

**Module 6: Medical and Surgical Asepsis****Minimum Number of Theory Hours: 2****Suggested Theory Hours: 5****Recommended Clinical Hours: 8****Statement of Purpose:**

The purpose of this unit is to present information about asepsis and the control of infection. Procedures and precautions to protect residents, health care workers and others from infection are presented, including standard precautions, transmission-based precautions and biohazardous waste management.

**Terminology**

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| 1. Acquired Immunodeficiency Syndrome (AIDS) | 21. Escherichia coli (E. coli)                         | 41. Nosocomial   |
| 2. Airborne precautions                      | 22. Excretions   | 42. Occupational Safety and Health Administration (OSHA) |
| 3. Asepsis                                   | 23. Exposure incident                                  | 43. Pathogens  |
| 4. Athlete's foot                            | 24. Flora  | 44. Personal Protective Equipment (PPE)                  |
| 5. Bacteria                                  | 25. Fungus   | 45. Pneumonia  |
| 6. Barriers                                  | 26. Health Care-Associated Infection (HAI)             | 46. Precautions  |
| 7. Biohazard symbol                          | 27. Hepatitis A, B, C, D, E                            | 47. Protozoa   |
| 8. Bloodborne                                | 28. Herpes zoster                                      | 48. Reservoir  |
| 9. Carrier spore                             | 29. Host   | 49. Reverse isolation                                    |
| 10. Centers for Disease Control (CDC)        | 30. Immunity   | 50. Rickettsia   |
| 11. Chain of infection                       | 31. Infection  | 51. Scabies  |
| 12. Communicable                             | 32. Infectious agent                                   | 52. Sepsis   |
| 13. Contact precautions                      | 33. Influenza  | 53. Standard precautions                                 |
| 14. Contagious microbes                      | 34. Isolation  | 54. Sterilization  |
| 15. Contamination                            | 35. Lice   | 55. Streptococcus  |
| 16. Disinfection                             | 36. Material Safety Data Sheet (MSDS)                  | 56. Transmission-based                                   |
| 17. Disorientation                           | 37. Methicillin-Resistant Staphylococcus aureus (MRSA) | 57. Tuberculosis   |
| 18. Disposable                               | 38. Microorganisms                                     | 58. Vancomycin-Resistant Enterococci (VRE)               |
| 19. Droplet precautions                      | 39. Nausea   | 59. Virus  |
| 20. Environmental Protection Agency (EPA)    | 40. Non-intact   |  |

**Performance Standards (Objectives):**

Upon completion of the two (2) hours of class plus homework assignments and eight (8) hours of clinical experience, the learner will be able to:

1. Define key terminology.
2. Name four infectious agents (microbes) and discuss the diseases they cause.
3. Discuss two antibiotic resistant bacteria.
4. State five conditions necessary for infectious agents to grow.
5. Identify the six parts of the chain of infection.
6. List four lines of defense against infection in the body.
7. Describe the signs and symptoms of infection.
8. Differentiate between medical and surgical asepsis.
9. Identify the roles of the Centers for Disease Control (CDC) and the Occupational Safety and Health Administration (OSHA) in the prevention of infections.
10. Explain standard precaution procedures.
11. Describe personal protective equipment (PPE) and proper use.
12. Define transmission-based precautions.
13. Identify the psychological effects of standard precaution and transmission based precautions on residents.

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Content Outline	Recommended Teaching Strategies and Assignments	Clinical Demonstration/ Method of Evaluation
<p><b>Objective 1</b>  <b>Define key terminology</b>  A. Review the terms listed in the terminology section.  B. Spell the listed terms accurately.  C. Pronounce the terms correctly.  D. Use the terms in their proper context.</p>	<p>A. Lecture/Discussion  B. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman, and concentration.  C. Encourage use of internet, medical dictionary, and textbooks.  D. Create flashcards for learning purposes.</p>	<p>A. Have students select five words from the list of key terminology and write a sentence for each defining the term.  B. Administer vocabulary pre-test and post-test.  C. Uses appropriate terminology when charting and reporting to licensed personnel.</p>
<p><b>Objective 2</b>  <b>Name four infectious agents (microbes) and discuss the diseases they cause.</b>  A. Bacteria  1. Streptococcus – strep throat, pneumonia.  2. E. coli – urinary infections.  3. Tuberculosis – lung disease.  4. Rickettsia  a. Lice – itching (body, head and pubic).  b. Scabies – skin rash.  B. Virus  1. HIV (AIDS virus) – acquired immunodeficiency syndrome.  2. Hepatitis A, B, C – liver disease.  3. Common cold – respiratory infection.  4. Influenza – fever, chills, body aches.</p>	<p>A. Lecture/Discussion  B. Share personal experiences with diseases and identify infectious agent involved.  C. Discuss why the elderly might be more prone to these illnesses.  D. Discuss possible feelings about caring for a resident with an infectious disease.</p>	<p>A. Written test  B. Class participation</p>

