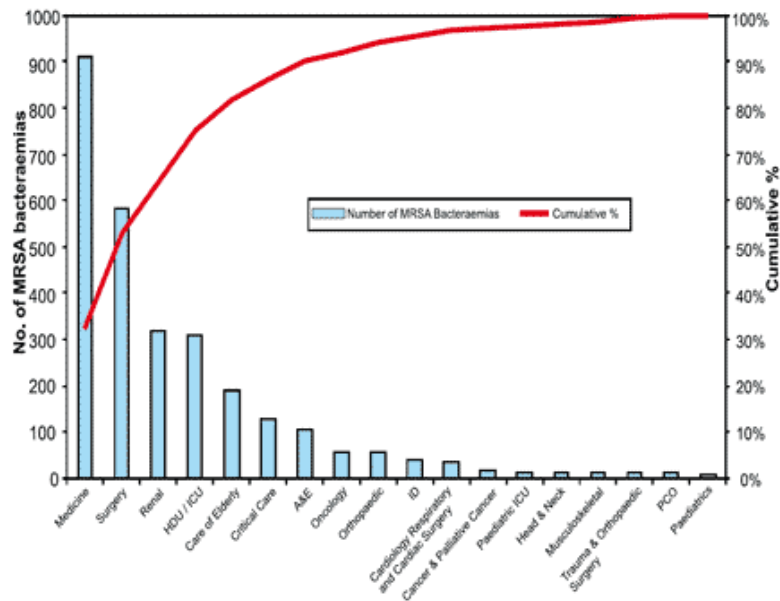
1. There are a lot of numbers here. Which are important?
2. What do they mean by “exposure”?

10. Which of the following is the best tool for identifying potential process failures?

- A. Pareto chart
- B. Ishikawa diagram
- C. Run chart
- D. Flow chart

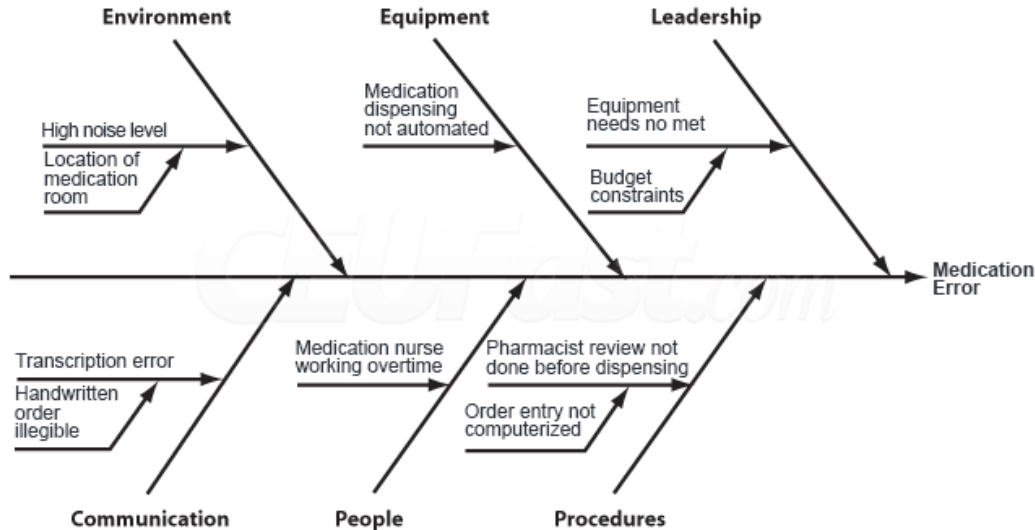
Pareto Chart

FIGURE 3: Pareto chart of the number of MRSA bacteraemia by specialty (where specified), 1 January 2003 to 31 March 2009.



