

1 . The nurse assesses the hospitalized client and surveys the client's room. The client is Muslim. Which findings require the nurse's immediate attention to remove possible sources of infection? Select all that apply.

- A. A capped bottle of saline solution with a label stating that it was opened 10 hours ago.
- B. The abdominal dressing is saturated and seeping through to the client's gown and bed.
- C. An infusing intravenous (IV) tubing has no notation of the date when it was last changed.
- D. A container located in the bathroom that is labeled urine and has the client's initials.
- E. Opened packages of gauze sponges and abdominal pads sitting on the window sill.
- F. An uncovered cup of figs on the bedside table brought by a family member last evening.

ANSWER: B, C , E, F

- A. Open bottles of solutions for wound care are considered aseptic and suitable for use with wound care for 24 hours.
- B. The saturated dressing represents a risk for contamination since microorganisms can move through the moist environment through the dressing to the wound and back.
- C. Recommendations for IV tubing changes are every 72 to 96 hours. If the date of the tubing change is unknown, it represents a potential infection risk.
- D. Care equipment, especially items contaminated with body fluids, should be labeled and used for just one client.
- E. Opened packages of dressings are considered contaminated and should not be used for dressing changes.
- F. Although figs have special meaning to someone who is Muslim, uncovered food items can harbor microorganisms. This finding requires the immediate attention of the nurse. The nurse should discuss the food items with the client.

2. The nurse is preparing for a dressing change using surgical aseptic technique. Which action by the nurse is correct when setting up the sterile field?

- A. Dons sterile gloves before opening the package that contains the sterile drape.
- B. Uses alcohol to cleanse a bottle of irrigating solution before placing it on the sterile drape.

- C. Holds an opened sterile package 6 inches above the field to drop the item into the sterile field.
- D. Leaves the sterile field unattended to obtain the correct size of sterile gloves.

ANSWER: C

- A. The sterile drape should be opened before donning sterile gloves, utilizing a technique of just touching the outer inch of the drape.
- B. The irrigation solution should be poured into a sterile container on the field. Only sterile items should be placed on the sterile field.
- C. Holding the opened sterile package with the item 6 inches above the surface of the sterile field prevents contamination of the field. If opened correctly, the inside of the sterile wrapper would be over the sterile field.
- D. A sterile field should be considered contaminated if not visualized.

3. The client is placed on contact precautions. When should the nurse caring for the client plan to put on disposable examination gloves?

- A. As soon as the nurse enters the client's room
- B. Only if anticipating contact with the client's wound
- C. Only if anticipating contact with blood or body fluids
- D. Only if providing care within 3 feet of the client

ANSWER: A

- A. Gloves should be donned by the nurse upon entry into the room of the client requiring contact precautions.
- B. Gloves should be donned upon entering the room, not just if anticipating contact with the client's wound.
- C. Gloves should be donned upon entering the room, not just if anticipating contact with blood or body fluids.
- D. Gloves should be donned upon entering the room, not just if providing care within 3 feet of the client.

4. The nurse sees multiple items on the client's bedside table. Which items should the nurse remove because they pose a risk of infection for the client? Select all that apply.

- A. The menu from the client's last meal
- B. A glass of water without a cover
- C. An empty urinal that had been rinsed
- D. A sealed package of soda crackers
- E. A pitcher of water covered with a lid
- F. A bloody alcohol swab from an injection

ANSWER: B, C, F

- A. A menu does not pose a risk for infection.
- B. Fluid containers should be covered because prolonged exposure leads to contamination and promotes microbial growth.
- C. The urinal on the bedside table is a vehicle for microorganism transmission and a potential source for nosocomial infection.
- D. The soda crackers are sealed and still edible without transmitting microorganisms.
- E. The container is covered, preventing environmental contamination.
- F. A bloody alcohol swab can harbor microorganisms.

5. The clinic nurse encounters the client who has a congested cough and rhinorrhea. The nurse follows droplet precautions/cough protocol by taking which action? Select all that apply.

- A. Offering the client sterile disposable tissues
- B. Wearing a mask while examining the client
- C. Offering the client water to drink while waiting
- D. Teaching how to cover the mouth when coughing
- E. Performing hand hygiene before and after client contact
- F. Separating the client by at least 3 feet from others in the area

ANSWER: B , D, E , F

- A. Sterile disposable tissues are unnecessary; unsterile tissues are sufficient.
- B. Droplet precautions are a component of respiratory hygiene; this includes wearing a mask when caring for the client.
- C. Clients with URIs should increase their fluid intake, but this will not limit transmission of pathogens.
- D. Droplet precautions/cough protocol measures include educating clients about source control measures including how to cover the mouth when coughing.
- E. Hand hygiene should be performed before and after client contact to prevent the transmission of microorganisms.
- F. Separating ill persons by 3 feet will prevent transmission of microorganisms.

6. The nurse is caring for hospitalized clients. Which nursing actions require the nurse to use sterile gloves? Select all that apply.

- A. Insertion of a nasogastric tube
- B. Administration of an enema

- C. Administration of a subcutaneous injection
- D. Insertion of an indwelling urinary catheter
- E. Suctioning of a tracheostomy tube

ANSWER: D, E

- A. The nurse uses nonsterile, not sterile, examination gloves when inserting an NG tube for self-protection from blood and body fluids. The GI tract contacts microorganisms and is not sterile.
- B. The nurse uses nonsterile, not sterile, examination gloves when administering an enema for self-protection from blood and body fluids.
- C. The nurse maintains sterility of the needle with a subcutaneous injection by not touching the needle and disinfecting the client's skin prior to the injection. Sterile gloves are not needed. Nonsterile gloves are worn for self-protection against the client's blood.
- D. The urinary tract is at great risk for nosocomial infection. Therefore, use of sterile gloves and sterile technique during insertion of an indwelling urinary catheter decreases the risk of introducing microorganisms.
- E. The respiratory tract is at great risk for nosocomial infection. Use of sterile gloves and sterile technique while suctioning a tracheostomy decreases the risk of introducing microorganisms.

