



A UNIT GUIDE TO Infection Prevention for Long-Term Care Staff



Agency for Healthcare Research and Quality Advancing Excellence in Health Care • www.ahrq.gov



ACKNOWLEDGMENTS

Content leads for the preparation of this document were as follows:

Deb Patterson Burdsall, M.S.N., R.N.-B.C., CIC Infection Preventionist Lutheran Home/Lutheran Life Communities Arlington Heights, IL

Steven J. Schweon, R.N., M.P.H., M.S.N., CIC, HEM, FSHEA Infection Prevention Consultant Saylorsburg, PA

Sue Collier, M.S.N., R.N., FABC Clinical Content Development Lead Health Research & Educational Trust American Hospital Association Chicago, IL

This project was funded under contract number HHSA290201000025I, task order 8, from the Agency for Healthcare Research and Quality (AHRQ).

Disclaimer: AHRQ and its contractor, Health Research & Educational Trust, have made a good faith effort to take all reasonable measures to ensure that this product is accurate, up to date, and free of error in accord with clinical standards accepted at the time of publication. Any practice described in this product must be applied by health care practitioners in accordance with professional judgment and standards of care in regard to the unique circumstances that may apply in each situation they encounter. AHRQ and HRET are not responsible for any adverse consequences arising from independent application by individual professionals of the content of this product to particular patient circumstances encountered in their practices.

This document may be used and reprinted without permission except those copyrighted materials that are clearly noted in the document. Further reproduction of those copyrighted materials is prohibited without the express permission of copyright holders.

None of the contributors have any affiliations or financial involvement that conflicts with the material presented in this document.



A UNIT GUIDE TO Infection Prevention for Long-Term Care Staff

AHRQ Publication No. 16(17)-0003-4-EF March 2017

How To Use This Guide

This guide is divided into four sections, some of which have multiple subsections. Each section and subsection is arranged into four categories:



KEY MESSAGES are high-level takeaways for each topic.

BASIC BACKGROUND provides general information about each topic. It is designed to give simple "what" and "why" know-how.

PRACTICE TIPS are actions to take to reduce the risk of infections in long-term care (LTC) facilities.

COMMUNICATION TIPS offer ways to talk with residents, families, coworkers, and others about infection prevention.

Contents

Introduction	4
I. Infections and Infection Prevention in Long-Term Care	5
Infections in Long-Term Care	5
Infection Prevention and Control in Long-Term Care	
Multidrug-Resistant Organisms	9
II. Standard Precautions: Infection Prevention Basics	11
Specific Standard Precautions	12
– Hand Hygiene	12
- Environmental Cleaning and Disinfection	14
 Personal Protective Equipment 	15
– Resident Placement	17
 Respiratory Hygiene and Etiquette 	18
 – Safe Injection Practices 	19
– Soiled Linen	20
III. Transmission-Based Precautions and Outbreak Management	21
Transmission-Based Precautions (General)	21
Specific Transmission-Based Precautions	22
- Contact Precautions	22
 Droplet Precautions 	24
– Airborne Precautions	25
Outbreak Management	26
IV. Engaging Everyone in Infection Prevention and Control	28
Antibiotic Use and Resistance	29
OSHA Compliance	30
References	32

INTRODUCTION

In the United States alone, more than 15,000 long-term care (LTC) facilities serve more than 1 million residents. The residents and staff in LTC facilities have an increased risk of infection due to the unique challenges in the care setting and the resident population. Health care-associated infections account for as many as 380,000 deaths annually.¹ Additionally, infections increase health care costs and may result in hospitalization.² For these reasons, all staff in LTC facilities must work together to reduce infections and provide safe care for residents and a safe work environment for staff.

In 2013, the Association for Professionals in Infection Control and Epidemiology published a comprehensive book on infection prevention and control titled *Infection Preventionist's Guide to Long-Term Care.* The book provides information on specific practices and procedures in LTC facilities that improve infection prevention and promote resident safety.

A Unit Guide to Infection Prevention for Long-Term Care Staff is designed to provide LTC staff with basic knowledge about LTC facility infection prevention guidelines. The guide is meant to provide infection prevention information to frontline staff, and was developed using materials from the Infection Preventionist's Guide to Long-Term Care and other sources. The guide covers four key areas:

- An overview of infections and infection prevention in LTC facilities
- A review of standard precautions and infection prevention basics
- Ways to implement transmission-based precautions and outbreak management
- Ways to engage all team members in infection prevention and control

Each topic area includes a summary of key messages, background information, practice tips, and communication tips. The guide can be made available to staff by hard copy or digitally.

The practical and user-friendly approach to this content is intended to help frontline staff develop the skills, knowledge, and confidence to be active team members in LTC facility infection prevention efforts, and to engage residents and family members in infection prevention. The guide also can be used as a resource to promote teamwork and communication within a culture of safety.

Together, all LTC facility team members—residents, family, and staff—can improve quality and prevent infections!

