

## **EVIDENCE SYNTHESIS BRIEFING NOTE**

**TOPIC:** SERIAL TESTING OF ASYMPTOMATIC HEALTH CARE WORKERS

*Information finalized as of March 11, 2021.<sup>a</sup>*

**Purpose:** This note summarizes available evidence and recommendations on the serial testing of asymptomatic health care workers (HCWs) in health care and congregate care settings with direct patient contact before or after COVID-19 vaccination.

**Key Findings:**

- No identified academic or grey literature addresses recommendations on serial testing of asymptomatic HCWs following COVID-19 vaccination.

**Testing asymptomatic HCWs in congregate care**

- Reports from five US jurisdictions (Washington State; Los Angeles, CA; Minnesota; Massachusetts; Detroit, MI) describe routine testing of asymptomatic HCWs in long-term care facilities in the early phase of the COVID-19 pandemic (March to June 2020).
  - US reports suggest that RT-PCR testing leading to rapid isolation of both symptomatic and asymptomatic staff and residents in long-term care facilities led to the prevention of COVID-19 outbreaks (Los Angeles, Minnesota).

**Vaccine effectiveness:**

- Emerging research evaluating the vaccine effectiveness of the BNT162b2 mRNA COVID-19 vaccine suggests that the vaccine is associated with reduced viral load, infection prevention among health care workers (HCWs).
- Preprint studies suggest that a single dose of the vaccine confers 50 to 72% reduction in the incidence of SARS-CoV-2 infections (symptomatic or asymptomatic); two doses are suggested to achieve maximum protection and impact in terms of disease burden reduction and possibly reducing SARS-CoV-2 transmission.

**Transmission upon vaccination:**

- Three top global evidence synthesis teams (i.e., [COVID-NMA](#), [Copenhagen Trial Unit](#) (CTU), [McMaster Health Forum](#)) are currently developing living evidence syntheses that address questions about COVID-19 vaccine safety and effectiveness; however, no team has yet identified studies that report the reduction of onward COVID-19 transmission upon vaccination. They are committed to reporting the data if/when they become available.

**Recommendations for post-vaccination testing:**

- Two public health organizations provide recommendations for addressing post-vaccination testing among health care workers who are displaying signs of COVID-19 symptoms.
  - The US Centers for Disease Control (CDC) provides recommendations for minimizing the impact of post-vaccination systemic signs and symptoms on health care staffing. These include developing a strategy to provide timely assessment of HCWs with systemic signs and symptoms post-vaccination, including providing or identifying options for SARS-CoV-2 viral testing.
  - The BC Centre for Disease Control suggests that HCWs – including those working in assisted living facilities – who experience symptoms other than local injection site reactions are advised to refer to the [BC COVID-19 Self Assessment Tool](#). This will inform HCWs if they should get tested.

**Analysis for Ontario:** Overall, additional data is needed to inform an approach to serial testing of symptomatic and asymptomatic HCWs following COVID-19 vaccination.

<sup>a</sup> This briefing note includes current available evidence as of the noted date. It is not intended to be an exhaustive analysis, and other relevant findings may have been reported since completion.

This Briefing Note was completed by the Research, Analysis, and Evaluation Branch (Ministry of Health) based on information provided by members of the COVID-19 Evidence Synthesis Network. Please refer to the Methods section for further information.

**Supporting Evidence**

[Table 1](#) summarizes findings from research and grey literature associated with testing symptomatic and asymptomatic individuals who work in health care settings and have direct patient contact (e.g., physicians, nurses, personal support workers, orderlies, etc.) following SARS-CoV-2 vaccination. For ease, these workers will be referred to as health care workers (HCWs) throughout this Evidence Synthesis Briefing Note. Details of the specific professions involved in each study are presented where available.

