Department of Health & Social Care

Independent report

JCVI statement on COVID-19 vaccination in spring 2024 and considerations on future COVID-19 vaccination, 4 December 2023

Published 7 February 2024

Contents

This publication is available at https://www.gov.uk/government/publications/covid-19-spring-2024-and-future-vaccination-programmes-jcvi-advice-4-december-2023/jcvi-statement-on-covid-19-vaccination-in-spring-2024-and-considerations-on-future-covid-19-vaccination-4-december-2023

Advice on spring 2024 vaccination

In spring 2024, the Joint Committee on Vaccination and Immunisation (JCVI) advises that a COVID-19 vaccine should be offered to:

- adults aged 75 years and over
- residents in a care home for older adults
- individuals aged 6 months and over who are immunosuppressed (as defined in tables 3 or 4 in the COVID-19 chapter of the Green Book (https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a))

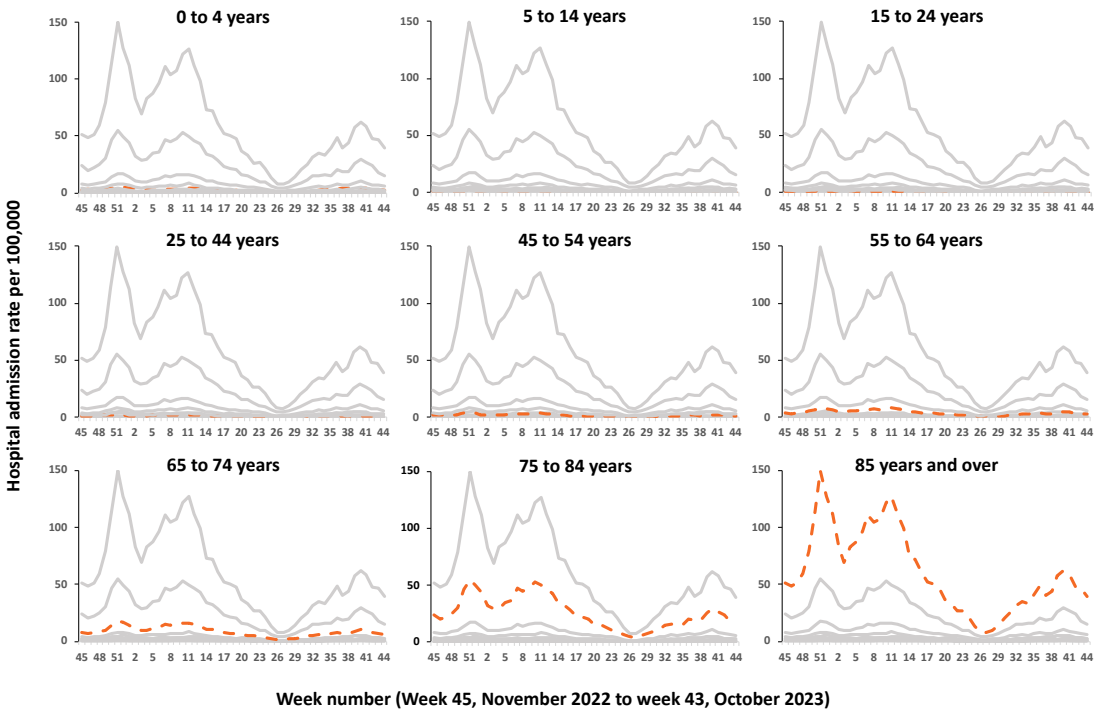
This should be offered around 6 months after the last vaccine dose, although operational flexibility around the timing of the spring dose in relation to the last vaccine dose is considered appropriate (with a minimum interval of 3 months between doses). More information on operational flexibility will be provided in the COVID-19 chapter of the Green Book (https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a).

Considerations on spring 2024 vaccination

Throughout the pandemic, older people have been among those most likely to experience severe disease if infected by SARS-CoV-2. Existing data on hospital admissions in the UK is consistent with the clinical risk continuing to be higher in those aged 75 years and above, with the highest risk being in those aged 85 years and over (reference 1 and figure 1).

Multiple different variants of SARS-CoV-2 co-circulate at different times. In August and September 2023, the dominant circulating variants were from the EG and XBB lineages (reference 2).

Figure 1: weekly hospital admission rate (November 2022 to October 2023) by age group for new COVID-19 positive cases reported through SARI Watch.



Data on hospital admission rates in the UK is consistent with the clinical risk being highest in those aged 75 years and older. Note: the orange dotted line corresponds to the age group in the subplot title, while grey solid lines correspond to all other age groups.

Number needed to vaccinate

An estimate of how many individuals need to be vaccinated, by age group, to prevent one hospitalisation, one intensive care unit admission and one death - the number needed to vaccinate (NNV) - provides a quantified assessment of the potential benefits of population vaccination. This assessment continues to indicate that the greatest benefits are obtained with programmes targeting persons of older age. These analyses of NNV were used to inform a cost-effectiveness assessment of spring 2024 vaccination.

Cost-effectiveness assessment

A bespoke, non-standard method of cost-effectiveness assessment was developed to reflect the ongoing uncertainty around COVID-19. This cost-effectiveness assessment was one of the factors considered by JCVI in the formulation of its advice for spring 2024. Cost-effectiveness was considered by age group and clinical risk group.

