Responding to and Monitoring COVID-19 Exposures in Health Care Settings

This guidance was updated on Sept. 29, 2021, to include:

- All health care workers, regardless of vaccination status, should be tested for SARS-CoV-2 when symptomatic, after a higher-risk exposure, and when working in a facility experiencing an outbreak.
- Post-exposure testing should occur immediately upon identification of the case (but not earlier than two days after exposure) and at day five to seven after exposure.

Exposure risk assessment and monitoring

Minnesota Department of Health (MDH) and health care organizations are cooperating to identify, manage, and monitor health care workers with workplace exposure to people with confirmed COVID-19 disease. This approach calls for timely identification of those health care workers who have contact with a coworker, patient, or congregate care resident beginning two days before onset of the infected person’s symptoms.

Then, a structured risk assessment is conducted, with individual employees receiving recommendations for health monitoring, voluntary quarantine, and social distancing, as relevant. Details on how to carry out monitoring health care workers can be found in posted MDH guidelines; exposure risk categories are found in the Appendix of this document. This remains MDH’s recommended approach at this time.

This targeted method to identify and exclude those who have had high-risk exposures should be conducted in parallel with such efforts as employee health screening, universal masking for source control, strict enforcement of ill-worker exclusion, and education covering infection prevention, appropriate personal protective equipment (PPE) use, and social distancing in the workplace and community.

Data collected by MDH support the efforts to identify, assess, and exclude unvaccinated health care workers with known exposures.
Among monitored unvaccinated health care workers who experienced medium- or high-risk exposures during March 6-April 20, 2020, 33% (411/1,237) developed fever or symptoms consistent with COVID-19 during the 14-day quarantine period. However, by June 1, the total percentage of health care workers who developed symptoms decreased to 25% (937/3,772), possibly indicating the level of exposure may be decreasing as more PPE becomes available.

On average, symptom onset occurs on day six after contact with the person having confirmed COVID-19. Considering the demonstrated danger of asymptomatic shedding of SARS-CoV-2, this finding highlights the importance of excluding health care workers with known high-risk exposures before symptom onset.

Protecting health care workers during widespread community transmission

Widespread community transmission puts all health care workers at some risk for exposure to COVID-19, whether in the workplace or in the community. As community transmission becomes more prevalent in Minnesota, it may become unmanageable for an individual health care organization to conduct contact tracing and risk assessment of all health care workers potentially exposed to a patient, resident, or coworker with confirmed COVID-19. If facilities have exhausted all options to continue targeted contact identification and exclusion, they should strengthen efforts to identify recognized exposures (e.g., PPE breaches), institute monitoring of health care workers for fever and symptoms, and strictly deter health care workers from working while ill (“presenteeism”).

Data collected by MDH support an increased emphasis on limiting close interactions among coworkers, using universal masking for source control, and robust health monitoring.

- As of April 21, 2020, the mean number of medium- or high-risk health care worker exposures resulting from a confirmed COVID-19 interaction of health care workers with coworkers is 3.6 persons. Following the recognition of these significant exposures and systemic efforts to reduce coworker interactions, the mean number of exposures decreased to 2.6 persons as of June 1, 2020.
- The mean number of medium- or high-risk health care worker exposures resulting from a COVID-19-positive patient is 2.2 persons and resulting from a positive congregate-care resident is 2.6 persons, and has remained relatively constant throughout the response.

Best practices for health care facilities

- All health care workers, regardless of vaccination status, should be tested for SARS-CoV-2 when symptomatic after a higher-risk exposure and when working in a facility experiencing an outbreak. Post-exposure testing should occur immediately upon identification of the case (but not earlier than two days after exposure) and at day five-seven after exposure.
- Unvaccinated health care workers who experience a high-risk exposure to a person with COVID-19, either inside or outside of the health care facility, should be excluded from work for 14 days. Those staff may be asked to return to work during the quarantine period if other options have been exhausted to address a staffing shortage. Health care workers who return to work in that time must wear a medical-grade facemask for source control at all times. Follow MDH recommendations for inviting unvaccinated health care workers to work in the 14 days after a high-risk exposure at COVID-19 Recommendations for Health Care Workers (www.health.state.mn.us/diseases/coronavirus/hcp/hcwrecs.pdf).

