Department of Health & Social Care

Independent report

JCVI statement on influenza vaccines for 2025 to 2026

Updated 3 December 2024

Contents

This publication is available at https://www.gov.uk/government/publications/flu-vaccines-2025-to-2026-jcvi-advice/jcvi-statement-on-influenza-vaccines-for-2025-to-2026

The Joint Committee on Vaccination and Immunisation (JCVI) reviewed the latest UK influenza surveillance vaccine effectiveness data for the 2023 to 2024 season at the 5 June 2024 JCVI meeting. Vaccine effectiveness against hospitalisation is important for determining vaccines for use in the programme.

The 2023 to 2024 influenza season was the second season since:

- the COVID-19 pandemic with widespread transmission
- the introduction of the requirement that laboratories report negative influenza results

This improvement in UK hospital surveillance has supported informative comparison between vaccine types. As seen in the 2022 to 2023 season, 2023 to 2024 preliminary data in older adults in England showed a higher central estimate of vaccine effectiveness against hospitalisation for the inactivated recombinant influenza vaccine (IIVr), compared with other first or second line vaccines. There was also a negative central estimate of vaccine effectiveness for the inactivated influenza egg-culture vaccine (IIVe). It was noted that confidence intervals for IIVr overlapped with the point estimates for adjuvanted inactivated influenza vaccine (aIIV) and inactivated influenza cell-culture vaccine (IIVc). In a meta-analysis of the last 2 seasons' data there was less overlap of confidence intervals, strengthening the evidence of a higher vaccine effectiveness with IIVr compared with aIIV. The low IIVe vaccine effectiveness estimate reinforces the current JCVI advice not to use this vaccine for older adults (65 years of age and over).

JCVI would like to see more use of IIVr in the programme to improve estimates of vaccine effectiveness and have data over multiple seasons on the performance of this vaccine, especially in older adults where there is strengthening evidence of additional benefit relative to other products. In those groups where the use of IIVe remains an option, this should only be in circumstances where the preferred first line influenza vaccines are not available and efforts should be made to use the best available influenza vaccines, particularly in at-risk groups.

Move to trivalent formulations

The World Health Organization (WHO) has concluded that B/Yamagata lineages are no longer circulating and are unlikely to cause future epidemics, and that inclusion of a B/Yamagata antigen as a component of influenza vaccines is no longer warranted. WHO has stated that every effort should be made to exclude this as soon as possible, across all vaccine types. To this end, manufacturers have been preparing to move to trivalent formulations. In the USA, this will happen for the 2024 to 2025 season. In

the UK the live attenuated influenza vaccine (LAIV) moved to a trivalent formulation in time for the 2024 to 2025 season.

JCVI considered this a priority to avoid the potential theoretical risk of reassortment with circulating wild-type influenza viruses and the return of circulating B/Yamagata strains. JCVI considered that there was less urgency for the inactivated vaccines to change because the risk of a potential for a reassortment event during the manufacturing process seemed very unlikely, and there is no risk of this from the product itself. It is expected that most manufacturers will move to trivalent formulations in time for the 2025 to 2026 season, but it is also possible that there may still be some quadrivalent vaccines available.

For inactivated vaccines JCVI therefore advises that for any given influenza vaccine type, if available, a trivalent is preferred over a quadrivalent formulation (JCVI meeting minutes, October 2023).

The advice below represents JCVI's scientific view on the use of influenza vaccines in the UK for the 2025 to 2026 influenza season.

Adults 65 years of age and over

For vaccination of those aged 65 years and over, JCVI advises the use of the following vaccines:

- adjuvanted inactivated influenza vaccine (aIIV)
- high-dose inactivated influenza vaccine (IIV-HD)
- recombinant inactivated influenza vaccine (IIVr)

The inactivated influenza cell-culture vaccine (IIVc) can also be considered for use in this age group if all other options are unavailable, subject to the considerations below.

The inactivated influenza egg-culture vaccine (IIVe) is not advised for use in this age group.

Considerations

The available evidence indicates additional benefit from the use of aIIV or IIV-HD in those aged 65 years and over, compared with standard dose IIVe.

When considering a preference between IIV-HD and aIIV, there is little available data comparing these. The available data is somewhat inconsistent, not available over multiple seasons, at risk of bias and limited by the use of non-laboratory confirmed influenza endpoints. The level of uncertainty in the available evidence is considered too great to allow for a preferential recommendation between the vaccines at the current time.