5. Herpes zoster – shingles. C. Fungi 1. Tinea pedis – athlete’s foot. 2. Candida albicans – yeast infection. D. Protozoa 1. Malaria.		
<b>Objective 3</b> <b>Discuss two antibiotic resistant bacteria.</b> A. Methicillin resistant <i>staphylococcus auerus</i> (MRSA) infection. B. Vancomycin resistant <i>enterococcus</i> (VRE) – infection.	A. Lecture/Discussion B. Discuss why microorganisms have become antibiotic-resistant.	A. Written test B. Class participation
<b>Objective 4</b> <b>State five conditions necessary for infectious agents to grow.</b> A. Food source. B. Moisture. C. Oxygen or lack of oxygen. D. Warmth. E. Darkness.	A. Lecture B. Discussion	A. Written test B. Class participation
<b>Objective 5</b> <b>Identify the six parts of the chain of infection.</b> A. Causative agent 1. Bacteria. 2. Viruses. 3. Fungi. 4. Insects. B. Reservoir 1. Resident. 2. Health care worker. 3. Environment. 4. Equipment. C. Portal of exit	A. Lecture/Discussion B. Handout 6.5- Chain of Infection. C. Demonstrate and return demonstration for passing ice. D. Ask class to identify ways to break the chain of infection. E. Manual Skills 6.5- Passing Ice.	A. Written test B. Class participation

<ul style="list-style-type: none"> <li>1. Wound drainage.</li> <li>2. Bodily fluids.</li> <li>3. Feces.</li> <li>4. Blood.</li> <li>5. Respiratory, reproductive and urinary tracts.</li> <li>6. Saliva.</li> </ul> <p>D. Method of transmission</p> <ul style="list-style-type: none"> <li>1. Airborne.</li> <li>2. Droplet.</li> <li>3. Contact (direct and indirect).</li> <li>4. Food/water.</li> <li>5. Animals/insects.</li> </ul> <p>E. Portal of entry</p> <ul style="list-style-type: none"> <li>1. Non-intact skin (cut on hand).</li> <li>2. Mucous membrane (mouth).</li> <li>3. Respiratory tract.</li> <li>4. Urinary tract.</li> <li>5. Reproductive tract.</li> </ul> <p>F. Susceptible host</p> <ul style="list-style-type: none"> <li>1. Resident.</li> <li>2. Health care worker.</li> <li>3. Families.</li> <li>4. Visitors.</li> </ul>		
<p><b>Objective 6</b>  <b>List four lines of defense against infection in the body.</b></p> <ul style="list-style-type: none"> <li>A. Normal flora.</li> <li>B. Intact skin.</li> <li>C. Mucous membranes.</li> <li>D. Immune system.</li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture</li> <li>B. Discussion</li> </ul>	<ul style="list-style-type: none"> <li>A. Written test</li> <li>B. Class participation</li> </ul>
<p><b>Objective 7</b>  <b>Describe the signs and symptoms of infection.</b></p> <ul style="list-style-type: none"> <li>A. Appetite loss.</li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> </ul>	<ul style="list-style-type: none"> <li>A. Written test</li> </ul>

<ul style="list-style-type: none"> <li>B. Pain.</li> <li>C. Diarrhea.</li> <li>D. Drainage.</li> <li>E. Disorientation.</li> <li>F. Fatigue.</li> <li>G. Fever.</li> <li>H. Nausea.</li> <li>I. Rash.</li> <li>J. Redness.</li> <li>K. Swelling.</li> <li>L. Tenderness.</li> <li>M. Vomiting.</li> </ul>	<ul style="list-style-type: none"> <li>B. Have class share: <ul style="list-style-type: none"> <li>1. How a specific illness might have been prevented.</li> <li>2. What signs and symptoms would be evident?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>B. Identify and report signs and symptoms of infection to licensed nurse.</li> </ul>
<p><b>Objective 8</b>  <b>Differentiate between medical and surgical asepsis.</b></p> <ul style="list-style-type: none"> <li>A. Medical Asepsis/clean techniques <ul style="list-style-type: none"> <li>1. Hand washing.</li> <li>2. Disinfection - process of destroying pathogens utilizing water and/or disinfectant.</li> </ul> </li> <li>B. Surgical asepsis/sterile technique <ul style="list-style-type: none"> <li>1. Use of equipment which has been sterilized.</li> <li>2. Use of barriers to prevent transmission of infectious agents.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Demonstrate and return demonstration for hand washing.</li> <li>C. Present several examples of violation in aseptic technique and ask students to identify problem and solution.</li> <li>D. Video "Hand Hygiene Saves Lives: Patient Admissions Video", a free PodCast online from the CDC at:  <a href="http://www2a.cdc.gov/podcasts/player.asp?f=9467#">http://www2a.cdc.gov/podcasts/player.asp?f=9467#</a></li> <li>E. Manual Skills 6.8- Standard Precautions.</li> </ul>	<ul style="list-style-type: none"> <li>A. Written test</li> <li>B. Differentiate between items that are sterile, clean, and dirty.</li> </ul>

