

# Risk assessment framework for identifying staff possibly vulnerable to the COVID-19 infection.

## Intended to Assist GP with Assessment

### Context

The following guidance was developed by occupational health specialists from across New Zealand. It is intended as guidance only and will evolve as we learn more about COVID-19. It is important to note combinations of conditions are likely to increase the risk and should be considered more conservatively.

This guidance assumes the individual has not been infected with COVID-19.

This guidance also assumes the appropriate use of controls within each work type such as social distancing, hand hygiene, and PPE when required.

This guidance is not necessary for people over 70 as the government has classified them as vulnerable and asked them to stay home.

### Work Zones

During this pandemic, different work types have been categorised as follows:

- **Category 1** – FENZ personnel **at highest risk of work-related COVID-19 exposure**: those undertaking medical first response duties- response to symptomatic Covid 19 case/close contact and especially any CPR on Covid-19 case represents greatest risk.
- **Category 2** – Those with potential public contact relating to incidents but not involved with medical response.
- **Category 3** – Those working in Station, office, NHQ, comm cens with co-worker, but not public, contact.
- **Category 4** - Work from home or in self-isolation for whatever reason

The above categorisation scheme is relevant to all members of staff working in those zones, irrespective of their specific work or role.

Medical condition	Category 1 work. Medical response capacity.	Category 2 work. Non-medical incident related public exposure	Category 3 work. Limited exposure to co-workers within station, office, NHQ	Category 4 work. Work from home.
<b>RESPIRATORY – ASTHMA</b>				
<p>There is a range of severity for asthma and asthma symptoms; in general those undertaking operational fire fighting are very unlikely to have more than mild asthma as this would have usually affected capacity for other operational duties. Mild asthma is defined as occasional intermittent breathing symptoms not usually affecting activities of daily living, with use of up to two relieving uses of inhaler each week and with no night waking. Less well controlled asthma is the use of relieving inhaler more often but not waking at night. Severe asthma impacts on daily activities of daily living, requires inhaler use on a frequent basis each day together with night waking.</p>				
Mild well controlled asthma.	Yes	Yes	Yes	Yes
Less well controlled asthma.	Probably yes, but depends on level of symptom control.	Yes	Yes	Yes
Poorly controlled asthma	Not recommended	Yes	Yes	Yes
<b>RESPIRATORY - OTHER CONDITIONS</b>				
Any stable chronic lung disease (such as chronic obstructive pulmonary disease, recurrent bronchitis).	Not recommended	Yes, probably but some cases may need discussion with Occupational Health.	Yes	Yes

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Proven recurrent pneumonia, in absence of an obvious underlying medical condition.	Not recommended for most individuals. May need to be assessed on an individual basis, as some individuals may not have experienced an episode for many years.	Yes, for most individuals, but will depend on infection risk.	Yes	Yes
<b>DIABETES</b>				
Diabetes - type 1 or type 2 which is well controlled and no complications of diabetes.	Can only work in this area, if good diabetic control and no history of recurrent infections or other medical conditions. Requires risk assessment.	Yes	Yes	Yes
Diabetes - type 1 or type 2 diabetes poorly controlled, and/or any complications of diabetes.	Not recommended	Not recommended	Yes	Yes

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<b>HEART DISEASE</b>				
<p>There are a range of different conditions and severity for heart disease; In general, the level of cardiac fitness required for operational fire fighting is such that the condition will not constitute a significantly increased risk for COVID-19 adverse outcomes. The combination with other factors does have to be considered such as hypertension, age or other medical problems.</p> <p>Individuals with well controlled ischaemic heart disease (IHD, narrowing of the arteries in the heart) with no chest pain/shortness of breath and with normal daily function and robust exercise capacity should be able to continue with full duties assuming no other risk factors.</p> <p>Individuals with IHD in combination with any degree of heart failure should not work in a category 1 or 2 role.</p> <p>Individuals with extensive history of heart disease and multiple previous heart procedures and interventions should not work in category 1 and probably 2 areas, whatever the current control of their condition. Individuals with heart procedures in last 6 months should probably not work in COVID exposure areas.</p> <p>Thus an individual risk assessment is prudent for cases of heart disease.</p>				
Well controlled IHD, with no other significant risk	Yes, if above criteria are satisfied, no symptoms	Yes	Yes	Yes

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factors such as hypertension, diabetes or heart failure.	Not recommended for individuals if aged over 65. Some cases may need discussion with IMU.			
Less well controlled IHD, with occasional symptoms and occasional impact on daily activities.	Not recommended	Yes, based on previous work abilities and current symptom status. Need to consider non-public contact work if symptomatic. May need to be discussed with IMU.	Yes	Yes
Other cardiac cause (such as cardiomyopathy or previous heart valve surgery), with no symptoms of chest pain, shortness of breath and/or swelling in the lower limbs.	Not recommended	Yes, based on previous work abilities and current symptom status. Need to consider non-public contact work if symptomatic. May need to be discussed with IMU	Yes	Yes

