

INFECTION PREVENTION AND CONTROL REFERENCE TOOL



FOR HEALTH CARE PROVIDERS
IN THE COMMUNITY

Public
Health
Ontario

PARTNERS FOR HEALTH

Santé
publique
Ontario

PARTENAIRES POUR LA SANTÉ

TABLE OF CONTENTS

Introduction	1
Glossary of Terms	2
How Infections Spread	4
Risk Assessment	5
Routine Practices	6
Hand Hygiene.....	8
Using PPE Properly.....	11
Contact Precautions	14
Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA).....	15
Vancomycin Resistant Enterococci (VRE).....	16
<i>Clostridium difficile</i>	17
Scabies.....	18
Droplet + Contact Precautions	19
Influenza	20
Common Cold.....	21
Airborne Precautions	22
Chickenpox.....	23
Tuberculosis	24
Emerging Issue – Bedbugs	25
Principles of Cleaning	26
Handling Equipment	27
Useful Links	28

INTRODUCTION

Health care providers in the community need to know the following facts when it comes to preventing and controlling the spread of infections.

- **Your clients are at risk for infections.** Clients who have chronic diseases like diabetes or heart disease and those with illnesses that compromise their immune systems are at high risk for all kinds of infections. Clients who have urinary catheters or other lines entering their bodies are also at high risk for infections.
- **You can spread microorganisms from client to client that could cause infections.** If you don't clean your hands, or don't clean and disinfect the equipment you use for multiple clients, microorganisms can easily spread.
- **It is not difficult to prevent the spread of infections.** Key concepts in prevention include cleaning your hands, wearing personal protective equipment when appropriate and cleaning and disinfecting equipment properly.

The **Infection Prevention and Control Reference Tool** was created to provide you with information about the measures you can take in your work with clients to prevent and control the spread of infections.

We gratefully acknowledge input from our collaborators, the Community Care agencies in the Waterloo Wellington area and the Waterloo Wellington Infection Control Network

Content Validation:

Dr. Martha Fulford, Medical Coordinator
Waterloo Wellington Infection Control Network

Graphic Design:

Diesel Design Associates, Stratford, Ontario

GLOSSARY OF TERMS

Additional Precautions: Specific precautions (Contact, Droplet, and Airborne), which are carried out for specific organisms or clinical presentations, in addition to Routine Practices. Additional Precautions may include the physical separation from other individuals and/or the use of personal protective equipment (gown, gloves, mask/ N95 respirator, eye protection) to prevent or limit the transmission of potentially infectious agent(s) from colonized or infected individuals to others.

Airborne Precautions: A type of Additional Precautions (negative pressure room with door closed and possibly use of a fit-tested N95 respirator) used to prevent or limit the transmission of potentially infectious agents through airborne droplet nuclei or small particles that may be dispersed over long distances by air currents. Negative pressure rooms are not used in community and home health care settings.

Client: Any person receiving health care within a health care or home care setting.

Colonization: The presence and growth of a microorganism in or on a body but without tissue invasion or cellular injury. The client will be asymptomatic.

Contact Precautions: A type of Additional Precautions (gloves and gown) used to prevent or limit the transmission of potentially infectious agents via contact with an infected/colonized person, contaminated objects, or equipment.

Contamination: The presence of a potentially infectious agent on a body surface, clothes, gowns, gloves, bedding, toys, surgical instruments, dressings, or other inanimate objects (bedrails, bedside tables, bedpans, walkers, commodes, slings, mechanical lifts).

Direct Care: Providing hands-on care (e.g., bathing, washing, turning clients, changing clothes, continence care, dressing changes, care of open wounds/lesions, toileting).

Disseminated: Scattered or distributed over a considerable area throughout an organ or the body.

Droplet Precautions: A type of Additional Precautions (mask and eye protection) used to prevent or limit the transmission of potentially infectious agents through respiratory secretions by contact with the mucous membranes of the eye, nose, and mouth when providing care within two metres of the client.

Environment of the Client: The immediate space around a client that may be touched by the client and may also be touched by the health care provider when providing care.

GLOSSARY OF TERMS

Hand Hygiene: A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using an alcohol-based hand rub or soap and running water.

Health Care-associated Infection (HAI): A term relating to an infection that is acquired during the delivery of health care (also known as “nosocomial infection”).

