

**Swissnoso recommendations on infection prevention and control measures for acute viral respiratory infections in acute care hospitals**

V1.0, September 2023.

These recommendations are meant to guide infection prevention and control measures to prevent transmission of respiratory viruses in acute care hospitals. They must continuously be adapted to the local epidemiology and infrastructure.

**Table of contents**

- 1. General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections .....2
- 2. Additional recommendations when caring for adult patients with suspected or confirmed viral respiratory infection .....3
- 3. Additional recommendations when caring for pediatric patients with suspected or confirmed viral respiratory infection .....5
- 4. Additional recommendations for severely immunocompromised patients hospitalized on dedicated wards (e.g., bone marrow transplantation ward, solid organ transplant ward) with suspected or confirmed viral respiratory infection.....6
- 5. Occupational health considerations.....7
- 6. Infection prevention and control measures in case of a healthcare-associated outbreak of a respiratory virus .....8

## 1. General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections

Measures	Adult patients (including outpatients), pediatric patients (if possible, depending on their age), and accompanying caregivers	Healthcare workers (HCW)	Visitors
<b>Standard precaution measures</b>	<p>Are instructed by HCW to apply the respiratory etiquette.</p> <p>Are required to wear a surgical mask while having symptoms when in contact with others (unless medically contraindicated).</p>	<p>Perform excellent adherence to general precaution measures:</p> <ul style="list-style-type: none"> <li>- Hand hygiene</li> <li>- Use a surgical mask, eye protection, gowns and/or gloves if exposure to respiratory secretions and other body fluids is anticipated/likely</li> <li>- Apply the respiratory etiquette</li> <li>- When having symptoms of an acute respiratory infection, HCW are required to always wear a surgical mask when in contact with others</li> </ul>	<p>Wear a surgical mask when having direct contact with a symptomatic patient.</p> <p>Avoid visiting a patient while having symptoms or a positive laboratory test for a respiratory virus. For justified visits with symptoms, prior instruction by HCW on general precaution measures including hand hygiene, wearing of a surgical mask, and respiratory etiquette is required.</p>
<b>Vaccination</b>	<p>Should be offered vaccination against COVID-19 and influenza as per national recommendations</p>	<p>Should be offered vaccination against influenza and COVID-19 as per national recommendations. Of note, there is currently no general recommendation for vaccination of HCW against COVID-19.</p>	

## 2. Additional recommendations when caring for adult patients with suspected or confirmed viral respiratory infection

<b>Testing</b>	<ul style="list-style-type: none"> <li>– For patients with suspected viral respiratory infection requiring hospitalization, immediate testing for SARS-CoV-2, Influenza A/B, and RSV, depending on the local epidemiology and specific hospital sector</li> <li>– Consider testing for additional respiratory pathogens if clinically indicated (e.g., individual risk factors, local epidemiology)</li> </ul>
<b>Notification</b>	Mandatory notification of confirmed hospitalized COVID-19 cases according to cantonal or FOPH directives
<b>Patient placement</b>	<ol style="list-style-type: none"> <li>1. Isolation in a single occupancy room, whenever possible <b>OR</b></li> <li>2. Cohorting in shared rooms for patients infected with the same virus <b>OR</b></li> <li>3. Isolation in the patient zone of a shared room for cooperative patients: <ul style="list-style-type: none"> <li>– If isolation in the patient zone of a shared room: do not place these patients in the same room with patients at risk for severe disease (e.g., immunocompromised or frail patients).</li> <li>– For non-COVID-19 cases (includes also patients awaiting test results): isolation in the patient zone of a shared room for cooperative patients depending on the local infrastructure and IPC guidelines can be considered.</li> <li>– For COVID-19 cases: only limited clinical/scientific evidence available supporting this approach. Therefore, caution is needed regarding an increase in nosocomial transmissions when applying this approach for COVID-19 cases.</li> </ul> </li> </ol>
<b>Duration of isolation precaution measures</b>	<p>Minimum duration of isolation until results of diagnostic tests are available</p> <ul style="list-style-type: none"> <li>– If patients tested negative for SARS-CoV-2, Influenza A/B, and RSV, the general precaution measures as outlined in Table 1 apply. Consider transmission-based precaution measures for other respiratory viruses depending on the local epidemiology.</li> <li>– For confirmed infections with SARS-CoV-2, Influenza A/B, and RSV: <ul style="list-style-type: none"> <li>– at least 5 days from symptom onset or first positive test (in the absence of symptoms)</li> <li>– AND resolution of fever for at least 24 hours</li> <li>– AND clinical improvement of other symptoms</li> </ul> </li> <li>– Exceptions: <ul style="list-style-type: none"> <li>– Pediatric patients (see table 3 “Additional recommendations when caring for pediatric patients with viral respiratory infection”)</li> <li>– Severely immunocompromised patients (see table 4 “Additional recommendations for severely immunocompromised patients with viral respiratory infection”)</li> </ul> </li> </ul>
<b>Personal protective equipment (PPE) for HCW</b>	<p>In addition to general precaution measures (table 1 “General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections”), HCW need to be aware of the following:</p> <ul style="list-style-type: none"> <li>- Wear a surgical mask when entering the patient room in case of isolation in a single occupancy room or cohorting room or when entering the patient zone of a shared room if isolation in the patient zone</li> </ul>

