

New Zealand Clinical Network for Children and Young People with Diabetes Advice During the COVID-19 Pandemic

The public health measures introduced by the New Zealand Government have been very successful in controlling the spread of SARS-CoV-2, the coronavirus that causes COVID-19. Currently, there are very low numbers of new cases being diagnosed each day despite one of the highest per capita testing rates in the world. This suggests that there are very low rates of community transmission currently. Plans therefore are being made for schools to be reopened. For parents of children and young people with health conditions, including diabetes the decision as to whether or not to send their children back to school is more complex.

Schools and early childcare services are being reopened at Alert Level 2 and our recommendation is that it is safe for children and young people with diabetes to return to school. If your diabetes team had advised that it was safe for your child to attend school prior to the onset of the COVID-19 pandemic, we are advising that it is now safe for your child to attend school when they are re-opened.

This advice is based upon the following facts:

- 1) Children are far less likely than adults to contract SARS-CoV-2 infection and the risk of severe COVID-19 disease in those that do is very low.
- 2) The evidence suggests that most children and young people with diabetes are not at a significantly higher risk of severe COVID-19 disease than their age matched peers.
- 3) The very low rates of community transmission mean that the risk of contracting SARS-CoV-2 infection is currently very low. The ready availability of testing and good contact tracing capability mean that we are well placed to isolate and contain outbreaks as they occur.
- 4) There is good evidence to suggest that children don't spread SARS-CoV-2 like adults. Child to child transmission is rare. The evidence suggests that it is very unusual for asymptomatic children to spread the disease.
- 5) The low risk of contracting SARS-CoV-2 is likely to persist for many months or even longer, depending upon if and when a vaccine becomes available. It is not in children's best interests to exclude them from school indefinitely when the evidence suggests that the risk of developing severe COVID-19 is very low.

Commonly Asked Questions:

What is the evidence to suggest that children and young people with diabetes don't have a significantly increased risk of severe COVID-19?

The International Society of Paediatric and Adolescent Diabetes have noted that children with type 1 diabetes are at no increased risk compared to other children. In Italy, which has a population of 60 million and where there have been over 200,000 confirmed cases there have been no cases of COVID-19 in youth with diabetes requiring hospitalisation. Similarly in China, there have been no reported cases of COVID-19 in young people with diabetes requiring hospitalisation.

What is the evidence that severe COVID-19 is rare in children?

At the end of April there had been over 200,000 deaths globally due to COVID-19. It is estimated that only 20 of these deaths were in children. The most recent paediatric data from the US covered the period from 12/2 – 2/4 and reported that 2,572 (1.7%) of 150,000 cases were in children less than 18 years of age.

There were 3 deaths among those 2,572 paediatric cases (0.1%). In a Chinese report of 2135 paediatric patients infected with SARS-CoV-2, only 13 (0.6%) were critically unwell with only one death (0.05%). Epidemiological data from Italy from February to mid-March reported that 1.2% of 22,512 cases were in children less than 18 years of age and there had been no deaths in patients under 30 years of age.

What is the evidence that transmission in schools is rare?

There have been a number of studies which have shown that the risk of transmissions in schools is low. Looking at Australian research the NSW government has released a report (<http://ncirs.org.au/covid-19-in-schools>) regarding their investigation of 15 schools where cases were identified in March. 735 students and 128 staff were considered to be close contacts of the 18 index cases in these 15 schools. There were only two cases of probable secondary infection among these close contacts (0.2%). One primary school aged child where teacher to child transmission was likely and one 16-year-old child where child to child transmission was likely. Studies in other countries have had similar results. A population-based study in Iceland did not detect any cases of asymptomatic carriage in children under 10 years of age. Studies from China, South Korea, Italy, Spain, the Netherlands and the United States have consistently found that it is quite rare for children to infect other children or adults.

What about the Marist School Cluster?

One of New Zealand's main clusters of infection has been described as the Marist school cluster. There have been 92 cases associated with this cluster including 28 students. This cluster appears to have originated at a large social event involving staff members and parents associated with the school. The majority of infected students appear to have contracted the virus from an adult, most commonly from within their own family.