Health Care Provider: Any person conducting activities within a health care or home care setting that will bring him/her into contact with clients or their environment, not limited to but including emergency medical services, physicians, nurses, allied health professionals, students, support services, housekeeping, maintenance, volunteers, contract workers.

Immunocompromised: The state of a person who has a deficiency in the body’s normal defense mechanism that makes him/her more susceptible to infections.

Infection: The entry and multiplication of an infectious agent in the tissues of the host. Asymptomatic or subclinical infection is an infectious process running a course similar to that of clinical disease but below the threshold of clinical symptoms. Symptomatic or clinical infection is one resulting in clinical signs and symptoms (disease).

Infection Prevention and Control (IPAC): Evidence-based practices and procedures that when applied consistently in the performance of health care activities, can prevent or reduce the risk of transmission of microorganisms to health care providers, other clients, and visitors.

Personal Protective Equipment (PPE): Clothing or equipment worn by health care providers for protection against hazards (gown, gloves, mask/N95 respirator, face/eye protection).

Risk Assessment: An evaluation by the health care provider of the client, their environment, type of contact and the task or procedure to be performed in order to identify hazards and risks associated with exposure to potentially harmful infectious diseases, blood, body fluids, respiratory secretions, excretions, non-intact skin, mucous membranes, body tissues, and contaminated equipment.

Routine Practices: The system of infection prevention and control practices recommended by the Provincial Infectious Diseases Advisory Committee (PIDAC) as well as the Public Health Agency of Canada (PHAC) to be used by all health care providers with all clients during all care to prevent and control transmission of microorganisms.

HOW INFECTIONS SPREAD

The **Chain of Transmission** is the model used to describe how infections move from one person to another. It is a key concept in infection prevention and control. To stop an infection from spreading, you simply have to break one link in the chain.

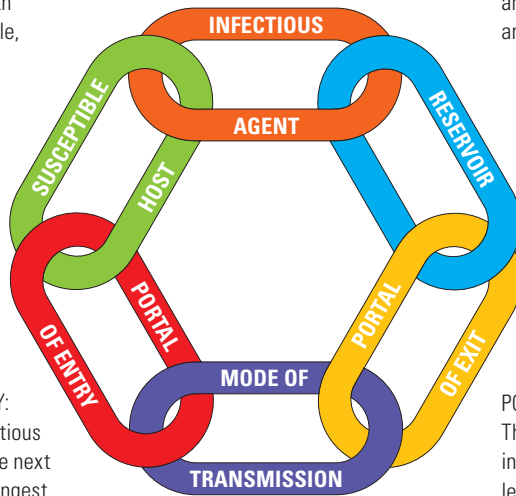
SUSCEPTIBLE HOST:

Any person who is at risk of getting an infection from the infectious agent. Age, chronic health conditions, lifestyle, immune status, and genetics all contribute to an individual's risk of infection.

INFECTIOUS AGENT: A microorganism that is capable of producing an infection. Examples of infectious agents include bacteria, viruses, parasites and fungi.

RESERVOIR:

Any place where an infectious agent lives. Microorganisms can live in or on people, animals, insects, soil, and water.



PORTAL OF ENTRY:

The way the infectious agent gets into the next host. A host may ingest the infectious agent; the infectious agent might get into a wound. The host may breathe it in or it could be splashed or sprayed into the mucous membranes on the host's face.

MODE OF TRANSMISSION:

The way the infectious agent travels from one person to another. Most commonly, infections spread by direct or indirect **Contact**. Some infections can spread through the **Droplet** route and a few infections spread by the **Airborne** route. See glossary for further information.

PORTAL OF EXIT:

The way the infectious agent leaves the reservoir. The nose and mouth are examples of human portals of exit from where secretions can leave the body.

RISK ASSESSMENT

Risk Assessment and Routine Practices

to be used for ALL clients,
by ALL health care providers,
at ALL times

The key to implementing **Routine Practices** is the assessment of risk before each client interaction, taking into consideration events, circumstances and practices to determine which exposure controls are required.

Ask the following during your risk assessment.

- Does the client appear to be feeling unwell?
- Has the client been diagnosed with an infection?
- Does the client have any symptoms of an infection (coughing, sneezing, fever, diarrhea, vomiting, rash, draining wound, general malaise, confusion, redness, swelling or pain in a specific body area)?
- What contact am I going to have with the client?
- What task am I going to perform?
- What is my risk of exposure to blood, body fluids, respiratory secretions, excretions, non-intact skin, mucous membranes, body tissues, and contaminated equipment?
- Will the client be cooperative while I perform the task?

