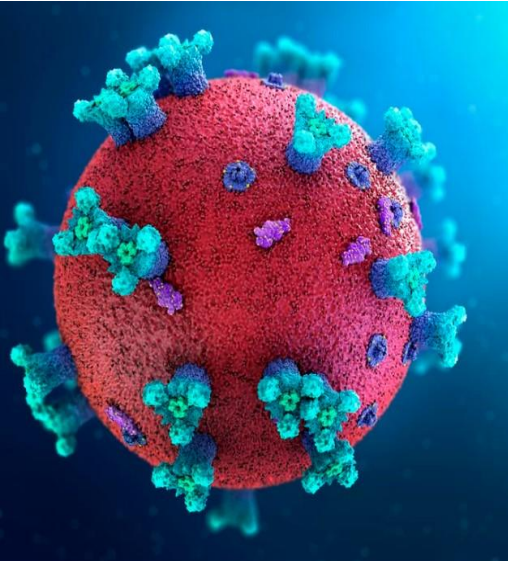


Flu programme for 2025/26



Tricia Smith BSc(Hons) RGN RM RT
20th May 2025

Influenza overview

- flu is an acute viral infection of the respiratory tract (nose, mouth, throat, bronchial tubes and lungs)
- it is a highly infectious illness which spreads rapidly in communities
- even people with mild or no symptoms can infect others
- most cases in the UK occur during an 8 to 10 week period during the winter

Possible complications of flu

Common:

- bronchitis
- otitis media (children), sinusitis
- secondary bacterial pneumonia

Less common:

- meningitis, encephalitis, meningoencephalitis
- primary influenza pneumonia

Risk of most serious illness is higher in:

- children under 6 months
- older people
- those with underlying health conditions such as respiratory disease, cardiac disease, long-term neurological conditions or immunosuppression
- pregnant women (flu during pregnancy may be associated with perinatal mortality, prematurity, smaller neonatal size and lower birth weight)

Influenza viruses

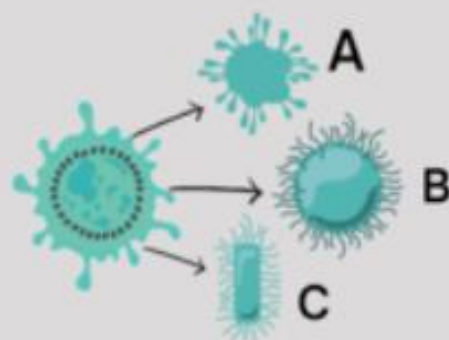
A viruses

- cause outbreaks most years and are the usual cause of epidemics and pandemics
- live and multiply in many different animals and may spread between them
- birds, particularly wildfowl, are the main animal reservoir

B viruses

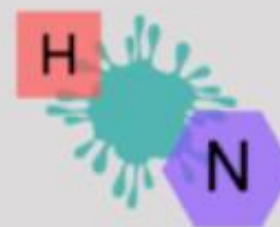
- tend to cause less severe disease and smaller outbreaks
- predominantly found in humans
- burden of disease mostly in children

Why is it difficult to make flu vaccines?



Flu is a **complicated virus**.
There are three basic types:
A, B and C

Type A is the most dangerous; it can cause serious disease and can cause worldwide pandemics



Type A is also the most **complex**. On the surface of the virus, there are two types of proteins that help to invade the body's cells. These are proteins **H** and **N**