<p><b>Objective 9</b>  <b>Identify the roles of Center for Disease Control (CDC) and Occupational Safety and Health Administration (OSHA) in the prevention of infections.</b></p> <p>A. CDC – Centers for Disease Control and Prevention.</p> <ol style="list-style-type: none"> <li>1. Located in Atlanta, Georgia.</li> <li>2. Under the Department of Health and Human Services (a federal agency).</li> <li>3. Makes non-regulatory recommendations for disease control.</li> <li>4. Introduced categories of precautions <ol style="list-style-type: none"> <li>a. “Standard precautions.”</li> <li>b. “Transmission-based precautions”.</li> </ol> </li> </ol> <p>B. Occupational Safety and Health Administration (OSHA)</p> <ol style="list-style-type: none"> <li>1. State regulatory agency which publishes and endorses rules to keep workers safe includes an infection control plan.</li> <li>2. Requires written documentation and follow-up on exposure incidents.</li> </ol>	<p>A. Lecture  B. Discussion  C. Explore how CDC and OSHA requirements are implemented on the job.</p>	<p>A. Written test  B. Class participation  C. Follow CDC and OSHA regulations.</p>
<p><b>Objective 10</b>  <b>Explain standard precautions procedures.</b></p> <p>A. Standard precautions</p> <ol style="list-style-type: none"> <li>1. Precautions used for the care of all residents regardless of their diagnosis or presumed infectious status.</li> <li>2. Designed to reduce the risk of transmission of microorganisms from moist body fluids, including <ol style="list-style-type: none"> <li>a. Blood.</li> <li>b. All body fluids, secretions and excretions except sweat.</li> <li>c. Non-intact skin.</li> <li>d. Mucous membranes.</li> </ol> </li> </ol> <p>B. Contamination</p> <ol style="list-style-type: none"> <li>1. Process by which an object, person or area becomes unclean.</li> <li>2. Microorganisms are present.</li> </ol> <p>C. Methods to prevent contamination</p> <ol style="list-style-type: none"> <li>1. Hand washing <ol style="list-style-type: none"> <li>a. Beginning of shift.</li> </ol> </li> </ol>	<p>A. Lecture/Discussion  B. Video or other A/V on Standard precautions.  C. Manual Skills 6.10- Washes Hands.</p>	<p>A. Written Test  B. Consistently follows Standard Precautions.</p>



<ul style="list-style-type: none"> <li>b. Between residents.</li> <li>c. After using the bathroom.</li> <li>d. Before handling food.</li> <li>e. After removing gloves.</li> <li>f. After covering nose and mouth when coughing, sneezing.</li> <li>g. When providing toothbrushes, drinking glasses, towels and washcloths, etc.</li> <li>h. Prior to handling raw fruit and vegetables before serving.</li> </ul> <ol style="list-style-type: none"> <li>2. Alcohol foams, gels, or disposable antiseptic towelettes             <ul style="list-style-type: none"> <li>a. May be substituted for soap and water and used during procedures which involve multiple resident contact over a period of time.</li> <li>b. The use of these products is not recommended if the hands are accidentally soiled with blood or other body fluids.</li> </ul> </li> <li>3. Sharps disposal (needles and razors)             <ul style="list-style-type: none"> <li>a. Needles are never bent, broken or recapped by hand.</li> <li>b. Dispose in appropriate sharps containers (biohazardous containers).</li> </ul> </li> </ol> <p>D. Environmental controls</p> <ol style="list-style-type: none"> <li>1. Use Environmental Protection Agency (EPA) registered disinfectant on solid surfaces including floors, furniture, bathrooms and utility rooms.</li> <li>2. Reusable equipment must be cleaned or disinfected before reuse.</li> <li>3. Mouthpieces for resuscitation should be available.</li> <li>4. Waste and soiled linen should be placed in plastic bags and disposed of according to agency policy.</li> <li>5. Use separate containers for regular wastes and biohazardous wastes (blood and body fluids that contain blood).</li> <li>6. Wipe up body fluid spills immediately. Disinfect area according to agency's policy.</li> <li>7. Do not eat, drink, apply cosmetics or handle contact lenses in contaminated areas.</li> <li>8. Labeling             <ul style="list-style-type: none"> <li>a. Biohazard symbol for sharps and liquid blood.</li> </ul> </li> </ol>		
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<ul style="list-style-type: none"> <li>b. Laboratory specimens and specimen containers are potentially infectious.</li> <li>c. See agency policies for labeling and transporting.</li> </ul>		
<p><b>Objective 11</b>  <b>Describe personal protective equipment (PPE) and proper use.</b></p> <p>A. Gloves</p> <ul style="list-style-type: none"> <li>1. Required when <ul style="list-style-type: none"> <li>a. In contact with blood, body fluids, dressings, tissues or surfaces contaminated with blood or body fluids.</li> <li>b. In contact with non-intact skin or mucous membranes.</li> </ul> </li> <li>2. Remove gloves when contact is completed and wash hands.</li> <li>3. If gloves become punctured or torn they should be removed.</li> <li>4. Change gloves between residents.</li> <li>5. Do not reuse gloves.</li> </ul> <p>B. Gowns or aprons</p> <ul style="list-style-type: none"> <li>1. Required when the possibility of soiling with blood or body fluids might occur.</li> <li>2. Remove when procedure is complete and prior to leaving the room.</li> <li>3. Gloves are not to be washed.</li> </ul> <p>C. Facial protection</p> <ul style="list-style-type: none"> <li>1. Masks, goggles or face shields.</li> <li>2. Required when splashing may occur to protect the worker's eyes, nose and mouth.</li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Audiovisual aids that show donning and removing PPE.</li> <li>C. Manual Skills 6.11a- Standard Precautions: Gloving, Gowning and Applying Mask.</li> <li>D. Manual Skills 6.11b- Donning and Removing PPE: Gown and Gloves.</li> </ul>	<ul style="list-style-type: none"> <li>A. Written test</li> <li>B. Class participation</li> </ul>
<p><b>Objective 12</b>  <b>Define transmission-based precautions.</b></p> <p>A. Transmission based precautions are used for residents known or suspected to be infected with pathogens which can be transmitted through air, droplet, contact, or contaminated surfaces.</p> <p>B. Guidelines by CDC indicate specific precautions and barriers to be used.</p> <p>C. Transmission based precautions are used in addition to standard</p>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Divide into groups to review types of precautions and required PPE.</li> </ul>	<ul style="list-style-type: none"> <li>A. Written test</li> <li>B. Consistently uses appropriate transmission-based precautions.</li> </ul>

