

DUMPS ARENA

CBIC Certified Infection Control Exam

CBIC CIC

Version Demo

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QUESTION NO: 1

An outbreak of carbapenem-resistant *Klebsiella pneumoniae* is linked to duodenoscopes. What is the infection preventionist's PRIORITY intervention?

- A. Perform targeted patient screening for *Klebsiella pneumoniae*.
- B. Implement immediate enhanced reprocessing procedures and audit compliance.
- C. Discontinue the use of duodenoscopes until further notice.
- D. Conduct whole-genome sequencing of outbreak isolates.

ANSWER: B

Explanation:

Implement immediate enhanced reprocessing procedures and audit compliance is the priority because a duodenoscope-associated cluster requires prompt control of the likely transmission source. Duodenoscopes have a complex elevator-channel design that can retain contamination if cleaning, inspection, high-level disinfection or sterilization, drying, storage, and handling are not performed exactly as required. The infection preventionist should work immediately with endoscopy leadership, sterile processing personnel, and the device manufacturer to ensure each step follows the current manufacturer instructions for use and the facility's validated process. This includes direct observation and documentation of staff competency, verification that appropriate brushes and adapters are used, attention to meticulous manual cleaning before disinfection or sterilization, and review of drying and storage practices. Enhanced measures may also include microbiologic surveillance or use of an FDA-cleared supplemental processing approach when indicated by the facility's risk assessment and current public-health guidance. Auditing provides immediate confirmation that corrective actions are consistently implemented, rather than merely communicated. CDC guidance emphasizes meticulous cleaning followed by high-level disinfection or sterilization for reusable endoscopes, while FDA communications specifically address the ongoing infection-transmission risk associated with reprocessed duodenoscopes. See the [CDC guidance on flexible endoscope reprocessing](#) and the [FDA duodenoscope safety information](#).

QUESTION NO: 2

Healthcare workers are MOST likely to benefit from infection prevention education if the Infection Preventionist (IP)

- A. brings in speakers who are recognized experts.
- B. plans the educational program well ahead of time.
- C. audits practices and identifies deficiencies.
- D. involves the staff in determining the content.

ANSWER: D

Explanation:

"involves the staff in determining the content." is correct because effective infection prevention education must be relevant to the learners' work, risks, current knowledge, and practical barriers to applying recommended practices. Seeking input from healthcare workers helps the Infection Preventionist identify the procedures, patient-care situations, and implementation challenges that require focused education. It also allows educational methods and examples to be adapted to the audience's roles and care setting. This learner-centered approach reflects adult-learning principles: adults are more engaged when education addresses problems they recognize as meaningful and can apply promptly in their daily practice. Involving staff also promotes shared ownership of infection prevention efforts, strengthens trust in the educational process, and can improve uptake of safe practices. CBIC's current content outline includes developing, implementing, and evaluating education and training that support infection prevention and control goals. The CDC likewise emphasizes training healthcare personnel on infection-control policies and procedures appropriate to their job responsibilities, including education that is tailored to the facility and personnel needs. These principles make staff participation in content selection the approach most likely to produce useful, applicable, and sustained learning. See the [CBIC CIC Examination Content Outline](#) and the CDC's [Core Infection Prevention and Control Practices](#).

QUESTION NO: 3

An infection preventionist has decided to perform surveillance for central line–associated bloodstream infections (CLABSI) in the facility's ICU. Which of the following is the MOST appropriate denominator to calculate risk-adjusted rates?

- A. Total number of ICU patients
- B. Total number of patients with central lines
- C. Number of patients with infections who have central lines
- D. Number of days patients have central lines in place

ANSWER: D

Explanation:

Number of days patients have central lines in place is the appropriate denominator because CLABSI surveillance measures infection occurrence in relation to exposure to central venous catheters. Each calendar day that an eligible patient has one or more central lines contributes one central-line day to the denominator. The CLABSI rate is calculated by dividing the number of CLABSI by central-line days and multiplying by 1,000, allowing the ICU to express events as infections per 1,000 central-line days. This exposure-based measure permits meaningful comparison across periods and locations even when ICU census, length of stay, and central-line utilization differ. For national risk-adjusted comparison, NHSN uses central-line days as the foundational exposure measure in its CLABSI models; observed infections are compared with predicted infections to produce a standardized infection ratio. Accurate daily collection of central-line days is therefore essential both for the facility's internal rate calculations and for valid risk-adjusted surveillance reporting. CDC's NHSN surveillance guidance defines central-line days and the CLABSI rate methodology in its [CLABSI protocol](#); CDC also describes standardized infection ratios and risk adjustment in its [SIR guide](#).

QUESTION NO: 4

A 2-year-old girl is admitted with a fractured tibia. At birth, she was diagnosed with congenital cytomegalovirus (CMV). Which of the following barrier precautions is appropriate for healthcare personnel caring for her?

- A. Wear masks and gloves
- B. Wear gloves when handling body fluids
- C. No barrier precautions are needed
- D. Use gowns, masks, gloves, and a private room

ANSWER: B

Explanation:

Wear gloves when handling body fluids is correct because congenital cytomegalovirus is managed with Standard Precautions in healthcare settings. Standard Precautions apply to every patient and require healthcare personnel to select personal protective equipment according to the anticipated exposure. Gloves are indicated when there is a reasonable expectation of contact with blood, body fluids, secretions, excretions, mucous membranes, nonintact skin, or contaminated items. For a child with congenital CMV, this is particularly relevant when contact with urine, saliva, blood, or other potentially infectious secretions is anticipated. Hand hygiene must be performed before and after patient contact and immediately after glove removal. CMV is transmitted through direct contact with infectious body fluids rather than by routine airborne spread; therefore, the essential barrier action described is glove use for body-fluid exposure. The CDC Isolation Precautions guideline lists congenital CMV infection in neonates and infants under Standard Precautions, reinforcing that routine, exposure-based protective practices are appropriate. This approach protects personnel while ensuring care is based on the mode of transmission and the specific task being performed. See the [CDC isolation precaution recommendations](#) and the [CDC Standard Precautions guidance](#).