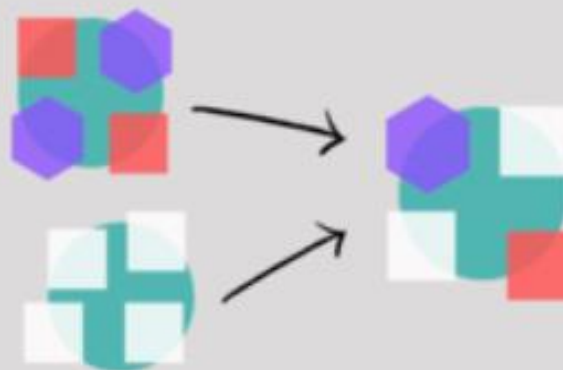
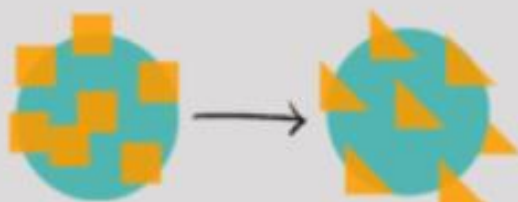
There are 18 different types of the **H protein shape** and 11 different types of the **N protein shape**

Flu virus A can make up to **198** different combinations of **H** and **N** proteins



The flu virus can also change quickly and easily

An '**antigenic drift**' is a gradual process of genetic change that leads to even more variety for each type



Different types of virus can also combine their genetic material to make a new sub-type – this is called '**antigenic shift**'

The **World Health Organization** monitors the virus throughout the world and advises which 3 or 4 strains should be covered by an annual flu vaccine.



years the vaccine matches the strains causing illness that winter

Move to trivalent flu vaccines

- World Health Organisation no longer recommends the B/Yamagata strain to be included in the flu vaccines for 2025/26
- As the B/Yamagata lineages are longer circulating
- Manufacturers have moved to trivalent flu vaccines for 2025/26

WHO recommendations for Northern Hemisphere for 2025/26

Egg-based vaccines

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Croatia/10136RV/2023 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

WHO recommendations for Northern Hemisphere for 2025/26

Cell culture-, recombinant protein- or nucleic acid-based vaccines

- an A/Wisconsin/67/2022 (H1N1)pdm09-like virus;
- an A/District of Columbia/27/2023 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

The recommendation for the B/Yamagata lineage component of quadrivalent influenza vaccines remains unchanged from previous recommendations:


- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

Flu vaccines marketed in the UK for 2025/26

All influenza vaccines marketed in the UK for the 2025 to 2026 season

Supplier	Product	Vaccine type	Age indications	Ovalbumin content micrograms/dose	Contact details
AstraZeneca UK Ltd	Fluenz®	Trivalent LAIV (live attenuated influenza vaccine) supplied as nasal spray suspension	From 24 months to less than 18 years of age	Less than 0.024 micrograms per 0.2 ml dose	0845 139 0000
Sanofi	Vaxigrip ¹	TIVe (standard egg-grown trivalent influenza vaccine), split virion, inactivated	From 6 months	Equal to or less than 0.05 micrograms per 0.5 ml dose	0800 854 430
Viatrix	Influvac® sub-unit TIV ▼	TIVe (standard egg-grown trivalent influenza vaccine) surface antigen, inactivated	From 6 months	Equal to or less than 0.1 micrograms per 0.5 ml dose	0800 358 7468

Flu poster for 2024/25 will be updated for 2025/26

Cell-based Quadrivalent Influenza Vaccine ▼ CSL Seqirus	Fluenz AstraZeneca	Quadrivalent Influenza Vaccine Sanofi	Influenza Tetra MYL Viartis	Quadrivalent Influenza Vaccine – High Dose ▼ Sanofi	Adjuvanted Quadrivalent Influenza Vaccine ▼ CSL Seqirus
QIVc	LAIV	QIVe	QIVe	QIV-HD	aQIV
Egg-free					
1 	2 	3 	4 	5 	6 
licensed from 6 months of age	licensed from 2 years to less than 18 years of age	licensed from 6 months of age	licensed from 6 months of age	licensed from 60 years of age	licensed from 65 years of age

Injection technique – current guidance for 2024/25 programme.