7. The nurse is caring for the client with DM who has an open wound on the left heel. Which assessment findings should the nurse associate with a wound infection? Select all that apply.

- A. Oral temperature 100.6°F (38°C)
- B. Heel feels warm when touched
- C. Yellow and purulent drainage
- D. Reduced sensation in the left foot
- E. Elevated white blood cell count

ANSWER: A , B , C , E

- A. Signs of wound infection include fever; even a low-grade fever would be concerning.
- B. If there is an infection, the area around the wound may be warm to the touch.
- C. Signs of wound infection include drainage from the wound, which may be yellow, green, or blue in color.
- D. Reduced sensation in the foot may be due to diabetic neuropathy, not infection.
- E. An elevated WBC count may indicate that the client's immune system is fighting infection.

8. The client with an infected leg wound receives treatment and a prescription for antibiotics during a clinic visit. Which information should the nurse emphasize when completing discharge teaching?

- A. Return to the clinic in one week for a repeat tetanus injection.
- B. Avoid disturbing the dressing until next week's visit with the provider.
- C. If you have chills and your temperature is over 101°F (38.3°C), call the HOP.
- D. Do not take cold medicines for 24 hours after starting the antibiotic.

ANSWER: C

- A. The client with a tetanus-prone wound should have received tetanus immunoglobulin (TIG) when seen in the clinic. The injection is not repeated.
- B. Frequent dressing changes would have been prescribed for an infected wound, especially if the client is not being seen again for a week.
- C. Having chills and an elevated temperature may indicate that the antibiotics are not effective.
- D. Cold medicines usually treat symptoms and usually are not contraindicated with antibiotics. However, the client should check with the pharmacist or provider before taking cold medicines when antibiotics are prescribed.

9. The nurse and NA are caring for the client with hepatitis A. The nurse determines that the NA understands correct infectious precautions for this client when observing what action?

- A. Wears a mask, gown, and gloves when taking the client's vital signs
- B. Wears a gown and gloves when changing the client's incontinent briefs
- C. Wears gloves when providing urinary catheter and perineal care
- D. Wears a gown and gloves when asking the client about snack food options

ANSWER: B

- A. There is no need to wear a mask at any time during client care because the virus is not airborne.
- B. Contact precautions should be taken with gown and gloves worn when changing the incontinent briefs. Hepatitis A virus is present in the feces for 2 weeks after symptoms appear and can live for several months outside the body.
- C. Wearing gloves when providing urinary catheter and perineal care is correct but is not enough protection; gowns should also be worn to protect clothing from contamination and transmission.

- D. There is no need to wear a gown when talking with the client as long as there is no physical contact with the client or anything in the environment.

10. The nurse learns that the hospitalized client has a history of chronic hepatitis C. Which precaution should the nurse plan to implement?

- A. Airborne
- B. Contact
- C. Droplet
- D. Standard

ANSWER: D

- A. Hepatitis C is not transmitted via the respiratory tract, so airborne precautions are unnecessary.
- B. Contact precautions are not necessary because hepatitis C is transmitted primarily through infected blood and body fluids.
- C. Hepatitis C is not transmitted via the respiratory tract, so droplet precautions are unnecessary.
- D. Standard precautions protect against infectious agents present in body fluids, including the blood. Hepatitis C is transmitted through body fluids, principally the blood.

11. The client is admitted with a tentative diagnosis of hepatitis. The nurse determines that which client statement would be consistent with hepatitis?

- A. "I've not been sleeping well; I've heartburn at night that wakes me."
- B. "Whenever I eat dairy products I have diarrhea for a few days."
- C. "Lately I've been short of breath when walking short distances."
- D. "I am a smoker, but lately I can't tolerate the taste of cigarettes."

ANSWER: D

- A. Heartburn at night is a symptom of GERD, not hepatitis.
- B. Diarrhea after eating dairy products can be a symptom of lactose intolerance, not hepatitis.
- C. Shortness of breath can be related to circulatory or respiratory problems, usually not hepatitis.
- D. Anorexia can be severe in the acute phase of hepatitis. Distaste for cigarettes in smokers is characteristic of early profound anorexia.

12. The client who is receiving TPN through a subclavian triple-lumen catheter expresses concern to the nurse about bacteria entering the blood through the catheter. The nurse explains that the risk of catheter-related infections can be decreased by taking which action?

- A. Applying an antibiotic ointment at the catheter insertion site daily
- B. Changing the dressing over the catheter insertion site every day
- C. Designating one port of the catheter exclusively for the TPN solution
- D. Instilling an antibiotic solution daily into each port of the catheter

ANSWER: C

- A. Using antibiotic ointment daily to the site may predispose the client to developing antibiotic-resistant bacteria.
- B. Unless loose, soiled, or bloody, the dressing should be changed weekly or every 10 days depending on the cleansing solution used.
- C. Consistently utilizing one port for TPN solution minimizes the risk of infection. The high glucose concentration of the TPN solution is a good culture media for bacteria.
- D. Instilling antibiotic solution may predispose the client to developing antibiotic-resistant bacteria.

13. The hospitalized client has protective precautions (reverse isolation) in place because of severe neutropenia. Which statement by the nurse to the NA is correct regarding the use of protective precautions?

- A. "You should don gloves as soon as you enter the client's room."
- B. "Minimize the amount of time the client spends outside the room."
- C. "The client needs to be moved to a private room with negative air pressure."
- D. "Everyone entering the client's room should be sure to put on a mask."

ANSWER: B

- A. Barrier precautions including gloves are not necessary if the client does not have a suspected or actual infection.
- B. The client should remain in the room as much as possible to minimize exposure to pathogens.
- C. The client should be in a private room with positive, not negative, air pressure. Negative pressure in the room would draw air from the hospital environment (possibly containing pathogens) into the client's room.
- D. Masks are not necessary if the client does not have a suspected or actual infection.

1 4. The client has protective precautions (reverse isolation) in place due to a severely depressed neutrophil count. Which statement by the client demonstrates a good understanding of the precautions?