- Most useful for determining most important factors from a large set
- Can also be used to determine target(s) for Performance Improvement
- 80%/20% Rule

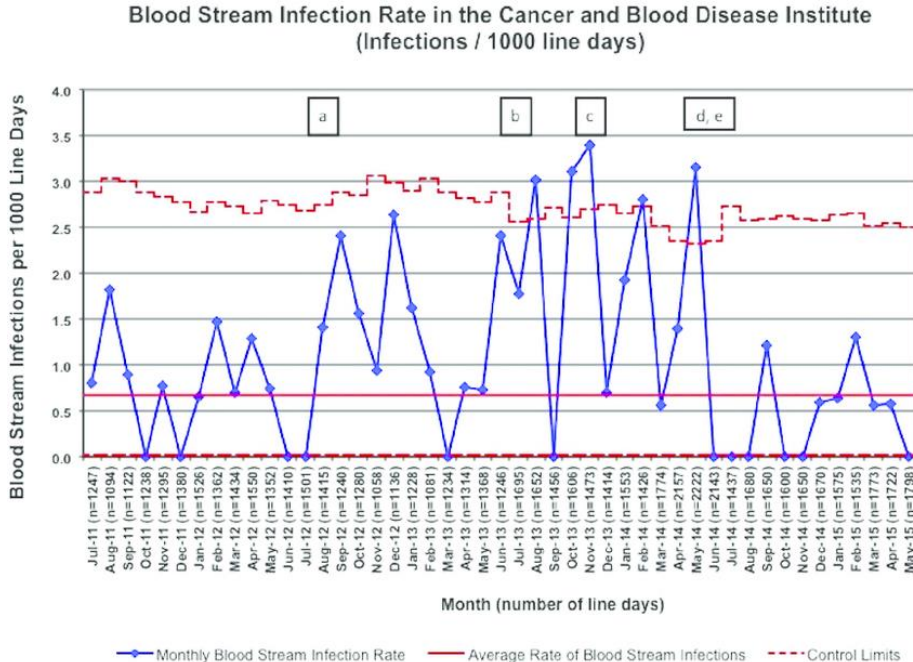
Ishikawa Diagram



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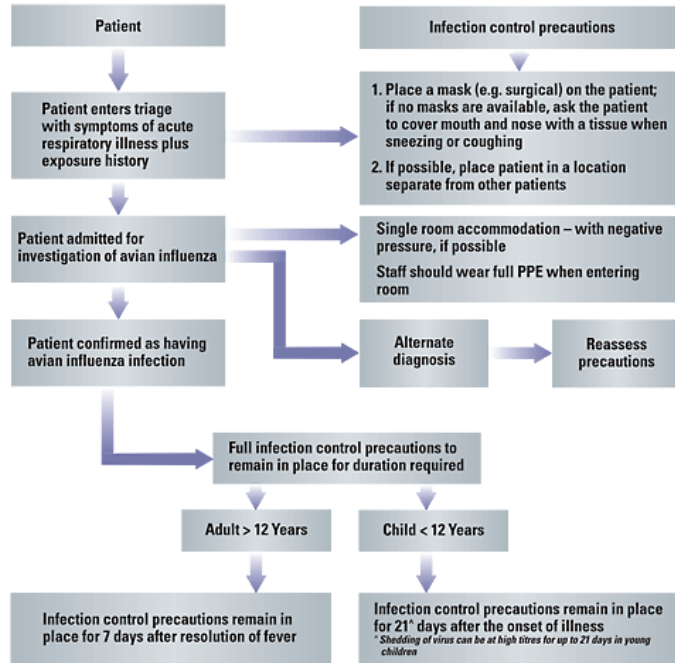
- Most useful for determining cause and effect
- Each cause or reason for imperfection is a source of variation
- Can be used to learn from a defect
- (aka) Fishbone Diagram

Run Chart



- Most useful for determining changes in performance over time
- Can also be used to demonstrate usefulness of performance improvement changes
- Similar to Control Chart without process control mapping

Flow Chart



- Diagram that represents an algorithm, work flow, or process
- Each box is a step in the process
- Useful for visualizing a process and finding flaws, bottlenecks, etc.

10. Which of the following is the best tool for identifying potential process failures?

- A. Pareto chart
- B. Ishikawa diagram
- C. Run chart
- D. Flow chart**



APIC

Spreading knowledge.
Preventing infection.®