Frequently asked questions **Seasonal influenza vaccination programme** 2020/21

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Public Health Advice

FLU VACCINE
Protect yourself.
Protect others.

Facts about influenza

Influenza causes hundreds of deaths and thousands of hospitalisations every year in Ireland.

It's especially important this influenza season that we prevent morbidity and mortality from influenza, and reduce the burden on our health services from influenza so we are not overwhelmed with dual outbreaks of influenza and COVID-19. Patients with influenza and COVID-19 co-infection are likely to have worse outcomes.

Influenza vaccine is the best protection against influenza for at-risk groups and health care workers.

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Influenza vaccine 2020/2021

Introduction

These Frequently Asked Questions (FAQs) provide details on seasonal influenza and pneumococcal polysaccharide vaccines and who should receive them.

How long does the influenza season last?

The influenza season usually starts at the beginning of October and lasts until the end of April.

What seasonal influenza vaccines will be available this year?

Quadrivalent Inactivated Influenza Vaccine (QIV)

This year the HSE has procured *Quadrivalent Influenza Vaccine (split virion, inactivated)* (QIV) manufactured by Sanofi Pasteur for the seasonal influenza programme. This vaccine is also marketed as *Vaxigrip Tetra*.

Live attenuated influenza vaccine (LAIV)

For the first time, this year Live Attenuated Influenza Vaccine (LAIV) will be offered to children aged 2-12 years old. This vaccine is given intranasally. LAIV contains a weakened vaccine virus that is also cold adapted so that it cannot cause the disease that it protects against.

Please refer to Information for healthcare professionals on LAIV for children which is included in this booklet.

What is the composition of this year's seasonal influenza vaccines?

The World Health Organization (WHO) has recommended that this year's influenza vaccines contains protection against the following strains:

- an A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus;
- an A/Hong Kong/2671/2019 (H3N2)-like virus;
- a B/Washington/02/2019 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

These are the strains estimated by the World Health Organization to be the strains most likely to be circulating this influenza season.

Further information is available at https://www.who.int/influenza/vaccines/virus/recommendations/2020-21_north/en/

Is influenza vaccine effective?

Influenza vaccine effectiveness varies from year-to-year among different age and risk groups and according to different types of influenza vaccine. It can depend on the match between the predicted vaccine virus used to produce the vaccine and the viruses that will circulate this season. In general, current influenza vaccines tend to work better against influenza B and influenza A (H1N1) viruses and offer lower protection against influenza A (H3N2) viruses.

Influenza vaccines usually reduce the risk of infection by 40-60%. Influenza vaccines also reduce the severity of illness, complications from influenza, reduce influenza-related hospitalisations, and admissions to critical care units.

See factsheet at https://www.cdc.gov/flu/about/qa/vaccineeffect.htm

How long does it take influenza vaccine to work?

The vaccine starts to work within 2 weeks.

Who should receive influenza vaccine?

Vaccination is recommended for:

a) People aged 65 years or older.

b) All pregnant women at any stage of pregnancy.

c) Children aged 2-12 years (NEW). Children aged 2-12 years should receive LAIV. QIV should be given if LAIV is contraindicated. Please refer to information on LAIV which is included in this booklet.

d) Those aged 6-23 months and 13 to 64 years who are at increased risk of Influenza-related complications:

- People with chronic illness requiring regular medical follow up, e.g. chronic heart disease, chronic liver disease, chronic neurological disease, chronic renal failure, chronic respiratory disease, diabetes mellitus, or haemoglobinopathies.
- Patients with immunosuppression due to disease or treatment such as cancer patients, those with asplenia or hyposplenism.
- Patients with any condition that can compromise respiratory function (e.g. spinal cord injury, seizure disorder, or other neuromuscular disorder) especially those attending special schools/day centres.
- Children with moderate to severe neurodevelopmental disorders such as cerebral palsy and intellectual disability.
- Children on long-term aspirin therapy.
- People with morbid obesity (Body mass index >40).
- Residents of nursing homes, old people's homes, and other long-stay facilities where rapid spread is likely to follow introduction of infection.
- People with Down Syndrome.

e) Those likely to transmit influenza to a person at high risk for influenza complications:
   - Health Care Workers, both for their own protection and for the protection of patients.
   - Household contacts of at-risk persons.
   - Out-of-home care givers to at-risk persons.

f) People who have close, regular contact with pigs, poultry or water fowl.

Who should NOT receive QIV?

