

Risk Assessment and Categorisation of Healthcare Workers Exposed to COVID-19

Effective from 15 November 2021 / Next review 29 November 2021

This risk matrix provides a guide only.

In general, there are a number of controls in healthcare settings which mean the risk of COVID-19 transmission is considerably less than in community settings.

There may be circumstances where the risk action is elevated to the next level e.g., when there have been multiple cases and/or evidence of transmission within the setting.

There may be circumstances where the risk action is downgraded to a lower level e.g., when a case is considered to have had low infectivity (e.g., high CT values and asymptomatic) or the space is very well ventilated.

Who will be involved in assessing and managing an exposure event will vary according to the healthcare facility. In DHB settings, where possible, each exposure event should be assessed and managed by a team that includes public health, occupational health, infectious diseases, clinical microbiology, infection prevention and control (IPC) and service leadership. Appendices are under development to support use of this guidance in non-DHB settings, including primary care and community home care settings.

Staff who are categorised as Level III or Level IV should be recorded as Close contacts in the National Contact Tracing Solution (NCTS). Records will need to be immediately 'suspended' as an interim measure as the different management pathways are not available in NCTS.

In DHB settings, responsibility for the frontline management of these staff, including their return to work, sits with occupational health teams.

Table 1: Factors to consider in risk assessment

Risk assessment should always take into account the community prevalence of COVID-19 as well as the following:				
Exposure details	Case details	Contact details	Infection prevention and control details	Environmental exposure details
<ul style="list-style-type: none"> Known in-hospital transmission provides a higher risk of further transmission Exposure outside of work including when commuting to work Exposure at work but with no known transmission 	<ul style="list-style-type: none"> Case infectiousness (e.g., CT value where available) Presence and type of symptoms, such as respiratory distress or delirium which increase the risk of transmission Aerosol/droplet generating behaviours (AGB/DGB) by the case: such as shouting, coughing, respiratory distress, sneezing, vomiting, spitting or exercise Aerosol generating procedures (AGPs) being performed on the case Confirmed secondary cases COVID-19 vaccination status 	<ul style="list-style-type: none"> Whether exposure is confirmed or only possible Type of contact with case Physical distance from case Duration of exposure Type of procedure performed (if relevant) e.g., aerosol-generating COVID-19 vaccination status 	<ul style="list-style-type: none"> Face covering/medical mask use and hand hygiene by patient P2/N95 respirator use (and whether fit tested) or use of medical mask Use of eye protection during AGP or AGB/DGB Use of appropriate PPE and hand hygiene by staff member Appropriate donning and doffing of PPE (i.e., no breaches) 	<ul style="list-style-type: none"> Use of shared equipment Use of communal spaces (e.g., tea rooms, workstations, offices) Ventilation Room size

Table 2: Risk assessment and categorisation of healthcare worker

<p>Note: All exposure category decisions are based on a local risk assessment. This matrix should be seen as guidance only.</p> <p>The highest risk duration or proximity parameter met should be used (e.g., face-to-face trumps <30min in the room and >1.5m)</p> <p>Case = confirmed positive case in a patient, staff member or other person in the health care environment.</p> <p>No increased risk = transient, not face-to-face, limited contact that does not meet the definition of face-to-face contact.</p> <p>PPE = Personal protective equipment</p>	Low Risk Exposure		Moderate Risk Exposure		High Risk Exposure		Highest Risk Exposure			
	<ul style="list-style-type: none"> Shared indoor space: In general, more than 1.5m apart and under 30 minutes cumulative in 24 hours <p>OR</p> <ul style="list-style-type: none"> Exposure outdoors: less than 1.5m for more than 30 minutes & no AGP/AGB 		<ul style="list-style-type: none"> Any face-to-face contact/care within 1.5 metres and less than cumulative 15 minutes in 24 hours <p>OR</p> <ul style="list-style-type: none"> In general, shared indoor space more than 1.5m away for greater than cumulative 30 mins in 24 hours <p>OR</p> <ul style="list-style-type: none"> Based on agreed documented individual risk assessment including assessments of occupational exposures and of the physical environment 		<ul style="list-style-type: none"> Prolonged face-to-face contact within 1.5 metres and greater than cumulative 15 minutes in 24 hours <p>OR</p> <ul style="list-style-type: none"> Contact with multiple COVID-19 confirmed cases/suspected cases/probable cases 		<ul style="list-style-type: none"> Aerosol generating behaviours (AGBs) from the case e.g., uncontrolled coughing, singing, shouting, exercise) where the person is not able to adopt respiratory etiquette <p>OR</p> <ul style="list-style-type: none"> Direct exposure to the mouth/nose/eyes with infectious body fluids (e.g., coughed, sneezed, vomited on) from the case¹ <p>OR</p> <ul style="list-style-type: none"> Aerosol generating procedures (AGPs) during procedure or settle time 			
	Vaccination status of the healthcare worker									
	Partial or none		Full ²		Partial or none		Full			
No effective PPE worn by staff member or case (no PPE or PPE with major breaches such as mask below nose)	Level II	Level III	Level I	Level II	Level III	Level II	Level IV	Level III	Level IV	
	Based on risk assessment		Based on risk assessment							
Medical mask only worn by staff member	Level II		Level I		Level II		Level III		Level IV	
Medical mask worn by staff member AND	Level I		Level I		Level I		Level II		Level I	
Staff member in P2/N95 but no eye protection with no breaches	Level I		Level I		Level I		Level I		Level I	
Staff member in P2/N95 and eye protection with no breaches	No increased risk over background – general surveillance testing where in place should continue									

