Changing the Way We Work

November 5, 2021: COVID-19 vaccination in children

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Co-hosts: Dr. Liz Muggah | Moderator: Dr. Tara Kiran

Curated answers from CoP guest, panelists and co-hosts to in-session questions posed by participants, based on current guidance and information available at the time. [Post-session updates are also noted.]

CHILDREN AND VACCINATION

- In a 12-year-old young girl who is tiny for size and prepubertal, should she receive the lower dose offered to under 12’s or should she receive the full dose offered to the 12 and over?

Guidance on dosing is based on age not weight so she should get the dose for 12 years olds. Here is that useful NYT article on the issue: https://www.nytimes.com/2021/10/26/well/live/child-vaccine-dose-weight-age.html

- Is there any updated information regarding altered menstrual cycles/menstrual irregularities? I have some parents who have heard of women who have been affected, some teenage daughters have been affected this way, so wondering if in younger children this could potentially affect start of menstrual cycles.

Research is ongoing to clarify if there might be there a temporary impact of the vaccine on menstruation (as we know many things can affect menstrual cycle including COVID infection). However, importantly, you can reassure parents/patients that there is no impact on fertility or pregnancy. A good FAQ on fertility- and menstruation-related questions here from SOGC: https://sogc.org/common/Uploaded%20files/Covid%20Information/FAQ_Myth-Fact_17Sept2021.pdf

- If a child has had COVID, should you still vaccinate like in adults and when should the vaccine be given? Would only one dose suffice?

Even if you have had COVID, you should be vaccinated with a full series. Vaccination can occur after the symptoms of infection have abated.

- Any idea of when Health Canada will approve the use of Pfizer in 5–11-year-olds?

We don’t know exactly but we hear approval is expected in the next 3-4 weeks.

- Any inside scoop on how the 5-12-year-olds rollout will occur? In schools? Pharmacies? Mass clinics? FDs?

Looks like all channels will be open – likely to be mostly a combination PHU (in mass clinics/school based) and pharmacy but also MOH has been clear they welcome family doctors/primary care being involved. All PHU have already had to submit a plan and have at least one clinic at/near schools. You can
reach out to your PHU-Primary Care lead if you want to vaccinate in office (provide link to list of PHU-PC contacts)

- **Any word about vaccines being mandatory in ages 5-11? Does the data in other parts of the world show that mandatory vaccinations in this age group is necessary?**

We know that some have recommended the vaccine be mandatory for school attendance (including the Chief MOH in Toronto) but there are no plans at this point for the province to mandate this based on what we are hearing I think Dr. Moore [CMOH] gets asked this at every press conference, so we can stay tuned to see if that message changes.

- **Sophia – were the questions to parents specifically about family physicians or was it for all primary care doctors including pediatricians. I'm just curious if parents are referencing family doctors specifically as their trusted source.**

Generally speaking, parents are referencing the primary provider. So, if the child is being cared for by a pediatrician, that is likely where they will turn for answers.

- **Has a live chat platform been set up centrally that we could pass to parents? I picture families wanting to ask a question anonymously, ideally to a family doc/peds provider at all hours of the day and getting it addressed as it happens would decrease worry/rumination/looking to other sources that are less reliable but more synchronous.**

Two places are the VaxFax and the SickKids services that Tara just mentioned.

- VaxFax Clinic: [https://www.shn.ca/vaxfacts/](https://www.shn.ca/vaxfacts/)
- SickKids COVID-19 Vaccine Consult Service: [https://www.sickkids.ca/vaccineconsult](https://www.sickkids.ca/vaccineconsult)

**BOOSTERS | THIRD DOSES INTERVALS**

- **What is the evidence for using half dose for individuals younger than 70 for Moderna booster?**

I don’t have the specific evidence to answer to this, but I understand it is based on the regulatory submission that Moderna provided for booster.

