

Guideline for Routine Practices and Additional Precautions

Department of Health & Community Services Disease Control Division

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#### SUMMARY

The purpose of this document is to provide guidelines that will serve as the foundation for preventing transmission of infectious agents across the continuum of health services. The recognition that there has been a shift of service delivery from hospitals to other settings such as: long term care, personal care homes, ambulatory clinics and the home care has resulted in a need to apply common principles of infection prevention and control that can be modified to reflect the setting-specific needs. This document updates the previous infection prevention and control guidelines entitled Standard Precautions and Additional Practices (CDC, 1996). The change to Routine Practices and Additional Precautions is in keeping with the recommendations from Health Canada (1999).

# **Transmission risks**

The risk of infection transmission can be increased depending on a number of factors including the population characteristics, the setting in which care is provided and the route of transmission of the organism. In making decisions about the implementation of infection prevention and control precautions it is necessary to take these factors into consideration. Assessments of the following factors are recommended in making decisions:

- population characteristics
  - increased susceptibility to infections; very young and the elderly
  - underlying medical conditions
  - having prolonged hospitalization
- specific types of healthcare settings
  - Acute care hospitals Certain hospital settings and patient populations put patients at increased risk. These may include:
    - Intensive Care Units
    - Burn Units
    - Pediatric units such as Pediatric Intensive Care Units and Neonatal Intensive Care Units
  - Long term care (LTC) facilities Elderly residents at increased risk for infection live in a home type setting. There is a challenge to balance the infection prevention needs and the psychosocial needs of the residents.
  - Ambulatory care Ambulatory care is provided in hospital based outpatient clinics, nonhospital-based clinics, physician offices, public health clinics, dialysis centers, ambulatory surgical centers and many others. These clinics may provide care to a population with high risks for infection such as the immunocompromised and the elderly.
  - Home care Transmission risks for care in the home is considered to be minimal, since homecare is provided by a limited number of personnel in one setting.
  - Other sites of health service delivery include correctional facilities and shelters. These settings may be considered high risk for diseases such as tuberculosis and bloodborne pathogens.

# MODES OF TRANSMISSION

Transmission of infectious agents requires three elements: a source (or reservoir) of infectious agents, a susceptible host with a portal of entry receptive to the agent and a mode of transmission. Historically, in hospital epidemiology the routes of transmission have been classified as airborne, contact, and droplet.

<u>Airborne transmission</u>: Airborne transmission occurs by dissemination of either airborne droplet nuclei or small particles in the respirable size range containing infectious agents that remain infective over time and distance. These microorganisms are widely dispersed by air currents and can be inhaled by susceptible hosts who may be some distance away from the infected source. Control of airborne transmission is the most difficult as it requires control of air flow through special ventilation systems.

**<u>Contact transmission</u>**: The most common mode of transmission is contact and it is subdivided into two categories: direct and indirect contact.

<u>Direct contact transmission</u> Direct transmission occurs when microorganisms are transferred from one infected person to another person. Examples include:

- Blood or other blood-containing body fluids from a person directly enters another person's body through contact with a mucous membrane or cut in the skin
- Mites from a scabies-infected person are transferred to the skin of another person while he/she has direct skin to skin contact

<u>Indirect contact transmission</u> Indirect transmission involves the transfer of an infectious agent through a contaminated intermediate object or person. Examples include:

- Contaminated hands of care providers may transmit pathogens after touching an infected wound on one person and providing care to another person without performing hand hygiene
- Equipment, such as glucose monitoring devices, may transmit pathogens if used while contaminated with blood from another person
- Instruments that are inadequately cleaned after use may transmit pathogens

**Droplet transmission:** Refers to large droplets, greater than or equal to 5  $\mu$ m in diameter, generated from the respiratory tract of the source (infected individual) during coughing or sneezing, or during procedures such as suctioning or bronchoscopy. These droplets are propelled a distance of less than one-two meters through the air and are deposited on the nasal or oral mucosa of the new host (susceptible individual) or in the immediate environment. Since these large droplets do not remain suspended in the air special ventilation is not required.

# FUNDAMENTAL ELEMENTS OF INFECTION PREVENTION AND CONTROL STRATEGIES

# **1. Administrative support**

Administrators must demonstrate a commitment to the prevention and control of healthcare associated infections by including infection control objectives in organization strategies: Key measures are to:

- Identify the prevention and control of infections as a priority for patient safety and require annual documentation of:
  - Actions in place to prevent and control transmission
  - Surveillance initiatives
  - Audits of adherence by personnel to recommended practices
  - Outbreak reports
- Provide fiscal and human resources for maintaining infection control and occupational health programs that are responsive to emerging needs
  - sufficient numbers of Infection Control Practitioners as per PIDAC guidelines (2008)
- Make improved hand-hygiene adherence an institutional priority
  - Implement a multidisciplinary program designed to improve adherence of health personnel to recommended hand-hygiene practices
  - Provide HCWs with readily accessible sinks or an alcohol-based hand-rub product
  - Store supplies of alcohol-based hand rubs in cabinets or areas approved for flammable materials.
  - Monitor rates of compliance with hand hygiene recommendations
- Dedicate resources to ensure a comprehensive environmental cleaning program is in place

# 2. Education

# Healthcare Workers (HCWs)

**Core competencies** - All HCWs must be educated on hiring and periodically on the core competencies for infection control based on their professional responsibilities. These seven areas include:

- Basic microbiology
- Hand hygiene
- Routine practices and transmission-based precautions
- Personal protective equipment
- Personal safety
- Sterilization and disinfection
- Critical assessment skills

# Care recipients/Family/Visitors

Care recipients and their families must receive information on protocols required to prevent and control infections.

- Hand hygiene awareness should be included in all education programs, posters & pamphlets
- Family and visitors should be instructed regarding hand hygiene and the appropriate use of Personal Protective Equipment as indicated by the care given
- Written information must be available to complement verbal instructions
- Encourage care recipients and their families to remind HCWs to wash their hands.

# **3. Routine Practices**

# i. Hand Hygiene

Hand hygiene is the single most important way to prevent the transmission of infection.

- Educate personnel regarding the types of healthcare activities that can result in hand contamination and the advantages and disadvantages of various methods used to clean their hands
- Monitor HCWs' adherence with recommended hand-hygiene practices and provide personnel with information regarding their performance
- Alcohol-based hand rubs should be 60-90% concentration ethyl or isopropyl alcohol
- An interactive computer assisted hand hygiene education program is available at the following site:

http://www.health.gov.on.ca/english/providers/program/pubhealth/handwashing/hw\_pilot.html

- Wash hands with soap and water when hands are visibly dirty
- Use an alcohol based hand rub to decontaminate the hands if hands are not visibly soiled
- Wash hands with soap and water if contact with spores (e.g., *Clostridium difficile*) is likely to have occurred
  - The physical action of washing and rinsing hands under such circumstances is recommended because alcohols, chlorhexidine, iodophors and other antiseptic agents have poor activity against spores
- Do not wear artificial fingernails or extenders if duties include direct care with persons at high risk for infection and adverse outcomes
- Perform hand hygiene
  - Before and after providing direct care
  - After contact with blood, body fluids or excretions, mucous membranes, nonintact skin, or wound dressings
  - If hands will be moving from a contaminated-body site to a clean-body site during direct care
  - After contact with potentially contaminated inanimate objects in the environment
  - After removing gloves

# ii. Personal Protective Equipment

Personal protective equipment (PPE) is any type of specialized clothing, barrier product, or breathing (respiratory) device used to protect workers from serious injuries or illnesses while doing their jobs. Personal protective equipment acts as a barrier between infectious materials and the skin, mouth, nose, or eyes (mucous membranes). In health care PPE includes gloves, gowns, and face protection: masks, goggles and face shields. The CDC has a PowerPoint presentation on the procedures for donning and removing PPE available at <a href="http://www.cdc.gov/ncidod/dhqp/ppe.html">http://www.cdc.gov/ncidod/dhqp/ppe.html</a>

<u>Gloves</u> – Wear gloves when contact is anticipated with blood or other potentially infectious materials, mucous membranes, nonintact skin or potentially contaminated intact skin.