Note: Eye protection may be recommended for IPC purposes to reduce transmission risk in the workplace, but not wearing eye protection does not constitute sufficient exposure risk to warrant inclusion in exposure event criteria EXCEPT when aerosol generating procedures are being undertaken or aerosol generating behaviours result in direct exposure to the eyes. However, employees should follow all IPC guidance provided by their employers at all times and this may include the routine use of eye protection.

Laboratory staff (technicians, scientists, pathologists and support staff) handling COVID-19 specimens, where a breach in best laboratory practice has occurred, should report the exposure to the senior scientist on duty, who may seek guidance from the on-call clinical microbiologist if required.

Use of gown/apron and gloves should be risk assessed based on individual incident, exposure to body substance and chances of environmental contamination.

¹ Staff who are cleaning up spillage or toilets used by cases who have vomiting, or diarrhoea need an individualised risk assessment.

² Full = is greater than or equal to 7 days following 2nd dose (<https://www.health.govt.nz/our-work/immunisation-handbook-2020/5-coronavirus-disease-covid-19#23-5>)

³ Degree of controls in the environment need to be taken into consideration: e.g., controlled intubation in ICU less risk than acute resuscitation situation; and degree of exposure, e.g., patient use of unvented CPAP but in otherwise controlled environment would be lower risk. Alternative actions include potential to review at day 5 regarding return to work or classification as lower risk.