AHRQ Safety Program for Long-Term Care: HAIs/CAUTI

I. INFECTIONS AND INFECTION PREVENTION IN LONG-TERM CARE

Infections in Long-Term Care



KEY MESSAGES

- The aging process affects multiple organs and systems, causing a decline in overall health and the ability to fight infection.
- People who live or work together, such as in an LTC facility, are more likely to share germs.
- Infections cause pain, injury, disability, and sometimes even death, and can be very expensive to treat.
- Residents and staff may be afraid of catching an infection when they stay or work in an LTC facility.
- Many infections can be prevented with basic infection prevention and control steps, such as hand hygiene and vaccination.

Aging and Infections

As residents age, they can become more vulnerable to infections due to changes in their bodies such as—

- Breaks in the skin
- Wounds
- Trouble chewing, swallowing, and drinking
- Difficulty moving
- Loss of bladder and bowel control
- Mental status changes/impairments
- Medical conditions such as lung disease and diabetes
- Inability to clean their hands or take a deep breath when asked

What is an HAI?

A healthcare-associated infection (HAI) is an infection that a resident can get when in an LTC facility, a hospital, or another place where people go for health care.

What is Colonization?

Sometimes residents have germs inside them but they don't get sick. When this happens, it's called colonization. If a resident is colonized, that resident could still spread the germs to other people.

Poor nutrition and hygiene, some medications, and intravenous fluids and catheters can make residents more vulnerable to infection.

5

SECTION I: INFECTIONS AND INFECTION PREVENTION IN LONG-TERM CARE: INFECTIONS IN LONG-TERM CARE A Unit Guide to Infection Prevention for Long-Term Care Staff



How Do Infections Occur?

Germs are tiny organisms that are capable of causing an infection once they enter the body. Germs include—

- Bacteria
- Viruses
- Molds
- Fungi

LTC Infection Types

The most common types of infection in LTC facilities involve the—

- Urinary tract
- Lungs
- Skin and soft tissue
- Gastrointestinal system

Germs are present on our skin and within our bodies. In addition, germs can be found in the air, on surfaces in the environment, and sometimes in food and water. They can enter a person's body through mucus membranes such as the nose, eyes, or mouth, as well as through breaks in the skin, or via a catheter.

Some examples of infections from bacteria include urinary tract infections, skin infections, and wound infections. Examples of infections from viruses include the common cold, influenza, some illnesses involving diarrhea, and some types of pneumonia. Fungi can cause skin and nail infections, as well as other types of infections, especially in people with weakened immune systems.

How Do Infections Spread?

Germs can be found on the hands or gloves of health care workers, on surfaces in the facility, and on medical equipment. If these are not properly cleaned and disinfected, the germs may spread to other people and the environment. In healthy individuals, the immune system fights off germs and prevents infection. Older people, due to the declining ability of their immune systems to resist germs, are more susceptible to infection and can become infected more easily.

Germs can also move from person to person. Residents, family members, visitors, and staff may unknowingly spread germs to others by—

- Coughing and sneezing germs into the air
- Touching other people or surfaces with hands that may be carrying germs
- Touching body fluids and secretions that may contain germs

D PRACTICE TIPS

- Look for signs and symptoms of infection.
- Ask the resident how he or she is feeling.
- As you work with a resident, you will become more familiar with what is and isn't normal for that resident.
- Promptly report any signs of an infection to the clinical supervisor.

))

COMMUNICATION TIPS

- If you see signs of an infection, discuss them with the resident.
- Tell the resident that you are seeking additional help from your clinical supervisor.
- Carefully document vital signs and all observations per facility policy, and report to your supervisor right away.
- Tell your charge nurse or supervisor about—
 - New signs or symptoms of infection
 - Changes in vital signs, such as
 - o Increased temperature
 - Changes in respiration or pulse rate
 - Changes in blood pressure (too high or too low)
 - Loose stools or diarrhea
 - Blood in the urine
 - Resident complaining of pain/burning when urinating, or increased frequency or incontinence

SIGN of Infection

A <u>sign</u> of infection is what you can observe (for example what you can see, hear, feel, or measure). Signs may include—

- Coughing
- Congestion
- Vomiting
- Diarrhea
- Pus
- Rash
- Redness
- Swelling
- Change in mental status

SYMPTOM of Infection

A <u>symptom</u> of infection is what the resident tells you he or she is experiencing. Symptoms include

- Nausea
- Pain
- Feeling feverish
- Burning when urinating

Infection Prevention and Control in Long-Term Care

KEY MESSAGES

- Break the chain of infection.
- Detect, diagnose, and treat infections quickly and effectively.
- Do not rush to use antibiotics.
- Carefully follow facility policies and procedures to prevent infections.

BASIC BACKGROUND

Every LTC facility has policies and procedures to prevent infection and keep residents safe. Infection prevention and control practices help residents avoid getting infections from health care workers, other residents, family members, and visitors. These practices can also help prevent health care workers from getting infections from residents. It's important that health care workers are familiar with these policies and procedures and follow them closely to reduce the risk of infection. Residents also can play an active role in maintaining their health and preventing infection.