- Wear gloves with fit and durability appropriate to the task
- Use gloves as an additional measure, not as a substitute for hand hygiene

- Change gloves during direct care if the hands move from a contaminated body-site to a clean body-site
- Remove gloves after providing care or after contact with contaminated medical equipment or potentially contaminated environmental surfaces
- Do not wear the same pair of gloves for the care of more than one person
- Do not wash gloves for the purpose of reuse
- Wash hands immediately after removing gloves

<u>Gowns</u> – Wear a gown, appropriate to the task, to protect skin and prevent soiling or contamination of clothing during procedures and direct care activities when contact with blood, body fluids, secretions, or excretions is anticipated.

- The routine use of a gown is not recommended
- Wear a gown for direct contact activities if the person has uncontained secretions or excretions
- Do not reuse gowns, even for repeated contacts with the same person

<u>Mouth, nose, eye protection</u> – PPE should be worn where appropriate to protect the mucous membranes of the eyes, nose and mouth during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.

- Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed
- During aerosol-generating procedures (eg., bronchoscopy, endotracheal intubation) wear one of the following: a face shield that fully covers the front and sides of the face, a mask with attached shield, or a mask and goggles

# iii. Respiratory Hygiene/Cough Etiquette

In order to facilitate prompt recognition of persons with febrile respiratory illness the following respiratory hygiene/cough etiquette elements should be implemented at the first point of contact with a potentially infected person:

- Educate healthcare personnel on the importance of measures to contain respiratory secretions especially during seasonal outbreaks of viral respiratory tract infections
- Implement control measures. These control measures are:
  - Post signs at entrances to facilities and in strategic places with instructions to all persons with symptoms of a respiratory infection to cover their mouths/noses when coughing or sneezing, use and dispose of tissues, and perform hand hygiene after hands have been in contact with respiratory secretions (Appendix B)
  - Provide tissues and no-touch receptacles for disposal of tissues
  - Provide resources and instruction for performing hand hygiene in or near waiting areas in ambulatory and other healthcare settings
  - Supply conveniently-located dispensers of alcohol-based hand rubs and, where sinks are available, supplies for hand hygiene such as soap and disposable towels

 Offer masks to coughing persons and other symptomatic persons upon entry into the facility or medical office and encourage them to maintain special separation, ideally onetwo meters from others in common waiting areas

#### iv. Accommodation

Single rooms have been shown to lower hospital-acquired infections, reduce room transfers and associated medical errors, greatly lessen noise, improve patient confidentiality and privacy, facilitate social support by families, improve staff communication to patients, and increase patients' overall satisfaction with health care. When there are only a limited number of single-rooms, it is prudent to prioritize them for those who have conditions that facilitate transmission of infectious material to other persons (e.g., draining wounds, stool incontinence, uncontained secretions) and for those who are at increased risk of acquisition and adverse outcomes resulting from health care associated infections (e.g., immunosuppression, open wounds, indwelling catheters, anticipated prolonged length of stay, total dependence on HCWs for activities of daily living).

- Determine patient placement based on the following principles:
  - Route of transmission of the known or suspected infectious agent
  - Risk factors for transmission in the infected patient
  - Risk factors for adverse outcomes resulting from an HAI for others in the area or room being considered for accommodation
  - Availability of single rooms
  - Options for room-sharing

# v. Health Care Equipment

Establish policies and procedures for assigning responsibility and accountability for the routine cleaning of all health care equipment.

- Follow manufacturers' instructions for cleaning and maintaining noncritical medical equipment
  - Dedicate health care equipment to single patient use in high risk areas (ICU) and for high risk persons (immunocompromised)
  - Clean and disinfect reusable health care equipment that has been used for direct care of a
    person before use in the care of another person
  - Establish a routine cleaning schedule for reusable items that are used for contact with intact skin if cleaning between person use is not feasible
  - Dedicate the use of a commode and bedpan use for a single person and label appropriately
  - Sharing of personal care supplies (lotions, creams, and soaps) is not recommended
  - Reprocess reusable critical and semi critical devices as directed by the manufacturers' instruction and the policy of the facility

# vi. Environmental Control

- Establish policies and procedures for routine cleaning of the health care environment, targeted cleaning of environmental surfaces (windows, vents) and monitoring of the process.
  - Clean and disinfect surfaces that are likely to be contaminated with pathogens, including those that are in close proximity to the person receiving care (e.g., bed rails, over bed tables) and frequently-touched surfaces in the environment (e.g., door knobs, surfaces in and surrounding toilets) as indicated by the level of care and the degree of soiling
  - Use a disinfectant that has been approved by the regional infection control committee/quality improvement team
  - Establish policies and procedures for the cleaning and disinfection of toys

# vii. Laundry

All soiled laundry must be handled, transported and processed in a manner that prevents exposures, contamination of clothing and avoids transfer of microorganisms to others.

- Handle soiled laundry as little as possible
- Bag or otherwise contain contaminated laundry at the point of use
- Use leak-resistant containment for laundry that is wet or contaminated with blood or body substances
- Do not overfill laundry bags
- Promptly remove contaminated laundry from the point of care as soon as possible

# viii. **Dishes**

No special precautions are needed for dishes or eating utensils used in health care settings.

# ix. Occupational Health

All HCWs must be interviewed by occupational health staff on hiring.

- Vaccinations HCWs must have vaccination status accessed on hiring
  - Recommendations are included in the guideline for the preplacement health screening of healthcare workers for communicable diseases (Provincial Policy, 2007)
- Safe injection practices
  - Use aseptic technique to avoid contamination of sterile injection equipment
  - Use caution when handling sharp instruments and disposing of used needles
  - Do not remove used needles from disposable syringes by hand
  - Do not bend, break, or otherwise manipulate used needles by hand
  - Do not recap needles
  - Place used needles, scalpel blades and other sharp items in puncture-resistant containers located as close as practical to the point of use
  - Sharps containers must be sealed when 2/3 full

# 4. Additional Precautions

In addition to Routine Practices, Additional Precautions are used for persons with documented or suspected infections or colonization with highly transmissible or epidemiologically important pathogens.

These Additional Precautions include:

- 1) Airborne Precautions
- 2) Contact Precautions
- 3) Droplet Precautions

Outside of acute care hospitals and long term care facilities, health care is provided in a variety of chronic care facilities, ranging from convalescent homes and rehabilitation centers to centers for residents with psychiatric or physical disabilities. Establishing a balance between prevention of infection and quality of life for residents in such centers must be considered when implementing Additional Precautions.

Transmission may occur in ambulatory care settings however, the risk is less because of shorter contact times, lower numbers of contacts and generally a healthier population. In home care settings there is little evidence to suggest that provision of health care in the home setting results in disease transmission. Most infections in these settings are related to procedures and devices such as urinary or intravascular catheters where the risks of transmission relate to the aseptic practices of the caregiver, cleaning and disinfection of equipment and supplies between persons, and environmental cleanliness. Some consideration must be given to the nature of the illness of an individual cared for in the home (eg. respiratory illness vs wound care).

# **5.** Airborne Precautions

Airborne precautions are intended to prevent transmission of infectious agents that are spread by either airborne droplet nuclei or small-particle residue of evaporated droplets that remain infective over time and distance. Microorganisms carried in this manner may be dispersed over long distances by air currents and may be inhaled by susceptible individuals who have not had face-to-face contact with the infectious individual.

