

Subject:	Infection Control	Date Approved:	December 15, 2008
Approved by:	Executive Director	Date Revised:	
Specific to:	All Staff and Volunteers	Next Review Date:	September 2020

**PRINCIPLE:**

The objectives of the North Huron Family Health Team Infection Control are intended to:

- Protect staff from unprotected contact with infectious organisms, and
- Protect clients from developing infections through cross contamination

**Body Substance Isolation (BSI) is a barrier precaution tailored to the activity performed rather than the diagnosis of the client.**

**POLICY:**

This policy is based on the premise that all body substance from all clients is potentially infectious. By adhering to this policy, staff will protect themselves from disease, diagnosed and undiagnosed. Also, by reducing the incident of unprotected exposure to organisms, there will be a reduction in the transmission of these organisms to clients.

The level of precautions used by the staff member will be determined by their professional judgment and the anticipated body substance exposure of each procedure/contact.

It is the responsibility of the North Huron Family Health Team (NHFHT) to provide the appropriate protective bathers whenever they are needed; this includes gloves (vinyl and latex), masks, goggles, aprons, resuscitation, and sharps and bio-hazardous waste disposal containers.

**Infection Process**

An infectious state exists when disease causing microorganisms multiply in sufficient numbers to cause an inflammatory response by the host. When the response fails, infection occurs.

The chain of transmission in the infectious process consists of six (6) components:

1. An infectious agent,
2. A reservoir for the pathogen,
3. A point of exit from the reservoir,
4. A method of transmission,
5. A point of entry into the host,
6. A susceptible host.

If the chain of transmission is uninterrupted an infection occurs. A reservoir is a human, animal or inanimate environment in which the organism lives and multiplies. Transmission is the mechanism by which an infectious agent is spread from a source to a person.

### **Routes of Transmission**

There are six routes of transmission for microorganisms. These are:

1. Direct Contact, which occurs when microorganisms are transferred from an infected person to a susceptible host during direct physical contact.
2. Indirect Contact, which occurs when microorganisms are transferred to a susceptible host through contact with a contaminated objects such as instruments.
3. Droplet, occurs when droplets are produced from a cough or a sneeze and are propelled less than a meter in the air to the nasal or oral passage of a new host.
4. Airborne, occurs when microorganisms are contained in small droplets or dust particles and stay suspended in the air for long periods of time. The microorganisms are then dispersed by air currents throughout the building.
5. Vehicle, occurs when contaminated food, medication, equipment, animals, etc. transmit the infection to many hosts.
6. Vector, occurs when an insect vector such as a tick or mosquito transmits infection from an infected individual to a susceptible host.

The most common routes of infection are through direct contact, indirect contact and droplet transmission.

### **PROCEDURE FOR REDUCING INFECTIOUS TRANSMISSION**

Body Substance Isolation (BSI) is a barrier precaution tailored to the activity performed rather than the diagnosis of the client. This system extends barrier precautions to all direct contact with blood, body fluids, secretions and moist body substances, and with non-intact skin.

Community health providers providing direct care should implement precautions appropriate to the risk considering:

- Hand hygiene as the first line of defense,
- The use of water resistant surgical masks by people providing direct care and, in formal setting, patients presenting with respiratory symptoms (where possible),
- The use of eye protection by health care workers providing direct care when splashing of body fluids may occur,
- Gloves only when the provider is likely to have contact with body fluids,
- Gowns only during procedures when clothing might be contaminated, and
- Cough etiquette.

### **Hand-hygiene technique**

#### **Hand washing**

Hand washing is the single most important infection control practice. Keep the skin on your hands healthy and intact. Skin is an excellent physical barrier. If you have open areas or cuts in your skin, cover them with a bandage.

When hands are visibly dirty or contaminated with proteinaceous material or are visibly soiled with blood or other body fluids, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water.