**Table 1: Testing Asymptomatic HCWs to following COVID-19 Vaccination**

<b>Scientific Evidence</b>	<p><b>Vaccine Effectiveness</b></p> <ul style="list-style-type: none"> <li>● <u>Decreased viral load:</u> <ul style="list-style-type: none"> <li>○ Israel: Emerging research (2021) on the Pfizer-BioNTech COVID-19 vaccine, BNT162b2, reported that vaccination reduces viral load by 1.6x to 20x in older patients (60 years and older) who are positive for SARS-CoV-2, potentially affecting viral shedding and contagiousness; additional research suggests viral load is reduced four-fold for SARS-CoV-2 infections occurring 12-28 days after a single dose of vaccine.<sup>1,2</sup></li> </ul> </li> <li>● <u>Infection prevention:</u> <ul style="list-style-type: none"> <li>○ England: Emerging research (2021) suggested that the BNT162b2 mRNA vaccine effectively prevented both symptomatic and asymptomatic infection among HCWs and administrative staff working in hospitals; among antibody negative HCWs, vaccine effectiveness was 72% 21 days after the first dose, and 86% seven days after two doses.<sup>3</sup></li> <li>○ Israel: After a single dose of the BNT162B2 vaccine, HCWs working at the Sheba Medical Centre had substantial early reductions in SARS-CoV-2 infection and symptomatic COVID-19 rates; of the 170 SARS-CoV-2 infections, 89 (52%) were unvaccinated, 78 (46%) tested positive after the first dose, and three (2%) tested positive after the second dose.<sup>4</sup></li> <li>○ Israel: Among members of a state-mandated health provider, the first dose of the BNT162b2 vaccine is associated with an approximately 51% reduction in the incidence of PCR-confirmed SARS-CoV-2 infections at 13 to 24 days after immunization; similar levels of effectiveness were found across age groups, gender, sub-populations, and patients with various comorbidities.<sup>5</sup></li> </ul> </li> <li>● <u>Vaccine uptake:</u> <ul style="list-style-type: none"> <li>○ England: A recent preprint study (2021) on the effectiveness of BNT162b2 mRNA vaccine against infection suggested that significantly lower coverage among HCWs in publicly funded hospitals was associated with prior COVID-19 infection, female gender, aged under 35 years, being from minority ethnic groups (especially Black), being employed as a porter/security guard, or midwife, and living in more deprived neighbourhoods.<sup>6</sup></li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• <u>Transmission upon vaccination:</u> <ul style="list-style-type: none"> <li>○ Three top global evidence synthesis teams (i.e., <a href="#">COVID-NMA</a>,<sup>b</sup> the <a href="#">Copenhagen Trial Unit</a>,<sup>c</sup> and <a href="#">McMaster Health Forum</a>) are currently developing living evidence syntheses that address questions about COVID-19 vaccine safety and effectiveness. They are committed to reporting the data if/when they become available.<sup>7</sup></li> </ul> </li> <li>• <u>Serial testing of HCWs:</u> <ul style="list-style-type: none"> <li>○ No identified academic or grey literature addresses recommendations on serial testing of asymptomatic HCWs following COVID-19 vaccination.</li> </ul> </li> </ul>
<b>International Scan</b>	<p><u>Impact of Post-Vaccination on HCWs</u></p> <ul style="list-style-type: none"> <li>• The US Centers for Disease Control and Prevention (CDC) provides recommendations, including viral testing, to minimize the impact of post-vaccination systemic signs and symptoms on health care staffing. These include: <ul style="list-style-type: none"> <li>○ Developing a strategy to provide timely assessment of HCWs with systemic signs and symptoms post-vaccination, including providing or identifying options for SARS-CoV-2 viral testing.</li> </ul> </li> <li>• Suggested approaches to evaluating and managing new-onset systemic post-vaccination signs and symptoms in HCWs are provided in <a href="#">Table 2</a> in the Appendix.<sup>8</sup></li> </ul> <p><u>Routine Asymptomatic Screening of HCWs in Congregate Care Settings</u></p> <ul style="list-style-type: none"> <li>• Reports from five US jurisdictions (Washington State; Los Angeles, CA; Minnesota; Massachusetts; Detroit, MI) describe testing asymptomatic HCWs in long-term care facilities, in the early phase of the COVID-19 pandemic (March to June 2020).<sup>9, 10, 11, 12, 13</sup> <ul style="list-style-type: none"> <li>○ US reports suggest that RT-PCR testing leading to rapid isolation of both symptomatic and asymptomatic staff and residents in long-term care facilities led to the prevention of COVID-19 outbreaks (Los Angeles, Minnesota).<sup>14, 15</sup></li> </ul> </li> </ul> <p><u>Recommendations for Routine COVID-19 Testing</u></p> <ul style="list-style-type: none"> <li>• In August 2020, the US Centers for Medicare and Medicaid Services required nursing homes to test staff weekly in states that had a 5% or greater COVID-19 testing positivity rate to prevent outbreaks.<sup>16</sup></li> <li>• An article on repeat testing in skilled nursing facilities in Detroit, MI, suggests that with the increased availability of SARS-CoV-2 testing, repeated point prevalence surveys and enhanced and expanded infection prevention and control (IPAC) support should be standard tools for interrupting and preventing COVID-19 outbreaks in skilled nursing facilities (SNFs).<sup>17</sup></li> </ul>
<b>Canadian Scan</b>	<ul style="list-style-type: none"> <li>• The BC Centre for Disease Control (BC CDC) suggests that HCWs, including those working in assisted living facilities, who experience symptoms other than local injection site reactions<sup>d</sup> are advised to refer to the <a href="#">BC COVID-19 Self-Assessment Tool</a>. This will inform HCWs if they must get tested. If HCWs require a COVID-19 test, the BC CDC advises the worker is not to return to work until they receive a negative test result.<sup>18</sup></li> </ul>

