

Environmental Services

CIC Review: 12/06/2022

Question #1

Which agency is generally responsible for evaluating and approving high-level disinfectants?

- A) Occupational Safety and Health Administration (OSHA)
- B) Food and Drug Administration (FDA)
- C) Environmental Protection Agency (EPA)
- D) Centers for Disease and Control (CDC)

Answer/Rationale #1

B) Food and Drug Administration (FDA)

Rationale:

The FDA is responsible for evaluating and approving, high-level disinfectants, sterilants for medical equipment, and antiseptics.

Low and intermediate level disinfectants are reviewed and registered with the EPA.

Question #2

A diluted bleach solution is stored in an open container. How often does the solution need to be replaced?

- A) Every 8 hours
- B) Every 12 hours
- C) Every 24 hours
- D) Every 72 hours

Answer/Rationale #2

C) Every 24 hrs

Rationale:

Diluted bleach stored in an open container will quickly degrade and must be remixed daily. When stored in a spray bottle or in a sealed, brown opaque container, it is stable for up to 30 days.

Question #3

Phenolics are a common type of disinfectant used in hospitals. For which of the following surfaces should phenolics be avoided?

- A) Bassinets in the hospital nursery
- B) Carts used to transport food trays
- C) Blood pressure cuffs on an oncology unit
- D) Dialysis chairs in an outpatient dialysis clinic

Answer/Rationale #3

A) Bassinets in the hospital nursery

Rationale:

There is an association between phenolic disinfectant and hyperbilirubinemia so phenolics should be avoided on nursery surfaces which infants may have contact. Any nursery surfaces treated with phenolics must be thoroughly rinsed and dried afterward.

Question #4

An IP has been asked to assist with ordering and selecting of hospital disinfectants. He should take into account all of the following EXCEPT:

- A) Ease of use
- B) Acceptability
- C) Cost
- D) EVS staff preference

Answer/Rationale #4

D) EVS staff preference

Rationale:

Factors to consider when evaluating disinfectants:

- Ease of use
- Efficacy
- Acceptability
- Safety
- Cost

Question #5

Fire preventions guidelines on placement of alcohol-based hand rub (ABHR) include all EXCEPT:

- A) The corridor must be at least 6 feet wide
- B) Dispensers must be at least 6 feet apart
- C) Dispenser must be at least 6 inches adjacent to an electrical outlet or switch
- D) If mounted over carpeting, the area must have sprinklers and smoke alarms

Answer/Rationale #5

B) Dispensers must be at least 6 feet apart

Rationale:

Dispensers may be placed 4 feet apart. Regulations apply to either gel or foam-based ABHR

Maintenance and Engineering

CIC Review: 12/6/2022

Question #1

Which pathogens are of particular concern in relation to maintenance and construction projects?

- A) Tuberculosis
- B) Respiratory viruses
- C) Fungal spores
- D) Clostridoides difficile

Answer/Rationale #1

C) Fungal spores

Rationale:

Water leaks are especially concerning for promoting growth of fungal spores. Additionally, soil and dirt are often reservoirs for *Aspergillus fumigatus* and other opportunistic spores.

Question #2

Mold was found to be growing on some ceiling tiles in a soiled utility room. Which of the following are appropriate interventions

- A) Conduct an Infection Control Risk Assessment (ICRA)
- B) Implement Infection Control Risk Mitigation Recommendation (ICRMR)
- C) Ensure worker safety
- D) All of the above

Answer/Rationale #2

D) All of the above

Rationale:

Any mold discovery in a healthcare setting requires immediate assessment to determine the cause and plans for containment and mitigation with attention to worker and patient safety.