<p>precautions</p> <ol style="list-style-type: none"> <li>1. Airborne precautions <ol style="list-style-type: none"> <li>a. Used to prevent transmission of infectious agents that remain infectious over long distances when suspended in the air. (e.g., rubeola virus [measles], varicella virus [chickenpox], <i>Mycobacterium tuberculosis</i>, and possibly SARS-CoV.)</li> <li>b. The preferred placement for patients who require Airborne Precautions is in an airborne infection isolation room (AIIR) equipped with special air handling and ventilation capacity (i.e., monitored negative pressure).</li> <li>c. In settings where Airborne Precautions cannot be implemented due to limited engineering resources (e.g., physician offices), masking the patient, placing the patient in a private room (e.g., office examination room) with the door closed, and providing N95 or higher level respirators or masks for healthcare personnel will reduce the likelihood of airborne transmission until the patient is either transferred or placed in isolation.</li> <li>d. Healthcare personnel caring for patients on Airborne Precautions must wear a mask or respirator, depending on the disease-specific recommendations.</li> <li>e. Whenever possible, non-immune healthcare workers should not care for patients with vaccine-preventable airborne diseases (e.g., measles, chickenpox, and smallpox).</li> </ol> </li> <li>2. Droplet precautions <ol style="list-style-type: none"> <li>a. Used to prevent spread through close respiratory or mucous membrane contact with respiratory secretions usually within a three foot radius.</li> <li>b. Because these pathogens do not remain infectious over long distances in a healthcare facility, special air handling</li> </ol> </li> </ol>		
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<p>and ventilation are not required to prevent droplet transmission.</p> <ul style="list-style-type: none"> <li>c. Infectious agents for which Droplet Precautions are indicated include <i>B. pertussis</i>, influenza virus, adenovirus, rhinovirus, <i>N. meningitides</i>, and group A streptococcus (for the first 24 hours of antimicrobial therapy).</li> <li>d. Healthcare personnel wear a mask (a respirator is not necessary) for close contact with infectious patient.</li> </ul> <p>3. Contact precautions</p> <ul style="list-style-type: none"> <li>a. Used to prevent spread by direct or indirect contact with the patient or the patient's environment.</li> <li>b. Apply in the presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased potential for extensive environmental contamination and risk of transmission.</li> <li>c. Healthcare personnel caring for patients on Contact Precautions should wear a gown and gloves for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment.</li> </ul> <p>D. Isolation means to separate the resident with a communicable disease to prevent the spread of pathogens.</p> <ul style="list-style-type: none"> <li>1. Isolation precautions used are dependent on how pathogen is transmitted.</li> <li>2. Consult agency's guidelines for identification of pathogen and related barriers.</li> </ul>		
<p><b>Objective 13</b>  <b>Identify the psychological effects of standard precautions and transmission based precautions on residents.</b></p> <p>A. Placing the resident in isolation may interfere with following basic needs as defined by Maslow</p> <ul style="list-style-type: none"> <li>1. Safety needs.</li> </ul>	<p>A. Lecture/Discussion  B. Provide a simulation of isolation with students</p>	<p>A. Written test  B. Provides emotional support for residents in</p>

<ol style="list-style-type: none"> <li>2. Love, belonging, affiliation needs.</li> <li>3. Self-esteem.</li> <li>4. Self-actualization.</li> </ol> <p>B. Methods of assisting the resident to meet these needs</p> <ol style="list-style-type: none"> <li>1. Explain the reasons for the isolation to the resident.</li> <li>2. Frequently check on the resident's condition.</li> <li>3. Provide the resident with newspapers, books, &amp; magazines, if appropriate.</li> <li>4. Instruct the family and visitors on the details of the isolation technique to make it easier for them to visit the resident.</li> <li>5. Make sure the necessary equipment for the isolation technique is available.</li> <li>6. Place the call bell within the resident's reach and be sure he/she knows how to use it. Respond to the call bell promptly.</li> <li>7. Talk with the resident while in the room giving care.</li> </ol>	<p>taking turns in role of Nurse Assistant and resident.</p>	<p>isolation.</p>
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**Sample Test: Module 6- Medical and Surgical Asepsis**

1. A small living plant or animal that cannot be seen without the aid of a microscope is a:
  - A. Microwave.
  - B. Macrocosm.
  - C. Microphagus.
  - D. Microorganism.
2. The process by which all microorganisms are destroyed is called:
  - A. Isolation.
  - B. Sterilization.
  - C. Disinfection.
  - D. Asepsis.
3. A body best protects itself against infections through:
  - A. The shedding of tears.
  - B. Maintaining intact skin.
  - C. Active peristalsis.
  - D. A productive cough.
4. Hepatitis B is an example of a:
  - A. Fungus.
  - B. Virus.
  - C. Bacteria.
  - D. Protozoa.
5. Strep (streptococcal) throat results from invasion by:
  - A. A fungus.
  - B. A virus.
  - C. Rickettsia.
  - D. Bacteria.