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Other cardiac cause (such as heart failure, cardiomyopathy or previous heart valve surgery), with symptoms of chest pain, shortness of breath and/or swelling in the lower limbs.	Not recommended	Yes, based on previous work abilities and current symptom status. Need to consider non-public work if very symptomatic. May need to be discussed with IMU.	Yes	Yes
Hypertension, well controlled (including on medication) and no heart disease.	Yes	Yes	Yes	Yes
Hypertension, suboptimal control (including with medication) and no heart disease.	Not recommended	Yes	Yes	Yes
<b>IMMUNOCOMPROMISING CONDITIONS</b>				
Immunocompromising conditions (i.e. those causing compromise of the immune system), including HIV/AIDS, cancers, rheumatoid	Not recommended	Possibly yes, but will need discussion with IMU as there are a range of conditions and thus a spectrum of risk.	Probably yes, but some individuals may need to work from home due to risk of infection from colleagues.	Yes

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arthritis, immune deficiency syndromes, following organ transplants, etc.				
<b>MEDICATIONS CAUSING IMMUNOCOMPROMISE</b>				
<p>Some medications have potential to compromise the immune system.</p> <p>Ask whether individual takes any of the medications mentioned in this section.</p>	<p>Cannot work if on the following medications:            Long-term prednisolone            at a dosage greater than 10 mgs            Abatacept            Adalimumab            Anakinra            Azathioprine            Cyclophosphamide            Cyclosporin            Etanercept            Hydroxychloroquine            Infliximab            Mercaptopurine            Methotrexate            Mycophenolate            Rituximab            Tacrolimus / Sirolimus</p>	<p>Possibly yes, but some individuals will need to be excluded from public contact due to risk of infection.            There is a wide range of Immunocompromised conditions and needs. Please refer to previous list as a guide.            Discussion with a clinician is advised.</p>	<p>Probably yes, but some individuals may need to work from home due to risk of infection from colleagues.</p>	<p>Yes</p>

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	Discussion with a clinician is advised for all other individuals.			
Chronic kidney/liver disease	Will depend on nature of underlying condition. Will need discussion with IMU.	Probably, most individuals with chronic kidney liver disease should be able to undertake work in this area; dependent upon nature of underlying condition, current stability, previous ability to work. May need discussion with IMU.	Yes	Yes
<b>CANCER</b>				
Active cancer	Not recommended	Not recommended	Depends on clinical situation and symptoms.	Depends on clinical situation and symptoms.
Recovering from cancer, on chemotherapy or radiotherapy.	Not recommended	Probably not for most individuals.	Depends on clinical situation and symptoms.	Depends on clinical situation and symptoms. Some individuals may be able to work from home.
Full recovery from previous cancer.	Many individuals who have made a full recovery from cancer	Most individuals who have made a full recovery from cancer should be able to work in	Yes	Yes



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	<p>should be able to work in this area. However, there are some cancers (for example previous leukaemia or lung cancer) that may be relevant, in case an individual becomes unwell again in this area of work. Advice from IMU will be required.</p>	<p>this area. Care may need to be taken with previous lung cancers or leukaemias due to infection risk. Will need individual assessment.</p>		
<b>MUSCULOSKELETAL CONDITIONS</b>				
Any active musculoskeletal condition (such as osteoarthritis and mild inflammatory joint conditions)	Yes No effect on COVID-19 risks.	Yes No effect on COVID-19 risks.	Yes No effect on COVID-19 risks.	Yes No effect on COVID-19 risks.

<b>SKIN CONDITIONS</b>				
Any active skin conditions.	Yes (as virus is not thought to spread through skin). Some individuals may be unable to work in these areas due to immunosuppressant medications for their skin condition.	On the whole yes, individuals on immunosuppressant medication for skin conditions will need further discussion with clinician.	Yes	Yes
<b>OTHER MEDICAL CONDITIONS</b>				
There is a complete lack of data for all other medical conditions and Covid-19. Most individuals with other medical conditions not affecting the lung, heart, immune system, diabetes, should be able to undertake work in all areas.  Relevant conditions include those affecting the musculature or lining of the lung, neuromuscular problems (such as myasthenia gravis), pleural	On the whole yes but will depend on the nature of the underlying condition. Risk of infection will need to be considered on a case by case basis. For some individuals, there may be a need to seek advice from IMU.	If already working in an area then should be able to continue working in that role. Risk of infection will need to be considered a case by case basis.	Yes	Yes
<b>PREGNANCY</b>				
Person self identifies as pregnant	Not recommended, refer to guidance. Current	Probably not based on a precautionary approach.	Yes	Yes

	evidence suggests no specific risk due to COVID-19 infection but there is a non-specific risk relating to the non-specific effects of any viral infection such as fever. Clearly also there is as yet very little data on pregnancy outcome with COVID-19 so a precautionary approach is recommended.			
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