- A. "Persons entering the room with colds should stay at least 3 feet from me."
- B. "My family plans to bring flowers from my garden to help me feel better."
- C. "The precautions will protect me and help my blood count recover faster."
- D. "Persons entering my room should perform hand hygiene before entering."

ANSWER: D

- A. Those with colds should not be entering the client's room.
- B. Fresh flowers are prohibited in the client area to prevent introducing microorganisms.
- C. The precautions limit client contact with potential pathogens while in the neutropenic state, but they will not improve the client's neutrophil count.
- D. Hand hygiene is of utmost importance for persons entering the room or caring for the client because the client's ability to ward off an infection is reduced.

1 5. The charge nurse is planning hospital bed placements for the five male clients identified in the exhibit. Two double rooms and one private room are available. Which room assignments should be made by the charge nurse?

Client	Diagnosis/Medical Information
A	Client with infected postoperative abdominal wound, cultured positive for methicillin-resistant <i>Staphylococcus aureus</i>
B	Client admitted with ketoacidosis, history of chronic hepatitis C
C	Client has history of bloody sputum, night sweats; airborne precautions currently in place
D	Client postoperative from vascular surgery; leg ulcers cultured positive for methicillin-resistant <i>Staphylococcus aureus</i>
E	1 day postoperative small bowel resection; had postoperative hypotension issues

- A. Client B: private room; clients C and E in same room; clients A and D in same room
- B. Client C: private room; clients A and D in same room; clients B and E in same room
- C. Client E: private room; clients B and C in same room; clients A and D in same room
- D. Client C: private room; clients A and B in same room; clients D and E in same room

ANSWER: B

- A. Client C requires a private room with airborne precautions and cannot be in the same room as client E.
- B. Client C has airborne precautions and requires a private room. Clients A and D have the same organism, may be roomed together, and require contact precautions. Clients B and E may be roomed together since both require only the standard precautions. Transmission of hepatitis C

occurs mainly with blood, and this is addressed with the standard precautions.

- C. Client C requires a private room with airborne precautions and cannot be in the same room as client B.
- D. Client A requires contact precautions and should be with client D, who also has contact precautions, and not with client B.

1 6. The client who has airborne precautions asks the nurse not to shut his door. Which response by the nurse is most appropriate?

- A. "If I open the door you will need to always wear a mask."
- B. "The door must be kept closed, but I can open the curtains."
- C. "Don't worry; I can leave the door open if it's bothering you."
- D. "I'm sorry, but I can only leave the door partially open."

ANSWER: B

- A. Leaving the door open allows the airborne organism to escape. While on airborne precautions, the door must remain closed to contain the infectious organism.
- B. The door must remain closed to contain the infectious organism. Opening the curtains will help the client feel less closed in while still preventing the spread of the airborne agent.
- C. Opening the door allows airborne organisms to escape and defeats the purpose if in a negative- air-pressure room.
- D. Leaving the door partially open still allows for escape of the airborne agent and defeats the purpose if in a negative-air-pressure room.

1 7. Following morning shift report the nurse plans to assess clients who had surgery two days ago. Which client should the nurse assess first?

- A. 30-year-old who had a splenectomy and has an oral temperature of 102.2°F (39°C)
- B. 69-year-old who had a right total hip arthroplasty and has a WBC count of 12,100/mm³
- C. 55-year-old who had a lumbar discectomy and was given 30 mg oral oxycodone at 0700
- D. 40-year-old with external traction for a tibia fracture and has a platelet count of 100 K/mm³

ANSWER: A

- A. The nurse should first assess the client with the high temperature of 102.2°F. This client does not have the normal filter of the spleen and could be septic. Fluids and antibiotics may be required.
- B. A WBC count of 12,100/mm³ is slightly elevated (normal WBC is 3900—11,900/mm³ or mCL). This is expected due to inflammation from surgery. An immediate assessment is not required.
- C. Assessing the client's response to the analgesic is important, but the client is not priority.
- D. A platelet count of 100/mm³ is low (normal Plt is 150—450 K/mm³ or mCL), but this client is not at a significant risk of bleeding.

1 8. The nurse is using contact precautions for the client with *Clostridium difficile*. While the nurse transfers the client from the bed to the commode, the client has loose stool that falls on the floor. After positioning the client on the commode, how should the nurse proceed to cleanse the floor?

- A. Wipe up the stool with toilet paper and then clean the area with soap and water
- B. Wipe up the stool with toilet paper and then clean the area with a 1:10 bleach-water solution
- C. Call housekeeping personnel to come clean the floor now with the unit's mop and bucket
- D. Wipe up the stool and apply the alcohol-based hand wash to cleanse the area of stool

ANSWER: B

- A. Soap and water will not adequately disinfect the area.
- B. The nurse should wipe up the stool and clean the area with a bleach solution to adequately disinfect the area and prevent transmission of the microorganism.
- C. To maintain the dignity of the client, the nurse should stay with the client and avoid having house-keeping personnel present while the client is using the commode. Using the unit's mop and bucket could cause transmission to other areas of the unit.
- D. Alcohol-based hand wash is ineffective against the spores of *C. difficile*.

1 9. The nurse is preparing to change the soiled bed linens of the client with acute diarrhea of unknown origin. Which interventions should the nurse implement? Select all that apply.

- A. Wear a mask while changing the soiled linens
- B. Wear gown and gloves while in the room

- C. Use alcohol-based hand wash before and after care
- D. Request that the HOP prescribe a stool culture
- E. Post an enteric precaution sign outside the room

ANSWER: B, D, E

- A. Intestinal bacteria are not airborne, so a mask is not necessary.
- B. Gown and gloves should be worn because the diarrhea] stool could be infectious.
- C. Hand washing should be carried out before and after the task, but soap and water should be used for hand washing. The stool could be infected with *Clostridium difficile*, and its spores are not killed by the alcohol hand wash.
- D. Acute diarrhea of unknown origin could be caused by *Clostridium difficile*. A stool culture is needed to rule this out.
- E. Enteric precautions should be used to prevent possible transmission of *Clostridium difficile*. If the culture results are negative, the sign can be removed.