Examples of diseases which are transmitted via the airborne route include:

- Measles (rubeola)
- Varicella (including disseminated herpes zoster)
- Tuberculosis

#### **Components of Airborne Precautions include:**

#### i. Hand hygiene

Hand hygiene must be performed before and after contact with the patients or with the patients' immediate environment

#### ii. Personal protective equipment (PPE)

- A fit-tested and fit-checked National Institute for Occupation Safety and Health (NIOSH) approved N95 respirator must be worn when entering the room or home of a patient with a known or suspected infection that requires Airborne Precautions
- Provide instruction on fit checking (Appendix B)
- The respirator must not be removed until outside the patient's room door
- Healthcare personnel ,with written documentation of immunity to measles and chickenpox, are not required to wear respiratory protection when caring for patients with these diseases

#### iii. Accommodation

- Patients must be placed in a negative air pressure room
  - The room must have air changes per hour to meet current standards, be vented to the outside and maintain a negative room pressure with respect to the corridor
- If it is not possible to vent air directly to the outside, the air may be returned to the airhandling system or adjacent spaces if all air is directed through HEPA filters
- Visual checks of negative air pressure must be monitored daily when in use and documented
- Keep the door closed when not required for entry and exit
- Post a sign "Airborne Precautions" outside the door (Appendix B)

If a negative pressure room is not available, depending on the nature of the illness, consider transferring the patient to a facility that has an available negative pressure room.

In the event of an outbreak or exposure involving large numbers of patients who require airborne precautions, consult infection prevention and control for appropriate patient placement.

In ambulatory care settings:

- Use respiratory/cough etiquette signage to encourage self-identification of patients with known or suspected infections that require Airborne Precautions upon entry into ambulatory settings
- Triage patients with known or suspected infections that require Airborne Precautions upon entry into ambulatory settings
- Instruct patients with a known or suspected airborne infection to wear a surgical mask and observe respiratory hygiene/cough etiquette
- Place the patients in a negative air pressure room as soon as possible
- If a negative air pressure room is not available, place a surgical mask on the patient and place him/her in an examination room
- The patient may remove the mask when placed in a negative air pressure room
- Keep the room empty for at least one hour after the infectious patient has been transferred, to allow for a full exchange of air in the room

# iv. Personnel Restrictions

Susceptible healthcare personnel should be restricted from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox), disseminated zoster, or smallpox if other immune healthcare personnel are available.

# v. Patient Transport

- Limit transport and movement of patients outside of the room for essential purposes only.
- If transport or movement outside the room is necessary, instruct the patient to wear a surgical mask and observe respiratory hygiene/cough etiquette
- Notify personnel (e.g., porter, ambulance staff) and receiving department or facility of the required precautions
- For patients with skin lesions associated with varicella or smallpox or draining skin lesions caused by *Mycobacterium tuberculosis* cover the affected areas to prevent aerosolization or contact with the infectious agent in skin lesions
- Healthcare personnel transporting patients, who are on Airborne Precautions, do not need to wear a mask or respirator during transport if the patient is wearing a mask and any infectious skin lesions are covered

# vi. Education

- Staff should provide the following information to the patients/family:
  - Facts about the infectious disease and required precautions
  - Measures for prevention

# vii. Visitors

- Instruct family and regarding hand hygiene and the appropriate use of personal protective equipment before they entering the room
- Visitors must be instructed to wear a N95 mask that has been fit-checked; fit-testing is not required
- Keep the number of visitors to a minimum

#### 6. Contact Precautions

Contact Precautions are intended to prevent transmission of infectious agents, including epidemiologically important microorganisms, which are spread by direct or indirect contact with the environment. Contact precautions also apply where the presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased potential for extensive environmental contamination and risk of transmission.

- Direct contact transmission occurs when microorganisms are transferred from an infected person to another person without an intermediate object or person.
- Indirect contact transmission involves the transfer of an infectious agent through a contaminated intermediate object or person. The unwashed hands of healthcare workers may contribute to indirect contact transmission of microorganisms. Contaminated equipment and surfaces in the patient's environment also contribute to indirect contact transmission.

#### **Components of Contact Precautions include:**

#### i. Hand hygiene

 Hand hygiene must be performed before and after contact with the patients or with the patients' immediate environment

#### ii. Personal protective equipment (PPE)

- Wear a gown and gloves for contact with the patient and potentially contaminated areas in the patient's environment
- Don PPE before providing direct patient care
  - Perform hand hygiene after removal of PPE
  - In a multi-bed room, PPE must be removed and hand hygiene performed before providing care to another patient

#### iii. Accommodation

In acute care settings:

- A single room is preferred; the door may remain open
- Consult infection control personnel, if a single-patient room is not available, and review the various risks associated with other placement options
- Apply the following principles for making decisions on patient placement:
  - Place together in the same room (cohort) patients who are infected with the same pathogen and are suitable roommates
  - Avoid placing patients on Contact Precautions in the same room with patients who have conditions that may increase the risk of adverse outcome from infection or that may facilitate transmission.
  - In multi-bed rooms, ≥ one meter separation between beds is advised to reduce the opportunities for inadvertent sharing of items between patient
  - Draw the privacy curtains to minimize opportunities for close contact.
  - Change PPE and perform hand hygiene between contact with patients in the same room
  - Post a sign "Contact Precautions" outside the door/area (Appendix B)

In long term care settings:

 Make decisions regarding accommodation on a case-by-case basis, balancing infection risks in the room, the presence of risk factors that increase the likelihood of transmission, and the potential adverse psychological impact on the infected or colonized person

In ambulatory settings

 Place the person requiring Contact Precautions in a separate room or distance from others by at least one meter

In home care settings

 Make decisions regarding accommodation on a case-by-case basis, balancing infection risks in the room, the presence of risk factors that increase the likelihood of transmission, and the potential adverse psychological impact on the infected or colonized person

# iv. Health Care equipment

- Dedicate equipment (wheel chairs, walkers, etc.) for single use
- Clean and disinfect reusable equipment before use for others
- Limit the amount of non-disposable patient-care equipment brought into the room of patients on Contact Precautions

#### v. Environmental Control

- Clean all horizontal and frequently touched surfaces twice a day and when soiled
- In a multi-bed room, housekeeping activities must increase to a minimum of twice a day
- Apply routine practices when handling garbage

#### vi. Dietary/Dishes

- Use routine practices when handling dishes/cutlery
- Disposable dishes/cutlery are not necessary

#### vii. Patient Transport

- Limit transport of the patient from the room for essential purpose only
- Notify personnel (e.g. porter, ambulance staff) and receiving department or facility of the required precautions
- Maintain precautions during transport to minimize risk of transmission to other patients/residents and contamination of environmental surfaces and objects
- If direct patient contact is anticipated during transport, a gown and gloves should be worn by staff
- Clean wheelchairs and stretchers used in transport after use

#### viii. Education

- Staff should provide the following information to the patients/family:
  - Facts about the infectious disease and required precautions
  - Measures for prevention

# ix. Visitors

 Instruct family and visitors regarding hand hygiene and the appropriate use of personal protective equipment gown, gloves or other precautions before they enter the room

- Advise family members, who provide direct care or who have contact with the environment (around the patient) to wear a gown and gloves
- Keep the number of visitors to a minimum

# 7. Droplet Precautions

Droplet Precautions are intended to prevent transmission of infectious agents that are spread by the droplet route. Respiratory droplets are large-particle droplets that are generated when an infected person coughs, sneezes, or talks or during procedures such as suctioning or bronchoscopy. The area of defined risk has been a distance of one-two meters around the infected person and is based on epidemiologic and simulated studies of selected infections.

Examples of infectious agents that are transmitted via the droplet route include:

- Influenza virus
- Neisseria meningitidis
- Bordetella pertussis (whooping cough)

#### **Components of Droplet Precautions include:**

#### i. Hand hygiene

• Hand hygiene must be performed before and after contact with the patient or with the patient's immediate environment.