O PRACTICE TIPS

Health care workers can reduce the risk of infection by-

- Cleaning hands with an alcohol-based hand rub or soap and water, also known as practicing hand hygiene
- Wearing gloves and other personal protective equipment per facility policy
- Keeping the environment clean and properly disinfecting surfaces and medical equipment
- Handling waste safely
- Avoiding touching your face
- Covering mouths and noses when sneezing or coughing
- Not coming to work when sick
- Staying up to date on all recommended vaccinations
- Practicing standard precautions for all residents

Help residents play a role in reducing risk of infection by encouraging them to-

- Clean hands before meals and after bathroom activities
- Cover their mouths and noses when sneezing or coughing
- Maintain personal hygiene, including oral care
- Take all recommended vaccines
- Eat healthy foods
- Drink an adequate amount of water and other liquids
- Get enough rest



COMMUNICATION TIPS

- Report to your clinical supervisor any visitor or coworker who doesn't appear healthy.
- Encourage residents to stay healthy by promoting hand hygiene, mouth and skin care, vaccinations, and good food choices.
- Encourage residents, family members, visitors, and staff to cover their mouths and noses when sneezing or coughing.

Multidrug-Resistant Organisms

?

KEY MESSAGES

- Multidrug-resistant organisms (MDROs)³ occur when bacteria adapt to and are no longer killed by an antibiotic.
- MDROs make it more difficult to treat an infection, can result in use of additional antibiotics, longer treatment times, and more financial costs, and may lead to hospitalization and even death.
- Contact isolation precautions may be used to prevent MDRO transmission to other residents and staff.
- Practicing good hand hygiene is the single most important thing to prevent MDROs from spreading.



BASIC BACKGROUND

Multidrug-resistant organisms are bacteria and other germs that have developed a resistance to antibiotics and certain other drugs. Examples of MDROs include—

- MRSA (methicillin-resistant Staphylococcus aureus)
- VRE (vancomycin-resistant Enterococcus)
- C. difficile (Clostridium difficile)
- ESBL (extended spectrum beta lactamase) bacteria
- CRE (carbapenem-resistant Enterobacteriaceae)

Many residents of LTC facilities are at risk of acquiring an MDRO because they are less healthy due to aging or chronic illness. Other risk factors include the use of intravenous catheters (IVs) or other catheters, treatment with multiple antibiotics, and long hospitalizations.

D PRACTICE TIPS

- Practice hand hygiene.
- Encourage residents to practice hand hygiene at mealtimes and after bathroom use.
- Keep residents' environments clean and sanitary.
- Cover all cuts and wounds with a dressing.
- Follow contact isolation precautions when in place.
- Encourage residents to complete the full round of antibiotic treatment.

())

- Thoroughly discuss with the clinical supervisor any contact isolation precautions in place to understand why contact isolation was needed and how to follow the precautions.
- Carefully explain the need for any contact isolation precautions to the resident and family.
- Promote hand hygiene for the resident, family members, and other staff.

II. STANDARD PRECAUTIONS: INFECTION PREVENTION BASICS

KEY MESSAGES

- Practice standard precautions for the care of all residents all the time.⁴
- Observe the standard precautions of not touching blood, body fluids, mucous membranes, cuts, wounds, or rashes with bare hands—and not letting these touch your skin, face, or clothes.
- Use personal protective equipment (PPE) when contact is possible with blood, body fluids, mucous membranes, or nonintact skin.
- Practice hand hygiene.
- Use safety needles and sharps.
- Practice respiratory etiquette by covering coughs in sleeves and wearing masks when recovering from coughs or colds.



Standard precautions are basic steps that every health care worker should take to prevent the spread of germs. Standard precautions include keeping hands clean, not touching the face, covering coughs in sleeves, and using safety needles and sharps.

PRACTICE TIPS

- Practice good hand hygiene.
- Make sure PPE (gloves, gowns, masks, and eye protection) are available at all times.
- Keep PPE supplies close to resident care locations.
- Use only safety engineered needles, including lancets for testing blood sugar and safety needles for insulin pens.
- Practice the motto "one needle/syringe, one resident, one time."
- Always cough into sleeves, and wear a mask when recovering from a cough or cold.



COMMUNICATION TIPS

- Remind coworkers to keep their hands clean and cover their coughs.
- Explain to residents that standard precautions are for everyone.
- Remind residents not to feel offended or afraid if staff use gloves, gowns, or eye
 protection when providing care.
- Explain to the resident, if needed, that the law requires the use of safety lancets and needles to prevent needle stick injuries.
- When practicing respiratory etiquette, explain that the mask is worn to prevent the spread of germs.
- Help residents practice hand hygiene. Offer residents time for hand hygiene after they use the toilet and before and after meals.

Specific Standard Precautions

Specific Standard Precaution: HAND HYGIENE

EXEX MESSAGES

- Practice hand hygiene when moving among residents and from soiled to clean spaces.
- Wash hands with soap and water for at least 20 seconds, or use an alcohol-based hand rub or alcohol hand wipe, covering all surfaces of the hands.

BASIC BACKGROUND

Hand hygiene refers to the practice of removing or killing germs on hands so that the germs do not spread to other people or to surfaces. Keeping your hands clean is the most important thing that can be done to prevent infections.