On completion of the risk assessment, use all appropriate strategies of **Routine Practices** listed on the following pages to reduce transmission of microorganisms.

For further information refer to the document *Routine Practices and Additional Precautions in All Health Care Settings* at www.oahpp.ca

ROUTINE PRACTICES



HAND HYGIENE

Hand hygiene is performed using alcohol-based hand rub or soap and water.

- on entry to and on exit from the client's home.
- before providing direct care to the client.
- before putting on gloves for clean/aseptic or invasive procedures.
- immediately after removing gloves.
- after providing care involving body fluids, secretions, excretions or blood.
- before preparing, handling or serving food.
- after contact with items in the client's environment.



GLOVES*

- are worn when there is a risk of contact with blood, body fluids, secretions, excretions, non-intact skin, mucous membranes, or contaminated surfaces or objects.
- are **not** a substitute for hand hygiene.
- **perform hand hygiene after removing gloves.**



MASK, EYE PROTECTION, OR FACE SHIELDS*

- protect eyes, nose, and mouth during procedures and care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
- must be worn within two metres of a coughing client.

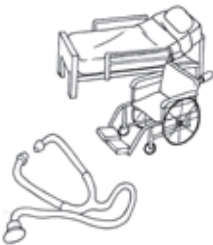
** risk assessment required*

ROUTINE PRACTICES



GOWNS*

- should be worn if contamination of uniform or clothing is anticipated.



ENVIRONMENT

- All equipment that is being used to care for more than one client must be cleaned between each use.
- Ensure any surfaces used to provide health care to a client are clean before and after the care is given.



LINEN AND WASTE

- Handle soiled linen and waste carefully to prevent personal contamination and transfer of germs to other clients.



SHARPS INJURY PREVENTION

- Use the appropriate safety-engineered needle system.
- Always dispose of medical sharps in the appropriate sharps disposal container.

** risk assessment required*

4 MOMENTS FOR HAND HYGIENE

BEFORE initial resident / resident environment contact

1

2 BEFORE aseptic procedure

3 AFTER body fluid exposure risk

AFTER resident / resident environment contact

4



1

BEFORE Initial Client / Client Environment Contact

WHEN? Clean your hands when entering:

- before touching client or
- before touching any object or furniture in the client's environment

WHY? To protect the client or client environment from harmful germs carried on your hands.

2

BEFORE Aseptic Procedures

WHEN? Clean your hands immediately before any aseptic procedure.

WHY? To protect the client against harmful germs, including the client's own germs, entering his or her body.

3

AFTER Body Fluid Exposure Risk

WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal).

WHY? To protect yourself and the client environment from germs.

4

AFTER Client / Client Environment Contact

WHEN? Clean your hands after touching client or any object or furniture in the client's environment and after leaving the client's home.

WHY? To protect yourself and the client environment from harmful germs.

HAND HYGIENE

Hand hygiene may be done using alcohol-based hand rub (ABHR) or soap and running water. To be effective, the alcohol content of ABHR used by health care providers should be at least 70%.

How to handrub *(only if hands are not visibly soiled)*

1. Apply 1 to 2 pumps of product into palms of dry hands.
2. Rub hands together, palm to palm.
3. Rub in between and around fingers.
4. Rub back of each hand with palm of other hand.
5. Rub finger tips of each hand in opposite palm.
6. Rub each thumb clasped in opposite palm.
7. Rub hands until product is dry.
Do not use paper towels.
8. Once dry, your hands are safe.



©iStockphoto.com/Janine Lamontagne

How to handwash

1. Wet hands with warm water.
2. Apply soap.
3. Lather soap and rub hands palm to palm.
4. Rub in between and around fingers.
5. Rub back of each hand with palm of other hand.
6. Rub fingertips of each hand in opposite palm.
7. Rub each thumb clasped in opposite hand.
8. Rinse thoroughly under running water.
9. Pat hands dry with paper towel.
10. Turn off water using paper towel.
11. Your hands are now safe.



©iStockphoto.com/Robert Gubbins

Health care providers in the community should carry ABHR to use in case adequate hand washing facilities are not available.