QUESTION NO: 5

Which of the following individuals should be excluded from receiving live attenuated influenza virus?

- A. Pregnant persons
- B. Healthy persons aged 2 to 49
- C. Persons with allergies to chicken feathers
- D. Persons simultaneously receiving an inactivated vaccine

ANSWER: A

Explanation:

Pregnant persons should be excluded from receiving live attenuated influenza vaccine (LAIV), the intranasal influenza vaccine. LAIV contains weakened, live influenza viruses that replicate in the nasal mucosa to produce an immune response. Although these vaccine viruses are attenuated, LAIV is not recommended during pregnancy because safety data for use in pregnant people are insufficient and ACIP lists pregnancy as a contraindication. This recommendation reflects the precaution used in maternal immunization: a vaccine with an established safety record in pregnancy should be selected when available.

For protection against seasonal influenza during any trimester, pregnant persons should receive an age-appropriate inactivated influenza vaccine or a recombinant influenza vaccine instead. Influenza vaccination in pregnancy helps protect the pregnant person from potentially severe influenza-associated illness and also provides transplacentally transferred antibodies that can help protect the infant during the first months of life, before the infant is old enough to be vaccinated. Infection prevention professionals should ensure screening processes identify pregnancy before administering LAIV and facilitate use of the recommended non-live influenza vaccine formulation. CDC's guidance on [flu vaccination during pregnancy](#) and its [ACIP influenza vaccine recommendations](#) support this contraindication.

QUESTION NO: 6

A nurse sustains a percutaneous injury from a needle used on a patient known to be hepatitis B surface antigen positive. The nurse has written documentation of completing a hepatitis B vaccine series and a postvaccination anti-HBs concentration of 24 mIU/mL. What is the recommended postexposure management for hepatitis B?

- A. Administer hepatitis B immune globulin and a hepatitis B vaccine booster.
- B. Administer hepatitis B immune globulin only.
- C. Provide no hepatitis B postexposure prophylaxis.
- D. Repeat the complete hepatitis B vaccine series.

ANSWER: C

Explanation:

No hepatitis B postexposure prophylaxis is needed. A healthcare worker with documented anti-HBs of at least 10 mIU/mL after a complete vaccine series is considered immune and does not require hepatitis B immune globulin, vaccine booster doses, or follow-up testing after an exposure to an HBsAg-positive source.

The injury still requires prompt occupational-health evaluation for documentation and assessment of other bloodborne pathogen risks. Hepatitis B immune globulin and revaccination are used for susceptible or inadequately immunized personnel, not for a documented vaccine responder.

QUESTION NO: 7

A healthcare facility has installed a decorative water fountain in their lobby for the enjoyment of patients and visitors. What is an important issue for the infection preventionist to consider?

- A. Children getting Salmonella enteritidis

- B. Cryptosporidium growth in the fountain
- C. Aerosolization of Legionella pneumophila
- D. Growth of Acinetobacter baumannii

ANSWER: C

Explanation:

Aerosolization of Legionella pneumophila is the key infection-prevention concern because decorative fountains are manufactured-water systems that can support Legionella growth when water is stagnant, inadequately disinfected, or maintained at temperatures favorable for bacterial multiplication. Fountains may generate fine droplets and aerosols through splashing, sprays, or bubbling. People can acquire Legionnaires' disease or Pontiac fever by inhaling contaminated aerosols; infection is not typically acquired by drinking the water. This risk has particular importance in healthcare facilities because patients, visitors, and staff may include older adults and people with immunocompromising conditions, chronic lung disease, or other factors associated with severe Legionnaires' disease. An infection preventionist should ensure the facility's water management program evaluates decorative water features, identifies aerosol-generating components, assigns maintenance responsibilities, and establishes controls such as appropriate disinfection, cleaning, monitoring, and prompt corrective action when controls are not maintained. The facility should also consider whether an indoor decorative fountain is appropriate in areas used by vulnerable populations. CDC identifies decorative fountains among devices that can aerosolize water and should be addressed in a building water management program. See the [CDC Legionella Control Toolkit](#) and CDC's [Legionella overview](#).

QUESTION NO: 8

After reviewing quarterly surveillance data, the infection preventionist (IP) identifies an upward trend in needlestick injuries occurring during bedside blood draws. What is the MOST appropriate collaborative action for the IP to take with the Occupational Health Department?

- A. Wait for the next regulatory survey to address the issue more formally with hospital leadership.
- B. Complete a device review and determine if faulty equipment has been the cause or if the manufacturer has issued a recall.
- C. Convene a multidisciplinary safety team to evaluate workflows, review device usage, and recommend practice changes.
- D. Discuss trends at the quarterly quality assurance and performance improvement meeting with the multidisciplinary safety team.

ANSWER: C

Explanation:

"Convene a multidisciplinary safety team to evaluate workflows, review device usage, and recommend practice changes" is the most appropriate action because surveillance data showing an increasing frequency of needlestick injuries require a timely, structured performance-improvement response. Partnering with Occupational Health ensures that injury circumstances, exposure follow-up information, and employee-health trends are considered alongside infection-prevention surveillance findings. A multidisciplinary group can include bedside staff, nursing leadership, safety personnel, supply-chain representatives, and educators, allowing the organization to assess the full blood-draw process rather than focusing on a single possible cause.

The team should use injury data to identify patterns such as location, timing, device type, technique, disposal practices, staffing conditions, and whether safety-engineered devices were activated correctly. This evaluation supports targeted interventions, such as workflow redesign, competency validation, adoption or optimization of safer devices, and feedback to frontline personnel. It also provides a mechanism to measure whether interventions reduce injuries over time. OSHA requires employers to evaluate safer medical devices and solicit input from nonmanagerial employees responsible for direct patient care when identifying, evaluating, and selecting effective engineering and work-practice controls. This collaborative approach is consistent with those requirements and with prevention-focused sharps-injury programs. See [OSHA's Needlestick and Sharps Safety resources](#) and the [CDC guidance on healthcare personnel safety](#).