6. Microorganisms will grow best in:
  - A. High temperatures.
  - B. Moist places.
  - C. Direct sunlight.
  - D. Dry places.
7. Which of the following is a sign of infection?
  - A. High blood pressure.
  - B. Bruising.
  - C. Increased appetite.
  - D. Fever.
8. Washing hands is one way to prevent the spread of infectious agents through:
  - A. Direct contact.
  - B. Droplet spread.
  - C. Airborne transmission.
  - D. Food and water.
9. The health worker can break the chain of infection:
  - A. When a susceptible host exhibits the signs of infection.
  - B. At any link of the chain.
  - C. Only at the portal of exit.
  - D. Only with transmission based precautions.
10. Following good aseptic techniques, the health worker will wash hands:
  - A. After handling food.
  - B. Before using the bathroom.
  - C. Between residents.
  - D. After going home.

11. Which of the following is an example of contamination?
- A. Turning gloves inside out when removing them.
  - B. Carrying linen away from the uniform.
  - C. Touching the inside of the sink.
  - D. Using paper towel to turn off the faucet.
12. After bathing a resident, the health worker should wash his/her hands:
- A. Keeping the hands pointed up.
  - B. Only if they are contaminated.
  - C. With hot water and bar soap.
  - D. In a circular motion with friction.
13. Asepsis means:
- A. Clean technique.
  - B. The process of destroying pathogens.
  - C. An infection acquired after admission to a health care agency.
  - D. Being free of disease-producing microbes.
14. Clean technique is the same as:
- A. Sterile technique.
  - B. Surgical asepsis.
  - C. Medical asepsis.
  - D. Normal flora.
15. A person has protection against a certain disease. The person has:
- A. Immunity.
  - B. Personal protective equipment.
  - C. A vaccine.
  - D. A germicide.



16. A vaccine is:
- A. A suspension containing weakened or killed microorganisms.
  - B. Used to disinfect supplies and equipment.
  - C. Used to treat infection.
  - D. Normal flora.
17. Who can develop nosocomial or Healthcare Associated Infection (HAI)?
- A. Residents.
  - B. Nursing team.
  - C. Doctors.
  - D. Health team.
18. Which is the easiest and most important way to prevent infections from spreading?
- A. Standard precautions.
  - B. Wearing gloves at all times.
  - C. Transmission-Based Precautions.
  - D. The Bloodborne Pathogen Standard.
19. When cleaning the perineal area of the female body, you need to clean:
- A. From bottom to top.
  - B. Away from your body.
  - C. From front to back.
  - D. As fast as possible.
20. Standard Precautions apply to:
- A. All persons.
  - B. All residents.
  - C. The health team.
  - D. Persons with infections.

21. Soiled linens are:
- A. Handled according to the center's policies.
  - B. Discarded.
  - C. Sent home with the family.
  - D. Washed in the person's room.
22. The nurse hands you a used plastic syringe with the needle attached. You should:
- A. Bend the needle.
  - B. Break the needle off of the syringe.
  - C. Place cap on the needle.
  - D. Place the needle and syringe in a puncture-resistant container.
23. A wet gown is considered to be:
- A. Sterile.
  - B. Contaminated.
  - C. Safe.
  - D. Clean.
24. The hepatitis B vaccination involves:
- A. 1 injection.
  - B. 2 injections.
  - C. 3 injections.
  - D. 4 injections.
25. Persons needing isolation precautions often experience
- A. Loss of self-esteem.
  - B. Self-actualization.
  - C. Love and belonging.
  - D. Safety.

26. The Nurse Assistant is leaving an isolation room. After hand washing, the Nurse Assistant should:
- A. Use a disposable glove to open the door and put glove in the basket outside the room.
  - B. Use a paper towel to open the door and put the basket inside the room near the door.
  - C. Use a paper towel to open the door and put the paper towel in the basket outside the room.
  - D. Open the door with clean, washed hands.
27. Standard precautions require the Nurse Assistant to wear gloves when caring for a resident if the Nurse Assistant has:
- A. A cold.
  - B. Long fingernails.
  - C. A cut or sore on the hand.
  - D. Dirty hands.
28. The Nurse Assistant should know that the proper hand washing includes soap, friction and:
- A. A clean sink.
  - B. Running water.
  - C. Plenty of towels.
  - D. An antiseptic solution.
29. The correct order for removing protective clothing before leaving a resident's isolation room is:
- A. Gloves, gown, mask, and wash hands.
  - B. Mask, gown, gloves, and wash hands.
  - C. Mask, gloves, gown, and wash hands.
  - D. Gown, gloves, mask and wash hands.
30. When changing bed linens, which actions by the Nurse Assistant would ensure that medical asepsis is being followed?
- A. Hold the clean, new linen close to the body.
  - B. Shake the linens before placing them on the bed.
  - C. Place all dirty linens on the floor.
  - D. Place all clean linens on a clean surface.