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- Wear an FFP2 or equivalent respirator in situations with increased risk of transmission (e.g., close and/or prolonged contact to the patient's airways)
  - Wear eye protection in situations with increased risk of transmission (e.g., close and/or prolonged contact to patient's airways)
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**Universal wearing of masks (surgical mask type II/IIR)**

Depending on the local epidemiology (e.g., periods of high incidence, epidemic season, local nosocomial outbreak) consider to always wear a surgical mask when in direct contact with others (patients, HCW, visitors). This may be restricted to designated wards or recommended hospital wide. See also table 6 "Infection prevention and control measures in case of a healthcare-associated outbreak of a respiratory virus".

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**PPE for patients and accompanying caregivers**

- Patients placed in single occupancy rooms or cohorting rooms: surgical mask during patient transport outside of the room (if not medically contraindicated)
  - Patients placed in the patient zone of a shared room: surgical mask outside of the patient zone (if not medically contraindicated)
  - Accompanying caregivers apply the general precaution measures as mentioned in table 1 "General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections "
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**Environmental measures**

- Daily cleaning and disinfection of the environment, especially of frequently touched surfaces, with a biocidal agent active against viruses
  - Cleaning and disinfection of non-single-use medical devices after use, consider the use of designated non-single-use medical devices
  - Provide appropriate ventilation of patient rooms depending on local infrastructure
  - Waste management according to local IPC guidelines
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### 3. Additional recommendations when caring for pediatric patients with suspected or confirmed viral respiratory infection

<b>Testing</b>	<ul style="list-style-type: none"> <li>– Immediate testing for SARS-CoV-2, Influenza A/B, and RSV depending on the local epidemiology</li> <li>– Consider testing for additional respiratory pathogens in immunocompromised patients or if otherwise clinically indicated (e.g., individual risk factors, local epidemiology)</li> </ul>
<b>Notification</b>	Mandatory notification of confirmed hospitalized COVID-19 cases according to cantonal or FOPH directives
<b>Patient placement</b>	Single occupancy rooms or cohorting in shared rooms for patients infected with the same virus
<b>Duration of isolation precaution measures</b>	As long as the patient is symptomatic for viral respiratory infection
<b>Personal protective equipment (PPE) for HCW</b>	<p>In addition to general precaution measures (table 1 “General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections”), HCW need to be aware of the following:</p> <ul style="list-style-type: none"> <li>– Wear a surgical mask when entering the patient room</li> <li>– Wear a gown when in direct contact with the patient</li> <li>– Wear an FFP2 or equivalent respirator in situations with increased risk of transmission (e.g., close and/or prolonged contact to patient’s airways)</li> <li>– Wear an eye protection in situations with increased risk of transmission (e.g., close and/or prolonged contact to the patient’s airways)</li> </ul>
<b>PPE for patients and accompanying caregivers</b>	<p>General precaution measures as mentioned in table 1 “General precaution measures for patients, healthcare workers and visitors to prevent healthcare-associated respiratory viral infections”) if possible, depending on the patient’s age</p> <ul style="list-style-type: none"> <li>– Surgical mask during patient transport outside of the room if possible, depending on the patient’s age and if not medically contraindicated</li> <li>– Accompanying caregivers: avoid contact with accompanying caregivers of other patients</li> </ul>
<b>Environmental measures</b>	<ul style="list-style-type: none"> <li>– Daily cleaning and disinfection of the environment, especially of frequently touched surfaces, with a biocidal agent active against viruses</li> <li>– Cleaning and disinfection of non-single-use medical devices after use, consider the use of designated non-single-use medical devices</li> <li>– Provide appropriate ventilation of patient rooms depending on local infrastructure</li> <li>– Waste management according to local IPC guidelines</li> </ul>

#### 4. Additional recommendations for severely immunocompromised patients hospitalized on dedicated wards (e.g., bone marrow transplantation ward, solid organ transplant ward) with suspected or confirmed viral respiratory infection