QUESTION NO: 9

During an outbreak of ventilator-associated pneumonia (VAP), the infection preventionist should FIRST:

- A. Review adherence to ventilator bundle elements.
- B. Implement preemptive antibiotic therapy in all ventilated patients.
- C. Isolate all ventilated patients in negative pressure rooms.
- D. Perform bacterial cultures from ventilator circuits.
- E. Verify the diagnoses and confirm that the observed increase represents a true outbreak.

ANSWER: E

Explanation:

Confirming that a true outbreak exists is the essential first action because apparent increases in ventilator-associated pneumonia may result from changes in surveillance practices, case ascertainment, denominators, reporting, or clinical diagnostic practices rather than a shared preventable exposure. The infection preventionist should verify the diagnoses using a consistent surveillance definition, confirm that the observed number of cases exceeds the expected baseline for the relevant ICU population and time period, and begin a line list to identify patterns in onset dates, locations, organisms, ventilator exposure, and potentially shared procedures or equipment. This establishes whether the event represents a real cluster and provides the epidemiologic foundation for focused control measures. CDC's National Healthcare Safety Network provides standardized surveillance criteria for ventilator-associated events, which are important for consistent case review and comparison over time. Once the event is confirmed and characterized, reviewing adherence to relevant prevention practices can be targeted to the likely opportunities identified during the investigation. This approach follows the core outbreak-investigation sequence of confirming the diagnosis and confirming the existence of an outbreak before implementing a hypothesis-driven response. See the [CDC NHSN ventilator-associated event resources](#) and CDC's [outbreak investigation guidance](#).

QUESTION NO: 10

Which of the following is NOT valuable when using a graph to display data?

- A. Title with topic of data
- B. Facility and time frame for data
- C. Published trends for data comparison
- D. X and Y axes labels and annotation where indicated

ANSWER: C

Explanation:

Published trends for data comparison is the best answer because external or published trend data do not automatically make a local infection-prevention graph more useful or interpretable. Meaningful comparison requires that the numerator and denominator definitions, surveillance methods, patient populations, risk adjustment, time periods, and reporting rules are sufficiently comparable. Without that context, an external trend may lead viewers to draw conclusions that are unsupported by the data. A graph should first communicate the facility's own results accurately and clearly, with enough local context for its intended audience to understand the measure and identify actionable changes over time. External benchmarks or published trends may be used in a separate, carefully contextualized comparison, but they are not an essential graph element and should not be added simply for comparison. CDC's NHSN guidance emphasizes standardized surveillance definitions and appropriate use of data for comparison and interpretation. Similarly, effective health-data visualization depends on clear presentation of the measure and its context. See the [CDC National Healthcare Safety Network](#) and CDC's [infection-control resources](#).

QUESTION NO: 11

What is a characteristic of immediate-use steam sterilization?

- A. Alternative to purchasing expensive instrument sets.
- B. Can be used for the following surgery if properly stored.
- C. Substitute for maintaining sufficient amounts of sterile instruments.
- D. Performed for an urgent need after thorough cleaning.

ANSWER: D

Explanation:

“Performed for an urgent need after thorough cleaning” is the characteristic that best describes immediate-use steam sterilization (IUSS). IUSS is a steam sterilization process intended for a critical or semi-critical device that must be used immediately after processing because an urgent clinical need exists. The item is not packaged, stored, or held for later use; after the completed cycle, it is transported aseptically to the point of use and used immediately. Thorough cleaning and decontamination are essential before any steam sterilization cycle because organic material, blood, tissue, and other soil can shield microorganisms and impair contact between steam and instrument surfaces. Therefore, the cleaning step must never be bypassed simply because an instrument is needed urgently. Infection prevention programs should ensure that IUSS is performed according to the device manufacturer’s validated instructions for use and the sterilizer manufacturer’s instructions, with cycle monitoring and required documentation. CDC guidance emphasizes that steam sterilization depends on direct contact of saturated steam with device surfaces and that instruments must be cleaned before sterilization. See the [CDC guidance on steam sterilization](#) and the [CDC guidance on immediate-use \(flash\) steam sterilization](#).

QUESTION NO: 12

Which statistical test is MOST appropriate for comparing infection rates before and after an intervention?

- A. Student's t-test
- B. Chi-square test for proportions
- C. Linear regression analysis
- D. Wilcoxon rank-sum test

ANSWER: B

Explanation:

“Chi-square test for proportions” is the most appropriate choice when an infection-control intervention is evaluated by comparing the proportion of patients or procedures associated with infection during a preintervention period with the proportion during a postintervention period. Infection status is categorical (infection present or absent), and the chi-square test evaluates whether the observed difference in proportions between the two periods is greater than would be expected from random variation. This makes it a practical, commonly used method for assessing whether an intervention is associated with a statistically significant change in infection frequency. The analysis should be based on clearly defined, comparable surveillance populations and consistent case definitions in both periods. Infection preventionists should also report the underlying numerators and denominators, calculate infection rates or risks appropriately, and interpret statistical significance alongside clinical importance, possible confounding, and changes in surveillance practices. CDC guidance emphasizes using standardized surveillance definitions and denominators to produce meaningful healthcare-associated infection measures. See the [CDC NHSN Patient Safety Component Manual](#) and CDC’s [healthcare epidemiology statistics resources](#).

QUESTION NO: 13

Though basic principles of emergency management remain the same for all types of disasters, which of the following interventions varies to address the specific needs of the situation?

- A. Mitigation
- B. Recovery
- C. Response
- D. Preparedness

ANSWER: C

Explanation:

Response is correct because it encompasses the immediate, incident-specific actions taken to protect people, limit harm, and manage operational consequences during and directly after an emergency. Emergency management uses an all-hazards foundation: organizations prepare structures, plans, communication processes, and resource-management systems that can be applied across many event types. Once an event occurs, however, the actual response must be adapted to the hazard, its magnitude, the affected population, and evolving conditions.

