Independent report

JCVI statement on the COVID-19 vaccination programme for autumn 2023, 26 May 2023

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Contents

Advice
Considerations
Future variants and their impact on epidemiology
Looking forward
References
The Joint Committee on Vaccination and Immunisation (JCVI) met on 18 April 2023, 2 May 2023, and 9 May 2023 to develop advice for COVID-19 vaccination ahead of winter 2023 to 2024. This statement provides advice on the eligibility for COVID-19 vaccination in autumn 2023. Further advice on the choice of vaccine products for use in autumn 2023 will be provided in due course.

# Advice

The UK COVID-19 vaccination programme is entering its third autumn season in 2023. The primary aim of the programme remains the prevention of severe illness (hospitalisations and deaths) arising from COVID-19. During the current phase of pandemic recovery, and while the virus continues to circulate and cause illness, the objective is to continue to focus the offer of vaccination on those at greatest risk of serious disease and who are therefore most likely to benefit from vaccination. For autumn 2023, JCVI has begun to include cost effectiveness considerations in the development of its advice.

JCVI advises that for the 2023 autumn booster programme, the following groups should be offered a COVID-19 vaccine:

- residents in a care home for older adults
- all adults aged 65 years and over
- persons aged 6 months to 64 years in a clinical risk group, as defined in tables 3 and 4 of the [COVID-19 chapter of the Green Book](https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a)
- frontline health and social care workers
- persons aged 12 to 64 years who are household contacts, as defined in the Green Book, of people with immunosuppression
- persons aged 16 to 64 years who are carers, as defined in the Green Book, and staff working in care homes for older adults

To optimise protection over the winter months, the autumn programme should aim to complete vaccinations by early December 2023. In attaining this objective, deployment teams should also be mindful that protection from vaccination is highest in the first 3 months following vaccination, and therefore delivery of the programme over an appropriate period of time ahead of winter will maximise the potential benefits of the programme. Operational flexibility will apply in relation to vaccine supply, promotion of vaccine uptake and prioritisation of eligible individuals for vaccination according to their risk of developing severe COVID-19.

From autumn 2023, JCVI additionally advises that primary course COVID-19 vaccination should consist of a single dose of COVID-19 vaccine. Eligibility for
the offer of primary vaccination will be the same as for autumn 2023 booster vaccination. Further details regarding exceptions to this advice for single dose primary course vaccination, such as for those who are immunosuppressed, will be set out in the COVID-19 chapter of the Green Book (https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a).

Considerations

Population immunity to COVID-19 continues to increase with many persons having ‘hybrid immunity’ acquired through a combination of vaccination and recovery from natural infection. Virus variants also continue to emerge. JCVI considers that the current level of uncertainty in the epidemiology of COVID-19 does not yet permit formulation of a routine immunisation programme. The risk of developing severe COVID-19 continues to be strongly associated with increasing age and underlying health conditions (Shi, unpublished data). In studies comprising populations with a high level of immunity, the contribution of underlying health conditions to the risk of severe COVID-19 appears to be higher compared to studies conducted during the early period of the pandemic (reference 1 and Nafilyan, unpublished data). Adults of older age with underlying health conditions that place them in a clinical risk group are at the highest risk of severe COVID-19, compared to other individuals of a similar age.

Number needed to vaccinate (NNV)

An estimate of how many individuals need to be vaccinated, by age group, to prevent one hospitalisation, ICU admission, and one death (the number needed to vaccinate) 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 the oldest age cohorts. These analyses of NNV informed the cost effectiveness assessment. Further details are provided at appendix 1.

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 autumn 2023. Cost effectiveness was only considered by age group and clinical risk group.
Utilising a deployment cost of £10.06 per vaccine (which is the amount paid for routine immunisations), the non-standard cost effectiveness assessment for autumn 2023 indicates that vaccination is likely to be cost effective when offered to the following groups:

- all adults aged 65 years and over
- adults in a clinical risk group aged 45 years and over
- immunosuppressed individuals aged 15 years and over

Further details regarding the cost effectiveness assessment of COVID-19 vaccination in autumn 2023 (https://www.gov.uk/government/publications/covid-19-autumn-2023-vaccination-programme-cost-effectiveness-impact-assessment) have been published by the Department of Health and Social Care (DHSC). This interim non-standard analytical approach to cost effectiveness is specific to COVID-19 and is applicable only during this transition phase of pandemic recovery.

Given the high proportion of older adults with comorbidities and the higher uptake seen in universal age-based programmes, JCVI considers that for autumn 2023, it is appropriate to offer vaccination to all adults aged 65 years and over. While not a fully incremental assessment, as would be standard, it is considered appropriate to take such an approach during the current pandemic recovery phase due to the uncertainties in the NNV and cost effectiveness assessment estimates, and because of the expected additional benefits of reducing winter pressures on the NHS.

