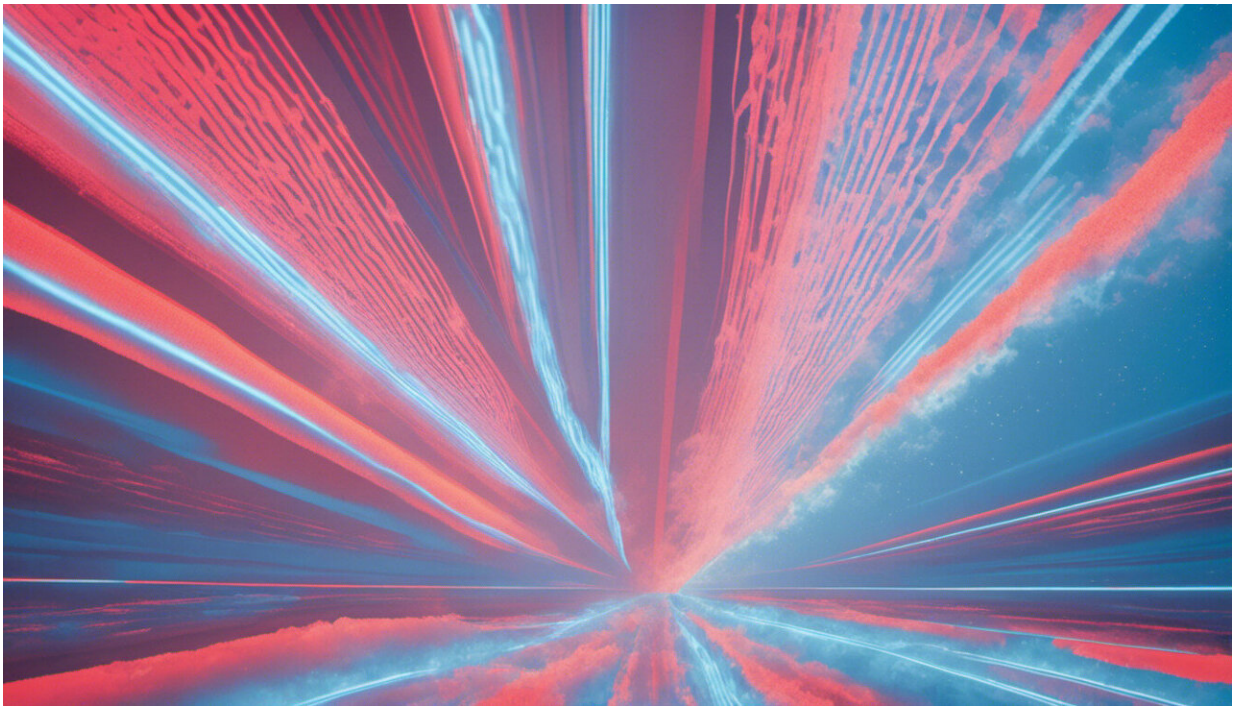
Medical Xpress

Adolescents aged 16 to 17 can now get their COVID boosters. Why not younger children?

February 4 2022, by Nicholas Wood



Credit: AI-generated image (disclaimer)

Adolescents aged 16 to 17 are now eligible to receive their Pfizer vaccine booster, following the recommendation earlier this week from the Australian Technical Advisory Group on Immunisation (ATAGI).

This move has been prompted by the rise of omicron and reduced

immunity after two vaccine doses.

It's also the next step in the likely future expansion of booster doses to younger adolescents.

Here's what you need to know before booking your 16- to 17-year-old for their booster, and why younger children are not yet eligible.

> From today 16- and 17-year-olds are eligible to get a booster shot after the TGA and ATAGI approved a third Pfizer vaccine for the age groups.
>
> It comes amid a lag in the booster uptake in Australians under forty. #9News pic.twitter.com/VHsYP5VKep
>
> — 9News Sydney (@9NewsSyd) February 3, 2022

What's been recommended?

ATAGI's recommendation to extend Pfizer booster doses to 16- to 17-year-olds this week follows regulatory approval from the Therapeutic Goods Administration (TGA) in late January.

