

COVID-19 AND DIABETES IN NEW ZEALAND, 20 March 2020

The COVID-19 pandemic has created significant concern for people with diabetes and has resulted in an increasing number of enquiries to diabetes services regarding the specific risks for people with diabetes.

The situation is rapidly changing and so people should regularly **check the Ministry of Health COVID-19 website** for information regarding all aspects of the outbreak (www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus). It is likely the current crisis will continue for weeks and probably months, although the recent drop in case load in China is gratifying to see. Currently, in New Zealand, there has not been community transmission to date, but this is likely to occur over the coming weeks and will result in additional challenges for the community and the health system.

For most people infected with COVID-19, it is a mild to moderate 'flu-like illness. However, based on overseas experience, it appears that people with diabetes who contract COVID-19 are at increased risk of serious complications of the infection, including respiratory failure and death.

The risks are similar for people with type 1 and type 2 diabetes.

In general, there does not appear to be a difference in risk between type 1 and type 2 diabetes. Importantly, factors that increase risks associated with COVID-19, irrespective of diabetes type, are increasing age, presence of complications and how well diabetes is being managed.

Risks associated with COVID-19 are likely to be higher in those with poorly controlled diabetes and those with multiple chronic co-existing diseases (e.g. diabetes and heart or lung disease). Poor diabetes control can impair the immune response and hinder the body's efforts to fight the infection. Therefore, close monitoring and management of diabetes, trying to ensure that blood glucose levels are well controlled, are very likely to be helpful in reducing the risk of the more severe complications of the infection.

Specific advice for people with diabetes:

- Make sure they have one month's supply of insulin or diabetes oral medication. They should not allow medications to run out.
- Review how they manage sick days with their primary health care or diabetes team.
- Have ketone test strips available for sick day management.
- If they are on a pump:
 - ensure they have spare basal insulin available in case there is a pump failure.
 - ensure they have adequate pump consumable supplies.
- Have supplies of regular treatment for hypoglycaemia.

- Advise that they have enough household items and groceries on hand so they are prepared to stay at home for a period of time and can continue to eat regular meals and snacks as required.
- Have plenty of fluids available in case they become unwell.
- Do not stop existing blood pressure medications such as ace inhibitors (ACEi) or angiotension receptor blockers (ARB)* however, carefully consider risk/benefit for commencing an ACEi or ARB inhibitor for renal protection.
- Offer influenza vaccination.

Goodfellow Unit Gem, March 2020: *Patients with COVID-19 Should Continue ACE Inhibitors & ARBs

Patients with novel coronavirus disease (COVID-19) who have underlying hypertension, heart failure, or ischemic heart disease should not stop taking their angiotensin-converting-enzyme (ACE) inhibitors or angiotensin-receptor blockers (ARBs), according to a new statement from the American Heart Association, the American College of Cardiology, and the Heart Failure Society of America¹. There was a concern that coronavirus can bind to target cells through ACE-2 receptors, the expression of which is increased when patients take these drugs. There is no clinical data to support that contention. At this point the risk to a patients health from cardiovascular causes and events of stopping these medications would outweigh any theoretical harm from Covid-19.

1. Farichild, D.G & Francesco, L.D. (2020). [Heart Groups: Patients with COVID-19 Should Continue ACE Inhibitors & ARBs](#). *NEJM Journal Watch*, March 17.

See also: <https://www.heartfoundation.org.nz/about-us/news/media-releases/what-people-living-with-heart-conditions-should-know-about-coronavirus> 13 March 2020

NB: We do not recommend starting an ace inhibitor for renal protection but all those on them should continue.

COVID-19 is different from the seasonal ‘flu.

Evidence to date suggests that COVID-19 is a more serious illness than seasonal ‘flu in everyone, but particularly those with diabetes. All of the standard recommended precautions to avoid respiratory infections are even more important when dealing with this new virus to avoid community spread and infecting high risk groups including those with diabetes.

Prevention – how to protect yourself and others

- Cough or sneeze into the elbow or by covering mouth and nose with tissues.
- Put used tissues in the bin or a bag immediately.
- Wash hands with soap and water often (for at least 20 seconds).
- Try to avoid close contact with people who are unwell.
- Don’t touch eyes, nose or mouth if hands are not clean.
- Avoid personal contact, such as kissing, sharing cups or food with sick people.
- Clean and disinfect frequently touched surfaces and objects, such as doorknobs.
- Stay home if feeling unwell.

Call Healthline on [0800 358 5453](tel:08003585453) if you have any symptoms and have been recently been overseas or have been in close contact with someone confirmed with COVID-19.

(<https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-novel-coronavirus-health-advice-general-public>)

If sick, then people with diabetes should:

- Stay home. This means postponing any clinic appointments.
- Cover coughs and sneezes.
- Wear a mask if in contact with others or if caring for a sick person.
- Perform the hygiene procedures above.
- Contact their diabetes care provider for advice on diabetes management or Healthline on [0800 358 5453](tel:08003585453) for general advice if required.

Dr Helen Snell (PhD), President NZSSD 20/3/2020