Health Care Worker Contact	Vaccination status of the healthcare worker	
	Partial or none	Full
Level I Low risk exposure	<ul style="list-style-type: none"> • No stand down required • Daily symptom / fitness for work screen as per local protocols • Monitor for symptoms for 10 days • Test if symptomatic, no matter how mild, and stay at home until negative test result and until 24 hours symptom free • Comply with IPC protocols when at work • Continue regular surveillance testing where in place • Offer support to be vaccinated as soon as possible 	<ul style="list-style-type: none"> • No stand down required • Daily symptom / fitness for work screen as per local protocols • Monitor for symptoms for 10 days • Test if symptomatic, no matter how mild, and stay at home until negative test result and until 24 hours symptom free • Comply with IPC protocols when at work • Continue regular surveillance testing where in place
Level II Moderate risk exposure	<ul style="list-style-type: none"> • If exposure on current shift, comply with IPC protocols, leave workplace at the end of the shift, test on days 2* & 5 post exposure • If exposure occurred prior to current shift and/or outside of workplace, leave workplace immediately, test immediately & day 5 post exposure • Stay at home until negative day 5 test is available. Return to work after completion of 5 days, negative day 5 test, and symptom free for 24 hours • Monitor for symptoms for 10 days • Test if symptomatic, no matter how mild, and stay at home until negative test result and until symptom free for 24 hours • Daily symptom / fitness for work screen as per local protocols once returned to work • When return to work, fastidious use of medical mask, donned before entry to the workplace, changed as needed during the day, and comply with IPC protocols when at work • When mask must be removed (e.g., for eating and drinking), ensure physical distancing is maintained • Continue regular surveillance testing where in place once post-exposure monitoring is complete • Offer support to be vaccinated as soon as possible 	<ul style="list-style-type: none"> • No stand down required • Daily symptom / fitness for work screen as per local protocols • Fastidious use of medical mask, donned before entry to the workplace, changed as needed during the day and comply with IPC protocols when at work • When mask must be removed (e.g., for eating and drinking), ensure physical distancing is maintained • Post exposure testing as directed (e.g., PCR test no earlier than days 2 & 5 post exposure; or daily RAT for 5 days if approved) • If symptoms develop within 10 days post exposure, no matter how mild, test again and stay at home until negative test result and symptom free for 24 hours • Continue regular surveillance testing where in place once post-exposure monitoring is complete • When not at work, stay at home for 5 days and don't extend your bubble
Level III High risk exposure	<ul style="list-style-type: none"> • If exposure has occurred on current shift, comply with IPC protocols, leave workplace at the end of the shift • If exposure occurred prior to current shift and/or outside of the workplace, leave workplace immediately, test immediately • Self-isolate for 10 days, test immediately and on days 5 and 8 post exposure. Can return to work on completion of 10 days self-isolation, negative day 8 test and symptom free for 24 hours • If symptoms develop within 10 days post exposure, no matter how mild, test again and self-isolate until negative test result and symptom free for 24 hours • Daily symptom / fitness for work screen as per local protocols once returned to work • Continue regular surveillance testing where in place once post-exposure monitoring is complete • Unvaccinated household members must follow public health advice for household members of a Close Contact. The Section 70 exemption applies if these household members are also essential healthcare workers • Offer support to be vaccinated as soon as possible 	<ul style="list-style-type: none"> • No stand down required • Daily symptom / fitness for work screen as per local protocols • Fastidious use of medical mask, donned before entry to the workplace, changed as needed during the day and comply with IPC protocols when at work • When mask must be removed (e.g., for eating and drinking), ensure physical distancing is maintained • Eat alone in a well-ventilated space, if possible • Post exposure daily testing (whether at work each day or not) required until day 7 instead of self-isolation; if daily testing declined or unavailable, then self-isolate for full 7 days • If symptoms develop within 10 days post exposure, no matter how mild, test again and self-isolate until negative test result and symptom free for 24 hours • Continue regular surveillance testing where in place once post-exposure monitoring is complete • When not at work, self-isolate as per standard Close contact advice until 7 days, provided no new or worsening symptoms AND negative daily tests
Level IV Highest risk exposure	<ul style="list-style-type: none"> • If exposure has occurred on current shift, comply with IPC protocols, leave workplace at the end of the shift • If exposure occurred prior to current shift, leave workplace immediately, test immediately • Self-isolate for 10 days, test immediately and on days 5 and 8 post exposure. Can return to work on completion of 10 days self-isolation, negative day 8 test and symptom free for 24 hours • If symptoms develop within 10 days post exposure, no matter how mild, test again and self-isolate until negative test result and symptom free for 24 hours • Daily symptom / fitness for work screen as per local protocols once returned to work • Continue regular surveillance testing where in place once post-exposure monitoring is complete • Unvaccinated household members must follow Public Health advice for household members of a Close contact. The section 70 exemption applies if these household members are also essential healthcare workers • Offer support to be vaccinated as soon as possible 	<ul style="list-style-type: none"> • If exposure has occurred on current shift, comply with IPC protocols, leave workplace at the end of the shift • If exposure occurred prior to current shift, leave workplace immediately, test immediately • Self-isolate for 10 days, test immediately and on days 5 and 8 post exposure. Can return to work on completion of 10 days self-isolation, negative day 8 test and symptom free for 24 hours • If symptoms develop within 10 days post exposure, no matter how mild, test again and self-isolate until negative test result and symptom free for 24 hours • Daily symptom / fitness for work screen as per local protocols once returned to work • Continue regular surveillance testing where in place once post-exposure monitoring is complete • Unvaccinated household members must follow Public Health advice for household members of a Close contact. The section 70 exemption applies if these household members are also essential healthcare workers

*Day 0 is the day of, or last day of, exposure(s), day 1 is the first day following the day of, or last day of, exposure