To practice hand hygiene, keep your hands clean by either washing with soap and water or using an alcohol-based hand sanitizer. Change gloves frequently, and perform hand hygiene each time gloves are changed as dirty gloves can spread germs, too. Also, do not wear the same pair of gloves for more than one resident.

O PRACTICE TIPS

Wash hands with soap and water for at least 20 seconds—

- Before handling food
- After using the toilet
- If hands are visibly soiled
- If hands have had contact with blood or body fluids
- Before and after assisting residents with toileting or perineal care
- Beware of rings as they can trap germs and get caught on clothing or equipment.
- If health care workers must wear a ring (a wedding ring, for example), leave the ring on the finger and wash/clean the ring along with the hands.
- Dry hands thoroughly with paper towels.
- Turn off the water faucet with paper towels.
- Don't touch dirty sink handles with clean hands.
- Hand sanitizer may be used in all other hand hygiene situations not mentioned above.
- Make sure medication and treatment carts are stocked with alcohol-based hand rub or alcohol hand wipes.
- Suggest setting up a routine system to monitor how and where staff are cleaning their hands.

5))

- Encourage everyone—residents, visitors, family members, and health care workers—to clean their hands before they eat and after they use the bathroom.
- Ask the supervisor to create an environment where it's OK and easy for people to ask, "Have you cleaned your hands?"
- Suggest that the facility post signs to encourage hand hygiene.

Specific Standard Precaution: ENVIRONMENTAL CLEANING AND DISINFECTION



KEY MESSAGES

- All staff have a role in keeping the facility and equipment clean and disinfected.
- The best cleaning products—
 - Clean and disinfect at the same time
 - Are safe on surfaces
- Hospital-approved cleaners and disinfectants are adequate for most situations in LTC facilities.
- All staff at the LTC facility should receive training before using any cleaning products.

BASIC BACKGROUND

Cleaning typically refers to physically removing soil and dirt. Disinfecting and sanitizing, however, is removing or killing the germs that can cause disease. Surfaces in a room or equipment can harbor these germs.

All surfaces and equipment must be routinely cleaned and disinfected, including between use on each resident, to prevent the spread of germs and diseases. This includes cleaning and disinfecting high-touch areas, including—

- Doorknobs
- Counters
- Medical carts
- Tables
- Bed rails
- Phones
- Call lights
- Personal care wipe packages

When cleaning, consider the contact time for the product. Contact time is the length of time a disinfectant needs to remain wet on a surface to be effective.



PRACTICE TIPS

- Wear gloves if the cleaning product requires them.
- Change gloves between rooms and when moving from a contaminated surface area to a clean one.
- Use the right product for the right surface.
- Make sure the product you are using stays wet on the surface for the time needed to kill germs.
- Do not flush wipes down the toilet.
- Do not mix chemicals as some combinations can release toxic gas.
- Keep chemicals locked up away from residents when not in use.

COMMUNICATION TIPS

- Ask the facility for training on how to use cleaning chemicals properly, and choose a surfaceappropriate product.
- Suggest that the facility purchase wipes that are premoistened with cleaner/disinfectant as these are easier to use.
- Ask your supervisor how to alert residents and family members to use alcohol-based hand wipes to help keep their own rooms clean.

Specific Standard Precaution: PERSONAL PROTECTIVE EQUIPMENT



KEY MESSAGES

- The PPE must prevent contact between skin, mucous membranes, and clothes from blood, body fluids, and other potentially infectious materials.
- All staff should wear PPE any time there is a chance of contact with blood and body fluids.
- All staff, family members, and visitors should wear PPE when isolation precautions are in place.



BASIC BACKGROUND

Personal protective equipment protects you from contact with blood, body fluids, and other potentially infectious materials that may contain germs that can cause infection. PPE is used to protect both staff and residents.

Examples of PPE include-

- Gloves
- Gowns
- Masks
- Goggles and other eye protection

The Occupational Safety and Health Administration (OSHA) requires that all health care facilities provide PPE for all staff who may come into contact with blood and body fluids in the course of their jobs.

0

PRACTICE TIPS

- Use a piece of personal protective equipment one time—then throw it away.
- Do not use the same PPE for the care of more than one resident.
- Once a mask touches the face, change it.
- Change gloves when they are soiled, and when moving from a contaminated to a clean area.
- Perform hand hygiene prior to wearing and after removing gloves.

())

- Remind team members to use PPE whenever they might come in contact with another person's blood or body fluids.
- Explain to residents that PPE is a standard precaution used to protect everyone.
- Ask for more PPE when supplies in the work area run low.
- Encourage staff to change the PPE if they touch a contaminated area, or if they move from a contaminated to a clean area, or from caring for one resident to another.

Specific Standard Precaution: RESIDENT PLACEMENT



KEY MESSAGES

- Good communication among all staff is critical so that everyone knows how to best care for residents' individual needs, including their placement.
- Private rooms are the best way to prevent the spread of germs and infections.
- When private rooms are not available—
 - Residents infected or colonized with the same germ can be placed together.
 - If that is not possible, place infected residents with low-risk residents.