31. Which of the following is NOT a common sign of infection?
- A. Redness or swelling at a wound site.
  - B. Elevated temperature or chills.
  - C. Drainage from a wound.
  - D. Dizziness when getting up.
32. The Nurse Assistant is collecting a urine specimen using standard precautions. Which of the following should the Nurse Assistant do?
- A. Wash hands and apply gloves before beginning the urine collection.
  - B. Have the resident empty the bladder before the urine collection.
  - C. Place a label on the specimen container before the urine is collected.
  - D. Wash the perineum with soap and water.
33. After hand washing , the Nurse Assistant should turn off the faucet using:
- A. Clean hands before drying them.
  - B. Clean hands after drying them.
  - C. Clean, dry paper towel after hands are dried.
  - D. Clean elbow before hands are dried.
34. Between routine resident contacts, the Nurse Assistant should wash his/her hands under running water for at least:
- A. 10-15 seconds.
  - B. 20 seconds.
  - C. 3-4 minutes.
  - D. 5-6 minutes.
35. To most effectively prevent the spread of infection while providing resident care, the Nurse Assistant should:
- A. Bathe the resident every day.
  - B. Wash hands after caring for each resident.
  - C. Provide proper fluid and nourishment.
  - D. Change linen daily.

36. To ensure medical asepsis when collecting a specimen from a resident, the Nurse Assistant must:
- A. Use only sterile equipment.
  - B. Refrigerate the specimen for 24 hours.
  - C. Wash hands before and after the procedure.
  - D. Send specimen to the laboratory as soon as possible.
37. The Nurse Assistant should wear a mask and gloves when the resident:
- A. Has a skin rash.
  - B. Has a reddened pressure area on the coccyx.
  - C. Coughs up bloody secretions.
  - D. Is using a bedpan.
38. The Nurse Assistant comes to work with a cold. Which of the following actions would be appropriate?
- A. Put on a mask and perform resident care as usual.
  - B. Report the cold to the licensed nurse and put on mask.
  - C. Tell the resident about the cold.
  - D. Check own temperature regularly.
39. Which of the following should the Nurse Assistant recognize as an important part of standard precautions?
- A. Take blood pressure.
  - B. Enforce a non-smoking policy near oxygen sources.
  - C. Raise side rails on resident's bed.
  - D. Wear gloves when touching body secretions.
40. When caring for a resident who is in isolation, how would the Nurse Assistant safely remove soiled linen?
- A. Leave soiled linen in room for housekeeping to remove.
  - B. Wear gloves when bringing out the soiled linen.
  - C. Double-bag the soiled linen when required by your facility.
  - D. Take soiled linen to a container outside of the room.

41. The licensed nurse tells the Nurse Assistant that a resident's bedpan needs to be cleaned. The MOST effective way to kill all the organisms would be to:
- A. Wash the bedpan with soap and water
  - B. Use a chemical disinfectant on the bedpan.
  - C. Put the bedpan in a bedpan washer.
  - D. Wash the bedpan in hot water.
42. The Nurse Assistant should NOT wear gloves when:
- A. Caring for a resident's pressure sores.
  - B. Emptying a urinary catheter collection bag.
  - C. Feeding a resident.
  - D. Assisting the nurse during a dressing change.

**Sample Test Answers: Module 6**

- |       |       |
|-------|-------|
| 1. D  | 22. D |
| 2. B  | 23. B |
| 3. B  | 24. C |
| 4. B  | 25. A |
| 5. D  | 26. B |
| 6. B  | 27. C |
| 7. D  | 28. B |
| 8. A  | 29. A |
| 9. B  | 30. D |
| 10. C | 31. D |
| 11. C | 32. A |
| 12. D | 33. C |
| 13. D | 34. B |
| 14. C | 35. B |
| 15. A | 36. C |
| 16. A | 37. C |
| 17. A | 38. B |
| 18. A | 39. D |
| 19. C | 40. C |
| 20. A | 41. B |
| 21. A | 42. C |

**MANUAL SKILL: Passing Ice**

**EQUIPMENT:**

Clean water pitcher  
Ice chest  
Ice machine  
Ice scoop

**SKILL STEPS:**

1. Wash hands.
2. Apply gloves.
3. Fill ice chest with clean ice from ice machine. Do not touch ice with your hands.
4. Return ice scoop to holder.
5. Close lid on ice chest during transport.
6. Empty old ice and water from resident's water pitcher into a sink or obtain a clean water pitcher.
7. Pick up ice scoop by handle only.
8. Fill water pitcher with clean ice. Do not put unused ice into the ice chest.
9. Place scoop in holder or tray when not in use. Do not leave scoop in ice.
10. Close lid on ice chest.
11. Place the filled water pitcher at the bedside.