20. The nurse is using contact precautions to change the soiled bed sheet of the client with *Clostridium difficile*. In the process, the nurse's right glove and skin on a finger is torn. After removing the soiled gloves, which action is priority?

- A. Hold pressure to stop any bleeding.
- B. Use a bleach wipe to clean the hands.
- C. Wash the hands with soap and water.
- D. Cleanse hands using alcohol-based hand rub.

ANSWER: C

- A. Bleeding will help flush the wound, and pressure should not be applied to stop bleeding.
- B. Bleach should be used on contaminated objects but not on the skin. It damages tissues.
- C. Hand washing with soap and water is the most effective way of removing potentially infectious material.
- D. Because alcohol does not kill *Clostridium difficile* spores, use of soap and water is more efficacious than alcohol-based hand rubs.

21 . The client is admitted with a positive culture for methicillin-resistant *Staphylococcus aureus* (MRSA). Which precaution should be implemented to prevent spreading the infection to health care workers and other clients?

- A. Wearing a mask within 3 feet of the client
- B. Placing the client in a private room

- C. Wearing an N95 respirator mask
- D. Ensuring a negative-air—pressure room

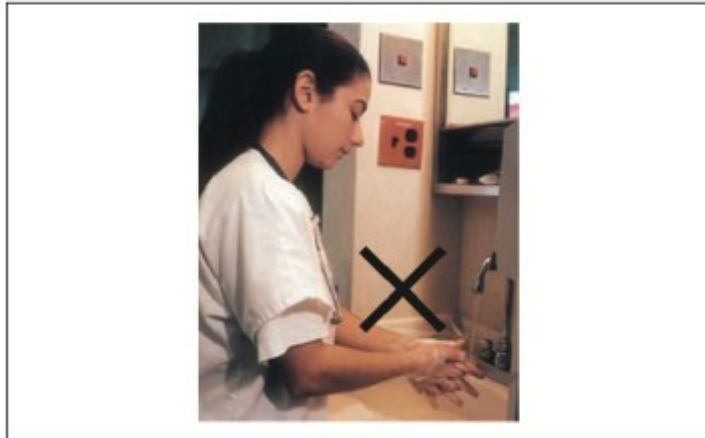
ANSWER: B

- A. A mask is not necessary for contact precautions.
- B. The client should be placed in a private room or in a room with the client with an active infection caused by the same organism and no other infections.
- C. The N95 respirator is not necessary for contact precautions.
- D. Negative-air-pressure rooms are included in airborne precautions and are not necessary for contact precautions.

22. The nurse educator is focusing on the prevention of infection. Place an X on the illustration that displays the best measure to prevent infection when caring for clients on a nursing unit?



ANSWER:



The best and first line of defense in medical asepsis is good hand hygiene (illustration A). Friction or rubbing increases the amount of soil and microorganisms removed. Isolation (illustration B) or using examination (illustration D) or sterile gloves (illustration E) is not required in every client-care situation. Educating the client (illustration C) is important, but hand washing is the first line of defense to prevent transmission of microorganisms to the client.

23. The nurse is instructing the client who is to have surgery. According to Medicare's Surgical Care Improvement Project, what instruction is important for the client to receive prior to arrival at the hospital to prevent postoperative infection?

- A. Arrive in time to receive an antibiotic before surgery.
- B. Notify the nurse of any antibiotic and food allergies.
- C. Be sure to wash your hands before coming to the hospital.
- D. Do not shave hair from the surgical incision site.

ANSWER: D

- A. It is important that clients receive an antibiotic within 1 hour of the incision time; however, preoperative preparations will easily allow the 1 -hour time frame to be met.
- B. Notifying the nurse of allergies is important information for the team but will not prevent infection.
- C. Having the client wash hands before arrival to the hospital will not prevent infection.

- D. Shaving the surgical site with a razor induces small skin lacerations, creating a potential site of infection. Shaving disturbs hair follicles, which are often colonized with *Staphylococcus aureus*. The greatest threat for infection occurs when shaving is done the night before surgery.

24. The nurse provides a collection container to the client for collecting a sputum specimen for culture and sensitivity. Which additional interventions should the nurse implement? Select all that apply.

- A. Tell the client to spit into the container 2 to 3 times during the day.
- B. Wear gloves and protective eyewear when handling the specimen.
- C. After collection, place the sealed container in a clean plastic bag.
- D. Place a biohazard alert symbol on the bag containing the specimen container.
- E. Send the specimen to the laboratory within 30 minutes of collection.

ANSWER: C, D, E

- A. The client should expectorate once into the container. The specimen is best collected early in the morning when sputum has collected in the lungs during the night.
- B. Only gloves are needed when handling the specimen; splashing is not expected.
- C. A bag that is clean on the outside is required to prevent transmission of microorganisms from the potentially infectious material.
- D. A biohazard alert symbol on the bag holding the specimen container indicates that the specimen is potentially infectious.
- E. The specimen should reach the laboratory within 30 minutes of collection.

25. As part of an infection-control policy, newly admitted clients are screened for possible undiagnosed or unsuspected infectious tuberculosis. Which questions should the nurse ask to accomplish this screening? Select all that apply.

- A. "Have you been exposed to someone with tuberculosis?"
- B. "What was the date of your last tuberculin skin test?"
- C. "Have you had a cough that lasted more than 3 weeks?"
- D. "Have you experienced blood in your urine or stools?"
- E. "Have you had a recent weight gain, fever, or night sweats?"

ANSWER: A, B, C

- A. Screening questions include asking about client history of exposure to tuberculosis.
- B. The tuberculin skin test is used for screening for tuberculosis. If not recent, one should be completed.
- C. Common symptoms associated with tuberculosis include a cough lasting more than 3 weeks.
- D. Blood in the sputum, not blood in the urine or stools, is associated with tuberculosis.
- E. Fever and night sweats are common symptoms of tuberculosis. Weight loss, and not weight gain, also occurs.