#### ii. Personal protective equipment (PPE)

- Wear a surgical/procedure mask when within one-two meters of the infected person
- Eye protection is indicated if the HCW is within 1-2 meters of a coughing patients or when performing procedures that may result in coughing

#### iii. Accommodation

In acute care settings:

- A single room is preferred; the door may remain open
- When a single-patient room is not available, apply the following principles for making decisions on patient placement:
  - Prioritize patients who have excessive cough and sputum production for single-patient room placement.
  - Place together in the same room (cohort) patients who are infected with the same pathogen and are suitable roommates
  - Avoid placing patients on Droplet Precautions in the same room with patients who have conditions that may increase the risk of adverse outcome from infection or that may facilitate transmission
  - Ensure that patients are physically separated (eg., 1- 2 meters) from each other
  - Draw the privacy curtains to minimize opportunities for close contact
  - Change PPE and perform hand hygiene between contacts with patients in the same room, regardless of whether one patient or both patients are on Droplet Precautions
  - Post a sign "Droplet Precautions" outside the door (Appendix B)

In long term care settings:

 Make decisions regarding resident placement on a case-by-case basis after considering infection risks to other residents in the room and available alternatives

In ambulatory care settings:

- Use triage and respiratory/cough etiquette signage to identify patients with known or suspected infections that require Droplet Precautions upon entry into ambulatory settings
- Place the patient in an examination room or cubicle as soon as possible
- If an examination room or cubicle is not immediately available:
  - Place the patient in an area of the waiting room separated from other patients by at least 1-2 meters, and minimize the time he/she spents in the waiting room.
- Place a surgical mask on the patient and instruct him/her to observe respiratory hygiene/cough etiquette until an examination room or cubicle becomes available
  - Once in an examination room, the patient's surgical mask may be removed and instruct the patient to continue to observe respiratory hygiene/cough etiquette

In home care settings:

 Make decisions regarding patient placement on a case-by-case basis after considering infection risks to others in the home

#### iv. Patient Transport

- Limit transport and movement of patients outside of the room for essential purposes only
- If transport or movement is necessary, instruct the patient to wear a surgical/procedure mask, if possible, and observe respiratory hygiene/cough etiquette
  - Notify personnel (e.g., porter, ambulance staff) and receiving department or facility of the required precautions
- Healthcare personnel transporting patients who are on Droplet Precautions do not need to wear a mask during transport if the patient is wearing a mask

#### v. Education

- Staff should provide the following information to the patient/family:
  - Facts about the infectious disease and required precautions
  - Measures for prevention

#### vi. Visitors

- Instruct family and visitors regarding hand hygiene and the appropriate use of personal protective equipment
- Teach all visitors coming within 1-2 meters of the patient that they must wear a surgical/procedure mask
- Keep the number of visitors to a minimum

# 8. Protective Precautions

Routine Practices are recommended for the care of the majority of patients with immunodeficiencies. However, patients who are severely immunodeficient may benefit from specific additional precautions. Severely immunodeficient persons include:

- Patients with a neutrophil count of less than  $0.5 \ge 10^9/L$
- Patients with HIV or AIDS who are not on antiretroviral therapy and have a CD4 of less than 200

#### **Components of Protective Precautions include:**

#### i. Hand hygiene

 Hand hygiene must be performed before and after contact with the patient or with the patient's immediate environment

#### ii. Personal protective equipment (PPE)

• A surgical/procedure mask is not required

#### iii. Accommodation

In acute care settings:

- A single room with a private bathroom is preferred
- If a room must be shared, the roommate should be evaluated for potential infectious risks to the patient with the immunodeficiency
- A sign "Protective Precautions" must be posted In long term care settings:
  - Make decisions regarding resident placement on a case-by-case basis In ambulatory care settings:
  - Place the patient in a private room or an examination room as soon as possible
  - A toilet (or commode) and sink should be available in the room In home care settings:
  - Make decisions on a case by case basis balancing the risk to the patient versus the needs
    of other family members

# iv. Environmental Control

- Plants and fresh/dried flowers should not be brought into the patient's room
- Water-retaining bath products (reusable sponges and scrubbers) and bath toys should not be allowed
- Pet visitation is generally discouraged. If it is allowed, the pet visitation policy should be strictly observed. Hands must be washed after handling the pet

### v. Education

- Staff should provide the following information to the patients/family:
  - Facts about the severe immunodeficiency and the required precautions
  - Advise on the following:

- Avoid the use of rectal thermometers, enemas, suppositories, tampons, rectal swabs, and rectal exams in order to prevent mucosal injury
- Attention to skin care to minimize the loss of skin integrity (bathe & shampoo regularly)
- Encourage good oral hygiene (use a soft tooth brush)
- Dietary precautions:
  - Avoid raw fruits and vegetables that cannot be peeled or cooked (especially salads)
  - Avoid processed meats
  - Thoroughly clean lids of canned foods and beverages before opening

#### vi. Visitors

- Before entering the room, family and visitors should be instructed regarding hand hygiene
- All who enter the patient's room must be asked about recent exposure to communicable diseases or the presence of symptoms of an active infection (eg., fever, cough, diarrhea)
  - Any person with a recent exposure to a communicable disease for which they have no immunity should not visit
  - Anyone with symptoms of an active infection should not visit
- The number of visitors should be kept to a minimum

# DEFINITIONS

**Care recipient** – In the health care environment different names have been given to the recipient of care depending on the environment for example; in acute care the term patient is used, in long term care – resident is used and in community care the term client is used. For the purpose of this document the term person or patient will be used to indicate the patient, resident or client+ receiving health care regardless of the location of the care.

**Health care workers (HCWs)** – All paid and unpaid persons who work in a healthcare setting (e.g. any person who has professional or technical training in a healthcare-related field and provides patient care in a healthcare setting or any person who provides services that support he delivery of healthcare such as dietary, housekeeping, engineering, maintenance personnel).

**Healthcare associated infections (HAIs)** – An infection that develops in a patient who is cared for in any setting where healthcare is delivered (e.g. acute care facilities, long term care facilities, ambulatory clinics, dialysis centers, home) and is related to receiving health care (e.g. was not incubating or present at the time healthcare was provided). In ambulatory and home settings, HAI would apply to any infection that is associated with a medical or surgical intervention. Since the geographic location of infection acquisition is often uncertain, the preferred term is considered to be healthcare-associated rather than healthcare-acquired.

**HEPA filter –** High-efficiency particulate air filter – An air filter that removes greater than 99.97% of particles greater than  $0.3\mu$  (the most penetrating particle size) at a specified flow rate of air. HEPA filters may be integrated into the central air handling systems, installed at the point of use above the ceiling of a room, or used as a portable unit.

**Infection** – The transmission of microorganisms into a host after evading or overcoming defense mechanisms, resulting in the organism's proliferation and invasion within host tissue(s). Host responses to infection may include clinical symptoms or may be subclinical, with manifestations of disease mediated by direct organisms pathogenesis and or a function of cell-mediated or antibody responses that result in the destruction of host tissues.

**Long-term care facilities (LTCFs)** – An array of residential and outpatient facilities designed to meet the needs of persons who can no longer safely live at home (e.g. because of their need for medication supervision, 24-hour surveillance, assisted meal service, professional nursing care and/or supervision). These include nursing homes, group homes, residential care facilities, assisted living facilities, rehabilitation centers, and long term care psychiatric hospitals.

**Nosocomial infection -** A term that is derived from two Greek words `nosos`(disease) and `komeion`` (to take care of ) and refers to any infection that develops during or as a result of an admission to an acute care hospital and was not incubating at the time of admission.

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# APPENDICES

# **Appendix A – Infections and Recommended Precautions**

This section will provide an overview of specific diseases and the recommended precautions. This will serve as a quick reference for healthcare workers. This does not replace the need to contact the Infection Control Practitioner when an infectious patient/resident/client has been identified in a health care setting.