- Fully vaccinated asymptomatic health care workers with known high-risk exposure do not need to quarantine from work or the community for the 14 days following the exposure. Health care workers who return to work in that time must wear a medical-grade facemask for source control at all times. Refer to additional details, including potential exceptions, in COVID-19 Recommendations for Health Care Workers (www.health.state.mn.us/diseases/coronavirus/hcp/hcwrecs.pdf).

- Institute universal masking of all health care workers for source control. In light of PPE limitations, universal masking may be instituted in a tiered, risk-based approach. If this approach is used, begin in areas with highest exposure risk (e.g., emergency departments, urgent care, and emergency medical services) and patient vulnerability (e.g., those in intensive care and people who are immunocompromised). Universal masking is intended to protect both patients and employees from infected health care workers who may shed virus into the environment before onset of symptoms. Health care workers should be reminded that universal masking does not excuse their working with signs or symptoms of illness, however mild.

- Institute use of eye protection (e.g., face shield, goggles) as a way to reduce COVID-19 exposure risk, now that SARS-CoV-2 is circulating. Eye protection is recommended, at a minimum, for all routine outpatient, acute care, and long-term care encounters when PPE supplies allow. Use of all appropriate PPE can reduce the number of exposures for which exclusion from work is recommended.

- Centers for Disease Control and Prevention (CDC) has outlined considerations for health care facilities to allow health care workers to gather without source control or physical distancing if all present are fully vaccinated and the facility is located in a county with low to moderate community transmission as defined by the CDC COVID Data Tracker: COVID-19 Integrated County View (https://covid.cdc.gov/covid-data-tracker/#county-view). MDH does not have specific recommendations on this topic. Medical and legal leadership should develop health care facility-specific protocols and procedures, which may or may not include relaxation of source control and distancing for fully vaccinated health care workers.
  - Refer to CDC: Interim Infection Prevention and Control Recommendations link above.
  - The CDC COVID Data Tracker uses two different indicators (total new cases and test percent positivity) to determine the level of SARS-CoV-2 transmission for the county where the health care facility is located. The four levels are low, moderate, substantial, and high. If the two indicators suggest different transmission levels, the tool defaults to the higher level.
CDC considerations include: Fully vaccinated health care workers can dine and socialize together in break rooms and conduct in-person meetings without source control or physical distancing, as long as no unvaccinated health care workers or other unvaccinated people are present and the health care facilities are located in counties with low to moderate community transmission, as defined by the CDC COVID Data Tracker.

Institute symptom monitoring facility-wide. Enforce policies preventing health care workers from reporting to work while ill and mandate departure if symptoms develop midshift. Health care organizations should institute policies to ensure that health care workers feel financially and socially supported for taking sick leave.

Fully vaccinated asymptomatic health care workers may be exempt from expanded screening testing in health care facilities (e.g., routine staff testing in long-term care facilities).

Fully vaccinated health care workers should have a SARS-CoV-2 test if symptomatic after a high-risk exposure, or when working in a facility experiencing an outbreak.

Develop social distancing policies that are enforced throughout the facility. Discourage congregating in work areas (e.g., nurse stations, workstations) and in recreation areas (e.g., break rooms, cafeterias). These policies can take into account staff vaccination status, as appropriate.

Enforce strict hand hygiene policies throughout the facility. Use electronic surveillance or successful existing monitoring programs. Do not take this opportunity to institute new, complex hand hygiene programs.

Dedicate staff to rigorous cleaning/disinfection of high-touch areas (e.g., doorknobs, computer terminals, phones, etc.).

Ensure that all personnel performing aerosol-generating procedures have access to an N95 mask or higher level respiratory protection. Follow extended-use or reuse guidance, as outlined by CDC.5

Investigate recognized exposures of high-risk (e.g., PPE breaches) to confirmed or suspected SARS-CoV-2 patient infections (refer to Appendix). Examine and report clusters of employee illness to identify concerning exposures and ongoing transmission risk (refer to reporting recommendations, below).

Investigate recognized patient or resident exposures to COVID-19-positive health care workers. Anyone with prolonged close contact (within 6 feet for at least 15 minutes), beginning two days before a positive health care worker’s symptom onset date or specimen collection date, is considered exposed.

