

<b>Section 2 – What is an Infection?</b>	
<p><b>(S-1) Title Slide</b></p> <p><b>(S-2) Objectives</b></p> <ol style="list-style-type: none"> <li>1. Recognize symptoms of localized and systemic infections.</li> <li>2. Relate the chain of infection to the work of a care worker in an adult care home.</li> <li>3. Describe each link in the chain of infection.</li> <li>4. Explain the concept of breaking the chain of infection and its importance to infection prevention.</li> <li>5. Explain why residents in adult care homes are at risk for infection.</li> </ol>	
Content	Notes
<p><b>(S-3) Infection Prevention</b></p> <ul style="list-style-type: none"> <li>• All of the things that people do to control and prevent the spread of infection</li> <li>• Infection prevention extremely important in adult care homes</li> <li>• Will learn all about infection and ways to prevent spread of infection</li> </ul>	
<p><b>(S-4) Infection</b></p> <ul style="list-style-type: none"> <li>• A disease or condition of the body that occurs when harmful germs get into the body and grow in number</li> <li>• Examples of common infections <ul style="list-style-type: none"> <li>○ Urinary tract infection, including bladder infection and kidney infection</li> <li>○ Skin infection, including infected wounds and cuts</li> <li>○ Respiratory infection, including pneumonia, flu and the common cold</li> <li>○ Gastrointestinal infection, including stomach infection, intestinal infection, or food poisoning</li> </ul> </li> <li>• Two types of infection <ul style="list-style-type: none"> <li>○ Localized</li> <li>○ Systemic</li> </ul> </li> </ul>	
<p><b>(S-5) Localized Infection</b></p> <ul style="list-style-type: none"> <li>• An infection found in one part of the body and symptoms are limited to that one part of the body</li> <li>• Example – an infected finger (when a finger becomes infected, it may be red, painful, hot, puffy, and have drainage)</li> </ul>	
<p><b>(S-6) Systemic Infection</b></p> <ul style="list-style-type: none"> <li>• An infection that affects an entire body part or whole body system</li> <li>• Different types of symptoms including fever, chills, confusion, feeling tired, nausea/vomiting, and possibly symptoms specific to the entire body part or body system</li> <li>• Will now talk about what kinds of symptoms a resident may have with a respiratory infection, bladder infection, and stomach infection</li> </ul>	

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<p><b>TEACHING TIP #1: Respiratory Infection Symptoms</b></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>• What kind of symptoms do you think someone would have if he had a respiratory infection?</li> </ul>	
<p><b>(S-7) Symptoms of Respiratory Infection</b></p> <ul style="list-style-type: none"> <li>• Fever and chills</li> <li>• Sniffing and snorting</li> <li>• Coughing and sneezing</li> <li>• Hacking up globs of green or yellow, slimy mucous</li> </ul>	
<p><b>(S-8) TEACHING TIP #2: Respiratory Infection Discussion</b></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>• How do you feel when someone coughs or sneezes on you?</li> <li>• How do you feel when someone hands you a moist, crumpled up, used tissue with yellow, thick, slimy globs of mucous on it, to throw away?</li> </ul>	
<p><b>(S-9) TEACHING TIP #3: Bladder Infection Symptoms</b></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>• What kind of symptoms do you think a female resident would have if she had a bladder infection?</li> </ul>	
<p><b>(S-10) Symptoms of Bladder Infection</b></p> <ul style="list-style-type: none"> <li>• Fever and chills</li> <li>• Pain when using bathroom</li> <li>• Bad or strong smelling urine, with possible blood in it</li> <li>• Resident states “my urine stinks and it hurts when I have to go to the bathroom” (may use a different word for urine)</li> <li>• Confusion and changes in behavior may occur</li> </ul>	
<p><b>(S-11) Stomach Infection</b></p> <ul style="list-style-type: none"> <li>• Person with a stomach infection will probably have stomach pains and may vomit</li> </ul>	