- Flu vaccine – shake well
- Can give 2 injections in one site, preferred to use separate limbs
- Co-administration with RSV vaccine for 75 years to 79 years ***not recommended to give routinely at the same time***

Trivalent flu vaccines

- aTIV
- TIVc
- TIVr
- TIV-HD
- TIVe
- LAIV - Fluenz



Flu vaccine eligibility: 2025 to 2026 flu season

- all children aged 2 or 3 years on 31 August 2025
- all primary school aged children (from Reception to Year 6)
- secondary school-aged children (Years 7 to 11)
- those aged 6 months to under 65 years in clinical risk groups
- all pregnant women (including those women who become pregnant during the influenza season)
- those aged 65 years and over (including those aged 64 who will be 65 on/before 31st March 2025)
- those living in long-stay residential care homes or other long-stay care facilities
- carers in receipt of carer's allowance, or those who are the main carer of an elderly or disabled person
- close contacts of immunocompromised individuals
- frontline workers in a social care setting without employer led occupational health schemes

Chronic respiratory disease	<p>Asthma that requires continuous or repeated use of inhaled or systemic steroids or with previous exacerbations requiring hospital admission.</p> <p>Chronic obstructive pulmonary disease (COPD) including chronic bronchitis and emphysema; bronchiectasis, cystic fibrosis, interstitial lung fibrosis, pneumoconiosis and bronchopulmonary dysplasia (BPD).</p> <p>Children who have previously been admitted to hospital for lower respiratory tract disease.</p> <p>See precautions section on LAIV.</p>
Chronic heart disease and vascular disease	<p>Congenital heart disease, hypertension with cardiac complications, chronic heart failure, individuals requiring regular medication and/or follow-up for ischaemic heart disease. This includes individuals with atrial fibrillation, peripheral vascular disease or a history of venous thromboembolism.</p>
Chronic kidney disease	<p>Chronic kidney disease at stage 3, 4 or 5, chronic kidney failure, nephrotic syndrome, kidney transplantation.</p>
Chronic liver disease	<p>Cirrhosis, biliary atresia, chronic hepatitis.</p>
Chronic neurological disease (included in the DES directions for Wales)	<p>Stroke, transient ischaemic attack (TIA). Conditions in which respiratory function may be compromised due to neurological or neuromuscular disease (for example polio syndrome sufferers). Clinicians should offer immunisation, based on individual assessment, to clinically vulnerable individuals including those with cerebral palsy, severe or profound and multiple learning disabilities (PMLD), Down's syndrome, multiple sclerosis, dementia, Parkinson's disease, motor neurone disease and related or similar conditions; or hereditary and degenerative disease of the nervous system or muscles; or severe neurological disability.</p>

Diabetes and adrenal insufficiency	Type 1 diabetes, type 2 diabetes requiring insulin or oral hypoglycaemic drugs, diet-controlled diabetes. Addison's disease, secondary or tertiary adrenal insufficiency requiring steroid replacement.
Immunosuppression (see contraindications and precautions section on live attenuated influenza vaccine)	<p>Immunosuppression due to disease or treatment, including patients undergoing chemotherapy leading to immunosuppression, patients undergoing radical radiotherapy, solid organ transplant recipients, bone marrow or stem cell transplant recipients, people living with HIV (at all stages), multiple myeloma or genetic disorders affecting the immune system (for example IRAK-4, NEMO, complement disorder, SCID). Individuals who are receiving immunosuppressive or immunomodulating biological therapy including, but not limited to, anti-TNF- alemtuzumab, ofatumumab, rituximab, patients receiving protein kinase inhibitors or PARP inhibitors, and individuals treated with steroid sparing agents such as cyclophosphamide and mycophenolate mofetil.</p> <p>Individuals treated with or likely to be treated with systemic steroids for more than a month at a dose equivalent to prednisolone at 20mg or more per day (any age), or for children under 20kg, a dose of 1mg or more per kg per day.</p> <p>Anyone with a history of haematological malignancy, including leukaemia, lymphoma, and myeloma and those with systemic lupus erythematosus and rheumatoid arthritis, and psoriasis who may require long term immunosuppressive treatments.</p> <p>Some immunocompromised patients may have a suboptimal immunological response to the vaccine.</p>

Clinical risk category	Examples (this list is not exhaustive and decisions should be based on clinical judgement)
Asplenia or dysfunction of the spleen	This also includes conditions such as homozygous sickle cell disease, hereditary spherocytosis, thalassemia major and coeliac syndrome that may lead to splenic dysfunction.
Morbid obesity (class III obesity)*	Adults with a Body Mass Index ≥ 40 kg/m ² .