[“It is important to acknowledge that the regulatory submission for a Moderna booster dose is for half the current dosage of Moderna Spikevax (i.e., a 50 mcg booster dose vs. 100 mcg full dose). However, as older adults have dampened immune function, and may need to receive a higher dose formulation of a vaccine or an immunostimulatory adjuvant to increase the potency of their response to vaccines, this population may benefit from a full dose (100 mcg) of Moderna Spikevax as a booster dose (11).” – NACI interim guidance on booster COVID-19 doses: [https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/statement-guidance-booster-doses/statement-guidance-booster-doses.pdf](https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/statement-guidance-booster-doses/statement-guidance-booster-doses.pdf)]

- **Regarding boosters for seniors over age 80, is it six months after second dose? Patient, 86-year-old, got an appointment for next week automatically by email. She is five months after second dose. Any concerns?**

I don’t think there is a safety risk. Six-month interval for the booster was recommended based on the data showing maximal effectiveness. Israel used a five-month interval.
• If a patient has two doses Pfizer, and then gets third dose as Moderna booster, aged <70 not immunocompromised etc., do they get half dose?

Yes, those <70, if receiving Moderna, get the half dose. Here is the guidance from MOH: “Residents of long-term care homes, retirement homes or seniors in other congregate living settings, adults 70 years of age and older, and all eligible immunocompromised individuals are recommended to receive the full dose (100 mcg) if being offered Moderna for a third or booster dose. For all other individuals less than 70 years of age, if offering Moderna as a booster dose, a half dose (50 mcg) is recommended.”

• Does it matter which booster we receive? is there evidence that Pfizer vs Moderna is better? And with next year, are we expecting ‘booster’ or ‘COVID vaccines’ every winter?

No, it doesn’t matter which vaccine you get. Not sure at this point about ongoing boosters.

[Post-session update] based on information from infectious disease specialist, Dr. Allison McGeer:

We do not have data yet on boosters/third doses comparing effectiveness of Moderna and Pfizer.

Evidence on Moderna and Pfizer based on two doses, DOES NOT APPLY TO BOOSTERS/THIRD DOSES: There is some evidence Moderna is a little better than Pfizer, when the two are used at manufacturer’s recommended intervals. The evidence is not completely consistent – some vaccine effectiveness (VE) data, at >6months post vaccine in residents of nursing homes, Moderna VE is greater than for Pfizer. But in a U.S. analysis of nursing home residents (Nanduri MMWR, Aug) there is no difference in VE between the two, and a couple of studies in the US suggesting that VE against any symptomatic infection drops faster for Pfizer than Moderna. Moderna 93% vs. 88% for Pfizer: https://www.cdc.gov/mmwr/volumes/70/wr/mm7038e1.htm; and a more recent paper suggesting greater differences in immunocompromised patients: https://www.cdc.gov/mmwr/volumes/70/wr/mm7044e3.htm

For those of us who are well, the differences are small. They may be larger for residents of LTC and immunocompromised people.]

• With Novavax on the horizon, should that be considered as a third booster as an effective heterologous boost?

Right now, the boosters recommended per NACI are one of the MRNA vaccines (Moderna or Pfizer)

• Is the interval between second dose and third booster dose a hard six months, or can it be done between five and six months? — e.g., if patient is leaving the country or if there are some doses left in the vial

Right now, for eligible populations it is six months after the second dose based on what the studies showed for maximum effectiveness.

• For booster/third dose for someone who has received Pfizer as first dose and Moderna as second dose, the third dose can be any vaccine?

Correct, any mRNA vaccine is fine.
Either Moderna Spikevax or Pfizer-BioNTech Comirnaty vaccines may be used as a booster dose (regardless of which COVID-19 vaccine was used in the primary series) – from NACI interim guidance: 

- Please clarify who gets 1/2 dose Moderna as third shot.

Per MOH guidance: “Residents of long-term care homes, retirement homes or seniors in other congregate living settings, adults 70 years of age and older, and all eligible immunocompromised individuals are recommended to receive the full dose (100 mcg) if being offered Moderna for a third or booster dose. For all other individuals less than 70 years of age, if offering Moderna as a booster dose, a half dose (50 mcg) is recommended.”


- For health care workers, especially young males, how long after second shot should they get their boosters?

Right now, the interval is six months based on what we know about efficacy for timing of the booster.

- Should a third dose be given to a health care worker who had COVID infection in December 2020 and COVID vaccination in March and April 2021?

While boosters are not mandatory but are recommended given what we know about waning immunity and including for those who have had COVID infection. The six-month interval would still apply (so six months from April 2021).

- For those that received two doses in another country, like Sputnik, is optimal timing for third dose at six months also? Or anytime?