Utilising a deployment cost of £25 per vaccine (as estimated by NHS England), the non-standard cost-effectiveness assessment for booster vaccination in spring 2024 indicated that, within the assumptions describing the most plausible projected scenario, vaccination was likely to be cost-effective when offered to the following groups:

- all adults aged 90 years and over not in a clinical risk group
- all adults aged 80 years and over in a clinical risk group
- all adults aged 65 years and over with immunosuppression

Limitations of the existing cost-effectiveness assessment are recognised, including the ongoing high-level uncertainties with regards to COVID-19 epidemiology, the heterogeneity of risk seen in immunosuppressed people of all ages, and the high risk of exposure seen in care home settings which may not be fully captured within the existing assessment. It is also recognised that a high proportion of older adults are living with comorbidities and that vaccine uptake is higher in universal age-based programmes. Overall, JCVI considered it appropriate to offer a spring 2024 vaccine dose to a wider group of persons than identified solely in the cost-effectiveness assessment of the most plausible scenario.

Vaccine products for spring 2024 programme

It is not possible to predict which SARS-CoV-2 variants might be circulating in future months. For spring 2024, the latest monovalent Omicron vaccines are considered preferable; and mRNA Omicron XBB.1.5 COVID-19 variant vaccines that have been pre-procured as part of the UK's pandemic emergency response are considered the most cost-effective vaccines for use under existing circumstances.

The following vaccines are advised for use in all individuals aged 18 years and over:

- Pfizer-BioNTech mRNA (Comirnaty) Omicron XBB.1.5 vaccine. Dose: 30 micrograms
- Moderna mRNA (Spikevax) XBB.1.5 vaccine. Dose: 50 micrograms

The following vaccines are advised for young people aged 12 to 17 years:

- Pfizer-BioNTech mRNA (Comirnaty) Omicron XBB.1.5 vaccine. Dose: 30 micrograms

The following vaccines are advised for children aged 5 to 11 years:

- Pfizer-BioNTech mRNA (Comirnaty) Omicron XBB.1.5 vaccine. Dose: 10 micrograms

The following vaccines are advised for children aged 6 months to 4 years:

- Pfizer-BioNTech mRNA (Comirnaty) Omicron XBB.1.5 vaccine. Dose: 3 micrograms

Novavax Matrix-M adjuvanted COVID-19 vaccine (Nuvaxovid - latest authorised and available vaccine) may be used as a booster dose for persons aged 12 years and above when alternative products are considered not clinically suitable.

HIPRA bivalent COVID-19 vaccine (Bimervax) may be used as a booster dose for persons aged 16 years and above (reference 3) when alternative products are considered not clinically suitable - see the COVID-19 chapter of the Green Book (https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a).

Considerations on future COVID-19 vaccination programmes: beyond spring 2024

Due to a combination of naturally acquired and vaccine-derived immunity in the population (hybrid immunity), COVID-19 is now a relatively mild disease for the vast majority of people. This ongoing increase in population immunity permits the development of a more targeted programme aimed at those at higher risk of developing serious COVID-19 disease.

Current trends in COVID-19 epidemiology indicate that COVID-19 has not yet settled into a stable pattern of clear seasonality. Infection with SARS-CoV-2 continues to occur throughout the year, with winter being the period of greatest threat from COVID-19 - both in relation to the risk of infection and the pressures on health systems, including the NHS. JCVI will continue to review the optimal timing and frequency of COVID-19 vaccination beyond spring 2024.

For all routine vaccination programmes, JCVI is required to assess the cost-effectiveness of a programme to ensure that money spent on the programme would not be better spent on other interventions in the NHS. As the UK moves towards routine procurement and delivery of COVID-19 vaccination, cost-effectiveness will become a major determining factor in future advice pertaining to the COVID-19 vaccination programme. Based on the most recent cost-effectiveness assessment, it is anticipated that any autumn 2024 campaign would likely be smaller than previous autumn COVID-19 campaigns.

Currently available COVID-19 vaccines provide good protection against severe COVID-19 disease (hospitalisation and mortality) (reference 4). However, protection against asymptomatic or mild COVID-19 due to currently circulating highly transmissible SARS-CoV-2 variants is only modest and of short duration. The value of COVID-19 vaccination as a means to reduce transmission of infection from one person to another is accordingly limited. These factors will influence the value of future routine COVID-19 vaccination for groups such as healthcare workers and household contacts of immunosuppressed individuals.

References

1. UK Health Security Agency. National flu and COVID-19 surveillance reports: 2023 to 2024 season. (https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2023-to-2024-season)
2. UK Health Security Agency. 'Investigation of SARS-CoV-2 variants: technical briefings' - SARS-CoV-2 variant surveillance and assessment: technical briefing 55 (https://www.gov.uk/government/publications/investigation-of-sars-cov-2-variants-technical-briefings).
3. Medicines and Healthcare products Regulatory Agency (MHRA). Bimervax emulsion for injection, COVID-19 vaccine (recombinant adjuvanted) (https://products.mhra.gov.uk/search/?search=Bimervax&page=1&doc=Spc&rerouteType=0) summary of product characteristics (SPC).
4. UK Health Security Agency. 'COVID-19 vaccine quarterly surveillance reports (September 2021 to October 2023)' - COVID-19 vaccine surveillance report: 12 October 2023 (week 41) (https://www.gov.uk/government/publications/covid-19-vaccine-weekly-surveillance-reports).

↑ Back to top