JCVI is also of the view that there is enough supporting evidence for IIVr to be considered as equivalent to aIIV and IIV-HD for use in those aged 65 years and older.

This evidence includes that IIVr has a higher antigen content (45 micrograms) than IIVc (15 micrograms) and standard egg-based inactivated vaccines (15 micrograms), as well as immunogenicity, efficacy and effectiveness data in favour of its use in the elderly alongside aIIV and IIV-HD.

If aIIV, IIV-HD, or IIVr are not available, IIVc is considered an acceptable alternative and is suitable for use in this age group. JCVI strongly advises against the use of standard egg-culture influenza vaccines in the elderly.

At-risk adults 18 to 64 years of age (including pregnant women)

For vaccination of adults 18 to 64 years of age in an at-risk group, JCVI advises the use of the following influenza vaccines:

- inactivated influenza cell-culture vaccine (IIVc)
- inactivated recombinant influenza vaccine (IIVr)

The adjuvanted inactivated influenza vaccine is now licensed from the age of 50 years, therefore aIIV can also be considered for use in those aged 50 to 64 years alongside the above.

The high dose influenza vaccine is licensed from the age of 60 years, therefore, IIV-HD can also be considered for use in those aged 60 to 64 years alongside the above.

The inactivated influenza egg-culture vaccine (IIVe) can also be considered for use in this age group if all other options are unavailable.

Considerations

There is a potential advantage to using influenza vaccines which do not use eggs in the manufacturing process (cell-culture or recombinant) compared with egg-cultured influenza vaccines, due to the possible impact of ‘egg adaptation’ on the effectiveness of influenza vaccines, particularly against A(H3N2) strains. The evidence on additional benefit is available for only a few seasons but the issue of egg adaptation remains a real concern for the A(H3N2) virus which is the more virulent influenza subtype in terms of morbidity and mortality.

There is limited, but good, evidence that the recombinant vaccine IIVr, which is also not affected by egg adaptation, is more effective than IIVe in adults under 65 years age. Therefore, IIVr is also preferred over IIVe in adults under 65 years old.

Based on the available evidence, JCVI supports a clear preference for IIVc and IIVr over IIVe and these are the vaccines of choice for this vulnerable group. IIVe can also be considered for use in this group, if all other options are unavailable, because any impact of egg adaptation will likely be limited to seasons in which the influenza season is dominated by well-matched H3N2 strains.

Children aged 2 to less than 18 years of age

Children aged 2 to less than 18 years of age should be offered the live attenuated influenza vaccine (LAIV) unless it is medically contraindicated or otherwise unsuitable. In those for whom LAIV is not suitable, JCVI advises the use of IIVc. JCVI therefore advises the influenza vaccines below in the following order of preference:

1. Live attenuated influenza vaccine (LAIV).
2. Inactivated influenza cell-culture vaccine (IIVc) (where LAIV is medically contraindicated or otherwise unsuitable).

The inactivated influenza cell-culture vaccine (IIVc) is egg-free. Egg-allergic individuals can be safely vaccinated in any setting with this vaccine, including those who have required admission to intensive care for a previous severe anaphylaxis to egg.

The inactivated influenza egg-culture vaccine (IIVe) can also be considered for use in this age group if all other options are unavailable.

Children less than 2 years of age in at-risk groups

For vaccination of children less than 2 years of age in an at-risk group, JCVI advises the use of the inactivated influenza cell-culture vaccine (IIVc).

The inactivated influenza egg-culture vaccine (IIVe) can also be considered for use in this age group, if all other options are unavailable.

Generating real-world evidence in the UK

Further comparative data is required, preferably from the same country over multiple seasons and with laboratory-confirmed influenza endpoints, to support consideration of the relative effectiveness of the influenza vaccines available in the UK across the different age and risk groups in which they are licensed. JCVI would like to see high-quality comparative data generated in the UK. Most of this data can potentially be generated from the monitoring and surveillance of vaccine effectiveness in primary and secondary care for those influenza vaccines delivered through the influenza vaccination programme.