- Notify patients or residents of the exposure situation.
- Exposed patients or residents who are still admitted should be placed into Transmission-Based Precautions, if PPE allows, and monitored for onset of COVID-19 until 14 days after their last exposure to the test-positive health care worker.

Ensure prompt notification of all health care workers and responders who are involved in the care of a test-positive COVID-19 patient. Health care facilities, emergency medical services (EMS), and transporting agencies should develop communication plans to ensure other first responders, such as police and fire departments, are notified of any positive test results.
CDC has outlined considerations for travel (e.g., transportation, accommodation, activities) and potential associated risk. Health care organizations should review CDC resources to establish expectations for health care workers around travel, and the course of action that will be taken (e.g., testing, 14-day quarantine) for health care workers who participate in nonessential travel. Visit Public Health Guidance for Potential COVID-19 Exposure Associated with Travel (https://www.cdc.gov/coronavirus/2019-ncov/php/risk-assessment.html).

For more recommendations and things to consider before, during, and after travel, visit Protect Yourself & Others: Traveling (www.health.state.mn.us/diseases/coronavirus/prevention.html#travel).

Best practices for health care workers

- Observe the social responsibility of staying home while ill. Do not report to work if you have any signs consistent with COVID-19 (measured or subjective fever) or symptoms (e.g., cough, shortness of breath, sore throat, muscle aches, headache, loss of taste or smell). If you develop fever or respiratory symptoms at work, isolate yourself immediately and leave work, reporting the onset to your supervisor or occupational health services before departure.

- Health care workers who are fully vaccinated do not need to quarantine from work or community activities in the 14 days following a high-risk exposure. Health care workers are fully vaccinated two weeks after their final COVID-19 vaccine dose (two doses in a two-dose series or one dose in a one-dose series). These health care workers should self-monitor for signs and symptoms of COVID-19 through day 14. If signs or symptoms develop at any time during the 14-day period, they should seek testing and isolate at home.

- After a high-risk exposure, remain out of work for 14 days if you are not fully vaccinated, unless you are asked to return to work because of a staffing shortage. Health care workers who are not fully vaccinated may return to community activities based on the quarantine options outlined in the community quarantine guidance. Continue to self-monitor for signs and symptoms of COVID-19 through day 14. If signs or symptoms develop at any time during the 14-day period, seek testing and isolate at home.

- Adhere to strict hand hygiene at all times.

- Clean and disinfect high-contact personal items often (e.g., cell phone, computer keyboards, tablets, etc.).

- Practice social distancing whenever possible, including during breaks and meals.

- Depending on employer policies and community transmission rates (CDC COVID Data Tracker: COVID-19 Integrated County View [https://covid.cdc.gov/covid-data-tracker/#county-view]), fully vaccinated health care workers may be able to dine and socialize with other fully
vaccinated health care workers without source control or physical distancing, as long as no unvaccinated health care workers or other unvaccinated people are present.

- Medical-grade facemasks or N95 respirators for source control should be used in all health care settings, including during non-patient encounters when social distancing is not possible, except when facility policies outline other recommendations for fully vaccinated health care workers (as described above). Ensure that all face masks are well fitted.

- Report recognized coworker illness and PPE breaches when caring for a person with suspected or confirmed COVID-19 to your supervisor or occupational health services.

- Travel increases your chances of getting and spreading COVID-19. CDC and MDH recommend that unvaccinated people do not travel at this time. Delay travel and stay home to protect yourself and others from COVID-19.

- CDC has outlined considerations for travel (e.g., transportation, accommodation, activities) and potential associated risk. Health care organizations should review CDC resources to establish expectations for health care workers around travel and the course of action (e.g., testing, 14-day quarantine) that will be taken for health care workers who participate in nonessential travel.

- For more recommendations and things to consider before, during, and after travel, visit:
  - Protect Yourself & Others: Traveling (www.health.state.mn.us/diseases/coronavirus/prevention.html#travel)

**Recommended incidents to report to MDH:**

If they are no longer conducting contact tracing and risk assessment of all health care workers potentially exposed to a person with confirmed COVID-19, health care organizations should report the following to MDH.

- Known exposures of high-risk.
- Known or suspected COVID-19 transmission within the health care setting.
- Clusters (more than two cases) of COVID-19-like illness, including among: health care workers working in a single unit/ward/care team; and patients and/or health care workers in a single unit or ward.