BASIC BACKGROUND

When a resident is colonized or infected with germs that may be spread to other residents, it may be necessary to move the resident or his/her roommate to another room in order to reduce the chance of spreading the germs to the roommate. The goal in LTC facilities should be to place residents in rooms with the lowest risk of infection-spreading germs. Private rooms are the best way to do this. If there are no private rooms, the next best option is to cohort residents, i.e., group residents together if they have the same germ. When cohorting is not possible, place infected residents with residents who are at low risk. Both the resident and the resident's care team and family should be involved in resident moves.

O PRACTICE TIPS

- Consider how long residents have been roommates before deciding to move a resident with an infection or colonization. If they have been together for a long time, changing rooms may not be necessary as the roommate may already be colonized.
- Treat all resident secretions and excretions as potentially infectious.
- Have the infectious resident shower last when using a common shower room, and always disinfect the shower room after use.
- A resident with an MDRO should not be moved to a room with a resident who is dependent on staff for activities of daily living.
- A resident with an MDRO should not be moved into a room with a resident who has a urinary catheter, an IV catheter, or an open wound.

- Explain to the resident why he or she is being moved into isolation.
- Communicate the reason for resident placement in a different room or location.
- Ensure that the plan of care is documented on the daily assignment sheet and that all staff are aware of the care plan.

Specific Standard Precaution: RESPIRATORY HYGIENE AND ETIQUETTE

KEY MESSAGES

- Everyone needs to watch for and report respiratory illness.
- Vaccinations are an important tool for preventing respiratory illnesses such as influenza and pneumococcal pneumonia.
- Staff should stay home if they are sick.
- Staff should go home if they develop respiratory symptoms while working.
- A virus can cause a cold for a staff member but may develop into a serious illness for an older adult.
- Visitors, families, and staff can be a source of respiratory illness outbreaks.
- Cover coughs, and wear a mask if recovering from an illness.
- Educate residents and visitors to cover their mouths and noses with a tissue (or if not available, upper sleeve) when coughing or sneezing.
- Residents should stay in their rooms if they develop a new cough with fever or other symptoms of a respiratory infection.

BASIC BACKGROUND

Respiratory illnesses, including pneumonia, are a major cause of outbreaks in LTC facilities. While a virus can cause a cold for a staff member, it can develop into a serious illness for an older adult. Respiratory illnesses often result in hospital stays—and sometimes even death.

DPRACTICE TIPS

- Pay attention to coughing and sneezing residents, family members, visitors, and staff.
- Always cover your mouth and nose with your sleeve or a tissue when coughing or sneezing and then perform hand hygiene.
- Make sure infected residents wear a mask whenever they leave their rooms.

- Contact the supervisor about coughing and sneezing by family members, visitors, or staff.
- Ask the facility to post signs urging the use of hand hygiene and masks, and place masks and hand sanitizer at entrances, during community outbreaks and flu season.
- Posted signs can also help educate residents and visitors about covering coughs and sneezes.
- Suggest that the facility send letters to family members explaining why visiting when they are sick puts residents at risk.

Specific Standard Precaution: SAFE INJECTION PRACTICES



KEY MESSAGES

- All sharps (needles/lancets/syringes) used for injections or obtaining blood must be designed to reduce the risk of needle sticks. This can be done with needle guards and automatic retraction devices, or with safety engineered sharps, such as nonremovable needles and syringes with fixed doses.
- While residents may have their own equipment for their own personal use, health care workers cannot use residents' equipment.

BASIC BACKGROUND

Unsafe injection practices can lead to infections and even disease outbreaks. <u>The</u> <u>following are unsafe practices and should never be done:</u>

- Reusing single-use syringes and needles
- Using contaminated multiuse vials and IV solutions
- Improperly cleaning and disinfecting multiple-use equipment
- Failing to follow basic safe injection practices

OSHA requires that all sharps used by staff be safety engineered.

PRACTICE TIPS

- Use proper technique to avoid contaminating sterile syringes and other sharps.
- Practice "one resident, one needle, one time."
- Do not share finger stick devices.
- Do not share insulin pens between residents.
- Whenever possible, do not share blood glucose meters.
- If a blood glucose meter is used for multiple residents, make sure to clean and disinfect the device after every use.
- Promptly dispose of used syringes and other sharps.
- Have sharps containers available at the point of care.
- Talk to your supervisor if you are unsure if a device is safety engineered or correct for use.



COMMUNICATION TIPS

- Ask for training on the difference between safety-engineered devices and nonsafety sharps.
- Ask for training on how to engage the safety device before using a sharp.
- Explain to residents and family members that staff must use only sharps provided by the facility.

Specific Standard Precaution: SOILED LINEN



KEY MESSAGES

- Treat all soiled linen as potentially infectious.
- Linen must be processed in a way that not only kills germs but also does not spread germs from dirty to clean linens.
- Heat and chemical disinfection are two methods used to kill germs in laundry.
- Use one color of bag for soiled linen and a different-colored bag for trash.
- Don't put linens in red biohazard bags unless they are soaked with blood and are being discarded in a biohazard bin.



BASIC BACKGROUND

Soiled or improperly cleaned or disinfected linens can spread germs. As a result, it's critical that they be regularly cleaned.