When soil is visible on hands, wash with soap and water. If soap and water are not available, clean soil off with a moist towelette and follow with application of ABHR.

USING PPE PROPERLY

Personal protective equipment (PPE) is meant to protect health care providers from becoming contaminated. Improper use of PPE can actually lead to the spread of germs and increased risk of infection for you and your clients. Follow the guidelines below for proper use of PPE.

GLOVES

- gloves are not required for routine care activities that involve contact with intact skin.
- gloves are not a substitute for hand hygiene. Clean your hands **every** time you remove gloves.
- gloves are single use. Do not wash gloves and do not re-use them. Dispose of them in the garbage after one use.
- put on a new pair of gloves when your risk assessment of the task you will be performing requires gloves to be used. Remove gloves as soon as the task is complete and clean your hands. If there is another task that requires glove use then a new pair of gloves should be put on rather than moving from one body site to another with the same pair of gloves.
- gloves must fit hands well. Sandwich-making style gloves are not appropriate.

GOWN

- put on immediately before starting the task you need to perform if you think your clothes could become soiled.
- remove gown as soon as the task is finished, dispose of it and clean your hands.

FACE PROTECTION (Mask and Eye Protection)

- put on immediately before starting the task you need to perform if you think your face could be splashed or sprayed.
- remove as soon as the task is finished, dispose of the mask and clean your hands.
- eye protection may be disposed of or cleaned and disinfected as per manufacturer's instructions.

As much as possible, your employer will make every effort to inform you when the use of Additional Precautions is required to care for a client. The employer should also provide you with information about how to use these precautions correctly.

PUTTING ON PPE

1. Perform hand hygiene.



or



2. Put on gown.



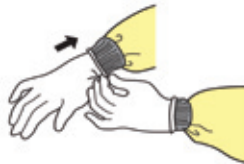
3. Put on procedure mask or N95 respirator (if required).



4. Put on eye protection or face shield (if required).



5. Put on gloves.



- Helpful Hints:**
- Keep gloved hands away from face.
 - Remove gloves if they become torn.
 - Perform hand hygiene before donning new gloves.
 - Avoid touching/adjusting PPE.
 - Limit surfaces and items touched.

TAKING OFF PPE

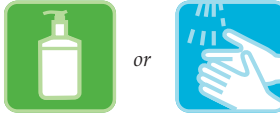
1. Remove gloves.



2. Remove gown.



3. Perform hand hygiene.



or

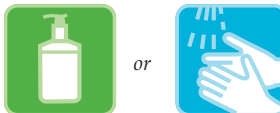
4. Remove eye protection or face shield (if required).



5. Remove mask or N95 respirator.



6. Perform hand hygiene.



or

CONTACT PRECAUTIONS

Contact Precautions are used in addition to Routine Practices for microorganisms where contamination of the environment or intact skin is a particular consideration, such as:

- contamination of the client environment.
- infectious agents of very low infective dose (e.g. Norovirus, rotavirus).
- clients infected or colonized with antibiotic resistant organisms that may be transmitted by contact with intact skin or with contaminated environmental surfaces.

There are two kinds of contact transmission.

DIRECT contact transmission occurs when microorganisms move from one person to another directly, usually on hands.

INDIRECT contact transmission involves the movement of microorganisms from a person to an object or surface and then to another person. Contact Precautions are used by health care providers to stop the spread of microorganisms that travel by the contact route (e.g. MRSA, VRE, *C. difficile*, and scabies).

Adding **Contact Precautions to Routine Practices** includes:

- Gloves and gown used if contact with a client or a contaminated environment is required. Contact Precautions are appropriately applied for situations including, but not limited to, contact with diarrhea or uncontained wound drainage.
- Hands must be cleaned after removal of personal protective equipment.

Use **Contact Precautions** in the following circumstances:

- Acute diarrhea
- Known or suspected infection or colonization with an antibiotic resistant organism
- Skin rash
- Draining, infected wound when drainage cannot be contained by dressing

Methicillin Resistant *Staphylococcus aureus* (MRSA)

The Basics:

- MRSA is a bacteria that is resistant to some antibiotics.
- MRSA lives on the skin and in the nasal passages.
- MRSA moves from person to person by direct contact between people – usually on hands. It can also move indirectly on health care equipment.
- People at risk for MRSA colonization/infection include the elderly, those with repeated contact with the health care system and those with chronic health conditions.