26. The nurse is completing a variance report after finding a plastic bag at the nurse's station with contents and the sticker illustrated. The nurse should document finding a plastic bag with a symbol indicating that the contents of the bag include which type of item?



- A. Potentially infectious specimen
- B. Radioactive medication
- C. Flammable substance
- D. Poisonous substance

ANSWER: A

- A. The universal biohazard symbol indicating a potentially infectious specimen is fluorescent orange or orange-red with a background of any color that provides sufficient contrast for the symbol to be clearly defined.
- B. The "trefoil" is the international symbol for radiation. The symbol on a yellow background can be magenta or black.
- C. A flammable substance should have the National Fire Protection Association's (NFPA) diamond label and coding system. A red square within the diamond indicates flammability.
- D. A poisonous substance should have the National Fire Protection Association's (NFPA) diamond label and coding system. A blue square within the diamond indicates a health hazard.

27. The nurse completed discharge teaching for the client with sutures in place after a skin biopsy. Which statements by the client indicate an understanding of the teaching? Select all that apply.

- A. "The incision should be clean, dry, and not separated."
- B. "I will return in 2 to 3 days to have the stitches removed."
- C. "If I have an elevated temperature, I'll contact my provider."
- D. "I'll keep the bandage on for a week before I check the incision."
- E. "Excessive redness, pain, or drainage may mean it is infected."

ANSWER: A , C , E

- A. The incision should be clean, dry, and intact. This statement indicates understanding.
- B. If sutures are in place, the client should return to the HCP in 7 to 10 days, not 2 to 3 days, to have them removed.
- C. Fever is a sign of infection and should be reported to the HCP. This statement indicates understanding.
- D. The client should check the incision daily and place a new bandage on the incision if directed.
- E. Redness, bleeding, pain, and drainage are signs of possible infection. This statement indicates understanding.

28. A clinic nurse is teaching parents with young children. About which most common sources of infectious disease transmission should the nurse teach the parents?

- A. Stool and oral and respiratory secretions
- B. Sharing dirty toys and used utensils
- C. Contact with blood from scrapes and sores
- D. Touching others after rubbing a runny nose

ANSWER: A

- A. Young children have not fully developed good hygiene behaviors and transmit infectious diseases from their stool or oral or respiratory secretions to other children in their play or school group.
- B. Although dirty toys and used utensils are a source of disease transmission, it is not as inclusive as option 1.
- C. Although infectious diseases can be transmitted through blood, few children are carrying these infectious diseases. Stool and oral and respiratory secretions are more common sources.
- D. A runny nose is only concerned with disease transmission from the respiratory route.

29. During a health promotion seminar, the nurse plans to discuss ways to prevent food poisoning. What information should the nurse plan to address?

- A. Keep all meat together during the preparation, cooking, and serving processes.
- B. Drink natural unpasteurized milk because it contains less harmful chemicals.
- C. Wash fruits and vegetables thoroughly, especially those that will be eaten raw.
- D. Ensure that ground beef patties are cooked to a temperature of 125°F (51.7°C).

ANSWER: C

- A. Different types of meat should be separated when preparing and cooking these, not kept together. Raw meat should be kept separated from cooked meat.
- B. Only pasteurized, not unpasteurized, milk should be consumed.
- C. Bacteria from improper handling can remain on raw fruits and vegetables. Therefore, these should all be carefully washed before eating.
- D. Because *E. coli* is killed at 160°F (71.1 °C), the USDA sets the minimum safe internal temperature for ground beef at 160°F (71.1°C)..

30. The nurse is supervising the NA caring for a group of clients with antibiotic-resistant organisms. Which observation of the NA's performance should prompt the supervising nurse to intervene?

- A. Uses an alcohol-based hand hygiene after emptying the urinary drainage bag of the client with vancomycin—resistant enterococci (VRE)
- B. Performs hand hygiene, then dons gloves to perform oral care for the client with B—lactamase—producing *Klebsiella pneumoniae*
- C. Uses an alcohol-based hand rub and wears gloves before and after taking the temperature of the client with penicillin G—resistant *Streptococcus pneumoniae*
- D. Tells visitors to use the alcohol—based hand wash when entering and leaving the room of the client with methicillin-resistant *Staphylococcus aureus* (MRSA)

ANSWER: A

- A. With VRE, hands should be washed with soap and water and not an alcohol-based hand wash when visibly soiled or in contact with

equipment or environmental surfaces that could be soiled. VRE can remain on equipment and environmental surfaces for weeks. Spores may not be killed with alcohol-based hand hygiene.

- B. Hand hygiene and wearing gloves when providing oral care are appropriate for the client with B-lactamase—producing *Klebsiella pneumoniae*.
- C. Hand hygiene with an alcohol-based hand wash and wearing gloves when obtaining the temperature are appropriate for the client with penicillin G—resistant *Streptococcus pneumoniae*.
- D. Visitors should use the alcohol-based hand wash provided when entering and leaving the room of the client with methicillin—resistant *Staphylococcus aureus* (MRSA). It is appropriate for the NA to direct visitors to do this.

31 . The nurse is preparing to care for the client with Ebola, a febrile, hemorrhagic disease. After selecting a disposable surgical hood that extends to the shoulders, what additional PPE should the nurse obtain? Select all that apply.

- A. Docimeter
- B. Disposable N95 respirator
- C. Disposable full face shield
- D. Cloth gown that cannot be reused
- E. Two pair nitrile examination gloves
- F. Boot covers extending to mid-calf

ANSWER: B, C, E, F

Ebola, which is caused by a filovirus, is a hemorrhagic fever that rapidly leads to profound hemorrhage, organ destruction, and shock. Each person coming in contact with the client should wear cap, goggles, mask, gown, gloves, and shoe covers. Adherence to strict infection control measures is required. Human-to-human transmission occurs through contact with blood and body fluids. Percutaneous and mucous membrane exposure requires only a small amount of contaminated blood or body fluids for transmission to occur. Airborne transmission is also possible, though less likely.

