

## IMMUNOCOMPROMISED CONDITION PROTOCOL

### 1. Infection Prevention and Control Precautions

- 1.1. 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  $0.5 \times 10^9/L$  for 7 days or more. [\[7.3\]](#)

Note: The ANC is in the CBC report under Abs Neutrophils. The ANC is calculated automatically and is written as #  $\times 10^9/L$ .

1.1.1. Protective Precautions: Infection Prevention and Control Measures:

- Follow Protective Precautions in addition to [Routine Practices](#).
- Pay meticulous attention to hand hygiene.
- Put the [Protective Precautions sign](#) in a visible location.
- **Positive** pressure room, with door closed, where available.
- Single room with door closed if a positive pressure room is not available.
- Do not cohort.
- Avoid room transfer unless medically indicated.
- Dedicate equipment to the person when possible.
- Consider increased hygiene for the person.
- Staff and visitors do NOT routinely wear personal protective equipment (PPE) to enter the room.
- Staff and visitors use PPE according to [Routine Practices](#), and as indicated for suspected or known infections or procedures.
- Faith or cultural head coverings do not need to be covered or removed in Protective Precautions rooms. See Protective Precautions Protocol for additional information.

1.2. Implement Modified Protective Precautions for moderately to severely immunocompromised people:

- who have NOT had an allogeneic hematopoietic stem cell transplant, AND
- whose Absolute Neutrophil Count (ANC) is NOT expected to be below  $0.5 \times 10^9/L$  for 7 days.

1.2.1. Modified Protective Precautions: Infection Prevention & Control Measures:

- Follow Modified Protective Precautions in addition to [Routine Practices](#).
- Pay meticulous attention to hand hygiene.
- Put the [Modified Protective Precautions sign](#) in a visible location.
- Put immunocompromised person in a single room where available
- Door may remain open.
- If a single room is not available, only cohort with a suitable roommate.

NOTE: A 'suitable roommate' is a person who does not have an infection and is not at high risk for infection. Roommate should not have fever, respiratory symptoms, vomiting, diarrhea, wounds and/or or recent known exposure to infectious diseases. See Modified Protective Precautions Protocol for additional information.

- Maintain a separation of 2 metres between other people in care.
- Close curtains between beds.
- Avoid room transfer unless medically indicated.
- Staff and visitors do NOT routinely require 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 Modified Protective Precautions room.

### 1.3. 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>[7.2]</sup>
  - Construction sites <sup>[7.2]</sup> See [IP&C for Construction, Renovation & Maintenance](#)

## 2. Clinical Presentation

Immune system deficiency may be congenital or acquired. Drugs, medical procedures and disease can all cause immune system deficiency. Solid organ and haematopoietic stem cell transplant recipients and neutropenic people are examples of immunocompromised people. Immunocompromised people are at higher risk for infections during healthcare. The type of immune system deficiency determines the infections this population is most at risk for.

## 3. Transmission

Transmission of bacteria, fungi, parasites, and viruses can occur by direct or indirect contact, or the droplet or airborne route, depending on the organism. The organism may come from the environment, staff, visitors or even **their own flora**. Immunocompromised people vary in their susceptibility to infections. The person's susceptibility depends on the both the severity and the duration of their immune system deficiency.

Immunocompromised people who do not meet the criteria for Protective Precautions or Modified Protective Precautions can be cared for in the same environment as other people in care. Avoid contact with people with fever, respiratory <sup>[7.1]</sup> or gastrointestinal infections.

#### 4. 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. [\[7.4\]](#)

#### 5. Construction and Renovations

Use Level IV Infection Control Prevention Measures for all construction or renovations projects in areas where immunocompromised people are. <sup>[CSA]</sup> Refer to [Infection Prevention and Control for Construction, Renovation and Maintenance](#) for details.

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

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

## 7. References

- 7.1. [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 November 8, 2019.
- 7.2. Canadian Healthcare Facilities, Standard Z8000.11, first edition. (2011). Canadian Standards Association (CSA).
- 7.3. [Guidelines in the Management of Febrile Neutropenia for Clinical Practice](#). (2017, October). American Journal of Managed Care (AJMC). Accessed November 8, 2019.
- 7.4. [Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Health Care](#). (2019, June). Manitoba Health. Accessed November 8, 2019.