For infection prevention and control professionals, a response to an emerging infectious disease may require rapid implementation of transmission-based precautions, screening and triage processes, laboratory coordination, staff exposure management, and monitoring of healthcare-associated transmission. In contrast, a response to a weather-related mass-casualty event may emphasize patient surge capacity, evacuation, continuity of utilities, and coordination with community emergency partners. The operational objectives remain grounded in protecting life and health, but the interventions used are determined by the incident's specific risks and needs.

This reflects the emergency-management concept that response activities are conducted to save lives, protect property and the environment, stabilize the incident, and meet basic human needs. See FEMA's [National Preparedness Goal](#) and CDC's [Public Health Emergency Preparedness and Response Capabilities](#).

QUESTION NO: 14

During a COVID outbreak with hospital-associated transmission cases, the infection preventionist (IP) receives a news media call about what is being done to reduce the transmission. The IP's BEST response is to

- A. answer the questions truthfully.
- B. give vague answers to ensure patient privacy.
- C. refer the reporters to the hospital's media spokesperson.
- D. inform the reporter that the conversation must be recorded to ensure accuracy.

ANSWER: C

Explanation:

"Refer the reporters to the hospital's media spokesperson" is the best response because outbreak communications must be coordinated through the organization's established communications structure. A designated media spokesperson can provide timely, approved, and consistent information about the organization's response while working with executive leadership, legal counsel, risk management, and public health partners as appropriate. This centralized approach supports public confidence and ensures that messaging accurately describes protective measures being implemented without disclosing protected health information or details that could identify affected patients, healthcare personnel, or units.

The infection preventionist has essential technical expertise and should contribute infection prevention data, recommended control measures, and subject-matter review to the response. However, receiving a press inquiry does not itself authorize the IP to speak on the organization's behalf. Directing the inquiry to the designated spokesperson follows the facility's risk-communication and media-relations process, preserves a clear chain for message approval, and helps ensure statements remain consistent as outbreak information evolves. CDC crisis and emergency risk communication guidance emphasizes providing accurate information through coordinated communications, while HHS explains that HIPAA limits disclosures of individually identifiable health information. See the [CDC Crisis and Emergency Risk Communication resources](#) and [HHS HIPAA Privacy Rule information](#).

QUESTION NO: 15

The rate of catheter-associated urinary tract infections (CAUTIs) has decreased following recent practice changes. To present these results to the Quality Committee, the infection preventionist should use:

- A. An affinity diagram.
- B. A root cause analysis.
- C. A run chart.
- D. A fishbone diagram.

ANSWER: C

Explanation:

A run chart is the appropriate tool because it plots a measure sequentially over time, allowing the Quality Committee to see CAUTI performance before, during, and after the practice changes. For an infection prevention outcome such as a CAUTI rate, the chart can display a baseline period, identify when an intervention was implemented, and show whether lower rates are sustained rather than reflecting ordinary month-to-month variation. Annotating the chart with the implementation date and relevant practice changes makes the relationship between improvement work and observed results clear for leadership. Run charts are widely used in quality improvement because their median-based rules help teams recognize nonrandom signals, including shifts and trends, and support timely interpretation when sufficient data points are available. This presentation also supports ongoing surveillance: the committee can continue to review the same measure over time to assess whether gains are maintained and whether additional action is needed. The Institute for Healthcare Improvement describes run charts as a straightforward method for displaying data over time and identifying signals of improvement in healthcare processes. CDC's CAUTI prevention resources likewise emphasize surveillance and use of outcome data to guide and evaluate prevention efforts. See the [Institute for Healthcare Improvement Run Chart Tool](#) and the [CDC CAUTI prevention guidance](#).

QUESTION NO: 16

An outbreak of *Candida auris* is suspected in the infection preventionist's (IP) facility. The IP's investigation must be conducted in a standard method and communication is critical. Which first step is MOST important?

- A. Conduct environmental cultures
- B. Plan to prevent future outbreaks
- C. Notify facility administration
- D. Perform analytical studies
- E. Verify the diagnosis and confirm that an outbreak exists

ANSWER: E

Explanation:

Verify the diagnosis and confirm that an outbreak exists is the essential first step in a standardized outbreak investigation. Before the facility can characterize transmission, implement targeted investigation activities, or communicate an outbreak status, the infection preventionist must establish that the reported *Candida auris* cases represent true infections or colonization detected by reliable testing and that their occurrence exceeds the expected baseline for the setting. This includes promptly reviewing microbiology results, ensuring organism identification is accurate, determining whether patients meet a preliminary case definition, and assessing whether the cases are linked by time, location, or care exposure. *Candida auris* identification can be challenging because some laboratory methods may misidentify it; therefore, accurate laboratory confirmation is particularly important. Confirming the diagnosis and outbreak provides the factual foundation for appropriate notification, immediate infection-control actions, and collaboration with public health authorities. CDC emphasizes rapid identification of *C. auris* and prompt implementation of response measures because the organism can spread in healthcare settings and may persist in the environment. See CDC's [Candida auris overview](#) and its [infection prevention and control guidance](#).

QUESTION NO: 17

Which of the following statements characterizes the proper use of chemical disinfectants?

- A. All items to be processed must be cleaned prior to being submerged in solution.
- B. The label on the solution being used must indicate that it kills all viable micro-organisms.
- C. The solution should be adaptable for use as an antiseptic.
- D. A chemical indicator must be used with items undergoing high-level disinfection.

ANSWER: A

Explanation:

All items to be processed must be cleaned prior to being submerged in solution. Cleaning is an essential first step before chemical disinfection or high-level disinfection because blood, body fluids, tissue, soil, and other organic material can shield microorganisms from the germicide and may reduce the agent's activity. Thorough cleaning physically removes much of the bioburden and allows the disinfectant to contact all relevant surfaces of the device or item for the manufacturer-specified exposure time. For reusable patient-care devices, this includes cleaning external surfaces, joints, lumens, and other difficult-to-reach areas according to the device and disinfectant manufacturers' instructions for use. The CDC states that meticulous cleaning must precede high-level disinfection and sterilization, and identifies cleaning as the necessary first step in reprocessing because inorganic and organic materials can interfere with these processes. This principle supports effective microbial reduction while also helping preserve the safety and performance of reusable equipment. Infection prevention personnel should ensure that written reprocessing procedures specify cleaning before immersion, appropriate dilution or minimum effective concentration, complete contact with the solution, required contact time, rinsing when applicable, and safe handling consistent with the product label. See the CDC's [Cleaning, Disinfection, and Sterilization guidance](#) and its [high-level disinfection recommendations](#).