- A. A docimeter is worn in situations in which radiation exposure is possible. Ebola is not caused by radiation exposure and is not treated with radiation.
- B. A disposable N95 respirator should be selected because airborne transmission of Ebola is possible.
- C. A disposable face shield will protect the face from contact with blood and body fluids. Percutaneous and mucous membrane exposure requires only a small amount of contaminated blood or body fluids for transmission to occur.

- D. The gown should not be cloth but fluid resistant or impermeable. It should extend to at least midcalf. Impermeable coveralls are an acceptable replacement for a gown.
- E. Two pairs of nitrile gloves should be worn. At a minimum, outer gloves should have extended cuffs to cover the gown cuffs. Extra protection is provided with the second pair of gloves should a tear occur.
- F. Boot covers extending to midcalf should be worn if a disposable, impermeable gown is worn. Shoe covers may be used only in combination with a coverall with integrated socks.

32. The client's total WBC count is 20,000/mm³ two days after surgery. Which assessment finding should the nurse most associate with this laboratory result?

- A. Respiratory rate slow and shallow
- B. Skin incision pink, crusty, and intact
- C. Dark amber urine per urinary catheter
- D. Diminished lung sounds with crackles

ANSWER: D

- A. An infection would increase the respiratory rate.
- B. The normal appearance of a healing incision is pink and crusty. It should be intact.
- C. Dark amber urine may indicate that the client is dehydrated. Dehydration can result from an infection if the temperature is elevated, but this is not the finding that should be most associated with the elevated WBC.
- D. The WBC count is elevated, suggesting an infection. Clients with a respiratory tract infection may have lung sounds that include crackles, rhonchi, or wheezes.

33. The HCP documents that the client has a generalized infection. Which specific assessment finding should the nurse expect?

- A. Redness and warmth at the site
- B. Swelling and pain at the site
- C. Hypertension and bradycardia
- D. Fever and widespread muscle aches

ANSWER: D

- A. Redness and warmth at the site are signs of a localized infection.
- B. Swelling and pain at the site are signs of a localized infection.
- C. Hypotension (not hypertension) and tachycardia (not bradycardia) occur with a generalized infection.

- D. Generalized infections occur when there is systemic or whole body involvement. Symptoms include muscle aches, fever, headache, malaise, anorexia, elevated WBC count, hypotension, tachycardia, and mental confusion.

34. The nurse is caring for the client with an IV. Which findings should prompt the nurse to conclude that the client is experiencing inflammation (phlebitis) at the IV insertion site? Select all that apply.

- A. Pain
- B. Redness
- C. Warmth
- D. Drainage
- E. Mottling
- F. Swelling

ANSWER: A , B, C , F

- A. Pain results from the capillaries leaking blood plasma into the tissues.
- B. Redness is caused by the release of histamine, serotonin, and kinins that produce small vein constriction and arteriole dilation at the insertion site.
- C. Warmth is caused by the release of histamine, serotonin, and kinins that produce small vein constriction and arteriole dilation at the insertion site.
- D. Drainage indicates an infection and not inflammation.
- E. A mottling or a discolored or blotchy appearance does not indicate inflammation. It could be extravasation from drugs.
- F. Swelling results from the capillaries leaking blood plasma into the tissues.

35. The nurse is wearing PPE. Place the steps to removing the PPE in the correct sequence.

- A. Remove gown
- B. Remove gloves and perform hand hygiene
- C. Remove mask
- D. Remove eye protection
- E. Perform hand hygiene

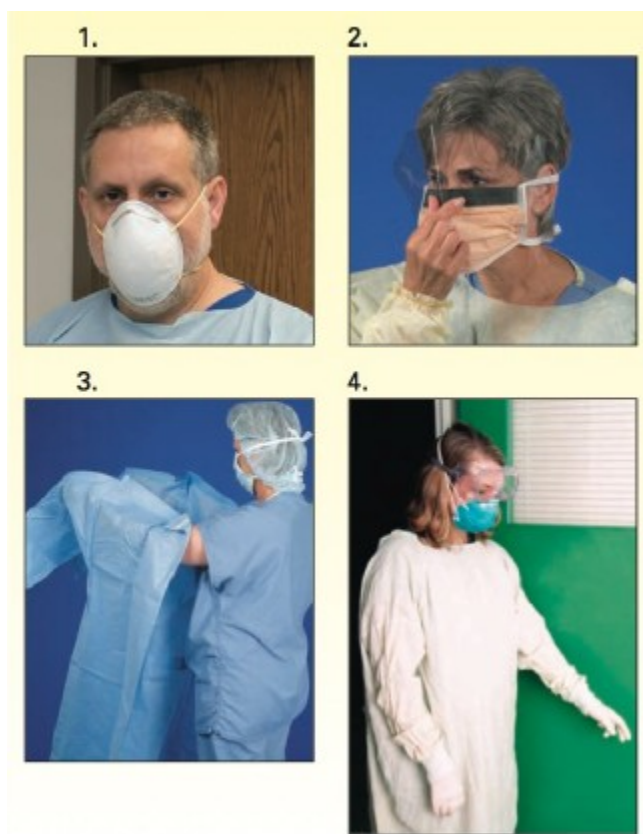
ANSWER: B, D, A, C, E

B. Remove gloves and perform hand hygiene. The gloves would harbor the most microorganisms from contact with the client. Hand hygiene is performed because contact with microorganisms can occur while removing the gloves.

D. Remove eye protection. Protective eyewear is no longer needed and can be removed prior to removing the gown.

- A. Remove gown. The gown is removed when preparing to leave the room.
- C. Remove mask. The mask is removed last, at the doorway to the client's room.
- E. Perform hand hygiene. Hand hygiene should be performed again because contact with microorganisms can occur while removing the remaining PPE.

36. The nurse is preparing to care for the client diagnosed with tuberculosis who has been coughing up blood. Which illustration best shows the PPE that the nurse should plan to wear?



ANSWER: D

- A. The N95 respirator and a gown are insufficient protection when the client is coughing up blood.
- B. A surgical mask with a shield and a gown is insufficient protection for an airborne infection.
- C. A surgical mask and gown are insufficient protection for an airborne infection. A cap is not necessary.