PRACTICE TIPS

- Make sure that there are enough linen bags close to points of care.
- Keep clean linen separate from soiled linen.
- Transport all clean linen in covered clean carts.
- Hold soiled linen away from your clothing when you are changing and carrying linens.
- Minimize handling and agitation of soiled linen (e.g., consider wrapping soiled linen in a ball at the point of collection) and place in a proper soiled-linen bag at the point of care.
- Make sure the soiled linen is properly handled from the point of collection to the laundry.

COMMUNICATION TIPS

 Ask your supervisor for training on how to properly change and handle dirty or contaminated linen.

III. TRANSMISSION-BASED PRECAUTIONS AND OUTBREAK MANAGEMENT

Transmission-Based Precautions (General)

KEY MESSAGES

There are three mechanisms of infection transmission:

- Contact
 - Indirect
 - Direct
- Droplet
 - Large respiratory particles that travel short distances (up to 6 feet)
- Airborne
 - · Small respiratory particles that stay suspended in the air
- Contact, droplet, and airborne precautions are used in addition to standard precautions.
- Adopt a person-centered approach to practicing transmission-based precautions: "Only when necessary for only as long as necessary."



Transmission-based precautions are special safeguards, such as isolating residents, that should be used when residents have infections caused by germs that are resistant to antibiotics or may cause outbreaks at the LTC facility.

The Centers for Disease Control and Prevention has specific directions about what types of isolation are to be used for specific germs^{3,4}. LTC facilities should also check their State's regulations to see if the State health department has any additional requirements.



PRACTICE TIPS

- Use transmission-based precautions if unsure what is causing an infection, until the germ is identified.
- Use transmission-based precautions, and discontinue when no longer needed, based on evidence-based best practices and facility policy.
- Do not over-isolate residents.
- Consider transmission-based precautions on a case-by-case basis as an indicator to "gown and glove up" when providing direct personal care. For example—
 - If the resident cannot maintain clean hands, clean clothes, and clean equipment
 - If the resident is colonized with a germ that is highly resistant
 - If the resident is new to the LTC facility
- Consider the type of germ and other factors (for example, if there are no longer signs or symptoms of an infection, antibiotic therapy is completed, and wound is healed) before shifting to standard precautions.



COMMUNICATION TIPS

- Provide the resident and family with information about the organism causing the infection.
- Explain to the resident and family why the resident is being put into isolation.
- Talk to the lab or clinical supervisor about questions concerning culture results.

Specific Transmission-Based Precautions

Specific Transmission-Based Precaution: CONTACT PRECAUTIONS

🥝 к

- KEY MESSAGES
- Use contact precautions to prevent the spread of germs by direct or indirect contact with residents or their environments.
- Contact precautions are special safeguards that must be put in place when dealing with residents who are infected with certain germs.
- Adopt a person-centered approach: "Only when necessary for only as long as necessary."



BASIC BACKGROUND

Contact precautions, such as wearing gloves and a gown, are special safeguards that staff must put in place when dealing with residents who are infected with germs that are easy to transmit through equipment or by touching other residents or staff. These germs include—

- MRSA (methicillin-resistant Staphylococcus aureus)
- VRE (vancomycin-resistant Enterococcus)
- C. difficile (Clostridium difficile)
- ESBL (extended spectrum beta lactamase) bacteria
- CRE (carbapenem-resistant *Enterobacteriaceae*)

O PRACTICE TIPS

- Always clean hands before entering residents' rooms and after leaving the rooms.
- Wear gloves and a gown when entering residents' rooms and remove them when leaving the rooms.
- Make sure any shared equipment is cleaned and disinfected before and after use.
- Make sure that wounds are covered.
- Contain any urine, stool, or wound drainage.
- For residents who are on contact precautions, consider their taking part in social activities as long as they do not have open wounds or diarrhea, have contained drainage, and are able to keep their hands, clothes, and equipment clean.³



COMMUNICATION TIPS

- Teach the resident and visitors about the type of germ that is causing the infection and the reasons these precautions are required.
- Make sure the reason for the contact precautions is documented on the care plan and assignment sheets and shared with all staff.
- Collaborate with the lab, prescribers, and public health officials when there are increased infections with the same germ and additional guidance is needed.

SECTION III: TRANSMISSION-BASED PRECAUTIONS AND OUTBREAK MANAGEMENT: SPECIFIC TRANSMISSION-BASED PRECAUTIONS: CONTACT PRECAUTIONS A Unit Guide to Infection Prevention for Long-Term Care Staff

Specific Transmission-Based Precaution: DROPLET PRECAUTIONS

2

KEY MESSAGES

- Droplet precautions are used against influenza (also known as the flu).
- Wear a mask in addition to using standard precautions.
- Residents on droplet precautions should stay in their rooms.
- If a resident on droplet precautions has to leave his or her room, the resident must wear a mask.
- Consider using both droplet and contact precautions if the respiratory virus causing the illness is unknown or if the resident has nausea, vomiting, or diarrhea.

BASIC BACKGROUND

Droplet precautions are special safeguards put in place when germs are spread by sneezing, coughing, or sometimes even talking. Examples of diseases that spread via large droplets include—

- Some bacterial infections (such as Streptococcus infection)
- Some viral infections (such as influenza)

It is important to use droplet precautions to stop the spread of these diseases to other residents and staff.

