Module 6
INFECTION CONTROL
➢ Preventing the Spread of Disease ➢ Hand Washing ➢ Caring for the Client with an Infectious Disease

INFECTION CONTROL

Please note: always follow the principles of **Back Injury Prevention** as set out in Module 2. If you have any questions, of a specific nature, contact Compassion Home Health Services immediately to discuss it with the Registered Nurse.

Preventing the Spread of Disease

"Cleanliness is next to godliness"

Dirt breeds germs and germs can make you sick and weak. Cleanliness can help stop the spread of germs, thereby limiting the spread of disease. Therefore, it is so important to keep the environment clean for your clients and yourself.

Just as human beings need proper conditions for living, so do microorganisms. **Bacteria** are living organisms and require several things to grow:

Conditions necessary for Bacterial Growth	
Moisture	Micro organisms grow well in *damp* places
Temperature	Microorganisms need the correct temperature to live. Most cannot survive at high temperatures, but live well at *body temperature*
Oxygen	Micro organisms require a specific oxygen content, *draft* places are their paradise
Darkness	Micro organisms grow best in *darkness*
Nourishment	Microorganisms need *food*. Each one requires a different type of food specific to its needs.

When illness is present, added care must be taken to prevent the spread of germs. An ill person's body is producing germs. At the same time, the person is weak and cannot resist other germs. The body is so busy fighting one illness it cannot fight off other germs.

The Home Support Worker is responsible for controlling the spread of the client's germs so others in the home will not be harmed. You must also help protect the client from the germs carried into the home.

Germs can be spread when others touch contaminated objects or surfaces:

- ❖ Tissues used by the client should be placed in a paper bag at the client's bedside.
- ❖ Dressings or bandages from open cuts must be double bagged and then discarded.
- ❖ Careful cleaning of the client's room is very important in stopping the spread of germs.
- ❖ Careful and proper hand washing is very important.

Definitions

Bacteria: Living organisms that thrive under conditions of dampness, warmth, air, darkness and nourishment. Some bacteria are required in our body for proper functioning (e.g. Bowel, mouth) and are present on most surfaces. Bacteria are a problem if left to multiply or is a disease production organism.

Infection: The invasion of the bacteria or germ causing illness or local inflammation.

Contaminated: When you transfer germs from one area to another. Contamination occurs by air movement or touching of a contaminated item.

Clean: To be free of visible dirt.

Disinfect: The use of a substance that kills most harmful germs, e.g. Lysol. This helps to control bacterial growth.

Sanitary: When a clean technique is used to prevent the transfer of germs and maintain a clean environment.

Sterilization: The process (either heat or chemical) of removing all microorganisms from a surface or area.

Aseptic: Free from germs or contamination. Septic means to have an infection, therefore **a**septic means to be free from infection or infection causing bacteria.

Micro Organisms: Tiny living organisms that normally live on all surfaces. They are only visible under a microscope. Included in this group are germs, bacteria, and virus.

Hand Washing

Good Hand Washing is the most important and basic technique in preventing and controlling infection.

Hand Hygiene is the act of removing or destroying microorganisms on the hands while maintaining good hand integrity (keeping skin healthy). Hand Hygiene can be performed using Alcohol Based Hand Rub (ABHR) or using soap and water. Your hands are the most common means of carrying infection. To control the spread of germs and to protect you and the client, wash your hands frequently.

<u>Just a quick rinse is not acceptable</u>

Hand Washing Using Either Hand Sanitizer (Alcohol Based Hand Rub - ABHR) or Soap and Water
Using Hand Sanitizer: ✓ Apply Alcohol Based hand rub ✓ Rub over all surfaces, between fingers, and thumbs for 15 seconds ✓ Allow hands to dry **Using Soap and Water:** ✓ Wet hands ✓ Apply soap ✓ Rub all surfaces thoroughly for 15 seconds, don't forget thumbs and between fingers ✓ Rinse ✓ Dry ✓ Use Paper towel to turn off tap

When to wash your hands?

Your 4 Moments for Hand Hygiene:

- o Before Initial client contact
- o Before any procedure
- o After body fluid exposure risk (i.e. emptying Catheter bag)
- o After client contact

Hand washing should be first thing a Home Support Worker does upon entering a client homes.

Techniques

CLEAN TECHNIQUE

Areas and items are considered clean if they have been:

- o Sterilized or disinfected.
- o Kept dry.
- o Not contaminated.

Contamination occurs by air movement or touching of a contaminated item.

Clean technique is maintained if clean items only touch other clean items. For example: if a clean-gloved hand touched a clean dressing, then clean technique is maintained.

Clean technique is contaminated if a contaminated one touches a clean item. An example: if a clean gloved hand touched your nose or if you sneezed and you tried to cover your mouth and nose. The clean technique is contaminated by both touch and air movement.

Clean technique is the most often used for care in the home, school or community.

STERILE TECHNIQUE

Items are considered sterile if they have been:

- ➢ Pre-packaged.
- ➢ Sterilized or disinfected.
- ➢ Kept dry
- ➢ Not contaminated.