- D. Tuberculosis requires airborne precautions with use of N95 respirator. Since the client has been coughing up blood, the nurse should also plan to wear a face shield.

37. The charge nurse is planning a room assignment for the client with meningococcal meningitis. Which room and precautions should the nurse plan for this client?

- A. A private room with droplet precautions
- B. A private room with airborne precautions
- C. A semiprivate room with a roommate who has a similar diagnosis and standard precautions
- D. A semiprivate room with a roommate who has a similar diagnosis and contact precautions

ANSWER: B

- A. Droplet precautions alone are insufficient precautions for the client with meningococcal meningitis.
- B. A private room with airborne precautions should be planned for the client. Meningococcal meningitis is transmitted by contact with pharyngeal secretions and may be airborne.
- C. Standard precautions alone are insufficient precautions for the client with meningococcal meningitis.
- D. Contact precautions alone are insufficient precautions for the client with meningococcal meningitis.

38. A college student is hospitalized with meningococcal meningitis after being seen in the campus clinic. What is the nurse's responsibility to the campus community regarding this diagnosis?

- A. Quarantine all students and faculty remaining on the campus
- B. E-mail school administrators with the names of infected students
- C. Identify all individuals who have had close contact with the student
- D. Ensure that everyone on campus receive prophylactic antibiotics

ANSWER: C

- A. Quarantine is unnecessary because only those who have had close contact with the infected student are at risk.
- B. Administrators may need to be informed of an out- break, but student names should not be disclosed. Disclosing names is a violation of protected health information.
- C. The nurse should identify all individuals who have had close contact with the student. Meningococcal meningitis, caused by *Neisseria meningitidis*, can

spread to those who have had close or prolonged contact with an infected person, including people in the same household, same floor of a residential hall, or anyone with direct contact with the person's oral secretions (such as a boyfriend or girlfriend).

- D. Only persons who have had close contact need to receive antibiotics. Vaccination against *Neisseria meningitidis* should be recommended for everyone, not prophylactic antibiotics.

39. The new nurse is caring for the client with a VRE infection. Which statement to the client indicates the new nurse needs additional orientation when caring for clients with a VRE infection?

- A. "All hospital staff should be wearing gown and gloves when they enter your room."
- B. "Visitors should use soap and water for hand washing when entering and leaving your room."
- C. "You are in a private room because VRE is transmitted by direct and indirect contact."
- D. "VRE is a new strain of enterococci bacteria normally found in a person's GI tract."

ANSWER: A

- A. Gowns are required only if contamination of clothing is likely.
- B. Hand washing with soap and water is the first line of defense in preventing VRE transmission.
- C. A private room is required for infection control. VRE can remain viable on environmental surfaces for weeks.
- D. Enterococci normally found in the GI tract genetically mutate and develop antibiotic resistance by producing enzymes that destroy or inactivate vancomycin - type antibiotics.

40. The infection control nurse receives hospital laboratory confirmation that the client has positive sputum cultures for mycobacterium tuberculosis. Which action should be taken by the nurse?

- A. Prepare a statement for the hospital spokesperson to release to the news agencies
- B. Recommend that only staff with recent negative tuberculin skin tests provide care
- C. Implement measures to notify the local or state health department about the case

- D. Notify the nearest infectious disease facility and prepare the client for transfer

ANSWER: C

- A. An official report does not involve the local news media.
- B. Staff receive annual tuberculin skin tests or a CXR. Anyone who does not have tuberculosis can care for the client. Airborne precautions should be in place, controlling the risk for transmission.
- C. The infection control nurse must notify the local or state health department of the case. States mandate which diseases are reportable, and surveillance is managed through local and state health departments.
- D. Clients with respiratory tuberculosis receive treatment in hospitals, clinics, and at home with specific antibiotic and antitubercular medications. Specific tertiary facilities for treatment of clients with tuberculosis are no longer utilized in the US.

41 . The nursing student approaches the instructor after being stuck by a bloody needle- Which instructor statement is most accurate knowing that the client was HIV-positive?

- A. "Wash with soap and water and see the HCP now; treatment should begin within 1 to 2 hours."
- B. "The first HIV antibody testing is completed in 6 weeks and then repeated in 3 months."
- C. "Wash with soap and water now. At the end of the clinical shift, notify your physician."
- D. "Flush immediately with water for 10 minutes and then cover with a bandage and glove."

ANSWER: A

- A. Occupational exposure is an urgent medical concern, and medical care should be sought immediately. Prophylactic antiretroviral treatment is started preferably within 1 to 2 hours and lasts for 4 weeks. If results of HIV antibody testing return positive, treatment continues.
- B. HIV antibody testing should be completed now (baseline) and then at 6 weeks, 3 months, and 6 months after exposure.
- C. Waiting until the end of the clinical shift may delay starting treatment, thus narrowing the opportunity when prophylaxis against HIV may be effective.
- D. The exposure site should be washed well with soap and water. Flushing with water is required for mucous membrane exposure.

42. The HCP is about to examine the client on contact precautions for MRSA without donning PPE. Which is the best action by the nurse?

- A. Hand the provider a gown and gloves
- B. Not say anything; it is the HCP's decision
- C. Notify the charge nurse and unit manager
- D. Monitor for increased infections on the unit

ANSWER: A

- A. The nurse should hand the HCP a gown and gloves; these should be worn when touching the client with MRSA to prevent its transmission.
- B. The HCP is part of the health care team and should be held accountable to standards that maintain client safety.
- C. Notifying the charge nurse and unit manager does not immediately address the breach in the use of contact precautions.
- D. Permitting the HCP to examine the client without PPE increases the risk for transmission of MRSA.

43. The HCP prescribes metronidazole 05 g orally three times daily for the client with an infection. The label states that each tablet is 250 mg. How many tablets (5) should the nurse prepare to administer for one dose?