QIV should NOT be given to:

a) Those with a history of anaphylaxis to a previous dose of influenza vaccine or any of its constituents.

b) Patients on combination checkpoint inhibitors (e.g. ipilimumab plus nivolumab) because of a potential association with immune-related adverse reactions.

c) People with severe neutropoenia (absolute neutrophil count $<0.5 \times 10^9$/L) to avoid an acute febrile episode.

Precautions:

a) Acute severe febrile illness (temperature ≥38°C) – defer until recovery.

b) QIV should be separated from pneumococcal conjugate vaccine (PCV13) by at least 1 week for children aged 12-23 months because of a slightly increased risk of febrile convulsions if the vaccines are given at the same time in this age group.

Visit www.hpra.ie to read the licensed information) about the vaccine: Summary of Product Characteristics (SmPC) and Patient Information Leaflet (PIL).

Can people with egg allergy receive QIV?

QIV is a low ovalbumin vaccine with an ovalbumin content of ≤0.06 micrograms per dose.

People with confirmed egg anaphylaxis or egg allergy can be given QIV with an ovalbumin content <0.1 micrograms per dose in a primary care setting *with the exception of those who have required admission to critical care for a previous severe anaphylaxis to egg.*

People who have required admission to critical care for a previous severe anaphylaxis to egg should be referred for specialist assessment with regard to vaccine administration in hospital.

Influenza vaccine in pregnancy

Why do pregnant women need influenza vaccine?

Influenza vaccination protects women during and after pregnancy.

- Pregnancy increases the risk of complications from influenza due to alterations in heart rate, lung capacity and immunological function.
- Influenza in pregnancy is associated with miscarriage, premature birth, and reduced foetal growth and stillbirth.
- Premature birth can lead to long-term medical and social consequences.
- Vaccination during pregnancy provides passive immunity to infants up to the first 6 months of life, when babies are too young to receive the influenza vaccine. Infants under 6 months have the highest rates of hospitalisation and death from influenza.

Is it safe to give QIV to pregnant women?

Yes – inactivated influenza vaccine is not a live vaccine and is considered very safe in pregnancy. It has been given to millions of pregnant women and has not caused any harm to women or their babies.

At what stage of pregnancy should women receive QIV?

The vaccine can be given to pregnant women at any stage of pregnancy.

Should a woman who was pregnant at the end of the 2019-20 campaign, who received influenza vaccine then, and who has not yet delivered her baby receive 2020-2021 influenza vaccine now?

Yes – the National Immunisation Advisory Committee (NIAC) has recommended that in these instances that the pregnant woman receives a further dose of influenza vaccine. This is because there is a new strain in this season's vaccine and immunity from the first dose could have waned.

Can pertussis vaccine be given at the same time as influenza vaccine?

Yes. Both vaccines can be given at the same time.

Note: Pertussis vaccine is recommended between 16-36 weeks.

How many doses of QIV are required?

Table 1 summarises the doses of quadrivalent inactivated influenza vaccine required.

Table 1: Dose of QIV

Group	Dose
Children aged 6 months to <9 years	Two doses 4 weeks apart, if • receiving influenza vaccine for the first time or • vaccination history is unknown
Those aged 9 and older • post haematopoeitic stem cell or • post solid organ transplant	Two doses 4 weeks apart, if • receiving influenza vaccine for the first time post-transplant
Cancer patients who receive the vaccine while on chemotherapy and who complete their treatment in the same season*	Two doses 2nd dose on completion of treatment at least 4 weeks after 1st dose (regardless of influenza vaccination in previous seasons)
All others	One dose

* If the lymphocyte count is ≥1.0 $x10^9$/L

Note that children aged 2-12 years will be offered LAIV; only those for whom LAIV is contraindicated should receive QIV. See the section in this booklet on LAIV for further details.

Can QIV be given at the same time as other vaccines?

Influenza vaccine can be given at the same time as other vaccines e.g. PPV23 and Tdap. The only exception is with PCV13 for children aged 12-23 months. See below for further details.

Why can QIV not be given at the same time as PCV13 in children aged 12-23 months?

In children aged 12-23 months of age PCV13 and influenza vaccines should be separated by an interval of at least one week to decrease the risk of febrile seizures occurring.

This is because vaccine safety data from the United States in 2011 reported a small but increased risk of febrile convulsions among children aged 12-23 months who received PCV13 at the same time as inactivated influenza vaccine in the 2010-2011 season (risk approximately 1 in 1,640 vaccinees).

Are there any side effects from QIV vaccination?

The most commonly reported adverse reactions are pain at the injection site, localised redness and swelling at the injection site, myalgia and headache (≥1/10).

