

## Comirnaty is the real deal in the real world



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### **Data from Israel's real-world experience with Pfizer/Biontech's Covid-19 vaccine should silence any doubters.**

Anyone worried that Covid-19 vaccine efficacy might not hold up outside the rigorous clinical trial setting should be reassured today. Data from Israel's vaccination programme have found levels of protection against Covid-19 with Pfizer/Biontech's Comirnaty that are almost equal to those seen in the groups' pivotal trial.

The results, [published today in the NEJM](#), again highlight the impressive efficacy of the mRNA vaccine as the world eagerly awaits more late-stage Covid-19 vaccine data, notably those from the US pivotal study of AstraZeneca's AZD1222.

The latest data with Comirnaty, also known as BNT162b2, come from over a million people in Israel, comprising just under 597,000 who received the vaccine and the same number of matched unvaccinated control subjects.

Two doses of the vaccine were 94% effective in preventing symptomatic Covid-19. This was the primary endpoint of [Comirnaty's pivotal trial](#), which found 95% efficacy.

In the Israeli experience Comirnaty also did well in preventing severe disease, hospitalisations and deaths. Efficacy was similar across different age groups.

## Comirnaty's real-world performance in Israel

|                      | Estimated vaccine effectiveness |                           |                        |
|----------------------|---------------------------------|---------------------------|------------------------|
|                      | 14-20 days after 1st dose       | 21-27 days after 1st dose | ≥7 days after 2nd dose |
| Documented infection | 46%                             | 60%                       | 92%                    |
| Symptomatic Covid-19 | 57%                             | 66%                       | 94%                    |
| Hospitalisation      | 74%                             | 78%                       | 87%                    |
| Severe disease       | 62%                             | 80%                       | 92%                    |
| Death                | 72%                             | 84%                       | N/A                    |

Source: NEJM article.

The Israeli results come just days after the publication of two Lancet preprints detailing promising real-world results in the UK. On Friday, [data from the EAVE II project](#) showed that, in Scotland, one dose of Comirnaty or AZD1222 reduced Covid-19-related hospitalisations by 85% and 94% respectively.

And on Monday [the Siren study in healthcare workers found](#) that even one dose of Comirnaty was 72% effective in preventing symptomatic and asymptomatic Covid-19 alike. With two doses, efficacy rose to 86%.

Data with AZD1222 were not given, but [Public Health England said](#) it was monitoring the real-world impact of the Astra vaccine, and early signs showed "good levels of protection from the first dose".

### Lingering questions

Still, there are lingering questions about AZD1222's true efficacy after the [confusing analysis](#) of Astra's pivotal UK and Brazil trials, on which its UK and European authorisations were based.

Astra claimed an efficacy rate of 70%, pooled across both trials, but this result was flattered by better results in people who received a half dose followed by a full dose; the efficacy figure for the standard-dose regimen was 62%.

To complicate things further, [another analysis](#) has found 82% efficacy with AZD1222 when the first and second doses were given 12 weeks apart, versus just 55% when the dosing interval was less than six weeks.

This might not bode well for the upcoming US pivotal trial readout, expected this quarter; in that study [the first and second doses of AZD1222 are given four weeks apart](#).