<sup>b</sup> Launched in March 2020, [COVID-NMA](#) is an international initiative working in conjunction with the World Health Organization (WHO), led by a team of researchers from Cochrane and other institutions (Université de Paris, Inserm, CNRS, Centre for Evidence-Based Medicine Odense, University of Southern Denmark, Odense University Hospital, Epistemonkos Foundation, Fondazione IRCCS Ca, Granda Ospedale Maggiore Policlinico, University of Milan) ([COVID-NMA, February 2, 2021](#)).

<sup>c</sup> The Copenhagen Trial Unit (CTU) is a non-specialty oriented clinical intervention research unit. They offer flexible collaboration at all stages of clinical research as well as education in clinical trials. The CTU is collaborating with the international Cochrane Collaboration in preparing, maintaining, and disseminating systematic reviews of the effects of health care ([CTU, n.d.](#)).

<sup>d</sup> Common expected side effects within a day or two after getting the vaccine include the following: 1) pain or swelling where the vaccine was given; and, 2) other symptoms may include tiredness, headache, fever, chills, muscle or joint soreness, nausea and vomiting ([BC CDC, January 22, 2021](#)).

## **Methods**

The COVID-19 Evidence Synthesis Network is comprised of groups specializing in evidence synthesis and knowledge translation. The group has committed to provide their expertise to provide high-quality, relevant, and timely synthesized research evidence about COVID-19 to inform decision makers as the pandemic continues. The following member of the Network provided an evidence synthesis product that was used to develop this Evidence Synthesis Briefing Note:

- COVID-End in Canada; and
- Ontario Health.

This is version 3.0 of this Evidence Synthesis Briefing Note; the previous version was completed in late February, 2021.

For more information, please contact the [Research, Analysis and Evaluation Branch \(Ministry of Health\)](#).