0

PRACTICE TIPS

- Wash hands for at least 20 seconds with either soap and water or use an alcohol-based hand rub before entering and after leaving residents' rooms.
- Wear a mask.



COMMUNICATION TIPS

- Explain to the resident and the family why the resident is on droplet precautions and must stay in the room.
- Talk with the resident about options for in-room therapy and other activities.
- Make sure the reason for the droplet precautions is documented on the care plan and assignment sheets and communicated to all staff.

SECTION III: TRANSMISSION-BASED PRECAUTIONS AND OUTBREAK MANAGEMENT: SPECIFIC TRANSMISSION-BASED PRECAUTIONS: DROPLET PRECAUTIONS A Unit Guide to Infection Prevention for Long-Term Care Staff

Specific Transmission-Based Precaution: AIRBORNE PRECAUTIONS

()

KEY MESSAGES

- Airborne precautions are used for diseases such as tuberculosis and chicken pox.
- Airborne precautions are rarely used in LTC facilities.
- An LTC facility must have negative pressure rooms and a respiratory fit-test program in order to safely maintain airborne precautions.

BASIC BACKGROUND

Airborne precautions are safeguards, including special isolation rooms and fit-test respirators that help protect residents and staff from airborne germs. If an airborne infection isolation room is not available at the LTC facility, the patient should be promptly placed in a private room and asked to wear a mask while awaiting transfer.⁴

Airborne precautions are put in place when an infectious organism floats in the air and can be spread through the air. Diseases that are spread through the air include—

- Tuberculosis
- Measles
- Chicken pox
- Disseminated shingles

0

PRACTICE TIPS

- Enter the room only when absolutely necessary.
- Wash hands for at least 20 seconds with soap and water or use an alcohol-based hand rub before entering and after leaving the room.
- Wear respiratory protection (such as an N95 respirator), or if not available, a surgical mask, according to facility policy.
- Keep the resident in the room, with the door closed, when waiting to transfer the resident from the LTC facility to a hospital or other facility that can maintain airborne precautions.
- Instruct the resident to cover his or her mouth and nose with a tissue when coughing, and to place the soiled tissues into the regular trash can.
- Make sure the resident wears a surgical mask while awaiting transfer and during transfer.
- Create a list of all staff, residents, family members, and visitors who have had close contact with the infected resident.

25



COMMUNICATION TIPS

- Explain to the resident and family why the resident is in airborne isolation and needs to be transferred.
- Make sure the reason for the transfer is documented on the care plan and assignment sheets.

Outbreak Management

2

KEY MESSAGES

- Quick identification of clusters of infections is critical.
- Keep the environment and equipment clean and disinfected.
- Make sure there are disinfectants at the point of care.

BASIC BACKGROUND

An outbreak occurs when there are more cases of an infectious disease in a designated population than usually occur at a given time. LTC facilities are especially vulnerable to outbreaks because residents are generally older and many are in frail health.

The two most common types of outbreaks in LTC facilities are-

- Respiratory infections
- Gastrointestinal diseases

A single case of influenza or an illness that causes nausea, vomiting, and diarrhea (such as norovirus) can quickly escalate into an outbreak.

Contaminated hands, gloves, and medical equipment can spread disease across surfaces. Residents, such as those with dementia who wander and may have unhygienic hands or clothes, can also spread disease.



PRACTICE TIPS

- Consider implementing both droplet and contact precautions if the facility does not know the cause of a cluster of similar illnesses.
- Report any new respiratory or gastrointestinal symptoms, especially if a fever develops.
- Work with the clinical supervisor to identify similar symptoms among those who are sick.
- Staff should stay home, or go home, if they have a respiratory illness or nausea, vomiting, or diarrhea.



- Remind coworkers, residents, and family members to report any new respiratory symptoms.
- Remind coworkers, residents, and family members to immediately report any symptoms of nausea, vomiting, or diarrhea.

IV. ENGAGING EVERYONE IN INFECTION PREVENTION AND CONTROL

B KEY MESSAGES

- Good infection prevention practices, including hand hygiene, respiratory hygiene, safe injection practices, and appropriate antibiotic use, contribute to a safe facility for residents and a safe workplace for staff.
- Everybody who works in the facility needs to work together to practice infection prevention to prevent harm and increase resident safety.
- Residents and family members play a role in increasing resident safety by practicing infection prevention themselves, and in supporting the health care team in prevention practices.

BASIC BACKGROUND

Everyone in an LTC facility has a role to play in infection prevention and control— including health care workers, residents, and their families. A team of staff must work together to improve resident safety outcomes and improve resident, family, and staff satisfaction.

Good teamwork and good communication are crucial to preventing infection and building a culture of safety. Staff members should feel comfortable reporting safety concerns without fear of discipline. Harm to residents from infections can increase if staff members are reluctant to report lapses in infection prevention practices. Good teams and a culture of safety can reduce the chance of clinical errors, reduce staff turnover, and reduce concerns by residents and their families.