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<p><b>(S-12) TEACHING TIP #4: Discussion About Vomit</b></p> <p>Ask students:</p> <ul style="list-style-type: none"> <li>• Have you ever had someone vomit on you?</li> <li>• Have you ever had to clean up after someone who has vomited?</li> <li>• How would you feel if you got the vomited liquid on your hand?</li> <li>• What would you do?</li> <li>• Would you have liked to have gloves to put on if you had to clean up the vomit?</li> </ul>	
<p><b>(S-13) Microorganisms</b></p> <ul style="list-style-type: none"> <li>• Are also called germs or pathogens</li> <li>• Live almost everywhere – both inside and outside the body</li> <li>• Some help people and other germs that are harmful cause problems or diseases</li> <li>• Requirements to survive                             <ul style="list-style-type: none"> <li>○ Warmth</li> <li>○ Moisture</li> <li>○ Some need oxygen to live and others do not need oxygen to live</li> <li>○ Tissue to feed on</li> </ul> </li> <li>• Examples – bacteria, viruses, parasites, fungi</li> <li>• Cause infections</li> </ul>	
<p><b>(S-14) Medical Asepsis</b></p> <ul style="list-style-type: none"> <li>• Also called clean technique</li> <li>• Practices used to remove or destroy germs and to prevent their spread from one person or place to another person or place</li> </ul>	
<p><b>(S-15) Host</b></p> <ul style="list-style-type: none"> <li>• An animal or a person</li> <li>• Often see the word host when someone talks about infection and spread of infection</li> </ul>	
<p><b>(S-16) Chain of a Necklace</b></p> <ul style="list-style-type: none"> <li>• Most people know what a chain of a necklace looks like – links that are joined together in a circle</li> <li>• Often people explain how infection is passed around from one host to another host by using picture of a chain</li> </ul>	
<p><b>(S-17) Chain of Infection</b></p> <ul style="list-style-type: none"> <li>• Chain of infection used to explain how an infection spreads and is prevented</li> <li>• Notice there are six links</li> </ul>	

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<ul style="list-style-type: none"> <li>• Each link of the chain stands for something (or someone) needed to pass on an infection from one to another</li> <li>• For an infection to occur and spread, each of six links must be present and joined together</li> <li>• As long as links are joined together, an infection will be passed from one person, to another person, to another person, and so on</li> <li>• So, as long as links are joined together, an infection will be passed from one resident, to another resident, to a care worker, to another resident, and so on</li> <li>• By breaking any link in the chain, a new infection can be prevented</li> <li>• Infection prevention practices such as handwashing, cleaning equipment, and using masks will break a link in the chain</li> <li>• Will learn ways to break chain of infection and help keep you, your co-workers, and your residents infection-free; this is one time when breaking something is a good thing!</li> </ul>	
<p><b>ACTIVITY #1 (Pages 6-1, 6-2): Build a Chain of Infection (Individual)</b></p> <p>Refer to the instruction sheet for this activity.</p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• As we learn about the different links of the chain of infection, you are going to make your own chain of infection.</li> <li>• As we talk about the different links of the chain of infection, please write one example of each link on the appropriate slip of paper. For example, you may choose to write the word, bacteria, on the first link.</li> <li>• As we go along I will direct you when and how to construct the chain.</li> </ul>	
<p><b>(S-18) Link #1 Infectious Agent</b></p> <ul style="list-style-type: none"> <li>• A harmful germ that causes an infection</li> <li>• Examples – bacteria, a virus, a fungus, or a parasite</li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 1</li> <li>• Tape the 1<sup>st</sup> link so it forms a circle</li> </ul>	