<b>Testing</b>	SARS-CoV-2, Influenza A/B, and RSV, and if negative, additional testing for: <ul style="list-style-type: none"> <li>– Human Metapneumovirus</li> <li>– Parainfluenzavirus 1-4</li> <li>– other viruses according to local IPC guidelines</li> </ul>
<b>Patient placement</b>	Single occupancy rooms for suspected or confirmed respiratory infection with above mentioned viruses <ul style="list-style-type: none"> <li>– Note: cohorting is not recommended due to possible undetected dual infection with another respiratory virus, patient zone isolation is not recommended since other patients on the same ward are considered to be at high risk for severe infection</li> </ul>
<b>Duration of isolation precaution measures</b>	<ul style="list-style-type: none"> <li>– Consider prolonged duration of isolation precaution measures depending on clinical presentation and severity of immunosuppression, but at least as mentioned in table 2 “Additional recommendations when caring for adult patients with suspected or confirmed viral respiratory infection“</li> <li>– If prolonged symptoms or severe immunosuppression (e.g., on or recent B-cell depleting therapy) consider repeated testing to monitor viral load reduction before stopping isolation precaution measures and/or consulting the infectious diseases/IPC team</li> </ul>

## 5. Occupational health considerations

<b>All respiratory viruses, including SARS-CoV-2, Influenza A/B, and RSV</b>	
<b>Asymptomatic HCW</b>	<p>Systematic testing of asymptomatic HCW is not recommended.</p> <ul style="list-style-type: none"> <li>– Exception: may be considered in an ongoing healthcare-associated outbreak with a respiratory virus (see table “Infection prevention and control (IPC) measures in case of a nosocomial outbreak of a respiratory virus”)</li> </ul>
<b>Symptomatic HCW</b>	<ul style="list-style-type: none"> <li>– Systematic testing is not recommended unless recommended by national or cantonal authorities or in case of an ongoing healthcare-associated outbreak with a respiratory virus (see chapter “Infection prevention and control (IPC) measures in case of a nosocomial outbreak of a respiratory virus”)</li> <li>– Mild respiratory symptoms and no fever: may continue to work. General precaution measures (Table 1) also suffice if HCW shows a positive test result. <ul style="list-style-type: none"> <li>– Excellent adherence to general precaution measures AND following additional measures: <ul style="list-style-type: none"> <li>– Avoid crowded areas and, preferably, take meals/breaks alone</li> <li>– Wear a surgical mask during direct contact with others (patients, HCW, visitors)</li> </ul> </li> <li>– HCW working in high-risk units (e.g., bone marrow transplant, severely immunosuppressed patients): <ul style="list-style-type: none"> <li>– Consider reassignment to duties without patient contact (not involving high-risk interactions)</li> </ul> </li> </ul> </li> <li>– More severe symptoms or fever: as per local policy</li> </ul>

## 6. Infection prevention and control measures in case of a healthcare-associated outbreak of a respiratory virus

	<b>Definition</b>
<b>Healthcare-associated outbreak</b>	≥ 3 healthcare-associated cases within 5 days in the same unit/ward
<b>Healthcare-associated case</b>	Laboratory confirmed viral respiratory infection with symptoms starting >48 hours after admission (despite the longer median incubation periods of some respiratory viruses)
<b>Contact patient</b>	A patient who shared a room with a positive case from 24 hours before the onset of symptoms until the implementation of transmission-based precautions.
	<b>Measures</b>
<b>Management of asymptomatic contact patients</b>	<ul style="list-style-type: none"> <li>– Clinical observation for at least 5 days from the last contact with a confirmed case</li> <li>– Consider repetitive testing for at least 5 days</li> <li>– Consider postexposure prophylaxis if available (e.g., outbreaks with Influenza)</li> </ul>
<b>Management of symptomatic contact patients</b>	<ul style="list-style-type: none"> <li>– Immediate isolation and testing for the specific respective virus</li> <li>– Consider testing for additional respiratory pathogens depending on the local epidemiology or if otherwise clinically indicated (e.g., immunocompromised patients, individual risk factors)</li> </ul>
<b>Universal wearing of surgical masks</b>	Consider introducing universal wearing of surgical masks for patients (when outside the bed; if not medically contraindicated), HCW, and visitors in the affected units/wards
<b>Ongoing outbreak despite preventive measures in place</b>	<p>Continue measures mentioned above and introduce additionally:</p> <ul style="list-style-type: none"> <li>– Repetitive testing of asymptomatic contact patients and consider repetitive testing for asymptomatic HCW until no new cases are identified for at least 7 days</li> <li>– Mandatory FFP2 respirators for all HCW working with patients on the affected wards (or in the entire hospital)</li> <li>– Consider closing of beds on the affected units/wards, and/or closing the affected units/wards for new admissions</li> <li>– Consider cohorting of confirmed cases in a designated unit or part of the affected wards and cohorting and preemptive isolation of contact patients</li> </ul>
	<p><b>If ongoing transmissions occur despite extended preventive measures being in place:</b></p> <p>An outbreak team should be put into place for a root cause analysis and to evaluate adherence to all recommended precautions and/or the need for further/general measures according to Swissnoso outbreak recommendations (<a href="#">DE/FR</a>), under consideration of the local epidemiology.</p>