**MANUAL SKILL: Standard Precautions - Hand-Washing****EQUIPMENT:**

Orange stick or nail file (optional)  
Paper towels  
Running water  
Soap dispenser  
Waste container

**SKILL STEPS:**

1. Push your watch up 4-5 inches higher on your arm.
2. Stand away from sink so that your uniform does not touch the sink.
3. Turn on the faucet, using a paper towel unless foot pedal is used.
4. Adjust the water temperature until it is warm.
5. Toss the used paper towel into the wastebasket.
6. Completely wet your hands and wrists. Keep your fingertips pointed downward.
7. Press hand soap dispenser or step on foot pedal, collecting soap in palm of one hand.
8. Rub your palms together in a circular motion, work up a good lather, and rub vigorously.
9. Wash your hands for at least 20 seconds generating friction on all surfaces of hands & fingers.
  - a. Wash each wrist.
  - b. Rub back of each hand by interlacing fingers.
  - c. Rub palms of hands together, interlacing fingers.
  - d. Clean under fingernails by rubbing the tips of your fingers against your palms to clean with friction around the nail beds.
  - e. Never touch inside of sink.
10. Optional: clean your short fingernails with a blunt edge of an orange stick or personal finger brush.
11. Rinse with running water. Rinse from four inches above your wrists down to your hands. Hold your hands and fingertips down, allowing the water to flow off at the fingertips.
12. Pat dry your wrists and hands with paper towels and throw away the towel.
13. Turn off the faucet with a clean paper towel placed between your hands and the faucet to avoid contamination.
14. Toss paper towel into wastebasket.

Note: Waterless antiseptic agents (alcohol-based gels & foams) may be used for when hands are not visibly soiled.

**Manual Skills: Hand Hygiene (Hand Washing)**

**Equipment**

Paper towel

Soap

**Skill Steps:**

1. Addresses client by name and introduces self to client.
2. Turns on water at sink.
3. Wets hands and wrists thoroughly.
4. Applies soap to hands.
5. Lather all surfaces of wrists, hands, and fingers producing friction, for at least twenty seconds.
6. Cleans fingernails by rubbing fingertips against palms of the opposite hand.
7. Rinses all surfaces of wrists, hands, and fingers keeping hands lower than the elbows and the fingertips down.
8. Uses clean, dry paper towel to dry all surfaces of hands, wrists, and fingers then disposes of paper towel into waste container.
9. Uses clean, dry paper towel to turn off faucet then disposes of paper towel into waste container or uses knee/foot control to turn off faucet.
10. Does not touch inside of sink at any time.

**MANUAL SKILL: Standard Precautions: Gloving, Gowning, and Applying Mask****EQUIPMENT:**

Gloves  
Goggles  
Gown or Apron  
Mask

**PRINCIPLES:**

1. Wear disposable gloves when touching blood, body fluids, and mucous membranes or materials contaminated by them.
2. Wear disposable gloves when you have cuts, breaks or openings in the skin.
3. Gloves are worn when there is possible contact with urine, feces, vomitus, dressings, soiled drainage, soiled linen, or soiled clothing.
4. Change gloves between residents and wash hands.
5. Remove gloves if they tear or become heavily soiled. Wash hands and apply a new pair.
6. Masks, goggles, or face shields are worn when splattering or splashing of blood or body fluids is possible.
7. Gowns or aprons are worn when splashing, splattering, smearing, or soiling from blood or body fluids is possible.
8. Hand washing is done after contact with mucous membranes, blood or body fluids, non-intact skin, regardless of glove use.

**SKILL STEPS:****Gloving:**

1. Wear gloves to protect the hands from body fluids from the resident.
2. Put on a pair of gloves over clean hands.
3. Provide necessary care.
4. When both hands are still gloved, be sure to not touch your skin.
5. To remove one glove, grasp it just below the cuff.
6. Pull the glove down over your hand so that it is turned inside out.
7. Hold the removed glove with your other gloved hand.
8. Reach inside the other glove at the wrist with the first two fingers of your ungloved hand.
9. Pull the glove down over your hand and the other glove.
10. Discard the gloves in the regular trash.
11. Wash your hands.

**Applying gowns:**

1. Remove your watch and all jewelry.

2. If mask and goggles or face shield is required, put on before gowning.
3. Pick up clean gown. Hold it out in front of you so that it can unfold. Do not shake the gown.
4. Put the gown on, making sure the gown covers the front of your uniform. Tie strings at neck.
5. Overlap the back of the gown.
6. Tie the waist strings at the back.
7. Put on gloves if needed.
8. Provide the necessary resident care.

**Removing gowns:**

1. Remove the gown by untying the neck strings from behind.
2. Untie the waist strings; do not touch the outside of the gown. Slip fingers of one hand into inside cuff of the other hand without touching outside of gown.
3. Using gown-covered hand, pull gown over the dominant hand.
4. Using the gown covered hand, pull gown down over other hand and remove without touching outside of gown.
5. Discard gown in appropriate container.
6. Wash your hands.

**Applying masks:**

1. Position the mask over your nose. Your nose and mouth must be covered.
2. Place the upper strings over the top of your ears. Tie the strings in the back toward the top of your head.
3. Tie the lower strings at the back of your neck. Make sure the lower part of the mask is under your chin. If you wear glasses, the mask should fit snugly over your nose and under the bottom edge of the glasses.
4. Mold the metal strip over the bridge of your nose.
5. Avoid coughing, sneezing, and unnecessary talking while wearing the mask.
6. Use a new mask for each resident contact when a mask is required.