The COVID-19 pandemic has provided greater insight into the importance of virologically confirmed vaccine-effectiveness studies for hospitalisation and death, the use of NHS data to drive this and how a hospital admission clinical endpoint may give very divergent results from community-based vaccine-effectiveness testing. COVID-19 has also shown the potential availability of real-time data through improvements in NHS data linkage, which now need to be applied to influenza. Therefore, JCVI would like to see the existing influenza surveillance system for generating influenza vaccine effectiveness enhanced to generate adequately powered data to inform future JCVI decisions which will benefit public health in the longer term.

JCVI agrees that enhancing the existing surveillance system is critical to ensure the UK population receives the best possible clinical benefit from the available influenza vaccines. It notes that improvements have been made linking vaccination records with laboratory data and hospital admissions and that work is ongoing to increase laboratory submissions of negative results and to maximise influenza A subtyping. This should form part of the longer-term planning for a first-class influenza programme as a whole, alongside other research initiatives.

Other research initiatives could also contribute to improving the evaluation of influenza vaccines in the UK and JCVI notes the close working of

industry, regulators, government and public-funded research behind the rapid introduction and real-time evaluation of COVID-19 vaccines. JCVI would support similar initiatives applied to evaluating influenza vaccines.

JCVI would like to see all the available vaccines, which it has advised in preference to standard egg-based vaccines, used in the UK so they can be properly evaluated through the programme but understands that this is subject to NHS negotiations. There might be important differences in the products which could lead to a differential impact on winter pressures, and it would be difficult to evaluate the significance of this for the NHS unless all the advised products are available in the programme.

Operational considerations

JCVI is mindful that factors other than purely scientific and clinical advice need to be considered from an operational perspective, including supply availability and affordability, and which will contribute to the decisions on which vaccines are purchased for the 2025 to 2026 season.

JCVI's advice outlines the preferred vaccines that should be made available, subject to vaccine availability. The aim of this advice is to provide a framework from which NHS England, the devolved administrations and the UK Health Security Agency can plan the ordering of vaccines and delivery of the influenza programme in 2025 to 2026 and communicate this clearly to providers and the public. A well-planned and orchestrated programme that results in the timely delivery of vaccination is important to ensure the eligible population is protected before influenza activity starts to increase in the winter months.

Background

The JCVI advice on the use of influenza vaccines is based on discussions at JCVI and the influenza sub-committee and published in the meeting minutes.

1. Adjuvanted influenza vaccines were discussed in the June and October 2017 JCVI meetings and the September 2019 influenza sub-committee.
2. High-dose influenza vaccines were discussed in the June 2018 JCVI meeting, the September 2018 influenza sub-committee and the September 2019 influenza sub-committee.
3. Cell-culture vaccines were discussed in the September 2018 influenza sub-committee meeting, the October 2018 JCVI meeting and the

September 2019 influenza sub-committee.

4. Advice for the 2021 to 2022 season was discussed via teleconference with JCVI and invited experts from the influenza subcommittee on 27 October 2020. The minutes of this meeting were published on 8 December 2020.
5. Advice for the 2022 to 2023 season was discussed on teleconference with the JCVI influenza subcommittee on 3 September 2021 and subsequently ratified by the main JCVI committee via correspondence. The minutes of the subcommittee were published on 10 February 2022.
6. Advice for the 2023 to 2024 season was discussed on teleconference with the JCVI influenza subcommittee on 14 September 2022 and subsequently ratified by the main JCVI committee via correspondence.
7. Advice for the 2024 to 2025 season was discussed and confirmed at the 7 June 2023 JCVI meeting.

Summary of influenza vaccines for 2025 to 2026

Age or risk group	Vaccine preference	If the preferred vaccine is unavailable
Over 65 years of age	aIIV, IIV-HD, IIVr	IIVc
18 to 64 years in a risk group	IIVc, IIVr or aIIV (in those aged 50 to 64 years) or IIV-HD (in those aged 60 to 64 years)	IIVe
2 to under 18 years	LAIV	IIVc
2 to under 18 years but unable to have LAIV	IIVc	IIVe
6 months to under 2 years in a risk group	IIVc	IIVe

Note: LAIV is the vaccine of choice for children aged 2 to 17 years.

References

Minutes of JCVI meetings (https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation) held on 10 October 2023 and 5 June 2024.

Surveillance of influenza and other seasonal respiratory viruses in the UK, winter 2023 to 2024 (https://www.gov.uk/government/statistics/surveillance-of-influenza-and-other-seasonal-respiratory-viruses-in-the-uk-winter-2023-to-2024)