Mode of Transmission:

- Direct contact
- Indirect contact

How to Prevent Spread:

- Use **Contact Precautions** for direct care activities.
- Follow the *4 Moments for Hand Hygiene*.
- Encourage clients to clean their hands.
- Clean and disinfect equipment between uses.
- No special laundry practices are needed.
- Encourage regular cleaning in the client's home, with special attention to items that are frequently touched such as light switches and door knobs.

Vancomycin Resistant Enterococci (VRE)

The Basics:

- VRE is a bacteria that is resistant to some antibiotics and can live outside of the body for long periods of time.
- VRE lives in the bowel and fecal matter of a person who is colonized or infected with it.
- VRE most commonly moves from person to person by direct contact between people – usually on hands. It can also move indirectly on health care equipment.
- People at risk for VRE colonization/infection include the elderly, those with repeated contact with the health care system and those with chronic health conditions.

Mode of Transmission:

- Direct contact
- Indirect contact

How to Prevent Spread:

- Use **Contact Precautions** for direct care activities.
- Follow the *4 Moments for Hand Hygiene*.
- Encourage clients to clean their hands.
- Clean and disinfect equipment between uses.
- No special laundry practices are needed.
- Encourage regular cleaning in the client's home, with special attention to bathrooms and to items that are frequently touched such as light switches and door knobs.

Clostridium difficile

The Basics:

- *Clostridium difficile* (*C. difficile* or *C. diff*) is a bacteria that lives in the bowel and feces.
- It causes disease when the normal bacteria in the bowel are disrupted as a result of antibiotic use.
- Some strains of *C. diff* produce toxins that cause severe diarrhea. Other complications can occur such as pseudomembranous colitis, toxic megacolon, sepsis, and death.
- No need to send follow-up specimen if client has returned to normal bowel function.

Mode of Transmission:

- Direct contact
- Indirect contact

How to Prevent Spread:

- Use **Contact Precautions** until normal stools resume for at least 48 hours and a thorough cleaning has been completed.
- Follow the *4 Moments for Hand Hygiene*.
- Encourage clients to clean their hands.
- Clean and disinfect equipment between uses.
- No special laundry practices are needed.
- Encourage regular cleaning in the client's home, with special attention to bathrooms and to items that are frequently touched such as light switches and door knobs.

SCABIES

The Basics:

- Scabies is caused by mites that burrow into skin and lay eggs, and cause an itchy rash.
- Areas between fingers, folds of wrist, elbow and knee, genitalia, breasts and shoulder blades are most commonly infested.
- Mites do not survive away from the human body for more than three days.
- An infested person can spread scabies even if they don't have a rash.

Mode of Transmission:

- Direct contact
- Indirect contact

How to Prevent Spread:

- Use **Contact Precautions** for contact with client and their environment until 24 hours after prescribed treatment has been applied.
- Encourage clients to clean their environment thoroughly following application of treatment.
- Mites on fabrics are destroyed by washing in hot soapy water and drying on "hot" dryer cycle.
- Items that cannot be laundered or cleaned should be removed from use and stored in a sealed plastic bag for at least three days.

DROPLET + CONTACT PRECAUTIONS

Droplet Precautions are used in addition to Routine Practices for clients known to have or suspected of having an infection that can be transmitted by large respiratory droplets.

Some germs are able to spread in more than one way. Additionally, while you might be able to tell that a client is sick, you may not know what organism is making them sick. When this is the case, it is important to consider using more than one type of precaution to protect yourself.

The use of combinations of additional precautions is not unusual and is often needed in order to adequately protect ourselves and others from disease spread.

Droplet + Contact transmission is one of the most common combinations and reflects how germs like influenza and other common respiratory infections spread.

Adding **Droplet Contact Precautions to Routine Practices** includes:

- Mask and eye protection when within 2 metres of the client.
- Gloves and gown used if contact with a client or a contaminated environment is required.
- Hands must be cleaned after removal of personal protective equipment.

INFLUENZA

The Basics:

- Influenza is caused by the influenza virus.
- Influenza is a severe respiratory infection with symptoms of fever, aches and pains, weakness, fatigue, runny nose, sore throat and coughing.
- Complications can be serious and life-threatening, especially in populations such as children and the elderly.

