Part 1: Definition for “Severely Immunocompromised”

**Rationale:**
Immunocompromised patients may require an extended duration of Additional Precautions for one or more of the following reasons:

- reduced immune response in clearing certain infections
- prolonged shedding of a microorganism
  - severely immunocompromised patients may produce replication-competent SARS-CoV-2 virus for prolonged periods beyond 21 days after COVID-19 symptom onset (or after first positive COVID-19 test if asymptomatic throughout)
  - the exact criteria that determine which patients will shed replication-competent virus for longer periods are not known
- greater risk of developing or re-activating certain infections
- inadequate or quickly waning protective immune response post-infection
- an atypical presentation of a communicable illness.

[See: Infection Prevention and Control Considerations for Immunocompromised Patients]

**Definition:**
For the purposes of COVID-19 IPC-related patient management, special consideration is given to a subset of immunocompromised patients who are considered to be “severely immunocompromised.”

This list is considered current to the date provided, and is to be used as guidance by ICPs (and others) to identify which patients need further discussion with an IPC physician regarding COVID-19 management related to clearing of COVID-positive status, cohorting when recovered, re-testing within 90 days of initial infection, etc.

“Severely immunocompromised” includes:
- Congenital and acquired immunodeficiency including severe combined immunodeficiency (SCID) and profound hypogammaglobulinemia
- HIV infection with CD4 T lymphocyte count < 200 (or less than 15%) and unsuppressed viral load
  - For Paediatrics:
    - Less than 5 years – use CD4 <15%
    - 5 years or older – use CD4 count <200
- Any haematological malignancy
- Within 24 months of stem cell transplant
- Solid organ transplant until on stable immunosuppression
- Current receipt of prednisone >20mg/day (or equivalent) for more than 14 days
  - For Paediatrics:
    - >2mg/kg body weight for more than 14 days
- Chimeric antigen receptor (CAR) T-cell therapy
- Anti-B cell therapy (current or within last 6 months)
  - Most common: rituximab, ocrelizumab
Part 2: Discontinuation of COVID-Related Precautions for Severely Immunocompromised Patients

COVID-19 test negative
- same as other pts
- see: Discontinuation of Contact and Droplet Precautions for Suspected or Confirmed COVID-19

COVID-19 test positive
- depends on patient-specific factors
- will always be case-by-case

General considerations for clearing COVID-positive status:
1. At least 21 days since symptom onset (or from COVID-positive test if symptom onset date not known or patient remains asymptomatic)
2. Fever: Resolution of fever
3. Other symptoms: Symptom stabilization/improvement to new or pre-existing baseline for at least 48h
4. Follow-up testing
   - Collect nasopharyngeal (NP) swab on day 22 i.e. NOT throat swab or anterior nares swab
     - Consult IPC physician if specimen type other than NP was submitted for testing
   - Use laboratory-based PCR testing
     - Request ProvLab laboratory-developed test (LDT) on requisition
   - *A negative test is not required*
     - Use cycle threshold (ct) value ≥30 if previous values and no symptoms OR use serial ct values
     - Determine on case-by-case basis in discussion with IPC physician
     - Contact COVID virologist-on-call if ct value not otherwise readily available
   - Frequency & duration
     - Usually weekly starting after day 21, but frequency & interval to be decided on case-by-case basis after day 22 swab
   - For outpatients: arrange for testing as required on a case-by-case basis

Is there a role for serology?
- Can be considered on a case-by-case basis.
- Unlikely to be of use in patients with hypogammaglobulinemia or who are B-cell depleted.
Part 3: Severely Immunocompromised Outpatients

- Management is similar to inpatients.
- If patient is not cleared of COVID-positive status, then they must be kept on Contact and Droplet Precautions in private space when they receive healthcare.
- Communication is key:
  - Community health care providers
  - Public Health – ensure they are aware of general IC approach provincially and about specific patients in the zone
  - Patient letter provided by IPC
- Duration of isolation in community to be decided on a case-by-case basis.
  - Consider risk of transmission to be different in community versus hospital.
- Other measures are included in the patient letter.

Part 4: Management of COVID Recovered Severely Immunocompromised Patients

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Any Risk Factor(s)</th>
<th>Strain of original Infection</th>
<th>Strain of new exposure (if known)</th>
<th>Contact &amp; Droplet Precautions</th>
<th>COVID-19 Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASYMPTOMATIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>No</td>
<td>Any strain or unknown strain</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Yes</td>
<td>Any strain or unknown strain</td>
<td>Any strain or unknown strain</td>
<td>Yes - regardless of interval - continue C+D precautions until 14d since last exposure - do not cohort</td>
<td>No - only if symptoms or as directed by IPC</td>
</tr>
<tr>
<td>SYMPTOMATIC with NO RISK FACTORS</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Symptomatic [core resp or GI]</td>
<td>No</td>
<td>Any strain or unknown strain</td>
<td>n/a</td>
<td>Yes - do not cohort</td>
<td>Yes - request ProvLab laboratory-developed test (LDT)</td>
</tr>
<tr>
<td>Symptomatic [expanded]</td>
<td>No</td>
<td>Any strain or unknown strain</td>
<td>n/a</td>
<td>Yes - do not cohort</td>
<td>Yes - request ProvLab laboratory-developed test (LDT)</td>
</tr>
<tr>
<td>SYMPTOMATIC &amp; RISK FACTOR(S) PRESENT</td>
<td>Yes</td>
<td>Any strain or unknown strain</td>
<td>Any strain or unknown strain</td>
<td>Yes - regardless of interval since initial COVID-19 infection - do not cohort</td>
<td>Yes - request LDT - if COVID-negative, continue C+D precautions until 14d since last exposure or until symptoms improve/stabilize for at least 48h, whichever is longer - consider re-testing as necessary</td>
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<td>Symptomatic [expanded]</td>
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<td>Yes - regardless of interval since initial COVID-19 infection - do not cohort</td>
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**Note:**
Currently, COVID-19 immunization status does not change management (regardless of whether patient is fully or partially vaccinated, or not vaccinated). This will continue to be re-assessed as more data becomes available and as local epidemiology evolves.
REFERENCES

PCR positive references:


sgRNA positive references:


Culture positive references:


**Guidelines:**


**References used for definition:**