Infection/Condition	Precautions	Duration	Comments
Abscess Draining, major - no dressing or dressing does not adequately contain drainage	С	DI	
Draining, minor or limited - dressing covers and adequately contains drainage	R		
Acquired immunodeficiency syndrome (AIDS)	R		
Actinomycosis	R		
Adenovirus infection, in infants and young children	D,C	DI	
Amebiasis	R		
Anthrax			
Cutaneous	R		
Pulmonary	R		
Aerosolizable spore-containing powder	A,C		
Antibiotic-associated colitis (see Clostridium difficle)			
Anthropodborne viral encephalitides (eastern western, Venezuelan equine encephalomyelitis; St. Louis, California encephalitis, West Nile Virus)	R		Not transmitted from person to person except rarely by transfusion, and for West Nile virus by organ transplant, by breastmilk or transplacentally; Install screens in windows and doors in endemic areas. Use DEET-containing mosquito repellants and clothing to cover extremities
Arthropod-borne viral fevers (dengue, yellow fever, Colorado tick fever)	R		Not transmitted from person to person except by transfusion, rarely Install screens in windows and doors in endemic areas Use DEET-containing mosquito repellants and clothing to cover extremities
Ascariasis	R		Not transmitted from person to person

Infection/Condition	Precautions	Duration	Comments
Aspergillosis – no soft tissue involved	R		
- soft tissue involvement	C	DI	
- massive soft tissue involvement with copious	Α		
drainage and repeated irrigation required			
Avian influenza	A, D, C	14 days	N95 respirator protection (surgical mask if N95 unavailable); eye
		after onset	protection (goggles, face shield within 3 feet of patient);
		of	Precautions continued up to 14 days after onset of symptoms or
		symptoms	until an alternative diagnosis is established or until diagnostic test
		• •	results indicate that the patient is not infected with influenza A
			H5N1virus. Human-to-human transmission inefficient and rare,
			but risk of reassortment with human influenza strains and
			emergence of pandemic strain serious concern.
Babesiosis	R		Not transmitted from person to person except by transfusion,
			rarely.
Blastomycosis, North American, cutaneous or pulmonary	R		Not transmitted from person to person.
Botulism	P		Not transmitted from person to person
Dotunishi	K		Not transmitted from person to person.
Bronchiolitis (see respiratory infections in infants and young	R (adults)	DI	Use mask according to Routine Precautions and until influenza
children)	C (children)		and adenovirus have been ruled out as etiologic agents
Brucellosis (undulant, Malta, Mediterranean fever)	R		No transmitted from person to person
Campylobacter gastroenteritis (see gastroenteritis)			
Candidiasis, all forms, including mucocutaneous	R		
Cat-scratch fever, benign inoculation lymphoreticulosis	R		Not transmitted from person to person
Cellulitis – controlled drainage	R		
- uncontrolled drainage	С	DI	
Chancroid (soft chancre)	R		
Chickenpox (see varicella)			
Type of Precautions: A, Airborne Isolation; C, Contact; D, Drop of precaution=DI, duration of illness (eg., wound lesion, DI mea	olet; R, Routine;	when A, C, a and stops drain	nd D are specified, also use R. Duration

Infection/Condition	Precautions	Duration	Comments
	1		
Chlamydia trachomatis			
Conjunctivitis	R		
Genital	R		
Respiratory	R		
Cholera (see gastroenteritis)			
Closed-cavity infection			
Draining, limited or minor	R		
Not draining	R		
Copious drainage	С	DI	Maintain Contact Precautions until drainage ceases
Clostridium			
C. botulism	R		Not transmitted
C. difficile (also see gastroenteritis, C. difficile)	С	DI	Assess need to discontinue antibiotics Avoid the use of shared electronic thermometers Ensure consistent environmental cleaning and disinfection
C. perfringens			
Food poisoning	R		Not transmitted from person to person
roou poisoning	R		Not transmitted from person to person
Gas gangrene			

Infection/Condition	Precautions	Duration	Comments
Coccidiodiomycosis (valley fever)			
Draining lesions	R		Not transmitted from person to person
Pneumonia	R		Not transmitted from person to person
Colorado tick fever	R		Not transmitted from person to person
Congenital rubella see rubella	D/C		
Conjunctivitis Acute bacterial	R		Acute viral conjunctivitis – Adenovirus most common; enterovirus 70, Coxsackie virus A24 also associated with community outbreaks. Highly contagious; outbreaks in eye
Chlamydia	R		reported. Eye clinics should follow Routine Practices when handling patients with conjunctivitis. Routine use of infection
Gonococcal	R		control measures in the handling of instruments and equipment will prevent the occurrence of outbreaks in this and other settings.
Acute viral (acute hemorrhagic)	С	DI	
Corona virus associated with SARS (SARS-CoV) (see severe acute respiratory syndrome)			
Coxsackie virus (see enteroviral infection)			
Creutzfeldt-Jakob disease CJD, vCJD	R		
Croup (see respiratory infections in infants and young children)			
Cryptococcosis	R		Not transmitted from person to person
Cryptosporidiosis (see gastroenteritis)			
Cysticercosis	R		Not transmitted from person to person
Cytomegalovirus infection, neonatal or immunosuppressed	R		No additional precautions for pregnant HCWs

Infection/Condition	Precautions	Duration	Comments
Decubitus ulcer (pressure sore), infected			
Major - no dressing or dressing does not adequately contain drainage	С	DI	If no dressing or containment of drainage; until drainage stops or can be contained by dressing
Minor or limited - dressing covers and adequately contains drainage	R		
Dengue	R		Not transmitted from person to person
Diarrhea, acute-infective etiology suspected (see gastroenteritis for more specific detailed comments)	С	DI	
Diphtheria			
Cutaneous	С	CN	Until two cultures taken at least 24 hours apart are negative
Pharyngeal	D	CN	Until two cultures taken at least 24 hours apart are negative
Ebola viral hemorrhagic fever (see viral hemorrhagic fevers)			
Echinococcosis (hydatidosis)	R		Not transmitted from person to person
Echovirus (see enteroviral infection) Continent adults	R		Continent adults; strictly adhere to Routine Practices
Outbreak situation of incontinent or diapered children & adults	С	DI	Duration of outbreak
Encephalitis or encephalomyelitis (see specific etiologic agents)			
Endometritis	R		
Enterobiasis (pinworm disease, oxyuriasis)	R		
Enterococcus spp. (see multidrug-resistant organisms if			
epidemiologically significant or vancomycin resistant)			
Enterocolitis, <i>Clostridium difficile</i> (see <i>C. difficile</i> , gastroenteritis)			

Type of Precautions: A, Airborne Isolation; C, Contact; D, Droplet; R, Routine; when A, C, and D are specified, also use R. Duration of precaution=DI, duration of illness (eg., wound lesion, DI means until the wound stops draining) CN= until off antimicrobial treatment and culture-negative.

Infection/Condition	Precautions	Duration	Comments

Enteroviral infections	C/R		Use Contact Precautions for diapered or incontinent children for duration illness and to control institutional outbreaks
Epiglottitis, due to Haemophilus influenzae tybe b	D	U 24 hrs	
Epstein-Barr virus infection, including infectious mononucleosis	R		
Erythema infectiosum (also see Parvovirus B19)			
Escherichia coli gastroenteritis (see gastroenteritis)			
Food poisoning			
Botulism	R		Not transmitted from person to person
Clostridium perfringens or Clostridium welchii	R		Not transmitted from person to person
Staphylococcal	R		Not transmitted from person to person
Furunculosis - staphylococcal	R		
Infants and young children	С	DI	
Gangrene (gas gangrene)	R		Not transmitted from person to person

Type of Precautions: A, Airborne Isolation; C, Contact; D, Droplet; R, Routine; when A, C, and D are specified, also use R. Duration of precaution=DI, duration of illness (eg., wound lesion, DI means until the wound stops draining); U24 = Until 24 hours after initiation of effective treatment.