QUESTION NO: 18

The Environmental Services department is purchasing a new disinfectant that is an approved hospital disinfectant with no tuberculocidal claim. This product is appropriate for cleaning which of the following items?

- A. Laryngoscope blades
- B. Blood pressure cuff
- C. Respiratory therapy equipment
- D. Ultrasound probe

ANSWER: B

Explanation:

Blood pressure cuff is correct because it is a noncritical patient-care item: it contacts intact skin rather than sterile tissue or mucous membranes. Noncritical equipment can be cleaned and disinfected with a low-level EPA-registered hospital disinfectant, provided the product is used according to its labeled dilution, application method, and contact time. A hospital disinfectant without a tuberculocidal claim is appropriate for this low-level disinfection purpose. Environmental Services should first remove visible soil, because organic material can reduce disinfectant effectiveness, and should ensure that all relevant cuff surfaces remain visibly wet for the labeled contact time. Facilities should also follow the manufacturer's instructions for the cuff, especially where cleaning or disinfectant compatibility is specified. The CDC Spaulding framework classifies equipment by the site of patient contact and states that noncritical items require low-level disinfection. This makes routine blood pressure cuffs an appropriate use for the described product. See the CDC's [Guideline for Disinfection and Sterilization in Healthcare Facilities](#) and its [patient-care equipment guidance](#).

QUESTION NO: 19

Bioterrorism agents are classified according to priority. Which organism is listed as a Category A agent?

- A. Q fever
- B. Smallpox
- C. Influenza
- D. Brucellosis

ANSWER: B

Explanation:

Smallpox is listed as a Category A bioterrorism agent by the U.S. Centers for Disease Control and Prevention. Category A agents are considered the highest-priority threats because they can be readily disseminated or transmitted from person to person, can cause high mortality and substantial public-health impact, may provoke public fear and social disruption, and require special preparedness measures. Smallpox, caused by variola virus, is particularly significant because it can spread through close contact and respiratory droplets, the population has limited residual immunity since routine vaccination ended after eradication, and an intentional release would demand rapid recognition, isolation precautions, contact tracing, vaccination response, and close coordination with public-health authorities. Although naturally occurring smallpox was eradicated globally in 1980, preparedness remains essential because of the potential for deliberate use. Infection preventionists should recognize a suspected compatible rash illness promptly, ensure immediate airborne and contact precautions as directed by public-health guidance, and notify infection prevention, laboratory leadership, and local or state public-health authorities without delay. CDC's Category A agent information is available at [CDC Bioterrorism Agents/Diseases by Category](#); clinical and public-health preparedness information is available at [CDC Smallpox Information for Healthcare Professionals](#).

QUESTION NO: 20

Over the past 6 months, a facility has noticed an increase in healthcare-associated pneumonias in ventilator-dependent patients in the NICU. There were eight healthcare-associated pneumonias among ventilated patients. Total ventilator days were 240. What was the ventilator-associated pneumonia rate for the NICU during the 6-month period?

- A. 33/1,000 ventilator days
- B. 30/1,000 ventilator days
- C. 3.3/1,000 ventilator days
- D. 3/1,000 ventilator days

ANSWER: A

Explanation:

33/1,000 ventilator days is correct. A device-associated pneumonia rate expresses the number of events in relation to the amount of time patients were exposed to the relevant device. The calculation is: number of ventilator-associated pneumonias divided by total ventilator days, multiplied by 1,000. Here, the calculation is $(8 \div 240) \times 1,000 = 33.33$. When the result is reported as a whole-number rate, it is 33 ventilator-associated pneumonias per 1,000 ventilator days.

Ventilator days are the appropriate denominator because they measure exposure time to mechanical ventilation among the population at risk. Using this standardized denominator permits meaningful comparison of the NICU's rate across surveillance periods, even if its census or number of admissions changes. Device-day denominators are a fundamental component of healthcare-associated infection surveillance and rate calculation. CDC's NHSN materials describe device-associated event measures and the use of device days in surveillance: [CDC NHSN Data and Statistics](#). CDC's training resources also provide guidance on calculating and interpreting infection surveillance measures: [CDC NHSN Training](#).

QUESTION NO: 21

An infection preventionist is putting together an educational program for families of patients newly diagnosed with *Clostridioides difficile* infection (CDI). Which of the following educational formats would involve active learning?

- A. Providing a brief 10-minute lecture on ways to prevent CDI transmission
- B. Distributing a pamphlet describing ways to prevent CDI transmission
- C. Watching a 5-minute YouTube video demonstrating ways to prevent CDI transmission
- D. Having the family members demonstrate ways to prevent CDI transmission

ANSWER: D

Explanation:

Having the family members demonstrate ways to prevent CDI transmission is an active-learning format because learners participate directly in practicing and applying the prevention behaviors being taught. For example, family members can perform hand hygiene, describe when gloves and gowns may be required during healthcare visits, and use a teach-back or return-demonstration process to show how they would follow instructions. This approach lets the infection preventionist assess comprehension and technique in real time, clarify misunderstandings, and give immediate feedback. Active learning is particularly useful when education aims to build practical behaviors rather than simply provide information. For CDI, families should understand that transmission can occur through spores shed in stool and that appropriate hand hygiene and environmental measures are important components of prevention. The CDC notes that soap and water is preferred for hand hygiene when caring for a person with CDI because alcohol-based hand sanitizer does not kill *C. difficile* spores. Combining this essential content with demonstration and feedback supports retention and confidence in performing prevention actions. CDC guidance on CDI prevention is available at [CDC: Preventing C. diff](#). The CDC's educational resource on hand hygiene and *C. difficile* is available at [CDC: Hand Hygiene in Healthcare Settings](#).