Again, contamination occurs by air movement or touching a non-sterilized item. A sterile item becomes contaminated when a non-sterile item touches it. An example: if your sterile-gloved hand touches the table as you put on your gloves, the gloves become contaminated.

To maintain sterile technique requires anticipating possible contacts in the procedure and ensuring steps to avoid such contacts after starting the procedure.

Some care procedures in the home, school and community require sterile technique. If so, this is ordered as part of the procedure.

Caring for the Client with an Infectious Disease

As a Home Support Worker, you have the duty to protect your clients from unnecessary harm. In addition to keeping the home environment clean, you should also be in good physical health. A Home Support Worker who is ill, risks carrying germs into the client environment.

An **Infection** is the invasion of body tissue by disease producing organisms.

An **Infectious Disease** is one that is easily passed on to others.

Some examples of Infectious Diseases:

- ✓ Typhoid Fever
- ✓ Flu
- ✓ AIDS
- ✓ Tuberculosis
- ✓ Pneumonia
- ✓ Chicken Pox
- ✓ Measles
- ✓ MRSA
- ✓ VRE

Transmission of Disease from Client to Caregiver

As Home Support Workers, you will care for clients in their home who may have active diseases, we may not always know if a client has a disease or not, i.e. MRSA +. Always use precautions when caring for any client, whether we know there is a disease present or not. This is referred to as Universal Precautions.

There are 3 different modes of transmission of infections:
- Contact (Direct or indirect)
- Droplet
- Airborne

Contact:
Contact exposure occurs when microorganisms are transferred through physical contact, either directly (hand shake) or indirectly (touching contaminated equipment i.e. commode, remote controls etc…).
Examples of diseases that can be contracted by contact exposure are: Influenza & MRSA.
Very important to clean surface areas that infected client may have been in contact with.
Droplet:

Droplet exposure occurs when droplets that contain microorganisms are propelled a short distance through the air (2 metres).
Examples of diseases that can be spread through droplet exposure are: Chicken Pox, Common Cold, Measles, & Influenza

Airborne:
Airborne exposure may occur if small particles with microorganisms are propelled over short or long distances, as in sneezing or coughing.
Examples of diseases spread through airborne exposure are: Bacterial Pneumonia; Influenza, & TB

Precautions to Prevent Disease Transmission -Personal Protective Equipment (PPE)
1. A gown should be worn if there is a possibility of handling a suspected infectious client's blood or body fluids. (i.e. Urine, vomit, sputum or feces) The gown should be removed following client contact and placed in a garbage container as you leave the clients room. 2. Disposable gloves should be worn when handling blood or body fluids. 3. Care should be given to _hand washing_ both before and after client contact. (Even with glove use). 4. Disposable items contaminated with blood or body fluids should be discarded and placed in a carefully sealed bag. Linens, towels, client's clothing and gowns should be placed in a special laundry bag and washed separately from other laundry in hot water, disinfectant and soap. 5. Sharp objects, needles and blades should be handled carefully to prevent cutting yourself. These objects should be places in puncture resistant containers. Do not bend needles or try to recap them.

Personal Protective Equipment includes:
- ✓ Gloves
- ✓ Gowns
- ✓ Face Protection

Gloves:
Gloves are only for single client and single use only. Always replace gloves if they become heavily soiled, or between tasks, i.e. change gloves after dressing change, don a new pair before emptying catheter bag. Gloves should be removed using glove to glove technique.
- Grasp glove near cuff of one gloved hand, and pull away from wrist towards your fingertips until glove folds over

- Carefully grab the fold of glove and pull the glove away from your body until pulled off your fingertips turning glove inside out
- Place and hold glove in palm of your gloved hand
- With your ungloved hand, carefully insert two fingers into the cuff of the gloved hand. Slide your fingers down towards your fingertips until the glove folds over turning glove inside out while encasing the other contaminated glove
- Grasp the fold of glove and fully remove from hand
- Dispose of glove
- Wash your hands thoroughly using ABHR or soap and water

Gowns:
Use disposable gowns

Gown Donning:
- Perform hand hygiene
- Put gown on, with opening at back
- Fasten both the neck and waist ties

Gown Removal:
- Unfasten ties and peel down gown away from neck
- Slip fingers of one hand under the wrist cuff and pull hand inside
- With inside hand, push sleeve off with the other hand
- Fold dirty to dirty and roll into bundle (do not shake)
- Discard in garbage container
- Perform hand hygiene

Face Protection:
Face protection offers an effective barrier to a worker's eyes, nose or mouth, against contact with sprays or aerosolized (air) body fluids. There are several types of face protection, mask with safety goggles, goggles, or mask with an attached visor

Steps to properly remove PPE:
Removing PPE properly are critical to prevent contamination of the worker with soiled PPE. Following are steps to properly remove PPE:
- Remove gloves
- Remove gown
- Perform hand hygiene
- Remove eye protection
- Remove mask
- Perform hand hygiene

Remember to wash hands:
- ✓ Before and after client contact
- ✓ Before and after preparing food

- ✓ Before and after each meal
- ✓ After blowing your nose or sneezing
- ✓ After using washroom
- ✓ After handling soiled items, such as linens, clothing or garbage