

"Should children be offered covid-19 vaccination?"

No

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Funding: This research was funded in whole, or in part, by the Wellcome Trust [203132/Z/16/Z] and by the Arts and Humanities Research Council (AHRC) as part of the UK Research and Innovation rapid response to Covid-19 [AH/V013947/1]. The funders had no role in the preparation of this manuscript or the decision to submit for publication. For the purpose of open access, the author has applied a CC BY public copyright licence to any Author Accepted Manuscript version arising from this submission.

Conflict of interest: IF is Chair of National Mental Capacity Forum, Member of Welsh Medical Ethics Advisory Group, Member of All Party Parliamentary Group on Coronavirus inquiry. AJP is Chair of UK Dept. Health and Social Care's (DHSC) Joint Committee on Vaccination & Immunisation (JCVI), but does not participate in policy decisions on COVID19 vaccine. He is a member of the WHO's SAGE. The views expressed in this article do not necessarily represent the views of DHSC, JCVI, or WHO. AJP is chief investigator on clinical trials of Oxford University's COVID19 vaccine funded by NIHR. Oxford University has entered a joint COVID19 vaccine development partnership with Astra Zeneca

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For a health system to offer any vaccine to a child, there are two key ethical questions. First, do the benefits outweigh the risks? Second, if the vaccine is in short supply, does someone else need it more?

Careful attention to both of these questions suggests that we should not *yet* roll out COVID vaccination to otherwise healthy children.

COVID-19 vaccines in adults have been remarkably effective. There is good reason to expect that will also be seen in children. Preliminary studies in adolescents indicate high levels of antibody production and 93-100% effectiveness in preventing COVID-19.^{1,2} This has led to licensing decisions in the USA, UK and elsewhere.

In older adults, it is clear that benefits of COVID vaccines outweigh the rare side effects. But when it comes to children there are key differences.

First – we know less about the risks. Randomised trials to date have given vaccines to only around 3500 adolescents. These are not designed to identify rare side effects.³ For example, the CDC has recently identified a risk of myocarditis in adolescents who have received mRNA based COVID vaccines (estimated 56-69 cases per million vaccine doses).⁴ We do not know if other complications will emerge.

Second – the benefit is much smaller. Most children who get COVID-19 have mild illnesses. There are low risks of hospitalization, and even death (approximately 2 per million for children in the UK),^a as well as rare multisystem inflammatory syndrome. There are also indirect effects (eg interrupted education) and potential long-COVID. However, serious illness is much less common than adults. Moreover, young children and schools appear to play a limited role in transmission.⁶ Vaccination of children would have marginal benefit in protecting others, particularly once those at higher risk are immunized.⁷

Before we roll out a COVID vaccine for children, we should scrutinize safety data carefully, and wait if there is any uncertainty.

Crucially, if reports of serious complications arise, that could harm our wider immunisation program. Community confidence in vaccination can be easily threatened,³ leading to surges in vaccine preventable disease.⁸

The difficult question is – do the benefits outweigh the risks? For children with certain chronic or acute serious illnesses they probably do, and as a consequence they should have access to a vaccine. But for otherwise healthy children, currently, no one can be sure.

But here is one thing we can be sure of.

At the moment there are other people at much higher risk from COVID than healthy children in the UK. Most low and lower-middle income countries have fully vaccinated less than 5% of their community.⁹ Nepal is currently facing a severe surge of the Delta variant. It suspended its vaccination program last month because of lack of vaccine supply and infrastructure.¹⁰

^a Personal correspondence. Viner R. NHSE surveillance, COVID illness in children. (forthcoming publication) 25 June 2021

Some have argued that the number of doses required to vaccinate children in high income countries is small, but in many countries the entire at-risk older population could be vaccinated if they received an number of doses equivalent to the number of UK schoolchildren.

The UK has committed funds to the COVAX initiative, and has promised to donate 100 million surplus doses over the next year, but most doses promised by wealthy countries will not arrive until the end of this year or next year. In the meantime, further variants are emerging.

As adults, we have had to wait our turn for the vaccine. We have understood that given scarcity the vaccine has to be prioritized to those at highest risk of severe illness. That clear, inescapable ethic applies now to our children. Their turn will come. But not yet.

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