**Procedure:**

1. Wet hands,
2. Apply soap thoroughly, between fingers and under nails,
3. Rub hands together with a rotating, frictional motion; wash spaces between the fingers by interlacing the fingers and rubbing up and down for at least 15 seconds,
4. Rinse well with water,
5. Dry thoroughly with paper towel,
6. Use paper towel to turn off water taps

Avoid using hot water, because repeated exposure to hot water may increase risk of dermatitis. If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in all other clinical situations described above. Alternatively, wash hands with an antimicrobial soap and water in all clinical situations described.

When decontaminating hands with an alcohol-based hand rub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry.

Note: If hand washing facilities are not available (e.g. home visits) then an alcohol-based hand rub should be used until hands can be properly washed.

**Hands must be washed**

1. Between clients,
2. Before any contact with immunocompromised clients,
3. Before performing invasive procedures,
4. After contact with blood, body fluids, secretions and excretions, drainage from wounds,
5. After contact with items known or considered likely to be contaminated with blood, body fluids, secretions or excretions (e.g. wound dressings),
6. Immediately after removing gloves,
7. Between certain procedures on the same client in which soiling of hands is likely,
8. To avoid cross-contamination of body sites when hands are visibly soiled,
9. After assisting client with toileting,
10. After contact with a client's intact skin (e.g. when taking a pulse or blood pressure, and lifting a client, and/or
11. Whenever in doubt.

**Gloves**

Rational: Preventing heavy contamination of the hands is considered important, because hand washing or hand antiseptics may not remove all potential pathogens when hands are heavily contaminated.

Clean, non-sterile gloves should be worn

- For contact with blood, body fluids, secretions and excretions, mucous,
- Membranes, draining wounds or non-intact skin (open skin lesions or exudative rash) when handling items visibly soiled with blood, body fluids, secretions and excretions (except sweat),
- When the health care worker has open skin lesions on the hands,
- Intact and non-intact skin of client's testing positive with C-difficile, BRE and MRSA,
- When wiping up surfaces contaminated with body fluids/substances, and/or
- When washing/transferring contaminated equipment and laundry.

Gloves should be changed between care activities and procedures with the same client after contact with materials that may contain high concentrations of microorganisms, e.g. handling an indwelling urinary catheter or suctioning a tracheotomy. Gloves should be removed immediately after completion of care or procedure, at point of use and before touching clean environmental surfaces.

Gloves should not be washed or reused.

Wearing gloves will help protect staff members but do not provide complete protection against hand contamination (ie: glove leaks. Hand should be decontaminated or washed after removing gloves).

### **Masks**

Masks are to be worn:

- During procedures in which body substances are likely to be splashed on the mucous membranes of the nose or mouth
- When staff, who are recovering from or contagious with an airborne infection, and are able to return to work, but there is a risk of staff spreading infection to clients
- Any time there is a concern re: a body substance splash to the nose or mouth, eye protection is also to be worn

To maximize the effectiveness of the mask:

- Ensure the mask covers the nose and mouth. Use only once, then discard.
- Change masks frequently.

### **Eye Protection**

Eye protection (i.e. goggles or full face shields) should be worn when working with a suspect case of Ferbrile Respiratory Infection: when there is a potential for spattering or spraying of body fluids/substances.

### **Other barriers**



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Gowns should be used to protect uncovered skin and prevent soiling of clothing during procedures and client care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions. It is also advised that resuscitation equipment is to be used during all cardiopulmonary resuscitation situations.

#### **References**

1. Health Canada, Infection Control Guidance for Health Care Workers in Outpatient Setting 1: Revised 2003-05-27
2. Health Canada, Prevention and Control of Occupational Infections in Health Care: Infection Control Guidelines. CCDR 2002; 28S1: 1-264
3. CDD, Guideline for Hand Hygiene in Health-Care Settings: October 25, 2002/ 51 (RR16); 1-44
4. Health Canada Infection Control Guidelines; Routines Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care Revision of Isolation and Precaution Techniques Laboratory Centre for Disease Control; July 1991 Vol 25S4

#### **SARS**

Given the 2003 SARS outbreak in Ontario, SARS protocols are available from Public Health.