- Ensure all team members, including the resident and family, have a clear understanding of the resident's goals.
- Encourage coworkers to raise questions and concerns in a nonhostile manner and without fear of retribution.
- Provide helpful feedback to other staff.



COMMUNICATION TIPS

- Ask your supervisor how to help make resident care safer.
- Share ideas with your supervisor for making resident care safer.
- Seek feedback from the resident and family members about any potential safety concerns or problems.

Antibiotic Use and Resistance

KEY MESSAGES

- Antibiotics are medications that can save lives when used appropriately.
- Used incorrectly, antibiotics can lead to antibiotic-resistant infections.
- Residents should take all medications, including antibiotics, exactly as they are prescribed.



BASIC BACKGROUND

When they are necessary, antibiotics can be lifesavers.⁵ But not every illness calls for antibiotics. Inappropriate use of antibiotics can cause health problems for the resident, including—

- Nausea
- Diarrhea
- Allergic reactions
- Antibiotic-related infection (C. difficile)

Inappropriate use and overuse of antibiotics can also lead to antibiotic-resistant organisms, which can threaten not only the resident but the entire community.

An antibiotic stewardship program is a coordinated program that promotes the appropriate use of antibiotics. It can help to achieve optimal outcomes, reduce side effects, save money, and prevent the emergence of drug-resistant bacteria. AHRQ Safety Program for Long-Term Care: HAIs/CAUTI



- Learn about the appropriate use of antibiotics.
- Antibiotics are not helpful when—
 - Used to treat an infection that is caused by a virus (such as a cold or the flu)
 - Used for a medical problem that is not an infection
 - No signs or symptoms of a urinary tract infection are present but bacteria are found in the urine

COMMUNICATION TIPS

- Be alert for the side effects of antibiotics and inform the supervisor if they appear.
- Share any concerns about the antibiotic with the supervisor.

OSHA Compliance



- OSHA was created to ensure a safe and healthy work environment.
- The facility is required to have safeguards in place to prevent health care workers from being hurt or injured on the job, including from infections and infectious diseases.
- It is important that health care workers comply with all safeguards and work practices to reduce the risk of infection on the job.

Survey Readiness

- Health care workers strive daily to provide the best care to residents.
- Regulatory agencies, such as State departments of health, survey LTC facilities to ensure that the highest level of care is being provided.
- Survey teams monitor compliance with Federal and State health care regulations.
- Facility policies and procedures based on State and Federal regulations and evidence-based practices will support survey readiness.
- Surveys are generally not scheduled in advance, so it's important to always be prepared.
- Every facility has a quality assurance performance improvement plan in place to proactively improve the care of all residents and to support survey readiness.



BASIC BACKGROUND

Most LTC facilities have a plan in place to address the OSHA-required bloodborne pathogen standard.⁶ This plan sets out work practices that must be followed. These work practices include—

- Offering the hepatitis B vaccine to any staff member who has the potential to be exposed at work to blood and bodily fluids
- Making personal protective equipment available at all times
- Using safety-engineered devices for administering injections
- Training staff on hand hygiene
- Stating that infectious waste must be placed in a biohazard bag
- Stating that all sharps, including needles and razors, must be placed into sharp containers

0

PRACTICE TIPS

- Become familiar with the different work practices to prevent infection in the LTC facility.
- Promote safety and prevent infection and tell your supervisor right away about any hazards or unsafe work practices (such as unsafe equipment, inadequate safety equipment, or a lack of information about a work practice or piece of equipment).
- Staff should take extra care if they are stressed or tired as they could be putting themselves at greater risk for an occupational injury leading to infection.
- \bigcirc

- Explain to the resident why a task is performed in a certain way to prevent infection.
- Tell your supervisor right away if you are stuck with a sharp or otherwise injured at work; if not
 promptly addressed, it may lead to an infection.
- Ask your employer to provide staff with information about potential hazards in the workplace to keep everybody safe.

REFERENCES

- U.S. Department of Health and Human Services. National Action Plan To Prevent Healthcare-Associated Infections: Road Map to Elimination. Chapter 8, Long-Term Care Facilities. April 2013. <u>http://health.gov/hcq/pdfs/hai-action-plan-ltcf.pdf</u>. Accessed September 23, 2015.
- Wagner LM, Roup BJ, Castle NG. Impact of infection preventionists on Centers for Medicare and Medicaid quality measures in Maryland nursing homes. Am J Infect Control. 2014 Jan;42(1):2-6. PMID: 24388467.
- Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. Management of Multidrug-Resistant Organisms in Healthcare Settings, 2006. Centers for Disease Control and Prevention. http://www.cdc.gov/hicpac/pdf/guidelines/MDROGuideline2006.pdf. Accessed May 5, 2016.
- Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Centers for Disease Control and Prevention. <u>http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf</u>. Accessed May 5, 2016.
- 5. Get Smart: Know When Antibiotics Work. Centers for Disease Control and Prevention. http://www.cdc.gov/getsmart/community/index.html. Accessed November 19, 2015.
- Bloodborne Pathogens. Occupational Safety and Health Administration. <u>https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051</u>. Accessed November 19, 2015.

REFERENCES

A Unit Guide to Infection Prevention for Long-Term Care Staff