Other risk groups	
Pregnant women	Pregnant women at any stage of pregnancy (first, second or third trimesters). See precautions section on live attenuated influenza vaccine.
Household contacts of people with immunosuppression	Individuals who expect to share living accommodation on most days (and therefore for whom continuing close contact is unavoidable) with individuals who are immunosuppressed (defined as immunosuppressed in table 19.4).
Carers	Those who are eligible for a carer's allowance, or those who are the sole or primary carer of an elderly or disabled person whose welfare may be at risk if the carer falls ill.

Lower cohorts are:

Health and social workers

Clinical at-risk groups aged 18 years to 64 years

Pregnant women's

2 to 3 year olds

In the 2025 to 2026 flu programme, providers are expected to deliver a 100% offer to eligible groups

Health and social care workers

- Vaccination of health and social care workers protects them and reduces the risk of spreading flu to their patients, service users, colleagues and family members
- Frontline health and social care workers have a duty of care to protect their patients and service users from infection
- Further guidance when to vaccinate staff will follow. From Oct 2025
- Written instruction for Staff

To be vaccinated from September

- Pregnant ladies
- all children aged 2 or 3 years on 31 August 2025
- all primary school aged children (from Reception to Year 6)
- secondary school-aged children (Years 7 to 11)
- those aged 6 months to under 18 years in clinical risk groups

Childhood flu programme
for 2025/26



Childrens flu programme to start from Sept

2 and 3 year olds by 31st August 2025 (on or after 1st Sept 2022 up to 31st Aug 2024)

Healthy children 4 to 16 years vaccinated by outside provider

Children in at risk groups to be vaccinated in general practice

Kernow Health CIC

1st Floor Cudmore House Oak Lane Truro TR1 3LP

Tel: 01392 342678

Email: kernowhealthcic.schoolimmsdevon@nhs.net

Website:

<https://www.kernowhealthcic.org.uk/primary-careservices/corwall-anddevon-school-ageimmunisations/>

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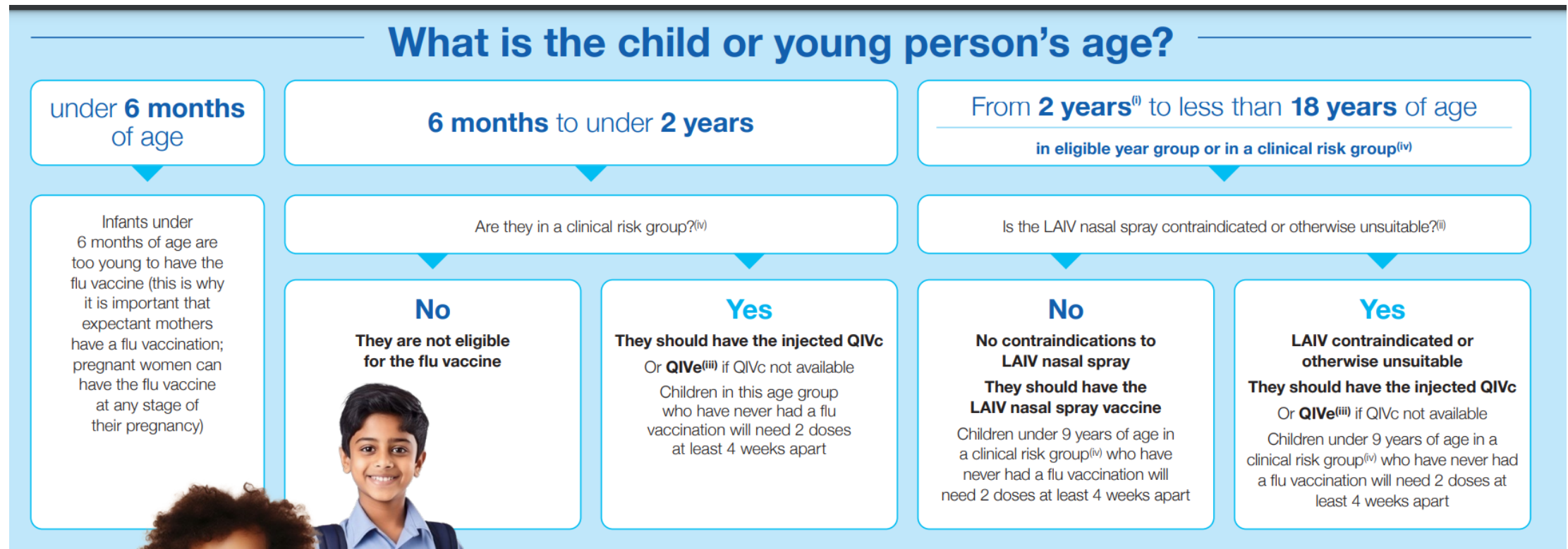
Available vaccines for children