**APPENDIX**

**Table 2: Managing New-onset Systemic Post-vaccination Signs and Symptoms in HCWs<sup>19</sup>**

HCW Signs and Symptoms	Suggested Approach	Additional Notes
<ul style="list-style-type: none"> <li>• Signs and symptoms <i>unlikely</i> to be from COVID-19 vaccination:               <ul style="list-style-type: none"> <li>○ Presence of <u>any</u> systemic signs and symptoms consistent with SARS-CoV-2 infection (e.g., cough, shortness of breath, rhinorrhea, sore throat, loss of taste or smell) or another infectious etiology (e.g., <a href="#">influenza</a>) that are not typical for post-vaccination signs and symptoms.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Exclude from work pending evaluation for possible etiologies, including SARS-CoV-2 infection, as appropriate.</li> <li>• Criteria for return to work depends on the suspected or confirmed diagnosis. Information on return to work for health care personnel with SARS-CoV-2 infection is available <a href="#">here</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• If performed, a negative <a href="#">SARS-CoV-2 antigen test</a> in HCWs who have signs and symptoms that are not typical for post-vaccination signs and symptoms should be confirmed by SARS-CoV-2 nucleic acid amplification test (NAAT). Further information on testing is available <a href="#">here</a>.</li> </ul>
<ul style="list-style-type: none"> <li>• Signs and symptoms <i>that may be</i> from either COVID-19 vaccination, SARS-CoV-2 infection, or another infection:               <ul style="list-style-type: none"> <li>○ Presence of <u>any</u> systemic signs and symptoms (e.g., fever, fatigue, headache, chills, myalgia, arthralgia) that are consistent with post-vaccination signs and symptoms, SARS-CoV-2 infection or another infectious etiology (e.g., <a href="#">influenza</a>).</li> <li>○ Fever in health care settings is defined as a measured temperature of 100.0°F (37.8°C) or higher.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the HCW; HCWs who meet the following criteria may be considered for return to work without viral testing for SARS-CoV-2:               <ul style="list-style-type: none"> <li>○ Feel well enough and are willing to work; <u>and</u></li> <li>○ Are afebrile<sup>e</sup>; <u>and</u></li> <li>○ Have systemic signs and symptoms limited only to those observed following COVID-19 vaccination (i.e., do not have other signs and symptoms of COVID-19 including cough, shortness of breath, sore throat, or change in smell or taste).</li> </ul> </li> <li>• If symptomatic HCWs return to work, they should be advised to contact occupational health services (or another designated individual) if symptoms are not improving or persist for more than two days. Pending further evaluation, they should be excluded from work and viral testing should be considered. If feasible, viral testing could be considered for symptomatic HCWs earlier to increase confidence in the cause of their symptoms.</li> <li>• In facilities where critical staffing shortages are anticipated or occurring, HCWs with fever and systemic signs and symptoms limited <i>only</i> to those observed following vaccination could be considered for work if they feel well enough and are willing. These HCWs should be re-evaluated, and viral testing for SARS-CoV-2 considered, if fever does not resolve within two days.</li> </ul>	<ul style="list-style-type: none"> <li>• If performed, a negative <a href="#">SARS-CoV-2 antigen test</a> in HCWs who have symptoms that are limited only to those observed following COVID-19 vaccination (i.e., do not have cough, shortness of breath, sore throat, or change in smell or taste) may not require confirmatory SARS-CoV-2 NAAT testing. Additional information is available <a href="#">here</a>.</li> </ul>

<sup>e</sup> HCWs with fever should, ideally, be excluded from work pending further evaluation, including consideration for SARS-CoV-2 testing. If an infectious etiology is not suspected or confirmed as the source of their fever, they may return to work when they feel well enough ([CDC, December 13, 2020](#)).

**Table 3: Routine Asymptomatic Screening of HCWs in Preventing COVID-19 Outbreaks in Congregate Care Settings**

Jurisdiction & Purpose	Congregate Care Setting	HCW Population	Type of Test	Impact & Outcomes	Lessons Learned & Recommendations
<p><b>Washington State, US</b></p> <ul style="list-style-type: none"> <li>This editorial describes factors that contributed to COVID-19 outbreaks in nursing homes including the failure to require routine asymptomatic testing.<sup>20</sup></li> </ul>	<ul style="list-style-type: none"> <li>Nursing homes.</li> </ul>	<ul style="list-style-type: none"> <li>No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>Many infections and deaths have been among nursing home residents and staff. To date, the Centers for Medicare and Medicaid Services (CMS) reported over 286,000 infected nursing home residents and almost 46,000 resident deaths as of August 2, 2020.</li> <li>Nursing home residents have a higher COVID-19 death rate in the US than non-nursing home residents; they are less than 0.5% of population but over 27% of total deaths.</li> </ul>	<ul style="list-style-type: none"> <li>The CMS policy does not require testing of all nursing home staff and residents, and as a result testing generally occurred only after a major outbreak.</li> <li>In August 2020, the CMS required nursing homes to test staff weekly in states that had a 5% or greater COVID-19 testing positivity rate.</li> </ul>
<p><b>Los Angeles, CA, US</b></p> <ul style="list-style-type: none"> <li>This report describes a COVID-19 outbreak in a skilled nursing facility (SNF), with case identification accomplished by implementing several rounds of RT-PCR testing, permitting rapid isolation of both symptomatic and asymptomatic residents with COVID-19.<sup>21</sup></li> </ul>	<ul style="list-style-type: none"> <li>Long-term care SNF for veterans.</li> </ul>	<ul style="list-style-type: none"> <li>Between March 29-April 23, 2020, all SNF residents, regardless of symptoms, underwent serial (approximately weekly) nasopharyngeal SARS-CoV-2 RT-PCR testing, and positive results were communicated to the county health department. All SNF clinical and non-clinical staff members were also screened for SARS-CoV-2 by RT-PCR during March 29–April 10, 2020.</li> </ul>	<ul style="list-style-type: none"> <li>Nasopharyngeal SARS-CoV-2 RT-PCR testing.</li> </ul>	<ul style="list-style-type: none"> <li>Nineteen of 99 (19%) residents and eight of 136 (6%) staff members had positive test results for SARS-CoV-2 during March 28 - April 10, 2020; no further resident cases were identified on subsequent testing on April 13, April 22, and April 23. Fourteen of the 19 residents with COVID-19 were asymptomatic at the time of testing.</li> </ul>	<ul style="list-style-type: none"> <li>The outbreak was successfully contained following implementation of this strategy.</li> </ul>

