Vaccination in children in the age of omicron

COVID 19 Vaccination For Children Aged 5-11
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COVID-19 in Children

• Usually mild or asymptomatic - is omicron different? or is it just the sheer number of kids getting infected?
• Severe outcomes are very rare
  • Small risk of MIS-C (0.5%-3% of diagnosed pediatric cases)
• Children aged 5-11 make up
  • 7.5% of all confirmed infections (likely underestimate)
  • 0.3% of hospitalizations
  • 0.3% of ICY admissions
  • 0.007% of deaths
• Long COVID?, myocarditis
COVID-19 in Children

- Vaccination reduces the risk of infection
- Vaccination reduces the severity of illness (including MIS-C)
- Vaccination reduces the risk of hospitalization and ICU

Source: Ontario Science Table Dashboard Jan 19, 2022
COVID-19 in Children

Collateral Damage

• School closures
  • Ontario had more than most other jurisdictions (27+ weeks since March 2020).
  • 6 fold increase in extreme absenteeism
• Social isolation and mental health
  • depression and anxiety tripled over pandemic - to 1 in 5 for anxiety and 1 in 4 for depression
• Reduced extracurricular activities
• Family stress
• Disproportionate effects on racialized and Indigenous communities, low-income, children with disabilities, refugees and newcomers to Canada
The vaccine trial

- Pfizer-BioNTech mRNA vaccine, approved Nov 11 for use in children 5-11

- Studied in 2 cohorts with total of 4647 children (vaccine 3109, placebo 1538)

- 10 mcg (1.5 ml) spaced 3 weeks apart

- Local reactions very common

- Systemic symptoms (fatigue, fever, headaches, chills etc) more common after second dose

- No serious adverse events (no allergic reactions, MIS-C, myocarditis, deaths). No safety signals in US where over 8 million doses have been given.

- 19 cases of COVID reported (3 in vaccine group, 16 in placebo group = 90.7% efficacy)
The NACI recommendations

- Two 10 mcg doses spaced **8 weeks** apart offers better immunity and reduces adverse reactions. However……

- May be offered in children who have had previous infection and who are fully recovered from MIS-C.

- Avoid giving at same time as other vaccines (wait 14 days before and after)

- "What dose do I get if I turn 12 after my first dose?" - 30 mcg
What about omicron?

- Protection against infection is much lower ±20-30%
- Reduce transmission?
- Peace of mind
“After nearly 3 months and 9 million doses given in US and Canada to children aged 5-11, it is well-established that the vaccine is safe.”

“At some point we will all meet coronavirus - much better to meet it with antibodies.”