

## PROTECTIVE PRECAUTIONS PROTOCOL

### 1. Introduction

Protective Precautions protect severely immunocompromised people from environmental organisms and organisms carried by staff, visitors and even their own flora. Follow Protective Precautions in addition to [Routine Practices](#). Follow [Routine Practices](#) at all times.

### 2. Indications

Implement Protective Precautions for severely [immunocompromised](#) people:

- who have had an allogeneic hematopoietic stem cell transplant
- OR

- whose absolute neutrophil count (ANC) is expected to be below  $0.5 \times 10^9/L$  <sup>[18.5]</sup> for 7 days or more.

Note: The ANC is in the CBC report under Abs Neutrophils.

The ANC is calculated automatically and is written as # X 10E9/L.

### 3. Source Control

- Put the [Protective Precautions sign](#) in a visible location
- Dedicate wash basins to a single person
- Clean and disinfect wash basins with disinfectant wipes between each use on same person
- If bathed in a tub, clean tub according to facility procedures before each use
- Consider using disposable bath wipes for bathing
- Consider bathing more often than standard.

### 4. Accommodation

- Put person on Precautions in a **positive** pressure room where available
- Put person on Precautions in a single room if a **positive** pressure room is not available
- Do not cohort
- Keep door closed
- Avoid room transfer unless medically indicated.

### 5. Duration of Precautions

- Discontinue Protective Precautions on a case by case basis ONLY with direction from the attending physician, Infectious Diseases or site Infection Control Professional (ICP)/designate.

### 6. Staff Management

Staff with the following SHALL NOT enter the room:

- signs or symptoms of infectious diseases, example:
  - fever
  - respiratory symptoms
  - vomiting
  - diarrhea
  - herpes zoster/shingles or other infectious rashes, whether covered or not
  - open herpes simplex virus lesions of lips or fingers that are not dry and crusted over
- recent exposure to infectious diseases, e.g., chickenpox, measles, mumps, rubella, pertussis or an infectious rash
- rash within 6 weeks of chickenpox (varicella) vaccination <sup>[18.4][18.10][18.9]</sup>
- rash within 6 weeks of live-shingles (Zostavax) vaccination <sup>[18.7][18.11][18.9]</sup> live oral polio vaccination (only available outside of Canada & the US) within 6 weeks. <sup>[18.6]</sup>

## 7. Hand Hygiene

- Staff shall perform meticulous hand hygiene:
  - before initially providing care or having contact with the care environment
  - before aseptic/clean procedures
  - before putting on gloves
  - after body fluid exposure risk
  - after providing care or having contact with the care environment
  - after taking off gloves
- Encourage hand hygiene before eating and taking medications <sup>[18.8]</sup>
- Refer to Routine Practices: [Hand Hygiene](#) for additional information.

## 8. Personal Protective Equipment (PPE)

- staff and visitors do NOT routinely wear PPE to enter the room.
- staff and visitors use [PPE](#) according to Routine Practices and as indicated for suspected or known infections or procedures for which PPE is needed. See [Point of Care Risk Assessment \(PCRA\)](#)
- Faith or cultural head coverings do not need to be covered or removed in Protective Precautions rooms.

## 9. Transport

- Transport or leave room only after a risk-benefit analysis
- **Before the transport**, notify the receiving department or facility and Transport Services that Protective Precautions are needed
- Avoid:
  - dusty areas
  - construction sites. See [IP&C for Construction, Renovation & Maintenance](#)
  - areas with floor burnishers in use
  - areas with vacuums in use.

### 9.1. Person being transported

- wears N95 respirator or procedure or surgical mask when outside of their room if directed by attending physician
- does NOT wear gloves or an isolation gown.

### 9.2. Staff and Visitors

- Staff and visitors do NOT routinely wear any PPE during transport
- Visitors with infectious diseases follow measures in [Section 14: Visitor Management](#).

## 10. Therapy

- Person in care to leave their room only after a risk-benefit analysis, including for therapy
- Clean and disinfect equipment with facility-approved disinfectant **before** use with the person on Precautions.

## 11. Equipment and Environment

- Dedicate equipment to the person on Protective Precautions when possible
- Clean and disinfect equipment with facility-approved disinfectant before dedicating it
- If equipment cannot be dedicated, clean and disinfect it with facility-approved disinfectant before use with the person on Precautions
- Use disposable supplies when possible
- Do not share straight blade [razors](#) or shared reusable razor heads
- No fresh cut flowers, potted plants, artificial plants or unglazed clay items.
- No fans, dehumidifiers and diffusers. <sup>[18.2]</sup>

## 12. Health Record, Documents and Mobile computers

- Clean and disinfect chart covers and equipment with facility-approved disinfectant before it comes into the Protective Precautions room
  - Refer to [Cleaning Work Station on Wheels](#) Standard Work Sheet where applicable
- Use [Routine Practices](#) for items you remove from a Protective Precautions room.