_____ tablets (s) (Record your answer as a whole number.)

ANSWER: 2

First, you must convert 0.5 g to milligrams. Use a proportion formula for the conversion. Multiply extremes (outside values), then the means (inside values), and solve for X.

$1 \text{ gm} : 1000 \text{ mg} :: 0.5 \text{ gm} : X \text{ mg};$

$X = 500 \text{ mg};$

Next, determine the dose:

$250 \text{ mg} : 1 \text{ tab} :: 500 \text{ mg} : X \text{ tab}$

$250X = 500; X = 2$

44. The NA is preparing to provide care for four clients. The nurse should direct the NA to utilize contact precautions for which client?

- A. Client with influenza

- B. Client with mumps
- C. Client with gonorrhea
- D. Client with a draining abscess

ANSWER: D

- A. Influenza requires droplet precautions for five days from onset of symptoms.
- B. Mumps requires droplet precautions for nine days after treatment begins.
- C. Gonorrhea requires standard precautions.
- D. Contact precautions should be used when caring for the client with a draining abscess because there is the potential for transmission of infectious organisms.

45. The nurse is to administer cefazolin sodium 1 g in 100 mL 0.9% NaCl over 30 minutes. At what rate in mL/hour should the nurse plan to set the infusion pump?

_____ mL/hr (Record your answer as a whole number.)

ANSWER: 200

Using dimensional analysis:

$$\text{mL/hr} = \frac{100 \text{ mL}}{30 \text{ min}} \times \frac{60 \text{ min}}{1 \text{ hr}} = \frac{6,000}{30} = 200 \text{ mL/hr}$$

46. The nurse is caring for the client with a urinary catheter. Which interventions should the nurse implement to prevent a catheter-acquired UTI? Select all that apply.

- A. Rubbing for 10 seconds when using alcohol-based hand rubs
- B. Changing urinary catheters and drainage bags once a week
- C. Using the smallest numbered catheter with intermittent catheterizations
- D. Properly securing the catheter on the client's thigh to prevent movement
- E. Keeping a urinary drainage bag below the level of the client's bladder

ANSWER: D, E

- A. Although hand hygiene is a key component of infection prevention, when using alcohol-based hand rubs the hands should be rubbed for 15 to 30 seconds for effective disinfection.
- B. Routine changing of catheters and drainage bags can be associated with increased risk of infection. Institutional guidelines should be followed.

- C. The smallest-sized catheter that will adequately drain the bladder should be used. Using the French system, the larger the number, the larger the diameter of the catheter.
- D. Proper securement should prevent irritation of the urethra and bladder. Irritation and inflammation increase the risk for a UTI.
- E. The urinary drainage bag should be kept below the level of the client's bladder to prevent reflux of contaminated urine.

47. The nurse observes that the NA enters the client room, provides direct care, and then exits without performing any hand hygiene. Which is the appropriate initial action of the nurse?

- A. Inform the nurse manager about the NA's performance.
- B. File a facility incident or variance report immediately.
- C. Talk to the NA immediately about performing hand hygiene.
- D. Tell the client to remind all staff to perform hand hygiene.

ANSWER: C

- A. The nurse manager should be notified of deviations from standards of practice, but this does not address the NA's behavior immediately.
- B. An incident or variance report does not provide immediate feedback to the individual.
- C. The nurse should immediately talk to the NA about performing hand hygiene upon exiting the client's room.
- D. Telling the client to remind staff to perform hand hygiene does not address the NA's lack of performing hand hygiene.

48. The charge nurse is assigning staff to care for the client with disseminated herpes zoster. Which staff member should the charge nurse exclude from being assigned?

- A. A 7-month pregnant nurse who had confirmed chicken pox in childhood
- B. A 32-year-old nurse with unknown disease or vaccination history for chicken pox
- C. A 28-year-old nurse with a history of varicella vaccine and 2 small children at home
- D. A 60-year-old nurse with a history of live herpes zoster vaccine

ANSWER: B

- A. The nurse has had confirmed chicken pox and would have some immunity against the virus causing the herpes zoster.
- B. The nurse who has not had the chicken pox or received the vaccine is at an increased risk of contraction of the varicella virus that causes chicken pox.

- C. Having the varicella vaccine provides immunity against reinfection.
- D. The 60-year-old may have had exposure to chicken pox; this nurse also received the live herpes zoster vaccine (Zostavax) and would not be at an increased risk.

49. The nurse is using contact precautions when eating for the client. When changing the client's IV solution bag, the nurse inadvertently touches the end of the exposed spike of the tubing. Which is the most appropriate action by the nurse?

- A. Insert the spike into the new IV solution bag
- B. Remove the gloves and obtain another pair
- C. Discard the tubing and obtain another sterile tubing
- D. Use alcohol to cleanse the spike of the tubing

ANSWER: C

- A. The nurse wears nonsterile gloves with contact precautions. The spike of the tubing is contaminated and will contaminate the solution if inserted into the new IV solution bag.
- B. There is no need to remove the gloves. The gloves are not sterile; nor do they risk contamination from the IV tubing spike.
- C. The nurse contaminated the spike end of the tubing. This requires replacement of the tubing to prevent the risk of an infection for the client.
- D. Cleansing the IV tubing spike with alcohol is not an appropriate action for preventing possible infection.

50. The nurse is using chlorhexidine to cleanse a vein site prior to inserting an IV catheter. While pressing the activated applicator on the skin, what should the nurse do next?

- A. Scrub the skin back and forth for 30 seconds.
- B. Scrub the skin in a circular motion for 10 seconds.
- C. Scrub until the solution is visually wet on the vein.
- D. Scrub until the skin appears to be dark brown in color.

ANSWER: A

- A. While pressing the applicator against the skin, the nurse should scrub back and forth for 30 seconds. This motion and time are necessary for chlorhexidine to be effective in reducing skin flora.
- B. Chlorhexidine typically requires a back-and—forth (not circular) motion. Ten seconds is insufficient time for the antiseptic to be effective.
- C. Visualizing the solution on the vein is not adequate. A back-and-forth scrub is required.
- D. Chlorhexidine is clear; no skin discoloration will occur.