- 2 up to 17 years 364 days in clinical at risk offer Live Attenuated
- Influenza Vaccine LAIV (Fluenz)
- Healthy children 2 to 16 years (Year 7 to 11 in schools)
- offer LAIV
- If contraindicated or refused due to the gelatine
- content in children 2 up to 18 years offer TIVc

Number of doses

- Only children aged from 6 months to less than 9 years who are in clinical risk groups, who have not received flu vaccine previously should be offered a second dose of LAIV, given at least 4 weeks apart
- (if no contraindications – otherwise offer inactivated vaccine e.g. if child or household contact is severely immunosuppressed)

Children Flu poster for 2025/26 will be updated



(i) Aged 2 years on 31 August 2024, unless in a clinical risk group.
(ii) If the parent of an eligible child declines LAIV because of its porcine gelatine content, they can request an alternative injectable vaccine.
(iii) QIVe is available to order from www.hpa.org.uk for these children.

Resources

Green Book Influenza Chapter 19

www.gov.uk/government/publications/influenza-the-green-book-chapter-19

Contraindications to flu vaccines

- Severely immunodeficient due to conditions or immunosuppressive therapy:
 - Acute and chronic leukaemias
 - Lymphoma
 - HIV positive patient not on highly active antiretroviral therapy
 - Cellular immune deficiencies
 - High dose steroids
- Receiving salicylate therapy
- Known to be pregnant

Severe asthma or active wheezing

- A history of active wheezing in the past 72 hours or those who have increased use of bronchodilators in the previous 72 hours.
- ***Oral steroids in the last 14 days – now removed from the guidance***
- An inactivated flu vaccine should be offered to avoid delaying protection in this high-risk group

Further guidance

Children who require regular oral steroids for maintenance of asthma control, or have previously required intensive care for asthma exacerbation should only be given LAIV on the advice of their specialist

Children whose parents decline LAIV (Fluenz)

- If the parent of an eligible child refuses LAIV because of its porcine gelatine content, they can be offered an alternative injectable vaccine.
- TIVc vaccines available from Immform
- LAIV is the most effective vaccine for this group

Administering LAIV and cochlear implants

Children with cochlear implants can be given LAIV safely although ideally it should not be given in the week prior to implant surgery or for 2 weeks afterwards, or if there is evidence of on-going cerebrospinal fluid leak.