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<p><b>(S-19) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• Place where harmful germs live, grow, and increase in numbers</li> <li>• It is the home for germs</li> <li>• Examples – a person, an animal, dirt, water, or other places in environment</li> </ul>	
<p><b>(S-20) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• When reservoir is a person, some places where harmful germs may be living include:                             <ul style="list-style-type: none"> <li>○ Blood</li> <li>○ The skin</li> <li>○ The digestive tract, such as the mouth, stomach, intestines</li> <li>○ The respiratory tract, such as the nose, throat or lungs</li> </ul> </li> </ul>	
<p><b>(S-21) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• Can you look at a person and <b>ALWAYS</b> tell if he has an infection that can be given to you, a co-worker, or another resident?</li> <li>• The answer is “NO, not always.”</li> </ul>	
<p><b>(S-22) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• When you think about people being reservoirs for harmful germs, all human beings belong in one of three groups</li> <li>• First group of people                             <ul style="list-style-type: none"> <li>○ Not infected</li> <li>○ Are well</li> <li>○ Not being used as hiding places for harmful germs</li> </ul> </li> <li>• Second group of people                             <ul style="list-style-type: none"> <li>○ Have the harmful germs and germs are making them sick</li> <li>○ Because they are sick, might be able to tell that these people have infections</li> <li>○ Also might know these people can infect others</li> </ul> </li> <li>• Third group of people                             <ul style="list-style-type: none"> <li>○ Are called carriers</li> <li>○ Have the harmful germs living on or in their body, but germs are not making them sick</li> <li>○ Because carriers are not sick, do not know they have infections</li> <li>○ Do not show symptoms of infection, but can still infect others</li> </ul> </li> </ul>	
<p><b>(S-23) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• NOW, think about infection in terms of an iceberg</li> <li>• People we know about who have infections and can infect us are only the tip of the iceberg</li> <li>• Think about all those large numbers of carriers of infection out there that we do not know about and who could possibly infect us!</li> </ul>	

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<p><b>TEACHING TIP #5: Time to Ponder</b></p> <p>Allow participants time to ponder this information.</p>	
<p><b>(S-24) Link #2 Reservoir</b></p> <ul style="list-style-type: none"> <li>• Key to prevent you, your co-workers, and your residents from getting infected is to treat everyone, EVERYONE as possible reservoirs or hiding places for harmful germs</li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 2</li> <li>• Link the 1<sup>st</sup> link with the 2<sup>nd</sup> link and tape the 2<sup>nd</sup> link so it forms a circle</li> </ul>	
<p><b>(S-25) Link #3 Portal of Exit</b></p> <ul style="list-style-type: none"> <li>• Any way or route that harmful germs escape from reservoir</li> <li>• Examples                             <ul style="list-style-type: none"> <li>○ The nose and mouth – harmful germs leave in mucous droplets and saliva (or spit)</li> <li>○ The gastrointestinal tract – harmful germs leave in stool or vomit</li> <li>○ Skin – harmful germs leave through direct contact or in blood, pus, or other liquids that come from inside of body</li> </ul> </li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 3</li> <li>• Link the 2<sup>nd</sup> link with the 3<sup>rd</sup> link and tape the 3<sup>rd</sup> link so it forms a circle</li> </ul>	
<p><b>(S-26) Link #4 Mode of Transportation</b></p> <ul style="list-style-type: none"> <li>• How harmful germs travel or get around from place to place</li> </ul>	
<p><b>(S-27) Link #4 Mode of Transportation</b></p> <ul style="list-style-type: none"> <li>• Number one way a harmful germ travels from place to place is by our hands</li> </ul>	

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<p><b>(S-28) Link #4 Mode of Transportation</b></p> <ul style="list-style-type: none"> <li>• How do our hands provide transportation for germs?                             <ul style="list-style-type: none"> <li>○ Get germs on hands after coughing, sneezing, wiping noses, or using restroom and then spread the germs to someone else or to an object that someone else might touch</li> <li>○ We touch blood, infected wound, stool, or vomit of infected person, then do not clean our hands properly before going to next resident or before touching something that someone else might touch</li> <li>○ May be spread by either direct or indirect contact</li> </ul> </li> </ul>	
<p><b>(S-29) Direct Contact</b></p> <ul style="list-style-type: none"> <li>• One way harmful germs travel is by direct contact with body fluids where germs live, such as                             <ul style="list-style-type: none"> <li>○ Blood</li> <li>○ Sputum (mucous that is coughed up)</li> <li>○ Pus or wound fluid (from a cut or sore)</li> <li>○ Saliva (or spit)</li> <li>○ Stool (or bowel movement);</li> <li>○ Vomit</li> </ul> </li> <li>• Examples                             <ul style="list-style-type: none"> <li>○ Needle sticks with blood on the needle</li> <li>○ Contact with skin that has a rash, cuts or scratches</li> <li>○ Splash or spray of body fluids to the mucus membranes of the eyes, nose and/or mouth</li> </ul> </li> </ul>	
<p><b>(S-30) Indirect Contact</b></p> <ul style="list-style-type: none"> <li>• Another way for a person to get infected by body fluids is by indirect contact</li> <li>• Indirect contact means that harmful germs are spread by an object that had touched body fluids from infected person; when another person touches the object, that person might get an infection</li> <li>• Examples                             <ul style="list-style-type: none"> <li>○ Dirty needles or instruments</li> <li>○ Used bandages</li> <li>○ Hands of family members or care workers who did not practice good handwashing</li> </ul> </li> </ul>	
<p><b>(S-31) TEACHING TIP #6: Self-reflection</b></p> <p>Remind students about the feelings expressed earlier when someone sneezes on them and how everyone agreed that it would not make them very happy.</p>	