Health care organizations are strongly encouraged to conduct COVID-19 testing for all health care workers who have worked while ill.
References


## Appendix: Exposure Risk Assessment

### Patient or Resident Contact

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Risk level is defined by any of the following situations involving PATIENT/RESIDENT contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Risk</strong></td>
<td><em><em>Health care worker did not have prolonged close contact</em> with patient/resident:</em>*</td>
</tr>
<tr>
<td></td>
<td>- Regardless of PPE health care worker was wearing</td>
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<tr>
<td></td>
<td><em><em>Health care worker had prolonged close contact</em> with patient/resident:</em>*</td>
</tr>
<tr>
<td></td>
<td>- Health care worker wearing all recommended PPE and adhering to all recommended infection control practices.</td>
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<td></td>
<td>- Health care worker wearing medical-grade facemask, but no eye protection, while positive patient or resident is wearing medical-grade facemask or alternative/cloth mask.</td>
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<tr>
<td></td>
<td>- Health care worker wearing a medical-grade facemask and eye protection, regardless of gown and gloves.</td>
</tr>
<tr>
<td></td>
<td><strong>Health care worker present when aerosol-generating procedure was performed:</strong></td>
</tr>
<tr>
<td></td>
<td>- Health care worker wearing a respirator, eye protection, gown, and gloves.</td>
</tr>
<tr>
<td><strong>High Risk</strong></td>
<td><em><em>Health care worker had prolonged close contact</em> with patient/resident:</em>*</td>
</tr>
<tr>
<td></td>
<td>- Health care worker not wearing medical-grade facemask or respirator.</td>
</tr>
<tr>
<td></td>
<td>- Health care worker not wearing eye protection and test-positive patient or resident is not wearing a medical-grade facemask or alternative/cloth mask.</td>
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<tr>
<td></td>
<td>- Health care worker had sustained breach in PPE (eye and/or respiratory protection) for more than 15 minutes or had unprotected direct contact with excretion or secretions from test-positive patient or resident, without wearing PPE to prevent unprotected contact.</td>
</tr>
<tr>
<td></td>
<td><strong>Health care worker present when aerosol-generating procedure was performed:</strong></td>
</tr>
<tr>
<td></td>
<td>- Health care worker not wearing all recommended PPE (respirator, eye protection, gown, and gloves).</td>
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</tbody>
</table>

*Prolonged close contact is defined as being within 6 feet for more than 15 minutes cumulatively during a shift OR having unprotected direct contact with secretions or excretions of a person with confirmed COVID-19 infection.*
### Coworker Contact

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Risk level is defined by any of the following situations involving COWORKER contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>- Present in the same indoor environment, but did not have prolonged close contact.*</td>
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<tr>
<td></td>
<td><em><em>Health care worker had prolonged close contact</em> with test-positive coworker:</em>*</td>
</tr>
<tr>
<td></td>
<td>- Health care worker wearing medical-grade facemask and eye protection, regardless of PPE worn by test-positive coworker.</td>
</tr>
<tr>
<td></td>
<td>- Health care worker wearing medical-grade facemask, but no eye protection, while test-positive coworker is wearing medical-grade facemask or alternative/cloth mask.</td>
</tr>
<tr>
<td>High Risk</td>
<td>- Direct contact with infectious secretions or excretions of positive health care worker (e.g., being coughed on), without wearing PPE to prevent direct, unprotected contact.</td>
</tr>
<tr>
<td></td>
<td><em><em>Health care worker had prolonged close contact</em> with test-positive coworker:</em>*</td>
</tr>
<tr>
<td></td>
<td>- Health care worker not wearing medical-grade facemask, regardless of PPE worn by test-positive coworker.</td>
</tr>
<tr>
<td></td>
<td>- Health care worker wearing medical-grade facemask, but no eye protection, and test-positive coworker is not wearing medical-grade facemask or alternative/cloth mask.</td>
</tr>
</tbody>
</table>

*Prolonged close contact is defined as being within 6 feet for more than 15 minutes cumulatively during a shift OR having unprotected direct contact with secretions or excretions of a person with confirmed COVID-19 infection.*