Why are children less commonly infected than adults?

This is one of the mysteries of SARS-CoV-2. It behaves very differently from most other respiratory viruses such as influenza which are commonly spread in the school environment. No one knows the answer to this question although one of the theories is that children may express fewer of the receptors that are required for the virus to enter the body.

What advice does the Government provide regarding children with complex medical conditions?

The New Zealand Government have provided advice on reducing the potential risk of COVID-19 transmission in schools. The information in this document is evidence-based and therefore safe for the vast majority of children and young people with diabetes in New Zealand. If you have specific concerns, please speak to your treating team.

What advice is being given to children and young people with diabetes in other countries?

Many countries' schools are still closed because widespread community transmission is well established. Most countries continue to define people with diabetes as being a vulnerable group. However, within the paediatric diabetes professional groups, there is increasing recognition that this increased risk is not as significant as we feared it might be.

Should the advice for students with diabetes be different to the advice for teachers or parents with diabetes?

The risk to older adults or adults with underlying medical conditions of contracting the virus and developing severe COVID-19 does seem to be higher than the risk to children. Therefore, it does seem reasonable that there might be differing advice for these two groups.

Should my child receive influenza vaccine?

We recommend that all children and young people with diabetes receive the flu vaccine which is free from your GP or local pharmacy.

What about the reports of Kawasaki's disease in children with COVID-19?

Recently there have been reports emerging of a possible association between COVID-19 and a condition called Kawasaki's disease in children. Kawasaki's disease is a severe inflammatory response characterised by fever, skin rash and occasionally inflammation around the heart. The association with COVID-19 has not yet been proven and to date nothing has been reported that children with diabetes are at increased risk of developing this condition.

Will your advice regarding school attendance change if more widespread community transmission occurs?

It may. District Health Board's will continue to update this advice based upon the current situation in their own region and as more information becomes available from New Zealand and overseas regarding the risk to children and young people with diabetes. The New Zealand Government have also said that there will be localised school closures if there are outbreaks.

Is the risk different for primary or secondary school aged children?

The risk of contracting COVID-19 does increase with age and there is a slight increase in risk in secondary school aged children as opposed to primary school aged children. Equally, the risk of transmission at school appears to be slightly higher in older teenagers. However, this slight increase in risk is not sufficient for us to believe that recommendations regarding returning to school should be different for these two groups.

Does my child have to practice social distancing at school?

Returning to school does not mean that everything will return to normal. The Government have said there will be an increased focus on handwashing and other hygiene measures. Physical distancing has been recommended for the school environment and schools are putting in a number of measures to ensure this is as practical as possible.

As a parent or caregiver it is important to convey the same public health messages regarding regular handwashing and social distancing. The greatest risk for school outbreaks remains adults. Therefore, it is very important that parents comply with restrictions to minimise the contact that they have with other parents, teachers and students in the school environment.

Should my child wear a mask at school?

The role of masks has attracted a lot of attention in the media. The use of masks has mostly been recommended in countries where there is widespread community transmission to try and minimise spread of the virus. Therefore, we don't believe that wearing a mask at school will provide any additional protection for your child.

What should I do if my child starts to show cold or flu symptoms?

If your child does get sick, in the first instance it is important to follow your usual sick day management plan. Do not send your child to school and contact your diabetes team for further advice as needed. A COVID-19 test is recommended by the government for all people showing signs of a cold or flu.

We understand that the COVID-19 pandemic has added to the anxieties that families with a child with diabetes face. We also have to acknowledge that we don't have all the answers regarding this new virus and the risks that it presents to your child and we are learning as new information becomes available. We also appreciate that this document has provided a large amount of information. However, we felt that it was important to provide you with as much information as possible to explain our rationale in recommending that, although not completely free of risk, we believe that it is safe for your children to return to school and to help you make a fully informed decision when this becomes a possibility for your child.