Infection/Condition	Precautions	Duration	Comments
			I
Gastroenteritis Adenovirus	С	DI	Contact precautions should be used for hospitalized children and for hospitalized adults who have poor hygiene or incontinence.
Campylobacter spp.	С		
Cholera	С		
Clostridium difficile	С	DI	Discontinue antibiotics if appropriate. Avoid the use of shared electronic thermometers; ensure consistent environment cleaning and disinfection.
Cryptosporidium spp. E.coli Enteropathogenic 0157:H7 Other species	C C		Contact precautions should be used for hospitalized children and for hospitalized adults who have poor hygiene or incontinence.
Giardia lamblia	С		
Noroviruses	С	DI	See guideline for the management of norovirus infection
Rotavirus	С		
Salmonella spp. (including S. typhi)	С		
Shigella spp.	С		
Vibrio parahaemolyticus	R		
Viral (if not covered elsewhere)	С	DI	
Yersinia enterocolitica	С		

Infection/Condition	Precautions	Duration	Comments
German measles (see rubella; see congenital rubella)			
Giardiasis (see gastroenteritis)			
Gonococcal ophthalmia neonatorum (gonorrheal ophthalmia, acute conjunctivitis of newborn)	R		
Gonorrhea	R		
Granuloma inguinale (Donovanosis, granuloma venereum)	R		
Hand, foot and mouth disease (see enteroviral infection)			
Hantavirus pulmonary syndrome	R		Not transmitted from person to person
Helicobacter pylori	R		
Hepatitis, viral			
Type A (fecal oral transmission)	С	DI	Provide hepatitis A vaccine postexposure as recommended
Diapered or incontinent patients	С		Maintain Contact Precautions in infants and children <3 years of age for duration of hospitalization; for children 3-14 yrs. of age for 2 weeks after onset of symptoms; >14 yrs of age for 1 week after onset of symptoms
Type B-HBsAg Positive (percutaneous/permucosal transmission)	R		See specific recommendations for care of patients in hemodialysis centers
Type C (percuteous/permucosal transmission)	R		
Type D (seen only with hepatitis B)	R		
Type E (fecal oral transmission –especially contaminated water	С	DI	Use Contact Precautions for diapered or incontinent individuals for the duration of illness

Type of Precautions: A, Airborne Isolation; C, Contact; D, Droplet; R, Routine; when A, C, and D are specified, also use R; DI= Duration of illness

# Type and duration of precautions for selected infections and conditions

Infection/Condition	Precautions	Duration	Comments
			L
Herpangina (see enteroviral infection)			
Herpes simplex (Herpesvirus hominis)			
Encephalitis	R		
Mucocutaneous, disseminated or primary, severe	С		Until lesions dry and crust
Mucocutaneous, recurrent (skin, oral, genital)	R		
Neonatal	С		Until lesions dry and crusted Also, for asymptomatic, exposed infants delivered vaginally or by C-section and if mother has active infection and membranes have been ruptured for more than 4 to 6 hours until infant surface cultures obtained at 24-36 hrs of age neg after 48 hrs incubation
Herpes zoster (varicella-zoster) see Varicella-zoster			
Histoplasmosis	R		Not transmitted from person to person
Human immunodeficiency virus (HIV) infection	R		Post-exposure chemoprophylaxis for high risk blood exposures
Impetigo	С	U 24 hrs	
Infectious mononucleosis (Epstein-Barr Virus Infections)	R		
Influenza	D	5 days except DI in immuno comprom persons	Private room when available or cohort; avoid placement with high-risk patients; keep doors closed; mask patient when transported out of room; chemoprophylaxis/vaccine to control/prevent outbreaks
Avian influenza (see Avian influenza)			
Kawasaki syndrome	R		Not an infectious condition

Infection/Condition	Precautions	Duration	Comments
Lassa fever (see viral hemorrhagic fevers)			
Legionnaires' disease	R		
Leprosy	R		
Leptospirosis	R		In addition to Routine Practices, Contact precautions are recommende for contact with urine.
Lice (head [pediculosis], body, pubic)	C	U 24 hrs	After treatment
Listeriosis	R		Person-to-person transmission rare
Lyme disease	R		Not transmitted from person to person
Lymphocytic choriomeningitis	R		Not transmitted from person to person
Lymphogranuloma venereum	R		
Malaria	R		Not transmitted from person to person except through transfusion, rarely; install screens in windows and doors in endemic areas; use DEET-containing mosquito repellants and clothing to cover extremities
Marburg virus disease (see hemorrhagic fevers)			
Measles (rubeola)	A	DI	In addition to routine precautions, airborne transmission precautions are indicated for 4 days after the onset of rash in otherwise healthy children and for the duration of illness in immunocompromised patients.
Melioidosis, all forms	R		Not transmitted from person to person

Infection/Condition	Precautions	Duration	Comments
Meningitis	D/C		
Aseptic (nonbacterial or viral; see also enteroviral infections)	R/C		Contact for infants and young children
Bacterial, gram-negative enteric, in neonates	R		
Fungal	R		
Haemophilus influenzae, type b known or suspected	D	U 24 hrs	
Listeria monocytogenes	R		
<i>Neisseria meningitidis</i> (meningococcal) known or suspected	D	U 24 hrs	
Streptococcus pneumoniae	R		
Tuberculosis	R		Concurrent, active pulmonary disease or draining cutaneous lesions necessitate addition of Airborne Precautions
Other diagnosed bacterial	R		
Meningococcal disease: sepsis, pneumonia, meningitis	D	U 24 hrs	Post exposure chemoprophylaxis for household contacts.
Molluscum contagiosum	R		
Monkeypox	A, C	Until lesions crusted	See <u>www.cdc.gov/ncidod/monkeypox</u> for most current recommendations
Mucormycosis	R		
Multidrug-resistant organisms (MDROs), infection or	C		Contact Precautions required in settings with evidence of ongoing
colonization (e.g., MRSA, VRE, VISA, ESBLs)			transmission, acute care settings with increased risk for
			transmission or wounds that cannot be contained by dressings.
			contact Infection Control Service for guidance regarding new or
Type of Dropoutiona, A. Ainhama Instation, C. Conta	+ D D	D David	energing MDKU
i ype of Precautions: A, Airborne Isolation; C, Contac	i; D, Droplet;	K, KOUtine	e; when A, C, and D are specified, also use R. Duration
of precaution=DI, duration of illness (eg., wound lesio	n, DI means	until the wo	ound stops draining); U=Until 24 hours after treatment

Infection/Condition	Precautions	Duration	Comments
Mumps (infectious parotiditis)	D	U 5 days	After onset of swelling; susceptible HCWs should not provide care if immune caregivers are available.
Mycobacteria, nontuberculosis (atypical)			
Pulmonary	R		Not transmitted person-to-person
Wound	R		If wound drainage cannot be contained use Contact Precautions.
Mycoplasma pneumonia	D	DI	
Necrotizing enterocolitis	R		Contact Precautions when cases temporally clustered
Nocardiosis, draining lesions, or other presentations	R		
Norovirus (see gastroenteritis)			
Norwalk agent gastroenteritis (see gastroenteritis)			
Orf	R		
Parainfluenza virus infection, respiratory in infants and young children	С	DI	
Parvovirus B19	D		Droplet precautions for hospitalized children with aplastic crises, papulopurpuric gloves-and-socks syndrome, or immunosuppressed patients with chronic infection and anemia for the duration of hospitalization. Inform pregnant health care professionals should be informed of the potential risks to fetus and about preventive measures that may decrease these risks.
Pediculosis (lice)	С	U 24 hrs after treatment	
Pertussis (whooping cough)	D	U 5 days after treatment	Private room preferred. Post-exposure chemoprophylaxis for households or other environments where there is an infant under 1 year of age.
Type of Precautions: A, Airborne Isolation; C, Contact; D, precaution=DI, duration of illness (eg.,wound lesion, DI mo	Droplet; R, Ro eans until the v	outine; when wound stops	A, C, and D are specified, also use R. Duration of draining; U=Until specified hours of treatment