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<p><b>(S-32) Droplets</b></p> <ul style="list-style-type: none"> <li>• Some harmful germs (like the flu) can be spread or travel by way of droplets                             <ul style="list-style-type: none"> <li>○ Droplets spread after being sprayed from nose or mouth when infected person sneezes, coughs, sings, talks, or laughs</li> <li>○ Droplets might land on another person (direct contact), or might land on doorknob, railing, or other surface that another person might touch (indirect contact)</li> </ul> </li> </ul>	
<p><b>(S-33) Respiratory Hygiene/Cough Etiquette</b></p> <ul style="list-style-type: none"> <li>• New concept even though you have been doing parts of it since you were a child</li> <li>• Defined as infection prevention measures to decrease transmission of respiratory infection</li> <li>• Measures include                             <ul style="list-style-type: none"> <li>○ Covering your mouth and nose with tissue when coughing or sneezing</li> <li>○ Using nearest trashcan to throw tissue away after use</li> <li>○ Performing hand hygiene</li> <li>○ Coughing or sneezing into your upper sleeve or elbow, not hand, if you do not have a tissue</li> <li>○ Staying at least three feet from others who are coughing and/or sneezing</li> <li>○ Staying at least three feet from others if you are coughing and/or sneezing</li> </ul> </li> </ul>	
<p><b>(S-34) Link #4 Mode of Transportation</b></p> <ul style="list-style-type: none"> <li>• Key to prevent you, co-workers, and residents from getting infected is to treat everyone, every single one as possible carriers of harmful germs</li> </ul>	
<p><b>(S-35) Link #4 Mode of Transportation</b></p> <ul style="list-style-type: none"> <li>• Other ways harmful germs get around                             <ul style="list-style-type: none"> <li>○ Through animal and insect bites; an insect or animal bites an infected person or animal and then bites a new person or animal and shares the infection</li> <li>○ By eating or drinking food or water that is infected with harmful germs</li> </ul> </li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 4</li> <li>• Link the 3<sup>rd</sup> link with the 4<sup>th</sup> link and tape the 4<sup>th</sup> link so it forms a circle</li> </ul>	