QUESTION NO: 22

A new hospital disinfectant with a 3-minute contact time has been purchased by Environmental Services. The disinfectant will be rolled out across the patient care 3-minute contact time has been purchased by Environmental Services. The disinfectant will be rolled out across the patient care areas. They are concerned about the high cost of the disinfectant. What advice can the infection preventionist provide?

- A. Use the new disinfectant for patient washrooms only.
- B. Use detergents on the floors in patient rooms.
- C. Use detergents on smooth horizontal surfaces.
- D. Use new disinfectant for all surfaces in the patient room.

ANSWER: B

Explanation:

Use detergents on the floors in patient rooms. This is an appropriate cost-conscious recommendation because routine patient-room floors are generally low-touch environmental surfaces and are not usually direct sources of hand-mediated transmission. Routine floor cleaning is nevertheless essential: it removes soil, dust, and organic material, maintains a visibly clean environment, and reduces the bioburden that can be moved by footwear or mobile equipment. A detergent-based floor-cleaning process can therefore preserve the more costly hospital disinfectant for environmental surfaces with greater transmission relevance, such as high-touch patient-zone surfaces and surfaces contaminated with blood or body fluids.

This approach should be implemented within the facility's written environmental-cleaning policy and product instructions. Environmental Services should use the detergent according to manufacturer directions, promptly address spills and visible contamination, and follow any outbreak-, organism-, or unit-specific requirements that call for an EPA-registered disinfectant. The infection preventionist should also ensure staff competency, appropriate dilution and application of cleaning products, and auditing of cleaning performance. CDC guidance recognizes floors as housekeeping surfaces that require routine cleaning and emphasizes risk-based environmental cleaning practices. See CDC's [Guidelines for Environmental Infection Control in Health-Care Facilities: Summary of Recommendations](#) and CDC's [Environmental Cleaning Procedures](#).

QUESTION NO: 23

The infection preventionist (IP) is reviewing a laboratory report that indicates the presence of *Enterococcus faecium* in a 76-year-old patient's urine culture. The patient has no symptoms of a urinary tract infection. The IP's accurate interpretation of this result is that the patient:

- A. Should be placed in isolation due to the risk of airborne transmission.
- B. Has an active infection and requires immediate treatment with antibiotics.
- C. Is colonized with the bacteria and does not require treatment at this time.
- D. Has a pseudo-infection, which could be caused by contamination of the sample.

ANSWER: C

Explanation:

"Is colonized with the bacteria and does not require treatment at this time" is the most accurate interpretation. A positive urine culture alone does not establish a symptomatic urinary tract infection. In a patient without local urinary symptoms, such as dysuria, urinary frequency, urgency, suprapubic pain, or flank pain, the finding is asymptomatic bacteriuria. This is common in older adults and reflects the presence of bacteria in the urinary tract without clinical disease. In infection prevention and antimicrobial-stewardship practice, microbiology findings must be interpreted in the context of the patient's signs and symptoms rather than treated as an infection solely because an organism was recovered.

Guidance from the Infectious Diseases Society of America recommends against screening for or treating asymptomatic bacteriuria in older adults, including older persons living in the community or in long-term care facilities, except in specific circumstances such as pregnancy or before certain invasive urologic procedures. Avoiding treatment in this setting prevents unnecessary antimicrobial exposure and supports efforts to limit adverse drug events and antimicrobial resistance. *Enterococcus faecium* may be recovered from urine cultures, but its presence without compatible symptoms does not by itself warrant antibiotics. See the [IDSA guideline for asymptomatic bacteriuria](#) and the CDC's [clinical-care resources for antibiotic use](#).

QUESTION NO: 24

A 21-year-old college student was admitted with a high fever. The Emergency Department physician began immediate treatment with intravenous vancomycin and ceftriaxone while awaiting blood, urine, and cerebrospinal fluid cultures. The following day, the cultures of both the blood and the cerebrospinal fluid were reported to be growing meningococci. The patient was placed on precautions on admission. Which of the following is correct?

- A. Droplet precautions may be discontinued after 24 hours of therapy.
- B. Droplet precautions must continue
- C. Airborne precautions may be discontinued after 24 hours of therapy.
- D. Airborne precautions must continue.

ANSWER: A

Explanation:

Droplet precautions may be discontinued after 24 hours of therapy. Invasive meningococcal disease, caused by *Neisseria meningitidis*, is transmitted through respiratory secretions during close contact. Prompt administration of an effective antimicrobial regimen substantially eliminates nasopharyngeal carriage and communicability. Because ceftriaxone is effective therapy for meningococcal disease, the patient should remain on Droplet Precautions until 24 hours after effective antimicrobial therapy has begun; after that interval, transmission-based Droplet Precautions are no longer required. Standard Precautions remain appropriate throughout care, including hand hygiene and use of personal protective equipment when exposure to blood, body fluids, or respiratory secretions is anticipated. This timeframe applies to a patient with suspected disease at admission as well as after infection is confirmed by blood and cerebrospinal-fluid cultures. It protects healthcare personnel and other patients during the period in which respiratory spread is possible while avoiding unnecessary continuation of isolation once effective treatment has rendered the patient noninfectious. CDC's Isolation Precautions

Appendix specifies Droplet Precautions for meningococcal disease until 24 hours after initiation of effective therapy. CDC also identifies ceftriaxone as a recommended treatment for meningococcal disease. See the [CDC Isolation Precautions Appendix](#) and [CDC clinical guidance for meningococcal disease](#).

QUESTION NO: 25

An infection preventionist (IP) is tasked with identifying if the Intensive Care Unit's (ICU) central line–associated bloodstream infection (CLABSI) prevention practices are consistent with current best practices. Which of the following quality improvement tools should the IP construct?