Infection/Condition	Precautions	Duration	Comments
Pinworm infection	R		
Plague (Yersinia pestis)			
Bubonic	R		
Pneumonic	D	U 72 hrs	Antimicrobial prophylaxis for exposed HCW
Pneumonia			
Adenovirus	D,C	DI	Outbreaks in pediatric and institutional settings reported. In immunocompromised hosts, extend duration of Droplet and
Bacterial not listed elsewhere (including gram-neg bacterial)	R		Contact Precautions due to prolonged shedding of virus.
<i>Burkholderia cepacia</i> in cystic fibrosis patients, including respiratory tract colonization	С	DI	Avoid exposure to other persons with CF; private room preferred.
Chlamydia	R		
Funcal	R		
Haemophilus influenzae, type b	D	U 24 Hrs	Infants and young children D
Legionella spp.	R	_	
Meningococcal	D	U 24 hrs	
Mycoplasma (primary atypical pneumonia)	D	DI	
Pneumococcal pneumonia	R		Use Droplet Precautions if evidence of transmission within a patient care unit or facility
Pneumocystis jiroveci (Pneumocystis carinii)	R		Avoid placement in the same room with an immunocompromised patient.
Staphylococcus aureus	R		If MRSA see MRDOs
Streptococcus, Group A	D	U24	See streptococcal disease (group A streptococcus) below Contact precautions if skin lesions present
		D D	

Infection/Condition	Precautions	Duration	Comments
Poliomvalitis	C	DI	
Fonomyenus	C	DI	
Prion disease (See Creutzfeld-Jacob Disease)			
Psittacosis (ornithosis) Chlamydia psittaci	R		Not transmitted from person to person
Q fever	R		
Rabies	R	DI	See Rabies policy – CDC Manual
Rat-bite fever (Streptobacillus moniliformis disease, Spirillum minus disease)	R		
Relapsing fever	R		
Resistant bacterial infection or colonization (see multidrug- resistant organisms)			
Respiratory syncytial virus infection, in infants and young children, and immunocompromised adults	D	DI	
Reye's syndrome	R		Not an infectious condition
Rheumatic fever	R		Not an infectious condition
Rickettsial fevers, tickborne (Rocky Mouintain spotted fever, tickborne typhus fever)	R		Not transmitted from person to person except through transfusion, rarely
Rickettsialpox (vesicular rickettsiosis)	R		
Ringworm (dermatophytosis, dermatomycosis, tinea)	R		
Ritter's disease (staphylococcal scalded skin syndrome)	С	DI	
Rocky Mountain spotted fever	R		Not transmitted from person to person except through transfusion, rarely
Roseola infantum (exanthum subitum) (caused by HHV-6)	R		
Type of Presentions: A Airborne Isolation: C Contact: D Dron	at P. Poutina	when A C or	ad D are specified also use P. Duration of presention-DI duration

Infection/Condition	Precautions	Duration	Comments
Rotavirus infection (see gastroenteritis)			
Rubella (German measles) (congenital rubella)	D	U 7 days after onset of rash	Susceptible HCWs should not enter room if immune caregivers are available. Pregnant women who are not immune should not care for these patients. Administer vaccine within three days of exposure to non-pregnant susceptible individuals. Exclude susceptible healthcare personnel from duty from day 7 after exposure to day 21 after last exposure, regardless of post- exposure vaccine. In addition to routine precautions for postnatal rubella, droplet precautions are recommended for 7 days after onset of the rash. Contact isolation is indicated for children with proven or suspected congenital rubella until they are at least one year of age, unless 2 nasopharyngeal and urine culture results after 3 months of age are negative consecutively for rubella virus.
Rubeola (see measles)			
Salmonellosis (see gastroenteritis)			
Scabies	С	U 24 after treatment	Norwegian scabies – Contact Infection Control
Scalded skin syndrome, staphylococcal (Ritter's disease)	С		
Schistosomiasis (bilharziasis)	R		

Infection/Condition	Precautions	Duration	Comments
Severe acute respiratory syndrome (SARS)	A,D,C	DI plus 10 days after resolution of fever, provided respirator y symptoms are absent or improving	Negative pressure room preferred; N95 or higher respiratory protection; eye protection (goggles, face shield); aerosol- producing procedures and "supershedders" highest risk for transmission; vigilant environmental disinfection (see <u>www.cdc.gov/ncidoc/sars</u> )
Shigellosis (see gastroenteritis)			
Smallpox (variola; see vaccinia for management of vaccinated persons)	A, C	DI	Until all scabs have crusted and separated (3-4 weeks). Non- vaccinated HCWs should not provide care when immune HCWs are available; N95 or higher respiratory protection required for susceptible and successfully vaccinated individuals; postexposure vaccine within 4 days of exposure protective.
Sporotrichosis (cutaneous fungal infection)	R		
Spirillum minus disease (rat-bite fever)	R		
Staphylococcal disease (S.aureus) Skin, wound or burn Major Minor or limited - Enterocolitis	C R R	DI	no dressing or dressing does not adequately contain drainage dressing covers and adequately contains drainage
Multidrug-resistant (see multidrug-resistant organisms) Penumonia Scalded skin syndrome Toxic shock syndrome	C R C R		Use Contact Precautions for diapered or incontinent children for duration of illness
Turna of Dressoutional A. Airhanna Isolations C. Contacts D. Dren	at D. Douting	when A C or	d D are exactly also use D. Dynation of presention-DI dynation

Infection/Condition	Precautions	Duration	Comments
Streptobacillus moniliformis disease (rat-bite fever)	R		Not transmitted from person to person
Streptococcal disease (group A <i>Streptococcus</i> ) Skin, wound, or burn			
Major	С	U 24 hrs	No dressing or dressing does not contain drainage adequately
Minor or limited	R		Dressing covers and contains drainage adequately
Endometritis (puerperal sepsis)	R		
Pharyngitis in infants and young children	D	U 24 hrs	
Pneumonia in infants and young children	D	U 24 hrs	
Scarlet fever in infants and young children	D	U 24 hrs	
Serious invasive disease, e.g., necrotizing fasciitis, toxic shock syndrome	D C	U 24 hrs	Contact Precautions for draining wound as above
Streptococcal disease (group B Streptoccoccus) neonatal	R		
Streptococcal disease (not group A or B) unless covered elsewhere	R		
Multidrug-resistant (see multidrug-resistant organisms)	CU 24 hrsNo ofRDressRU 24 hrsDU 24 hrsDU 24 hrsDU 24 hrsDU 24 hrsCU 24 hrsDC 24 hrsCU 24 hrsDC 24 hrsCU 24 hrsDU 24 hrsDU 24 hrsDU 24 hrsDU 24 hrsDU 24 hrsNo ofRU 24 hrsRImage: Comment of the second of the		
Type of Precautions: A, Airborne Isolation; C, Contac	t; D, Droplet;	; R, Routine	e; when A, C, and D are specified, also use R. Duration

of precaution=DI, duration of illness (eg., wound lesion, DI means until the wound stops draining); U=Until 24 hours after treatment

Infection/Condition	Precautions	Duration	Comments
Strongyloidiasis	R		
Syphilis			
Skin and mucous membrane, including congenital, primary, secondary	R		
Latent (tetiary) and seropositivity without lesions	R		
Tapeworm disease			
Hymenolepis nana	R		Not transmitted from person to person
Taenia solium (pork)	R		
Other	R		
Tetanus	R		Not transmitted from person to person
Tinea (fungus infection dermatophytosis, ringworm	R		
Toxoplasmosis	R		
Toxic shock syndrome (staphylococcal disease, streptococcal disease)	R		Droplet Precautions for the first 24 hours after implementation of antibiotic therapy if Group A streptococcus is a likely etiology
Trachoma, acute	R		
Trench mouth (Vincent's angina)	R		
Trichinosis	R		
Trichomoniasis	R		
Trichuriasis (whipworm disease)	R		
Type of Precautions: A. Airborne Isolation: C. Contac	t: D. Droplet:	R. Routine	e: when A. C. and D are specified, also use R. Duration