## 13. Cleaning

- Follow Regional/Facility Standard Operating Procedures for regular Discharge Cleaning
- No additional cleaning is required when Protective Precautions are discontinued.

## 14. Education

Teach the person on Precautions and their visitors about:

- Hand hygiene. Use resources such as:
  - [Hand Hygiene Pamphlet](#), [Hand Hygiene Procedures - Hand Rub](#)
  - [Hand Hygiene Procedures - Hand Wash](#)
- Areas to avoid, such as dusty areas <sup>[18.3]</sup> construction sites <sup>[18.3]</sup> and areas with vacuums or floor burnishers in use. See [IP&C for Construction, Renovation & Maintenance](#).

## 15. Visitors

Screen visitors of all ages for:

- signs and symptoms of infectious disease
- infectious disease exposure history

Visitors with the following SHALL NOT enter the room:

- signs or symptoms of infectious diseases e.g.:
  - fever
  - respiratory symptoms
  - vomiting
  - diarrhea
  - herpes zoster/shingles or other infectious rashes, whether covered or not
  - open herpes simplex virus lesions of lips or fingers that are not dry and crusted over
- recent exposure to infectious diseases, e.g., chickenpox, measles, mumps, rubella, pertussis
- rash within 6 weeks of chickenpox (varicella) vaccination <sup>[18.4][18.10][18.9]</sup>
- rash within 6 weeks of live-shingles (Zostavax) vaccination <sup>[18.7][18.11][18.9]</sup>
- live oral polio vaccination (available outside of Canada & the US) within 6 weeks <sup>[18.6]</sup>
- Visitors who may have an infectious disease shall not visit. However, close family members and those providing care, including essential emotional support with infections may visit on a case-by-case basis ONLY FOR EXTREMELY EXTENUATING CIRCUMSTANCES such as end-of-life counseling, management planning, test result discussion, and after assessment by and approval of the unit Manager or designate. A Consult with Infectious Diseases is strongly recommended. Such visitors:
  - with diseases transmitted by airborne or droplet route, wear a procedure or surgical mask
  - with open lesions, cover lesions with bandages
  - with cold sores, cover cold sores with a procedure or surgical mask
  - must be informed of the importance of thorough hand hygiene.

## 16. Definitions

Immunocompromised: Person with congenital or acquired immunodeficiency or immunodeficiency due to therapeutic agents or hematologic malignancies. This includes but is not limited to:

- those who are undergoing immunosuppressive therapy
- individuals with leukemia or lymphoma or other malignant disease
- individuals on medications that suppress the immune system, such as high-dose systemic steroids or chemotherapeutic agents
- individuals with cellular immune-deficiencies or other immune system conditions <sup>[18.8]</sup>

## 17. Occupational and Environmental Safety and Health (OESH)

Contact Occupational and Environmental Safety and Health (OESH)/designate for staff assessment and/or concerns.

## 18. References

- 18.1. [2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings](#). (Updated 2017, October). The Healthcare Infection Control Practices Advisory Committee (HICPAC). Accessed September 5, 2019.
- 18.2. Airborne Nosocomial Microorganisms. Hospital Airborne Infection Control. Kowalski, W. CRC Press (2011). Chapter 4.
- 18.3. Canadian Healthcare Facilities, Standard Z8000.11, first edition. (2011). Canadian Standards Association (CSA).
- 18.4. [Contagiousness of Varicella in Vaccinated Cases: A Household Contact Study](#). Seward, J.F. et al. (2004, August). *JAMA* 2004; 292(6):704-8. Accessed September 5, 2019.
- 18.5. [Guidelines in the Management of Febrile Neutropenia for Clinical Practice](#). (2017, October). American Journal of Managed Care (AJMC). Accessed November 5, 2019.
- 18.6. [Poliovirus Epidemiology and Prevention of Vaccine-Preventable Diseases. The Pink Book: Course Textbook - 13<sup>th</sup> Edition](#), pg. 302. (2015, September). Centers for Disease Control and Prevention. Accessed September 5, 2019.
- 18.7. [Recombinant Zoster \(Shingles\) Vaccine, RZV](#). (2018, February 12). Centers for Disease Control and Prevention. Accessed September 5, 2019.
- 18.8. [Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Health Care](#). (2019, June). Manitoba Health. Accessed November 5, 2019.
- 18.9. Varicella vaccine, rashes, and restricting healthcare workers, Infection Prevention and Control and Occupational and Environmental Safety and Health meeting. (2018, October 4). Dr. Allen Kraut, Dr. Eric Bow, Dr. John Embil. Expert opinion.
- 18.10. [Varivax Full Prescribing Information](#). (2019, January). Merck & Co. Inc. Whitehouse Station NJ 08889, USA. Accessed September 5, 2019.
- 18.11. [Zostavax Full Prescribing Information](#). (2018). Merck & Co. Inc. Whitehouse Station NJ 08889, USA. Accessed September 5, 2019.