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<p><b>(S-36) Link #5 Portal of Entry</b></p> <ul style="list-style-type: none"> <li>• Any body opening of a person that allows harmful germs to enter into the body</li> <li>• Germs can usually get in the same way they got out, so the main portals of entry are the same as the portals of exit</li> <li>• Examples of portals of entry Include:               <ul style="list-style-type: none"> <li>○ The nose and mouth – person breathes in harmful germs</li> <li>○ The gastrointestinal tract – when person eats food or drinks liquids that have harmful germs in them</li> <li>○ Any breaks in skin that allow harmful germs to get past skin, such as open sore, cut, needle stick, and cracked skin</li> </ul> </li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 5</li> <li>• Link the 4<sup>th</sup> link with the 5<sup>th</sup> link and tape the 5<sup>th</sup> link so it forms a circle</li> </ul>	
<p><b>(S-37) Link #6 Susceptible Host</b></p> <ul style="list-style-type: none"> <li>• Person who does not have an infection now, but is at risk for becoming next person to get infected from harmful germs</li> <li>• Susceptible host is a person whose body for some reason cannot fight off infection</li> </ul>	
<p><b>(S-38) Link #6 Susceptible Host</b></p> <ul style="list-style-type: none"> <li>• Some of the reasons why a person’s body cannot fight off an infection include               <ul style="list-style-type: none"> <li>○ Age</li> <li>○ Poor nutrition</li> <li>○ Stress</li> <li>○ Chronic illnesses</li> <li>○ Not having proper vaccinations</li> <li>○ Open cuts or skin breakdown</li> <li>○ Fatigue</li> </ul> </li> </ul>	
<p><b>(S-39) Link #6 Susceptible Host</b></p> <ul style="list-style-type: none"> <li>• Residents living in adult care homes more likely to get infection than other people who live in the community because               <ul style="list-style-type: none"> <li>○ Many have several things wrong with health, such as a resident who may have lung, heart, and kidney problems</li> <li>○ Many are elderly</li> </ul> </li> <li>• More likely to come into contact with harmful germs because they live close together and because same staff provide care to residents and share equipment</li> </ul>	

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<p><b>ACTIVITY #1: Build a Chain of Infection Continues</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• Write an example on link 6</li> <li>• Link the 6<sup>th</sup> link with both the 5<sup>th</sup> link and the 1<sup>st</sup> link and tape the 6<sup>th</sup> link so it forms a circle and completes the chain</li> </ul>	
<p><b>(S-40) Chain of Infection</b></p> <ul style="list-style-type: none"> <li>• How does chain of infection relate to a care worker’s work in an adult care home? <ul style="list-style-type: none"> <li>○ As a care worker, you will have a huge responsibility to protect self, family, and residents from danger because you will work in environment that encourages infection</li> <li>○ People who you care for generally are elderly, sickly, and/or susceptible to diseases</li> <li>○ What is just a cold to most people can be deadly to older adult</li> <li>○ If you break any link in chain of infection, the occurrence of new infection can be prevented</li> <li>○ You will have many chances at work to break chain of infection</li> </ul> </li> </ul>	
<p><b>(S-41) Breaking Chain of Infection at Each Link – Examples</b></p> <ul style="list-style-type: none"> <li>• If you can break any link in the Chain of Infection, you can prevent the occurrence of a new infection</li> <li>• Examples of a very simple way that everyone can break each link of the chain <ul style="list-style-type: none"> <li>○ Break first link, the infectious agent, by getting an immunization against flu</li> <li>○ Break second link, the reservoir, by staying home from work when you are sick</li> <li>○ Break the third link, which is the portal of exit, by covering your mouth and nose when you sneeze</li> <li>○ Break fourth link, which is mode of transmission, by washing your hands</li> <li>○ Break the fifth link, which is the portal of entry, by covering an open sore with a bandage</li> <li>○ Break the sixth link, which is the susceptible host, by eating a proper diet</li> </ul> </li> </ul>	
<p><b>ACTIVITY #1: Build a Chain of Infection Concludes</b></p> <p>Tell students:</p> <ul style="list-style-type: none"> <li>• It is now time to break your chains of infection.</li> </ul>	

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<ul style="list-style-type: none"> <li>I am going to go around the room and have each of you choose a link of your chain, have you break the link, and then tell everyone what one thing you did to break the link.</li> </ul> <p>Call on each student. You may want to applaud when each student is done and say, “great job.”</p>	
<p><b>(S-42) Breaking Chain of Infection</b></p> <ul style="list-style-type: none"> <li>Congratulations! Each of you just STOPPED AN INFECTION</li> </ul>	
<p><b>ACTIVITY #2 (Pages 6-3, 6-4): Chain of Infection (Group)</b></p> <p>Divide students into groups of two or three. Distribute Chain of Infection Activity #2 to students. Tell students:</p> <ul style="list-style-type: none"> <li>We are going to do an activity so you can review the links of the chain of infection. Find the examples that relate to each link and write them in the blanks. Use the words that are listed in the middle of the page.</li> </ul> <p>When students complete the activity, go over the answers, using the answer key.</p>	