Take a look at the specific guidance that came out Sept. 14, 2021, about vaccination for those who received immunization out of Canada/Ontario to see if they need to restart their primary series. Booster would still be six months after the primary series. 

- Can patients outside of the GTA (e.g., London) book at VaxFax?

Yes, it’s open to any across Ontario. Also, the SickKids consult service is open to anyone. [see links in previous answer.]

- Does a consult with sickkids.ca/vaccineconsult contribute to Outside Use?

No, it doesn’t.

- Honestly, we do not know how this vaccine may impact fertility and it will be known only after at least a few years. Right?

Presently none of the evidence has found any impact on fertility and there is no scientific reason or to suggest that the vaccine has any impact on fertility. This is a very common question with any new vaccine, but we can reassure our patients about this. Please see this SOGC FAQ for more answers to common questions about menstruation and fertility:
• Patient who got two doses of Sinopharm from back home, Somalia. Should he get vaccinated again with recognised Canadian vaccine?

Guidance here for those vaccinated outside of Canada. In brief, if the vaccine isn’t authorized by Health Canada, then the series needs to be repeated.

• What is Directive 6? Any URL?

Directive 6 is the Ministry Directive for hospitals and home care/community care for developing a vaccine policy. It doesn’t apply to primary care at this point although it includes guidance that may be considered for putting in place a vaccine policy in our primary care settings.

• Can you give advice for holiday season gatherings? Patients have asked re fully vaxxed only, should they do rapid antigen tests prior to get together? Can’t do outdoors in this weather. Good ideas?

Great question. I think the idea of “layering” protection is what I’d advise – ie: hand washing, ensure everyone is asymptomatic, if vaccine status is unknown consider masking, encourage ventilation. Given low sensitivity of antigen testing in asymptomatic, it’s hard to rely on that alone. I like the Ottawa PHU approach – they have a section on tips for indoor gatherings:

• What are we (OMA, OCFP, etc.) doing to push government to mandate all healthcare workers to get vaccinated? I have several PSW patients who visit elderly in their homes and are not vaccinated

There has been strong advocacy to government by many including OMA/OCFP/AFHTO and others about the need for mandatory vaccination for HCW. As family doctors we can choose to put in place Directive 6 vaccine policy in our office (though this has not yet been mandated for our setting and applies only to hospitals and home/community care). If you want help about setting up a vaccine policy, there are great resources from OMA on how to put this in place and supports (including access to legal advice) in their practice supports. https://www.oma.org/member/practice-professional-support/covid-19/practice-management/#legal-guidance (please note this is gated)

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These additional questions were answered live during the session. To view responses, please refer to the session recording.

• For children turning 12 shortly (Jan 2022), should they wait for the full dose vaccine or get earlier with the lower dose. This is coming up a lot with parents.
• Is any feedback known from other countries, which already started younger kids’ immunization? Any known complications? Share with us.
• If child gets first dose now at 11 and is almost 12, what will happen if they are 12 at time of second dose...it’s a high-risk patient so parent wants the vaccine ASAP while child will likely still be 11.
• Do we have any information on immunization on the 6-months to 4-year age group? Parents are waiting.
• I am hearing that it’s better to get a Moderna booster if you had double vax Pfizer. Is this the case?
• For younger kids once we start Covid vaccination in 5-to-11-year-olds. Covid vaccine can be given with no interval with other regular vaccine e.g., Adacel polio, MMR, flu shots etc., right?
• Please address the rationale behind a mass immunization campaign for children as they don’t seem to be at high risk of serious illness, hospitalization and death.
• What do we know about long covid in children? Please share articles.
• Regarding the idea of “covid is less serious in kids” ...any data on long haul covid in kids? This concept has helped me convince many young adults to get vaccinated...
• What is rate of myocarditis with Covid vaccine. So, we can counsel parents
• What is the prevalence of long COVID in children?
• Do we have data SPECIFIC to young patients regarding the risk of myocarditis from COVID compared to vaccine NOT the Overall risk of myocarditis in ALL age groups?
• What is the dose interval for kids recommended given that it seems that the shorter interval of 21 days between Pfizer doses might reduce immunity? Do kids have the same issue, or do they have a better response as they are younger?
• What is the interval between doses for kids?
• How do we address hesitancy around less serious covid in kids...i.e.- is it worth the risk of a new vaccine when morbidity and mortality from actual covid is so low in this age group?