Mode of Transmission:

- Droplet
- Direct contact
- Indirect contact

How to Prevent Spread:

- Receive annual influenza vaccination.
- Use **Droplet Contact Precautions** within 2 metres of the client and for direct contact with the client and the client environment.
- Wear a gown if you anticipate that your clothing will be soiled.
- Follow the *4 Moments for Hand Hygiene*.
- Encourage clients to cover their mouth and nose when they cough or sneeze and clean their hands frequently.

COMMON COLD

The Basics:

- Colds are typically less serious than influenza and cause symptoms of sneezing, runny nose, watery eyes, chills and malaise. Fever is uncommon.
- A variety of different viruses cause the symptoms that we call the Common Cold.

Mode of Transmission:

- Droplet
- Direct contact
- Indirect contact

How to Prevent Spread:

- Use **Droplet Contact Precautions** within 2 metres of the client and for direct contact with the client and the client environment.
- Wear a gown if you anticipate that your clothing will be soiled.
- Follow the *4 Moments for Hand Hygiene*.
- Encourage clients to cover their mouth and nose when they cough or sneeze and clean their hands frequently.

AIRBORNE PRECAUTIONS

Airborne Precautions are used in addition to Routine Practices for clients known to have or suspected of having an illness transmitted by the airborne route (e.g. particles that remain suspended in the air and may be inhaled by others).

Adding **Airborne Precautions** to **Routine Practices** may include:

- Fit-tested, seal-checked N95 respirator worn to enter the client's environment (e.g. clients with pulmonary tuberculosis).
- Hands must be cleaned after removal of fit-tested N95 respirator.

CHICKENPOX

The Basics:

- Chickenpox is caused by the Varicella-Zoster Virus and is normally spread through the air or from direct contact with the fluid in the chickenpox blisters.
- Once a person has had chickenpox, they will not get it again (they are immune to chickenpox) but they could develop “shingles” (herpes zoster) later in life because the virus remains in their body.
- A person who is not immune to chickenpox could get chickenpox by direct contact with the virus that is present in the blisters of the shingles rash.
- Persons with “Disseminated Herpes Zoster” (shingles spread over a large area of their body) may also be able to spread the virus by the airborne route.

Mode of Transmission:

- Airborne and direct contact

How to Prevent Spread:

- Health care providers must know their immune status for chickenpox.
- A chickenpox vaccine is available for staff who are not immune.
- Immune staff do not need to wear an N95 respirator.
- Health care providers should use Routine Practices, including a risk assessment prior to each client interaction. If direct contact with a rash is expected, gloves and gown may be worn.
- Follow the *4 Moments for Hand Hygiene*.
- Clean and disinfect equipment between uses on clients.

TUBERCULOSIS

The Basics:

- Tuberculosis is caused by a bacteria called *Mycobacterium tuberculosis*.
- Transmission requires prolonged, close contact with an individual who is actively infected with TB in the lungs.
- Most people who become infected never develop active disease but have “latent infection” that could become active if not treated.

Mode of Transmission:

- Airborne

How to Prevent Spread:

- Consult with local public health unit about clients receiving care at home and the precautions needed.
- When Additional Precautions are needed, wear a fit-tested, seal-checked N95 respirator to enter the client environment, in addition to Routine Practices.
- Suggest the client wear a procedure mask while they are infectious.
- Encourage the client to contain respiratory secretions by covering their mouth or nose during coughing or sneezing.
- Use Routine Practices for care, including following the *4 Moments for Hand Hygiene* and cleaning equipment according to manufacturer’s instructions in between uses on clients.
- Consult with local public health unit about discontinuation of precautions.

EMERGING ISSUE – BEDBUGS

The Basics:

- Bedbugs are small, red-brown insects (6mm in length when full grown – large enough to be seen by the naked eye). They are flat and oval shaped.
- Bedbugs feed on human blood at night, in darkness. They are unlikely to be active during the day.
- Bedbugs hide in small spaces usually near the bed or where the client normally sleeps.
- Bedbugs cannot fly or jump.
- Bites caused by bedbugs often appear as itchy, red welts on the skin.
- **Bedbugs do not spread disease** but scratching itchy bites may lead to skin infection.

Mode of Transmission:

- ‘Hitch hiking’ when bugs climb into or on bags, clothing or other items.
- ‘Migration’ when bugs move by walking into other rooms or units in a building.