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<p><b>Massachusetts, US</b></p> <ul style="list-style-type: none"> <li>In this study (July 2020), residents and staff were screened in April 2020 in a single SNF without a known case of COVID-19.<sup>22</sup></li> </ul>	<ul style="list-style-type: none"> <li>SNF: 142-bed facility, separated into short-term care, long-term care, and a memory unit.</li> </ul>	<ul style="list-style-type: none"> <li>On April 1, 2020, 52 of 97 residents (53.6%) tested positive for SARS-CoV-2 by PCR. Significantly more patients on the memory unit tested positive (75.0%) compared with patients on the short-term (53.3%) and long-term (34.3%) care units.</li> <li>On April 6, 2020, 97 staff members (66% of total facility staff, average age 45 years) were tested; 36 (37.1%) were positive for SARS-CoV-2.</li> </ul>	<ul style="list-style-type: none"> <li>Reverse Transcription-Polymerase chain reaction (RT-PCR).</li> <li>Serology IgG antibody tests.</li> </ul>	<ul style="list-style-type: none"> <li>PCR tests demonstrated an 85% prevalence among residents and 37% among staff.</li> </ul>	<ul style="list-style-type: none"> <li>Serology was not effective in identifying infections.</li> </ul>
<p><b>Minnesota, US</b></p> <ul style="list-style-type: none"> <li>This article describes serial testing at two SNFs.</li> <li>Between April - June 2020, the Minnesota Department of Health, with CDC assistance, conducted weekly serial testing at two SNFs experiencing COVID-19 outbreaks.<sup>23</sup></li> </ul>	<ul style="list-style-type: none"> <li>Two SNFs: <ul style="list-style-type: none"> <li>Facility A (78 residents and 156 HCWs).</li> <li>Facility B (183 residents, 324 HCWs).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>During April 30 - June 12, 2020, nasal, nasopharyngeal, or oral swabs were collected from residents and HCWs and were tested.</li> <li>After a first round of testing on April 30 and May 7, 2020, in facilities A and B, serial testing was conducted in residents every 7–10 days. HCWs were offered testing services at the facility during serial testing of residents as well as whenever it was convenient to account for work schedules.</li> <li>Residents and HCWs with positive test results were</li> </ul>	<ul style="list-style-type: none"> <li>RT-PCR.</li> </ul>	<ul style="list-style-type: none"> <li>Among 259 tested residents, and 341 tested HCP, 64% and 33%, respectively, had positive RT-PCR test results.</li> </ul>	<ul style="list-style-type: none"> <li>SARS-CoV-2 transmission was decreased by early identification of asymptomatic infections through introduction of facility-wide testing and prompt implementation of mitigation efforts, including cohorting of infected residents and exclusion of infected HCP in two SNFs in Minnesota.</li> </ul>