**Removing masks:**

1. Wash your hands before untying the mask. Untie bottom ties first, then top.
2. Discard mask by holding strings (avoid touching the inside of the mask).
3. Discard the mask in regular trash.

**Applying goggles:**

1. Put on mask.
2. Position goggles over eyes.
3. Change goggles and mask if soiled during procedure.

4. Provide necessary care.

**Removing goggles:**

1. Remove gloves and wash hands.
2. Remove goggles prior to removing the mask.
3. Goggles can be washed with soap and water for future use.

**Sequencing for applying barriers (PPE's):**

1. Wash hands.
2. Gown.
3. Mask.
4. Goggles.
5. Gloves.

**Sequencing for removing barriers (PPE's):**

1. Gloves.
2. Wash hands.
3. Goggles.
4. Gown.
5. Mask.
6. Wash Hands.

**MANUAL SKILLS: Donning and Removing PPE: Gown and Gloves**

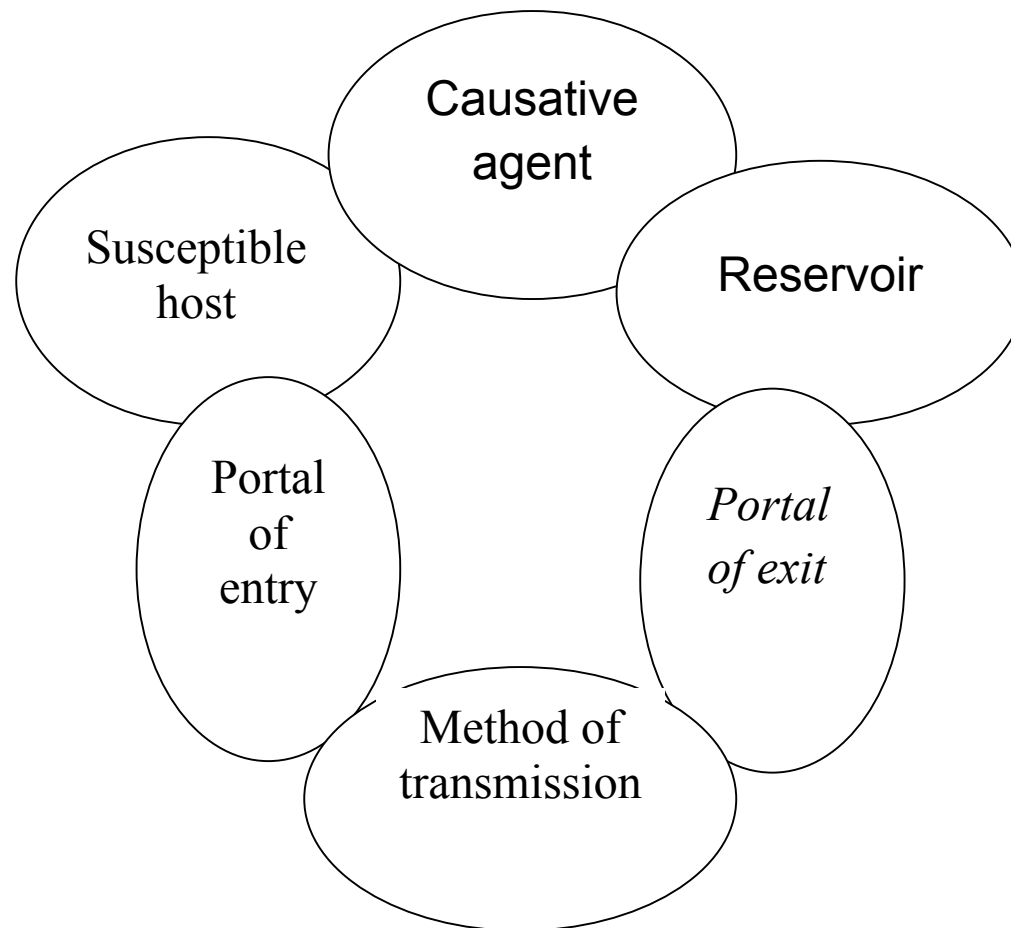
**Equipment:**

Gloves

Gown

**Skill Steps:**

1. Picks up gown and unfolds.
2. Facing the back opening of the gown places arms through each sleeve.
3. Fasten the neck opening.
4. Secure gown at waist making sure that back of clothing is covered by gown (as much as possible).
5. Put on gloves.
6. Cuffs of gloves overlap cuffs of gown.
7. Before removing gown, with one gloved hand, grasps the other glove at the palm, remove glove.
8. Slips fingers from ungloved hand underneath cuff of remaining glove at wrist, and removes glove turning it inside out as it is removed.
9. Disposed of gloves into designated waste container without contaminating self.
10. After removing gloves, unfastens gown at neck and waist.
11. After removing gloves, removes gown without touching outside of gown.
12. While removing gown, holds gown away from body, turns gown inward and keeps it inside out.
13. Disposes of gown in designated container without contaminating self.
14. Washes hands.



**The Chain of Infection. Components of the infectious disease process.**