This means an estimated 370,000 Australians aged 16 to 17 are eligible to receive their Pfizer booster vaccine from three months after their second dose.

Presently, the Pfizer vaccine is the only one registered as a booster for this age group.

Those under 16 when they received their second dose but have since turned 16 are also eligible.

Those 16- to 17-year-olds who are severely immunocompromised—for instance, with weakened immune systems due to cancer treatment—are recommended to have three primary doses, and three months later, have their booster (fourth) dose.

Why omicron changes things

The more transmissible omicron variant can still infect people who have already been infected with SARS-CoV-2 (the virus that causes COVID), or who have had two vaccine doses.

For the vast majority of older adolescents, these so-called breakthrough infections are mild and very unlikely to lead to hospitalization.

Data from New South Wales during the omicron period (November 26, 2021 to January 15, 2022) shows of 71,786 PCR-confirmed cases in adolescents (aged 10 to 19 years) only 191 cases (under 1%) required hospitalization.

> What do we know about the new #Omicron variant in Australia? May be more infectious. No evidence more virulent. Get your booster if eligible. https://t.co/RU7PWOeuMN
>
> — Prof. Nick Talley (@Prof_NickTalley) January 28, 2022

Then there's the issue of waning immunity following the initial two doses.

Real-world data from adults in the United Kingdom shows four months after two Pfizer doses there is modest protection against omicron infection (vaccine effectiveness 0–34%).

However, a Pfizer booster dose quickly improves protection against

omicron. Vaccine effectiveness increases to 54–76% within two to four weeks after a booster.

It is important to note that studies of the effectiveness of booster doses specifically in adolescents aged 16 to 17 against omicron are not yet available. However, this is likely to be comparable to that for young adults.

The booster dose has several aims. It not only reduces the chances of getting infected in the first place, it reduces the severity of infection in an individual if they do. This means people are less likely to have to take time off school or work.

Adolescents are also a very mobile social group and there may be a potential benefit of a booster vaccine in reducing community transmission. If a booster vaccine reduces your chances of infection it follows it could then reduce community transmission. But more research is needed to confirm if this occurs for omicron.

How safe are boosters for adolescents?

Safety data from the United States indicates Pfizer booster doses in adolescents have a similar profile to that seen after a Pfizer second dose.

Early data on booster doses from Australia's active safety surveillance system also supports the safety of a Pfizer booster dose in adults. In over 600,000 surveys, the most common reported reactions include pain, redness and swelling at the injection site, tiredness, headache and muscle aches.

We also know that both Pfizer (and Moderna) COVID-19 vaccines have rarely been associated with myocarditis, a treatable inflammation of the heart.

In studies in the US, the estimated myocarditis rate in young males aged 16 to 17 after the second Pfizer dose was 6.9 per 100,000 doses.

Australian data from the TGA show estimated rates of likely myocarditis in males aged 12 to 17 years of 10.9 per 100,000 doses after the second dose of Pfizer vaccine.

As the booster vaccine program rolls out to 16- to 17-year-olds, the TGA and state/territory health departments will closely monitor any adverse events.

Why can't younger kids get their booster?

The US now recommends booster doses for everyone aged 12 and older, from five months after the second dose.

It is likely Australia will also see a recommendation for booster doses in younger adolescents (12- to 15-year-olds) and potentially younger children (5- to 11-year-olds) in the future.

However, for now, our focus is on rolling out the two primary doses in 12- to 15-year-olds before considering any booster doses in this age group.

In the meantime, Australia will be closely monitoring data from the US and other countries before expanding the booster program to younger children. This will include:

- safety data, with a focus on the risk of myocarditis
- looking at the best interval between primary and booster doses
- effectiveness data, with a focus on breakthrough infections and their severity.

Pfizer, or other vaccine manufacturers, would need to seek regulatory approval for boosters in younger age groups, and provide safety and effectiveness data.

Australia would also closely watch for the emergence of any new viral variants when considering the need to expand the booster program.

Provided by The Conversation

Citation: Adolescents aged 16 to 17 can now get their COVID boosters. Why not younger children? (2022, February 4) retrieved 4 May 2024 from https://medicalxpress.com/news/2022-02-adolescents-aged-covid-boosters-younger.html