Question #3

Monitoring of critical elements of HVAC outside air/return air parameters in critical areas include all EXCEPT:

- A) Temperature
- B) Relative humidity
- C) Pressure relationships
- D) Oxygen concentration

Answer/Rationale #3

D) Oxygen concentration

Rationale:

Ventilation would need to be exceptionally poor to affect ambient oxygen levels and is therefore not routinely monitored. Other parameters that require monitoring include:

- Air changes per hour in critical areas
- Capture of hazardous gases, fumes or other contaminants from local exhaust ventilation (laser, electrocautery plume capture, biological safety cabinets, chemical/fume hoods, stove canopies, or welding activities)
- Validation of special ventilation rooms where airflow direction is important (Protective environment rooms, airborne isolation rooms, OR, pharmacies, laboratories, etc)

Question #4

All of the following are recommended regarding the repair of plumbing supply and drainage systems except:

- A) Installation of aerators on all faucets in patient areas
- B) Schedule regular preventative maintenance of all ice machines
- C) Use moisture-monitoring equipment to assess drying
- D) Maintain ongoing communication between maintenance management, operational supervisors and IP to discuss potential problems associated with plumbing and unusual infections (i.e. *Legionella*)

Answer/Rationale #4

A) Installation of aerators on all faucets in patient areas

Rationale:

Aerators can serve as reservoirs for pathogens such as acinetobacter. If used they require special cleaning and maintenance protocols.

Question #5

All of the following are considerations regarding refrigerators and freezers EXCEPT:

- A) An automatic defrost cycle may damage temperature sensitive items
- B) Temperature must be monitored and recorded regularly
- C) Scheduled, preventative maintenance should be performed on all units
- D) All units must be equipped with a temperature alarm system

Answer/Rationale #5

D) All units must be equipped with a temperature alarm system

Rationale:

All refrigerator and freezer units must have temperature assessed and recorded regularly. However, only certain units, such as those used by blood or tissue banks, need temperature alarms.

Waste Management

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Question #1

Which is most preferable for the transport of infectious waste?

- A) Leakproof carts lined with plastic
- B) A pneumatic-chute transport system
- C) Mechanical waste collection devices
- D) All of the above

Answer/Rationale #1

A) Leakproof carts lined with plastic

Rationale:

Mechanical waste collection devices and gravity or pneumatic-chute transport of infectious waste are discouraged due to potential damage to packaging materials. Leakproof carts lined with plastic are commonly used as a safe mode of transport of infectious waste.

Question #2

A waste manifest tracks infectious waste from the generating facility until its final disposition. The DOT requires copies of waste manifest to be maintained for a minimum of:

- A) 1 year
- B) 3 years
- C) 5 years
- D) 10 years

Answer/Rationale #2

B) 3 years

Rationale:

Some states have additional regulations. Any employee involved in transporting/receiving infectious waste or who signs the waste manifest requires OSHA training in bloodborne pathogens.

Question #3

Liquid infectious waste, such as blood-tinged secretions may be safely disposed of via the hospital sewer system

- A) True
- B) False

Answer/Rationale #3

A) True

Rationale:

Liquid infectious waste such as bulk blood, blood-tinged fluids, urine, stool, and other bodily excretions may be disposed of in a sanitary sewer system designed for human waste disposal. However, some localities have prohibitions against disposal of whole blood in public sewers.

Question #4

A hospital needs to dispose of some blood samples from an Ebola patient that are in sealed vacutainer tubes. What is the best method of disposal?

- A) Have the healthcare worker pour the blood into a drain to a sanitary sewer system
- B) Place tubes in red, biohazard bags and transport with facility infectious waste
- C) Place tubes into a sealed sharps container and utilize facility sharps disposal process.
- D) On-site incineration

Answer/Rationale #4

D) On-site incineration

Rationale:

Waste contaminated with Ebola and other hemorrhagic viruses are considered Category A waste that should be inactivated (generally via incineration) on-site whenever possible. When on-site inactivation is not feasible, it may be transported to an alternative incineration facility. However, special packaging, labeling and precautions must be in place, beyond what is required for standard infectious waste disposal.

Question #5

Criteria for choosing a waste treatment method include all of the following EXCEPT:

- A) Risks related to handling
- B) Convenience
- C) Costs
- D) Community acceptance

Answer/Rationale #5

B) Convenience

Rationale:

Criteria for choosing a waste treatment method include:

- Suitability for types of waste
- Risks related to handling
- Effectiveness of treatment
- Uniformity of quality of process
- Costs
- Success of process
- Occupational and environmental risks
- Reduction in waste volume and weight
- Community acceptance
- Applicable regulatory requirements