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		<p>excluded from future serial testing. Starting in mid-March, HCP were screened daily for COVID-19-compatible symptoms, and symptomatic HCP were sent home per MDH and CDC guidance.</p> <ul style="list-style-type: none"> <li>• Symptomatic residents and HCW were tested outside of scheduled serial testing.</li> </ul>			
<p><b>Detroit, Michigan, US</b></p> <ul style="list-style-type: none"> <li>• This article describes initial and repeated point prevalence surveys in SNFs, between March - May 2020.<sup>24</sup></li> </ul>	<ul style="list-style-type: none"> <li>• All SNFs in Detroit.</li> </ul>	<ul style="list-style-type: none"> <li>• During March 2020, the Detroit Health Department and area hospitals detected a sharp increase in COVID-19 diagnoses, hospitalizations, and associated deaths among SNF residents. The Detroit Health Department collaborated with local government, academic, and health care system partners and a CDC field team to rapidly expand SARS-CoV-2 testing and implement IPAC activities in all Detroit-area SNFs.</li> </ul>	<ul style="list-style-type: none"> <li>• RT-PCR.</li> </ul>	<ul style="list-style-type: none"> <li>• During March 7–May 8, 2020, among 2,773 residents of 26 Detroit SNFs, 1,207 laboratory-confirmed cases of COVID-19 were identified during three periods: before (March 7 - April 7, 2020) and after two point prevalence surveys (April 8–25 and April 30–May 8): the overall attack rate was 44%.</li> <li>• Repeated point prevalence surveys in SNFs identified asymptomatic COVID-19 cases, informed cohorting and IPAC practices aimed at reducing transmission, and guided prioritization of health department resources for facilities experiencing high levels of SARS-CoV-2 transmission.</li> <li>• Although asymptomatic health care personnel with</li> </ul>	<ul style="list-style-type: none"> <li>• With the increased availability of SARS-CoV-2 testing, repeated point prevalence surveys and enhanced and expanded IPAC support should be standard tools for interrupting and preventing COVID-19 outbreaks in SNFs.</li> <li>• In response to a confirmed case, <a href="#">CDC now recommends</a> repeat testing (e.g., every three to seven days) of all residents and health care personnel who previously had negative test results until testing identifies no new cases of COVID-19 among residents or health care personnel. Widescale testing activities should be integrated with intensified IPAC support from local and state health departments.</li> </ul>



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				SARS-CoV-2 infection are a likely source of transmission, health care personnel were not tested on the same day as were residents, and results of health care personnel testing were not available for inclusion in the report.	
<b>Guidelines for COVID-19 Testing</b>					
<p><b>Minnesota, US</b></p> <ul style="list-style-type: none"> <li>• <a href="#">COVID-19 Testing Recommendations for Long-Term Care Facilities</a> (November 20, 2020).<sup>25</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Long-term care facilities including nursing facilities and assisted living settings.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Routine Testing of All Staff:</b> Federally licensed nursing facilities are required to test all staff according to the 14-day county COVID-19 positivity rate. Information on this required staff testing and county-level positivity rates can be accessed from CMS or the Minnesota Department of Health. Facilities should select one data source (i.e., CMS or MDH) and check that same data source every other week.</li> <li>• Although routine all-staff testing is not required in assisted living settings, it is encouraged.</li> </ul>	<ul style="list-style-type: none"> <li>• No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Recommendations for Staff in Federally Certified Nursing Facilities:</b> <ul style="list-style-type: none"> <li>• Low-risk category (&lt;5%): <ul style="list-style-type: none"> <li>○ Once monthly testing is required for all staff.</li> </ul> </li> <li>• Medium-risk category (5%–10%): <ul style="list-style-type: none"> <li>○ Once weekly testing is required for all staff.</li> </ul> </li> <li>• High-risk category (&gt;10%): <ul style="list-style-type: none"> <li>• Twice weekly testing is required for all staff.</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Routine Testing of High-Risk Staff in Assisted Living Facility:</b> If routine testing of all staff is not possible in an assisted living facility, routine testing can be considered for staff members who: <ul style="list-style-type: none"> <li>○ Have had close prolonged contact (within six feet for 15 minutes or more) with a household member or social contact with COVID-19;</li> <li>○ Had a known high-risk exposure (e.g., PPE breach) while working with a resident with COVID-19;</li> <li>○ Had a known high-risk exposure to a co-worker with COVID-19 while potentially infectious (i.e., 48 hours prior to onset of symptoms, or test date if asymptomatic, through the last work date of the</li> </ul> </li> </ul>

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					<ul style="list-style-type: none"> <li>employee with COVID-19); and               <ul style="list-style-type: none"> <li>○ Worked within 14 days at another facility that has COVID-19 cases.</li> </ul> </li> <li>● Facilities should consider testing asymptomatic staff who continue to work multiple times in the 14 days following a high-risk exposure (e.g., days 3, 5, 7, 10, and 12).</li> </ul>
<p><b>United States</b></p> <ul style="list-style-type: none"> <li>● This US Centers for Disease Control document provides guidance on the appropriate use of testing for SARS-CoV-2 among healthcare personnel.<sup>26</sup></li> </ul>	<ul style="list-style-type: none"> <li>● No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>● No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>● No information was identified.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Testing Asymptomatic HCWs with Exposure to SARS-CoV-2:</b><sup>f</sup> Similar to exposures in the community, testing initially and, if negative, again about five to seven days post exposure could be considered for HCP with <a href="#">higher-risk exposures</a> to more quickly identify pre-symptomatic or asymptomatic HCP who could contribute to SARS-CoV-2 transmission in the community. However, HCP with higher-risk exposures should still be excluded from work for 14 days, even if testing during this period does not identify SARS-CoV-2 infection.</li> </ul>	<ul style="list-style-type: none"> <li>● Facilities that elect to perform post-exposure testing of HCP should be aware that testing is logistically challenging and has limitations.               <ul style="list-style-type: none"> <li>○ Testing only identifies the presence of virus at the time of the test. It is possible that HCP can test negative because they are very early in their infection when their sample is collected. In such situations, they could test positive later and transmit the virus to others; for this reason, repeat testing about five to seven days after the exposure should be considered.</li> </ul> </li> </ul>