Infection/Condition	Precautions	Duration	Comments
Tuberculosis Extrapulmonary, draining lesion	A, C		Discontinue precautions only when patient is improving clinically, and drainage has ceased or there are three consecutive negative cultures of continued drainage. Examine for evidence of active pulmonary tuberculosis.
Extrapulmonary, no draining lesion, meningitis	R		Examine for evidence of pulmonary tuberculosis
Pulmonary or laryngeal disease, confirmed	А		Discontinue precautions only when patient on effective therapy is improving clinically and has three consecutive sputum smears negative for acid-fast bacilli
Pulmonary or laryngeal disease, suspected	А		Discontinue precautions only when the likelihood of infectious TB disease is deemed negligible, and either 1) there is another diagnosis that explains the clinical syndrome or 2) the results of three sputum smears for AFB are negative.
Skin-test positive with no evidence of current pulmonary disease	А		Low risk – one negative AFB Gram stain High risk – three negative AFB Gram stain
Tularemia			
Draining lesion	R		Not transmitted from person to person
Pulmonary	R		Not transmitted from person to person
Typhoid (Salmonella typhi) fever (see gastroenteritis)			
Typhus, endemic and epidemic	R		Not transmitted from person to person
Urinary tract infection (including pyelonephritis), with or without urinary catheter	R		
Type of Precautions: A, Airborne Isolation; C, Contact; D, Dropl of illness (eg., wound lesion, DI means until the wound stops dra	et; R, Routine; v ining): U=Until	when A, C, an 24 hours afte	nd D are specified, also use R. Duration of precaution=DI, duration r treatment

Infection/Condition	Precautions	Duration	Comments
Secondary bacterial infection (e.g., S. aureus, group A beta	R/C		Follow organism-specific (strep, staph most frequent
hemolytic streptococcus)			recommendations and consider magnitude of drainage
Varicella-Zoster	A,C	Until	Susceptible HCWs should not enter room if immune caregivers
		lesions	are available; Provide exposed susceptibles post exposure
		dry and	vaccine; post-exposure vaccine within 3-5 days has been shown
		crusted	to be effective in preventing or reducing the serverity of
			varicella; place unvaccinated exposed susceptibles on
			administrative leave for 8-21 days, in immunocompromised nost
			asions grueted VZIG within 06 hours for past exposure
			prophylaxis for suscentible exposed persons for whom vaccine is
			contraindicated including immunocompromised persons
			pregnant women and newborns whose mother's varicella onset is
			< 5 days before delivery or within 48 hrs after delivery
Varicella-Zoster (Shingles)			
Immunocompromised patiets who have zoster (localized	A,C	DI	See precautions above
or disseminated) and immunocompetent patients with			
disseminated zoster			
Localized zoster in immunocompetent patients	С		Contact precautions until all lesions are crusted
Variola (see smallpox)			
Vibrio parahaemolyticus (see gastroenteritis)			
Vincent's angina (trench mouth)	R		
Viral hemorrhagic fevers due to Lassa, Ebola, Marburg,	A, C	DI	Add eye protection, double gloves, leg and shoe coverings, and
Crimean-Congo fever viruses			impermeable gowns, according to hemorrhagic fever specific
			barrier precautions. Notify Infection Control/Medical Officer of
			Health immediately if Ebola is suspected (www.bt.cdc.gov)

Infection/Condition	Precautions	Duration	Comments
Viral respiratory diseases (not covered elsewhere) Adults Infants and young children (see respiratory infectious disease,	R		
Whooping cough (see pertussis)			
Wound infections			
Major	С	DI	No dressing or dressing does not contain drainage adequately
Minor	R		Dressing cover and contains drainage adequately
<i>Yersinia enterocolitica</i> gastroenteritis (see gastroenteritis)			
Zoster (varicella-zoster) (see herpes zoster)			
Zygomycocis (phycomycosis, mucormycosis)	R		

Type of Precautions: A, Airborne Isolation; C, Contact; D, Droplet; R, Routine; when A, C, and D are specified, also use R.

Duration of precautions: DI, duration of illness (with wound lesions, DI means until wounds stop draining

# Appendix B – Signage

In this document there have been recommendations for the posting of signs which would indicate to others when additional precautions are required. Included in this appendix are signs that have been accepted by the Provincial Infection Control (PIC-NL) network as the provincial signage for facilities. Regional Health Authorities can use their own logos as they deem necessary. A poster which depicts the recommendations for Routine practices is also included.

- Appendix B1 Cover Your Cough
- Appendix B2 Routine Practices
- Appendix B3 Airborne Precautions
- Appendix B4 ABC's of Respirator Safety
- Appendix B5 Droplet Precautions
- Appendix B6 Contact Precautions
- Appendix B7 Protective Precautions



# ROUTINE PRACTICES FOR HEALTH CARE SETTINGS

ROUTINE PRACTICE	S to be used with ALL PATIENTS/CLIENTS/RESIDENTS
	<ul> <li>HAND HYGIENE</li> <li>Hand hygiene is performed using alcohol-based hand rub or soap and water:</li> <li>Before and after each client/patient/resident contact</li> <li>Before performing invasive procedures</li> <li>Whenever hands come into contact with secretions, excretions, blood and body fluids</li> <li>After contact with items in the patient/client/resident's environment</li> </ul>
	<ul> <li>MASK &amp; EYE PROTECTION OR FACE SHIELD</li> <li>Protect eyes, nose and mouth during procedures and care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions</li> <li>Wear within 2 meters of a coughing patient/client/resident</li> </ul>
	GOWN <ul> <li>Wear a long-sleeved gown if contamination of clothing is anticipated</li> </ul>
T	<ul> <li>GLOVES</li> <li>Wear gloves when there is a risk of hand contact with blood, body fluids, secretions, excretions, non-intact skin, mucous membranes or contaminated surfaces or objects</li> <li>Perform hand hygiene before and after removing gloves</li> </ul>
E	<ul> <li>ENVIRONMENT</li> <li>All equipment that is being used by more than one patient/client/resident mus: be cleaned between patients/clients/residents</li> <li>All touched surfaces in the patient/client/resident's room must be cleaned daily</li> </ul>
	<ul> <li>LINEN &amp; WASTE</li> <li>Handle soiled linen and waste carefully to prevent personal contamination and transfer to other patients/clients/residents</li> </ul>
	<ul> <li>SHARPS INJURY PREVENTION</li> <li>NEVER recap used needles</li> <li>Place sharps in sharps containers</li> <li>Prevent injuries from needles, scalpels and other sharp devices</li> </ul>
Ŧ	<ul> <li>PATIENT PLACEMENT AND ACCOMMODATION</li> <li>Use a single room for a patient/client/resident who contaminates the environment</li> <li>Perform hand hygiene after leaving the room</li> </ul>
ewfoundland Labrador	Infection Prevention & Control October 2008

AIRBORNE F (IN ADDITION TO R	PRECAUTIONS ROUTINE PRACTICES)	
VISITORS: PLEASE F	REPORT TO NURSING	
PATIENT PLACEMENT	RESPIRATOR	
<ul> <li>Private room preferred</li> <li>Keep door closed</li> </ul>	N-95 Respirator upon entering room	
HAND HYGIENE	PATIENT TRANSPORT	
<ul> <li>Before and after contact with the patient or the patient's environment</li> </ul>	<ul> <li>Transport for essential purposes only</li> <li>Patient must wear surgical/procedure mask during transport</li> <li>Notify receiving department</li> </ul>	Newformiten Labrator October 2008