The COVID-19 clinical risk groups as defined in the Green Book (tables 3 and 4) are recognised to be highly heterogenous, with absolute risks of serious disease varying substantially both within and between clinical risk groups. The relative importance of clinical risk groups in the development of severe COVID-19 may also be changing as population immunity changes. However, further discrimination or stratification of risk at this time would increase the complexity of the programme and would likely impact negatively on vaccine uptake. Therefore, for autumn 2023 it is considered appropriate to offer vaccination to all people in a clinical risk group aged 6 months and over. This includes those who are pregnant, regardless of their stage of pregnancy (reference 2).

**Those working or living with vulnerable people**

In the current era of COVID-19 due to Omicron sub-lineages of SARS-CoV-2 virus, available COVID-19 vaccines are highly effective at protecting vaccinated individuals from COVID-19 related severe disease and death for many months (reference 3). However, protection against symptomatic infection alone is less durable and protection against transmission of infection from one person to another is accordingly limited. These immunity related factors mean the
rationale for vaccinating people to reduce the risk of transmission to other vulnerable people is less compelling. Cost effectiveness results were not available for these cohorts.

During the pandemic emergency phase, frontline health and social care workers (HSCWs) were prioritised for COVID-19 vaccination in order to protect them against severe COVID-19, to protect the resilience of health services, and to reduce the risk of transmission from HSCWs to vulnerable persons under their care. Currently, most HSCWs are no longer at much greater risk of severe COVID-19 compared to the rest of the population and vaccination is of limited benefit in protecting against transmission. There remains potential benefit in offering vaccination to HSCWs in order to protect health services from staff absences due to COVID-19 during the winter months. Similar considerations apply to carers (as defined in the Green Book).

While vaccines are still only available through nationally funded mass vaccination programmes, JCVI considers it is appropriate to continue the offer of vaccination in HSCWs for autumn 2023. When COVID-19 vaccines become available outside of nationally funded programmes, any decision on whether to continue to offer vaccination to HSCWs would be expected to become a policy decision for DHSC and/or individual employers.

In relation to otherwise healthy household contacts of immunosuppressed individuals, the limitations of the current vaccines in preventing transmission reduces the potential benefits from vaccination, though not likely to the point of absolutely no benefit. In view of the high risk of severe COVID-19 amongst immunosuppressed individuals, and the limited protection that immunosuppressed persons gain from vaccination themselves, JCVI considers it appropriate to continue to offer booster vaccination to household contacts over 12 years of age of immunosuppressed persons during the current pandemic recovery phase.

**Primary course vaccination and population immunity**

It is estimated that by the end of August 2022 over 99% of adults in England had SARS-CoV-2 antibodies, generated either after natural infection or vaccination or both (reference 3). This high level of population immunity developed over the past 3 years is monitored regularly through UK Health Security Agency (UKHSA) public health surveillance programmes. For persons who remain unvaccinated, accumulating evidence indicates that a single dose of vaccine given on a background of naturally acquired immunity (hybrid immunity) generates at least as good an immune response as 2 primary doses of vaccine (reference 4). JCVI considers that autumn 2023 is an appropriate time for primary course vaccination with all currently approved COVID-19 vaccines to be offered as a single vaccine dose.
This move, combined with the offer of primary courses only to those eligible for booster vaccination will simplify the programme such that a single dose is offered to eligible persons in autumn 2023 irrespective of prior vaccination status, potentially enhancing vaccine access and uptake.

Post-COVID syndromes

There remains considerable uncertainty regarding the prevalence and health impact of sequelae reported following acute COVID-19 infection. Case-control studies have provided more robust data than the initial cohort studies, but the high prevalence of most of the reported persistent symptoms among cases and controls complicates any firm attribution of causality to the initial SARS-CoV-2 infection. Until more and better data are available, the impact of vaccination on the risk, progression and/or outcome of post-COVID syndromes remains difficult to assess or quantify objectively (references 5 and 6).

Future variants and their impact on epidemiology

The virulence and transmissibility of any new emergent SARS-CoV-2 variant cannot be reliably predicted in advance. Rapid response measures may be required should there be substantial changes in population immunity against the dominant circulating variant, including any new variant of concern. JCVI will keep the epidemiology of COVID-19 under close review and will provide advice for a surge response, as required.

Looking forward

Future transition of the programme from pandemic to routine will be dependent on COVID-19 vaccines meeting standard cost effectiveness criteria, in line with other vaccination programmes. Should population immunity to SARS-CoV-2 continue to increase over time, it is anticipated that most people will experience relatively mild symptomatic or asymptomatic infection when exposed to the virus. In such a scenario, future routine COVID-19 immunisation may be a cost effective intervention for only a relatively small population group who remain at high risk from more severe COVID-19.
References


5. Effect of COVID-19 vaccination on long COVID: systematic review (https://bmjmedicine.bmj.com/content/2/1/e000385)


Back to top