SPARK: Live Webinar – Outstanding Questions

COVID-19 Vaccines for Children with Medical Complexity and/or Disabilities

On ***January 19, 2022***, Children's Healthcare Canada hosted Brenda Lenahan, and Drs. Eyal Cohen and Julia Orkin on a SPARK: Live webinar titled ***COVID-19 Vaccines for Children with Medical Complexity and/or Disabilities.*** Due to a high level of engagement on the webinar, particularly during the Q&A session, several audience questions remained unanswered. Please find those questions and related responses provided by our guest speakers below.

1. Is a teen with IBD more at risk for worse illness with COVID?

Children with inflammatory bowel disease are considered at risk because they are often on medications that suppress their immune system, but there are data that suggest they typical medications used in IBD may not increase a patient's risk for bad outcomes if they are exposed to COVID-19. The only exception is steroids (e.g., prednisone), which likely increases the risk of severe COVID-19. Crohn's and Colitis Canada strongly recommend vaccination against COVID-19 be given to all children aged 5 and older.

2. What is the frequency of tinnitus for kids with Pfizer shots?

Tinnitus is a sensation of ringing in the ears. It is a very rare side effect that has been reported in individuals after vaccination however, it is not currently listed on the official Center for Disease Control list of adverse events following vaccination as there is not enough evidence to draw a causal link between the symptom and vaccine timing.

3. In Saskatchewan, children under 18 years are not yet eligible for the booster shot. Are there any exceptions to receive the dose early for a teenage with a medical condition (Friedreich Ataxia)? It has been over 6 months?

While booster doses have been used in other countries, Canada's National Advisory Committee on Immunizations has not yet provided recommendations on booster shots for children/youth less than 18 other than those individuals who meet criteria for moderate-severe immunodeficiency.

4. My complex child is not yet eligible for their second dose but may return to school soon. How effective is one dose in preventing Omicron, and in preventing serious illness?

Two doses are much more effective than one at preventing infection, but one dose may provide at least some protection from serious illness, such as the multisystem inflammatory syndrome in children (MIS-C).

5. If myocarditis is 1 per 10,000, how does that compare to cases of natural infection from Omicron?

The rates of myocarditis in children are lower than this estimate. For instance, in a large review of the experience in the United States, among children 5-11 yo, myocarditis was reported in about 1/250,000 males and 1/500,000 females [https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-01-05/02-COVID-Su-508.pdf]

6. My 4-year-old complex son received the vaccine this year as per the complex care team's recommendations (at SickKids). When should he receive the second dose?

Current recommendations for 5-11 yo are to give the 2nd dose of the vaccine 8 weeks after the first dose. The recommendation to wait for 8 weeks is in order to optimize immune response and minimize possible side effects. We recommend speaking with your health care provider about your child's specific circumstances.

7. My daughter had underlying medical issues and is scared to go back to school but her mental health going downhill. She has been vaccinated. Should she go back? What's the risk?

This is a difficult decision for many families and each individual circumstance is different. We know that many children with underlying medical issues are at risk of getting very sick from respiratory infections – this was true even before COVID. But we also know that children who are vaccinated have much lower risk of developing severe disease than those who are not. Other layers of protection that are important include the mitigation measures that have been put in many schools such as masking, social distancing, and improvement of ventilation to reduce the risk of COVID transmission in school. Ultimately, each family has to make the decision that works best for them. The Canadian Pediatric Society has provided helpful guidance on this issue. [https://cps.ca/uploads/tools/2021_jan_COVID_and_schools.pdf]

8. Are there side effects associated with epilepsy? Has the vaccine aggravated seizures?

There is no evidence that persons with epilepsy are at higher risk of side effects after vaccination. As with any vaccine, some persons may develop a fever which could lower their seizure threshold for the short term, and rarely could result in a break-through seizure. There is no evidence that this vaccine results in worsening of the epilepsy.

9. Have you been using sedation like intranasal Dexmetatomedine or Midaz for helping high-anxiety children? Our pediatricians are looking at this as an option for severe needle phobia.

It can be extremely distressing for many children that have needle phobia and have to undergo vaccination. We suggest a multi-modal approach to vaccination looking at ways to support the individual including utilizing specialized services such as child life during vaccination as well as potentially working with a social worker or psychiatrist who specializes in anxiety/phobia utilizing strategies such as exposure therapy. Some children despite this do require medication for sedation in order to undergo the procedure and we would recommend speaking to your healthcare provider regarding this approach.

10. There is a vaccine under review with Health Canada at present that is approved by the WHO I believe for children aged 2+. It is made by Ocugen and Bharat Technologies out of India. They are getting very good results with it and it is in a format more similar to that of the flu vaccine. Have any of you reviewed any information on that vaccine?

We have not seen any data on this particular vaccine.

11. Do you have any data or recommendations for children with SCID and other PID (immunogenicity of vaccines, etc.)?

People who are immunocompromised are especially vulnerable to COVID-19 and should receive a COVID-19 vaccine primary series if they are 5 years and older as soon as possible. We would suggest speaking with your immunologist about specific recommendations for individual primary immunodeficiencies.

12. Can you comment on access issues? If these knowledge pieces are being addressed, is access the next barrier to address (i.e., more specialized clinics)? Are there enough specialized clinics to support the needs of CMC and their families?

While some places have been able to develop more specialized clinics for CMC and/or children with disabilities that cater to their important individual needs, these are not universally available. We would suggest coming prepared and let the person administering your child's immunization know about their specific needs.