Children with unrepaired craniofacial malformation is contraindicated

Salicylate therapy and LAIV

- The theoretical risk of Reye's syndrome following administration of the LAIV to children on aspirin therapy or other salicylate-containing medicine, they should not be given LAIV and should instead be offered an inactivated flu vaccine
- Reye's syndrome is a very rare disorder that can cause serious liver and brain damage. If not treated promptly, it may lead to permanent brain injury or death

Egg allergy in children

Children with an egg allergy (including those with previous anaphylaxis to egg) can be safely vaccinated with LAIV in any setting (including primary care and schools)

Children who have required admission to intensive care for a previous severe anaphylaxis to egg should be offered the TIVc

Egg allergy in children

- Egg-allergic children with asthma can receive LAIV if their asthma is well-controlled (see previous slide on severe asthma)

LAIV effectiveness

- The research¹ following the introduction of the children's flu programme showed a positive impact on flu transmission from vaccinating children of primary school age
- These include reductions in: GP consultations for influenza-like illness, swab positivity in primary care, laboratory confirmed hospitalisations and percentage of respiratory emergency department attendances

LAIV and 'viral shedding'

LAIV does not create an external mist of vaccine virus in the air when children are being vaccinated and others in the room should not be at risk of 'catching' the vaccine virus

Administration of the intranasal vaccine delivers just 0.1ml of fluid straight into each nostril and almost all the fluid is immediately absorbed into the child's nose

LAIIV and 'viral shedding'

Vaccinated children are known to shed virus a few days after vaccination

The amount of virus shed is normally below the levels needed to pass on infection to others and the virus does not survive for long outside of the body.

This is in contrast to natural flu infection, which spreads easily during the flu season

Risk of transmission of live vaccine virus

- There is a theoretical potential for transmission of live attenuated flu virus to very severely immunocompromised contacts for 1 to 2 weeks following vaccination
- However, if close contact with very severely immunocompromised patients (such as bone marrow transplant patients requiring isolation) is likely or unavoidable (for example other household members) consider an appropriate inactivated flu vaccine instead

Exposure of healthcare professionals to live attenuated influenza vaccine viruses

Theoretically there may be some low level exposure to the vaccine viruses for those administering LAIV and/or from recently vaccinated patients

Risk of acquiring vaccine viruses from the environment is unknown but probably low

Healthcare workers who have less severe immunosuppression or are pregnant, should follow normal clinical practice and ensure that they themselves are appropriately vaccinated

Storage of flu vaccine

All flu vaccines, inactivated and LAIV, must be stored in accordance with manufacturer's instructions:

- store between +2°C and +8°C
- do not freeze
- store in original packaging
- protect from light

Check expiry dates regularly:

- ***the LAIV has an expiry date 15 weeks after manufacture*** – this is much shorter than inactivated flu vaccines
- it is important that the expiry date on the nasal spray applicator is checked before use
- ***Updated PGD: the vaccine must only be removed once from the recommended fridge temperature***

Vaccinating pregnant ladies

Vaccinate any trimester

Passive immunity for the first few months of life

Maternity services are involved with the programme

Offer vaccine to newly pregnant ladies



From October (exact date to be confirmed)

- All the other eligible groups
- There may be a small number of other adults for whom it would be better not to delay vaccination until October. Under a PSD
- Due commence immunosuppressive treatments

Rationale for starting most eligible adults from October

- This year most eligible adults will be offered a flu vaccine from early October, which might be slightly later than in previous years.
- This is because the latest scientific evidence shows that protection from the flu vaccine decreases over time in adults.
- It is therefore better to have the vaccine closer to when flu typically circulates.