- A. Gap analysis
- B. Root cause analysis
- C. Failure mode and effect analysis (FMEA)
- D. Strengths, weaknesses, opportunities, and threats (SWOT) analysis

ANSWER: A

Explanation:

Gap analysis is the appropriate quality-improvement tool because the stated task is to compare existing central line–associated bloodstream infection prevention practices with an externally defined desired standard: current evidence-based best practices. The infection preventionist can establish the desired state using authoritative recommendations, then systematically assess the current state through policy review, direct observation, staff interviews, supply availability, and adherence data. Comparing these states identifies specific gaps—for example, gaps in insertion practices, maintenance processes, documentation, competency validation, or audit-and-feedback systems—and creates a practical baseline for an improvement plan.

This approach supports an organized assessment before interventions are selected or implemented. It also allows the infection preventionist to prioritize deficiencies according to patient-safety impact, feasibility, and consistency with the organization's CLABSI-reduction goals. CDC guidance describes key evidence-based strategies for preventing intravascular catheter-related infections, which can serve as standards for the desired state in a gap analysis. The Agency for Healthcare Research and Quality also provides CLABSI prevention resources that emphasize evaluating and strengthening implementation of prevention practices. See the [CDC Guidelines for the Prevention of Intravascular Catheter-Related Infections](#) and the [AHRQ Comprehensive Unit-based Safety Program for CLABSI](#).

QUESTION NO: 26

When a *Staphylococcus aureus* outbreak is suspected, cultures of which of the following sites will MOST likely identify carriers?

- A. Nose
- B. Hands
- C. Throat
- D. Rectum

ANSWER: A

Explanation:

Nose is correct because the anterior nares are the principal and most consistently sampled reservoir for *Staphylococcus aureus* colonization in people. Nasal carriage may be persistent or intermittent, and colonized healthcare personnel or patients can contribute to transmission when epidemiologic investigation suggests a common source or ongoing spread. Accordingly, nasal cultures are the standard starting point for identifying potential *S. aureus* carriers during a suspected outbreak. The specimen should be collected by swabbing both anterior nares, following the laboratory's validated collection

and testing procedures. Although colonization can occur at additional body sites and the epidemiology of a particular outbreak may support expanded screening, the nose has the strongest established role as the primary carriage site and provides the most useful routine culture site for carrier identification. This approach supports targeted outbreak-control measures, such as reinforcing transmission-based prevention practices and considering decolonization only when indicated by the investigation and organizational policy. CDC guidance identifies the nares as a common body site colonized with MRSA, a type of *S. aureus*, and notes the importance of colonization in transmission prevention strategies. See the [CDC overview of MRSA](#) and the [CDC guidance on controlling infections among healthcare personnel](#).

QUESTION NO: 27

What method of evaluation will BEST identify a staff member's competency with reprocessing medical devices?

- A. Verbalize the importance of reprocessing.
- B. Demonstrate the appropriate sterilization procedure.
- C. Describe the facility's sterilization policies and procedures.
- D. Obtain a score of 100% on a post-test following a reprocessing course.

ANSWER: B

Explanation:

Demonstrate the appropriate sterilization procedure is the best evaluation method because competency is the ability to apply required knowledge and skills correctly in practice. Direct observation of a return demonstration lets the evaluator verify that the staff member performs the essential steps of device reprocessing in the proper sequence and according to the organization's written instructions for use and policies. This includes appropriate point-of-use handling, cleaning, inspection, preparation and packaging, sterilizer loading, cycle selection, monitoring, documentation, and safe release of processed items. Observation also allows the evaluator to identify unsafe technique or missed critical steps at the time they occur and provide immediate remediation. Medical-device reprocessing is a patient-safety activity in which correct performance—not knowledge alone—is necessary to prevent transmission of infectious organisms. CDC guidance emphasizes that cleaning must precede disinfection or sterilization and that healthcare facilities need effective practices for processing reusable devices. A competency assessment based on observed performance therefore provides the strongest evidence that personnel can reliably carry out the process in the clinical setting. This approach aligns with the CBIC practice analysis expectation that infection preventionists assess healthcare personnel competence. See the [CDC Guideline for Disinfection and Sterilization in Healthcare Facilities](#) and [CBIC Practice Analysis resources](#).

QUESTION NO: 28

An infection preventionist (IP) observes an increase in primary bloodstream infections in patients admitted through the Emergency Department. Poor technique is suspected when peripheral intravenous (IV) catheters are inserted. The IP should FIRST stratify infections by:

- A. Location of IV insertion: pre-hospital, Emergency Department, or in-patient unit.
- B. Type of dressing used: gauze, CHG impregnated sponge, or transparent.
- C. Site of insertion: hand, forearm, or antecubital fossa.
- D. Type of skin preparation used for the IV site: alcohol, CHG/alcohol, or iodophor.

ANSWER: A

Explanation:

Location of IV insertion: pre-hospital, Emergency Department, or in-patient unit. is the appropriate first stratification because it establishes the setting in which the peripheral IV was inserted and permits the IP to identify whether infections cluster around a particular care environment. A patient admitted through the Emergency Department may have an IV initiated before arrival, in the Emergency Department, or after transfer to an inpatient unit. These are distinct clinical

contexts, potentially involving different personnel, supplies, workflow pressures, policies, and opportunities for observation of insertion practice. Separating infections according to insertion location is therefore an essential initial epidemiologic step to define the population and process most likely associated with the increase.

Once the IP identifies a location with a disproportionate number or rate of infections, the investigation can be focused efficiently on the practices and exposures used in that setting, including direct observation of aseptic insertion technique and review of the local insertion process. This follows the core surveillance principle of organizing data to detect meaningful patterns by place before narrowing the assessment to more detailed procedural variables. CDC guidance emphasizes aseptic technique and appropriate skin antisepsis for peripheral intravascular catheter insertion and supports evaluating the care processes surrounding catheter placement. See the CDC's [Summary of Recommendations for Prevention of Intravascular Catheter-Related Infections](#) and CBIC's [CIC certification examination information](#).