<sup>f</sup> Asymptomatic HCP who have recovered from SARS-CoV-2 infection may not need to undergo repeat testing or quarantine in the case of another SARS-CoV-2 exposure within three months of their initial diagnosis ([US CDC, February 16, 2021](#)).

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					<ul style="list-style-type: none"> <li>○ When there is SARS-CoV-2 transmission occurring in the community, positive tests in HCP do not necessarily indicate transmission due to exposures in the workplace.</li> <li>● In nursing homes, expanded viral testing of all HCP is recommended in response to an outbreak in the facility.<sup>9</sup></li> <li>● Expanded viral testing includes initial testing of all HCP followed by repeat testing of all previously negative HCP, generally between every three to seven days, until the testing identifies no new cases of SARS-CoV-2 infection among residents or HCP for a period of at least 14 days since the most recent positive result. Expanded viral testing of HCP could also be considered in other healthcare settings in some situations (e.g., when multiple instances of SARS-CoV-2 transmission are identified among patients or HCP).</li> </ul>

<sup>9</sup> An outbreak is defined as a new SARS-CoV-2 infection in any HCP or any [nursing home-onset](#) SARS-CoV-2 infection in a resident ([US CDC, February 16, 2021](#)).

Jurisdiction & Purpose	Congregate Care Setting	HCW Population	Type of Test	Impact & Outcomes	Lessons Learned & Recommendations
<p><b>United Kingdom</b></p> <ul style="list-style-type: none"> <li>This Public Health England guidance document provides advice on the management of staff and patients or residents in health and social care settings according to exposures, symptoms and test results.<sup>27</sup></li> </ul>	<ul style="list-style-type: none"> <li>Information not available.</li> </ul>	<ul style="list-style-type: none"> <li>Information not available.</li> </ul>	<ul style="list-style-type: none"> <li>Information not available.</li> </ul>	<ul style="list-style-type: none"> <li>Information not available.</li> </ul>	<ul style="list-style-type: none"> <li><b><u>SARS-Cov-2 Re-Testing in Staff, Patients and Residents in Health and Social Care Settings:</u></b> Immunocompetent staff who have tested positive for SARS-CoV-2 by PCR should be exempt from routine re-testing by PCR or LFD antigen tests (i.e., repeated whole setting screening or screening prior to hospital discharge) within a period of 90 days from their initial illness onset or test (if asymptomatic) unless they develop new COVID-19 symptoms. This is because fragments of inactive virus can be persistently detected by PCR in respiratory tract samples following infection – long after a person has completed their isolation period and is no longer infectious.</li> <li>If a person is re-tested by PCR within 90 days from their initial illness onset or test date and is found to still be positive for SARS-CoV-2, a clinically-led approach, taking into account several factors, should be used to decide whether re-infection is a</li> </ul>

Jurisdiction & Purpose	Congregate Care Setting	HCW Population	Type of Test	Impact & Outcomes	Lessons Learned & Recommendations
					<p>possibility and to inform subsequent action. Such factors include:</p> <ul style="list-style-type: none"> <li>○ COVID-19 symptoms;</li> <li>○ Underlying clinical conditions;</li> <li>○ Immunosuppressive treatments and conditions; and</li> <li>○ Additional information such as cycle threshold values.</li> </ul> <ul style="list-style-type: none"> <li>● If a person is re-tested by PCR after 90 days from their initial illness onset or test and is found to be PCR positive, this should be considered as a possible new infection. If they have developed new COVID-19 symptoms, they would need to self-isolate again and their contacts should be traced.</li> </ul>

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