How to Prevent Bedbug Hitchhikers:

- When visiting, bring in as few items as possible and avoid placing bags close to furniture and walls. When this cannot be avoided, place items in a plastic bag that can be closed and inspect items for bedbugs on leaving.
- Avoid sitting, especially on fabric-covered furniture. If possible, sit on wood or metal chairs as they are less likely to harbor bedbugs.
- Inspect shoes, clothing and items taken into the home after leaving.
- If you find any bedbugs on inspection, kill them immediately.
- When you arrive home, place your clothing in the dryer on the ‘hot’ cycle for 30 minutes to kill any bugs that might be hitch hiking.
- Follow any agency policy and procedure.

PRINCIPLES OF CLEANING

Keeping the environment and client-care equipment clean is an important part of preventing the spread of infections in community settings.

- Cleaning refers to the removal of microorganisms from an object or surface and requires friction to remove microorganisms from the environment and equipment.
- When cleaning, start with cleanest areas and finish with most contaminated areas (for example, when cleaning a bathroom, start at the sink and counter, then clean the tub/shower, then finish cleaning with the toilet – it is the most contaminated area).
- To clean effectively, it is important to use materials and equipment that are clean.
- Surfaces in the client’s home should be cleaned regularly.

If you would like more information on cleaning and disinfection in health care settings, please visit the RICN link at www.oahpp.ca for additional resources.

Visit www.oahpp.ca to access the Provincial Infectious Diseases Advisory Committee’s *Best Practices for Cleaning, Disinfection and Sterilization in All Health Care Settings* as well as the *Best Practices for Environmental Cleaning for Prevention and Control of Infections In All Health Care Settings*.

HANDLING EQUIPMENT

Hands should always be clean before touching clean equipment in a nursing bag. Used or soiled items should never be placed back into the bag until they have been properly cleaned and disinfected. Where possible, minimize the amount of equipment carried into the home and ensure the bag is placed in an area that reduces the chance of contamination.

- Procedures for cleaning and reprocessing of multi-use health care equipment should be established and monitored.
- Keep dirty equipment separate from clean equipment until it can be cleaned and disinfected appropriately.
- Under ideal circumstances, equipment used on clients with infectious diseases should be single use or dedicated to them until they are no longer infectious. When equipment cannot be dedicated to a client, it must be cleaned and disinfected/sterilized between uses.
- Please refer to your agency's policies and procedures for specific instructions.

Appropriate cleaning and disinfection of equipment depends on what the equipment is used for and the potential risk of infection involved with its use.

The following table provides guidelines:

Classification of Equipment/Device	Definition	Level of Processing Required	Examples of appropriate chemical and description process
Critical	Enters sterile tissues including the vascular system.	Cleaning followed by sterilization.	Sterilization may be achieved using an autoclave or other approach; process must be monitored and verified.
Semi-Critical	Comes into contact with non-intact skin or mucous membranes but does not penetrate them.	Cleaning followed by high level disinfection (as a minimum). Sterilization is preferred.	High level disinfection may be achieved with chemicals or pasteurization; timing of process is critical to effectiveness.
Non-Critical	Touches only intact skin and not mucous membranes, or does not directly touch the client.	Cleaning followed by low level disinfection (in some cases, cleaning alone is acceptable).	Acceptable low level disinfectants include alcohols, chlorines, 0.5 per cent accelerated hydrogen peroxide, 3 per cent hydrogen peroxide, iodophors, phenolics and QUATs. Monitoring of process is not required. Must follow manufacturer's directions for use.

USEFUL LINKS

The **Regional Infection Control Networks** would like to answer your questions. Please call us with your Infection Prevention and Control questions or you may borrow items from our lending library.

Regional Infection Control Networks (RICN):

www.oahpp.ca

Public Health Ontario:

www.oahpp.ca

The Provincial Infectious Diseases Advisory Committee (PIDAC):

www.oahpp.ca

The Public Health Agency of Canada (PHAC):

www.phac-aspc.gc.ca

Just Clean Your Hands Program:

www.oahpp.ca

The Centers for Disease Control, Atlanta, Georgia (CDC):

www.cdc.gov

Public
Health
Ontario

PARTNERS FOR HEALTH

Santé
publique
Ontario

PARTENAIRES POUR LA SANTÉ

CREATED BY PUBLIC HEALTH ONTARIO –
REGIONAL INFECTION CONTROL NETWORKS