QUESTION NO: 29

The infection preventionist and Occupational Health discuss the 65% influenza vaccination rate for healthcare personnel. Which is MOST effective method to increase compliance?

- A. Pre-schedule healthcare personnel for vaccine administration
- B. Require annual vaccine as a condition of employment
- C. Educate staff about risks of not receiving vaccine
- D. Offer the vaccine year round to increase compliance

ANSWER: B

Explanation:

Require annual vaccine as a condition of employment is the most effective intervention because employer influenza-vaccination requirements consistently produce the highest vaccination coverage among healthcare personnel. A policy that makes annual influenza vaccination a condition of employment, while allowing appropriate medical contraindication and legally required religious accommodations, establishes a clear organizational expectation and removes reliance on individual uptake alone. It should be implemented through a written policy, accessible employee vaccination services, reliable documentation in occupational-health records, and a defined process for exemptions and any required alternative measures. This approach protects patients as well as personnel: healthcare workers may transmit influenza before recognizing that they are ill, and patients in healthcare settings often have elevated risk for severe complications. The Centers for Disease Control and Prevention recommends annual influenza vaccination for all healthcare personnel and reports that vaccination coverage is highest in workplaces with employer requirements. The Advisory Committee on Immunization Practices likewise recommends routine annual influenza vaccination for everyone aged 6 months and older without contraindications, including healthcare personnel. A requirement is therefore a high-impact, evidence-supported component of a facility influenza-prevention program. See the CDC's [guidance for healthcare personnel](#) and its [healthcare personnel vaccination coverage data](#).

QUESTION NO: 30

A suspected measles case has been identified in an outpatient clinic without an airborne infection isolation room (AIIR). Which of the following is the BEST course of action?

- A. Patient should be sent home
- B. Staff should don a respirator, gown, and face shield.
- C. Patient should be offered the Measles, Mumps, Rubella (MMR) vaccine
- D. Patient should be masked and placed in a private room with door closed.

ANSWER: D

Explanation:

Patient should be masked and placed in a private room with door closed. Measles is transmitted through airborne spread and can remain infectious in the air for up to two hours after an infected person leaves an area. Immediate source control with a well-fitting mask reduces dissemination of respiratory particles while the patient is being evaluated. Rapid separation from waiting areas, hallways, and other patients is essential because susceptible persons may be exposed even without direct close contact.

Although an airborne infection isolation room is the preferred location, a clinic that does not have one should promptly place the patient in a private room with the door closed and minimize entry into that room. The facility should arrange transfer to an appropriate setting with airborne infection isolation capability when clinically necessary, using measures that limit exposure during transport. Healthcare personnel entering the room should use appropriate respiratory protection and only personnel with presumptive evidence of immunity should provide care when feasible. This approach follows CDC guidance to identify, mask, and isolate suspected measles patients immediately to interrupt transmission in healthcare settings. See the CDC's [measles infection-control recommendations for healthcare settings](#) and [clinical overview of measles](#).

QUESTION NO: 31

A patient presents with symptoms of meningitis. Two weeks ago, the patient ate from a cheese and meat tray and developed fever, muscle aches, and nausea the next day. Which of the following infectious agents should an infection preventionist consider as a cause of the patient's symptoms?

- A. *Vibrio cholerae*
- B. *Campylobacter jejuni*
- C. *Clostridium perfringens*
- D. *Listeria monocytogenes*

ANSWER: D

Explanation:

Listeria monocytogenes is the appropriate pathogen to consider because it causes listeriosis, a foodborne infection that can progress from a nonspecific febrile illness with myalgias and gastrointestinal symptoms to invasive disease, including bacteremia and meningitis. Ready-to-eat refrigerated foods are important exposure sources, particularly deli meats and certain cheeses; therefore, a cheese and meat tray is a clinically meaningful epidemiologic clue. A distinctive food-safety concern is that *L. monocytogenes* can survive and grow at refrigeration temperatures, allowing the organism to persist in refrigerated, processed, or stored foods. Although the timing and manifestations of listeriosis vary, invasive disease may develop days to weeks after exposure. Meningitis due to listeriosis is especially important to recognize in people at increased risk for invasive infection, including older adults, pregnant people, newborns, and people with impaired immunity. For infection prevention practice, suspected or confirmed listeriosis should prompt attention to food exposure history, diagnostic evaluation, reporting requirements, and public-health coordination when indicated. The Centers for Disease Control and Prevention describes listeriosis as an illness caused by eating food contaminated with *L. monocytogenes* and notes its potential to cause serious invasive illness. See the [CDC overview of Listeria infection](#) and the [FDA foodborne illness information](#).

QUESTION NO: 32

Following recent renovations on an oncology unit, three patients were identified with *Aspergillus* infections. The infections were thought to be facility-acquired. Appropriate environmental microbiological monitoring would be to culture the:

- A. Air
- B. Ice
- C. Carpet
- D. Aerators

ANSWER: A

Explanation:

Air is the appropriate specimen to culture when investigating suspected healthcare-associated aspergillosis temporally associated with renovation work. *Aspergillus* molds produce small conidia (spores) that become airborne when dust is disturbed. Demolition, excavation, ceiling work, and other construction activities can therefore increase airborne fungal-spore exposure unless effective infection-control measures, such as sealed barriers, negative pressure in the work area, dust control, and appropriate filtration, are maintained. Patients receiving oncology care may have prolonged neutropenia or other severe immunosuppression, making inhalation of these spores a particularly important exposure pathway for invasive aspergillosis.

Environmental air sampling is not a routine screening practice and culture results must be interpreted with the epidemiologic investigation, construction conditions, and engineering assessment. In this outbreak context, however, culturing air can help support assessment of potential airborne fungal contamination and the effectiveness of immediate remediation and containment measures. The CDC environmental infection-control guideline specifically addresses air sampling as part of investigations of healthcare-associated aspergillosis clusters and emphasizes construction-related dust control for high-risk patient areas. See the [CDC Guideline for Environmental Infection Control in Health-Care Facilities](#) and CDC's [Aspergillosis information](#).