Adult flu programme


18 years to 50 years TIVc
 TIVr
 second choice TIVe

50 to 60 years aTIV
 TIVc
 TIVr
 second line choice TIVe

Adult flu programme

60 up to 64 years	aTIV
	TIVc
	TIVr
	TIV-HD
	second line choice TIVe
65 years and over	aTIV
	TIVr
	TIV-HD
	second line choice TIVc

Flu poster will be updated for 2025/26

Cell-based Quadrivalent Influenza Vaccine ▼ CSL Seqirus	Fluenz AstraZeneca	Quadrivalent Influenza Vaccine Sanofi	Influenza Tetra MYL Viartis	Quadrivalent Influenza Vaccine – High Dose ▼ Sanofi	Adjuvanted Quadrivalent Influenza Vaccine ▼ CSL Seqirus
QIVc	LAIV	QIVe	QIVe	QIV-HD	aQIV
Egg-free					
1 	2 	3 	4 	5 	6 
licensed from 6 months of age	licensed from 2 years to less than 18 years of age	licensed from 6 months of age	licensed from 6 months of age	licensed from 60 years of age	licensed from 65 years of age

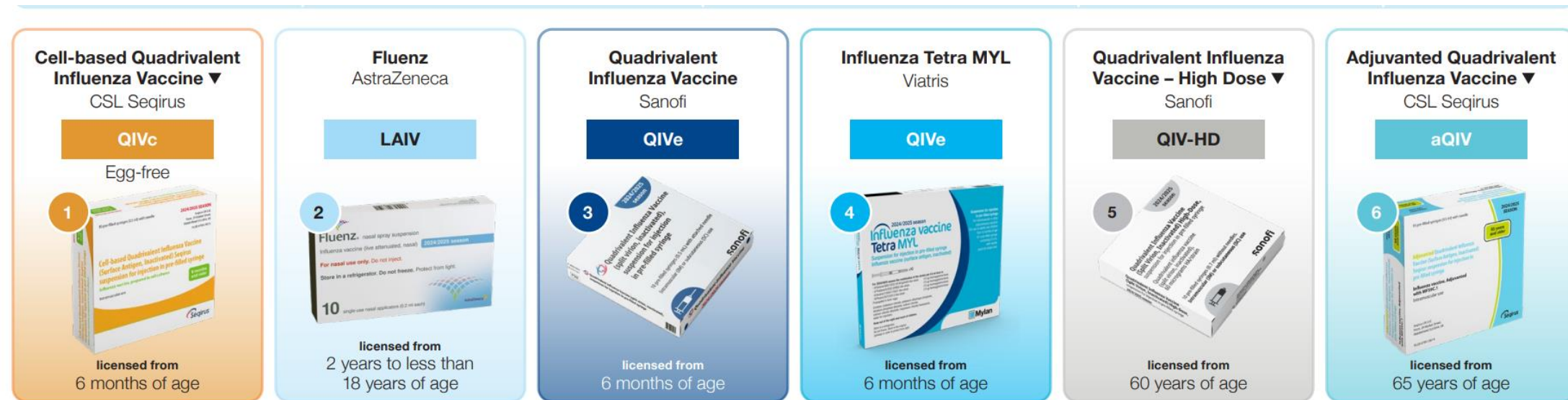
Egg allergy in adults

- For the 2025 to 2026 season, those aged 18 years and over are recommended to receive either TIVc and TIVr are egg free

Summary of children programmes

- 6 months up to 2 years - TIVc
- 2 to 17 years and 364 days in clinical at risk groups first choice: LAIV if contradicted or declined due to gelatine content offer TIVc (provided by immform)
- Healthy 2 to 16 years first choice: LAIV, unless declined due to gelatine offer TIVc
- 6 months to up to 2 years in clinical at risk groups first choice: TIVc
- TIVc is off label from 6/12 to 2 years

Flu poster will be updated for 2025/26



Additional guidance will be updated before the start of the flu session

- This guidance is current today but check the most up to date guidance before the start of the flu programme for 2025/26 as may be changes to the guidance.

Any Questions



References

- <https://www.england.nhs.uk/south/info-professional/pgd/south-west/downloads/>
- <https://www.gov.uk/government/collections/immunisation>
- <https://www.gov.uk/government/publications/national-flu-immunisation-programme-plan-2025-to-2026>
- <https://www.gov.uk/government/publications/influenza-vaccines-marketed-in-the-uk>
- <https://www.ovg.ox.ac.uk/research/vaccine-knowledge-project>