Serious allergic reactions are very rare.

Further details are available from the Summary of Product Characteristics (SmPC) available at www.hpra.ie

Where is QIV available?

The influenza vaccine is available either from a GP or pharmacist.

This season, the vaccine and consultation are free for all people who are recommended to get the influenza vaccine, regardless of whether they have a medical card or doctor only card or not. The relevant occupational health department may also provide the vaccine to healthcare workers.

Pneumococcal Polysaccharide Vaccine

Which pneumococcal vaccines are recommended in Ireland?

Two vaccines are recommended to prevent pneumococcal disease:

Pneumococcal conjugate vaccine (PCV13)

This vaccine is included in the routine childhood immunisation schedule.

The National Immunisation Advisory Committee also recommends PCV13 for some at-risk groups.

See Immunisation Guidelines for Ireland.

https://www.hse.ie/eng/health/immunisation/hcpinfo/guidelines/chapter16.pdf

Pneumococcal polysaccharide vaccine (PPV23)

This vaccine contains purified polysaccharide from 23 of the most common capsular types of streptococcus pneumoniae. This vaccine is recommended for those aged 65 years and older and at risk adults and children over 2 years of age.

PPV23 is not recommended for children under 2 years of age due to an inadequate antibody response in young children.

Who should be vaccinated with PPV23?

- Everybody aged 65 years and over.
- Those aged over 2 years who have any of the following:
  - Asplenia or splenic dysfunction.
    (splenectomy, sickle cell disease, haemoglobinopathies, coeliac disease).
  - Cancer patients.
  - Candidates for, or recipients of, a cochlear implant.
  - Children <5 years with a history of invasive pneumococcal disease, irrespective of vaccine history.
  - Chronic heart, respiratory or liver disease.
  - Chronic renal disease or nephrotic syndrome.
  - Complement deficiency (especially C1-C4).
  - CSF leaks either congenital or complicating skull fracture or neurosurgery, intracranial shunts.
  - Diabetes mellitus.
  - Down syndrome.
  - Immunosuppression conditions due to disease or treatment (e.g. some B and T-cell disorders, HIV infection, leukaemia, lymphoma, Hodgkin's disease) and those receiving immunosuppressive therapies or corticosteroids.
  - Intracranial shunt.
  - Haematopoietic stem cell transplant, solid organ transplant.

Vaccination is not recommended for healthy young adults, as there is little risk of pneumococcal infection.

Who should not receive PPV23?

PPV23 should NOT be given to those with a history of anaphylaxis to a previous dose of the vaccine or any of its constituents.

Precautions:

Acute severe febrile illness – defer until recovery.

Pregnancy: PPV23 can be given if there is an urgent need for protection.

Are there any side effects from vaccination?

The most commonly reported adverse reactions are localised redness and swelling at the injection site (>10%).

Further information is available from the Summary of Product Characteristics www.hpra.ie

How often is vaccination with PPV23 required?

Revaccination is not normally required. Revaccination with PPV23 can produce severe local reactions especially if given within 5 years of previous injection.

Aged 65 and older

Those aged 65 years and older who have never previously received PPV23 require one dose only. No further doses are required regardless of immune status. For those who received a previous dose of PPV23 at less than 65 years of age, a once only booster vaccine is recommended 5 years after the first vaccine.

Less than 65 years of age

One booster vaccine is recommended 5 years after the first PPV23 vaccine for those whose antibody levels are likely to decline rapidly e.g. asplenia, hyposplenism, immunosuppression including HIV infection, chronic renal disease, nephrotic syndrome or renal transplant.
If PPV23 was given during chemotherapy or radiotherapy a further dose of PPV23 vaccine is recommended 3 months after treatment.

When is a 3rd dose of PPV23 required?

Adults whose antibodies are likely to decline rapidly should receive two doses of PPV23 while aged less than 65.

They will need a third dose of PPV23 when they turn 65 provided at least five years have passed since their last dose of PPV23.

Can PPV23 vaccine be given at the same time as influenza vaccine?

Yes. PPV23 may be given at the same time as influenza vaccine but at a different site. As there is considerable overlap in the target groups for both vaccines, it is appropriate to offer the PPV23 to patients (if indicated) when they attend for their influenza vaccine.

No interval is required if both vaccines are not given on the same day.

Where to look for further information

Further information regarding seasonal influenza vaccines and pneumococcal vaccines can be found on the following websites;

National Immunisation Office
PPV23 vaccine information www.immunisation.ie

Immunisation Guidelines for Ireland
http://bit.ly/NIACGuideline

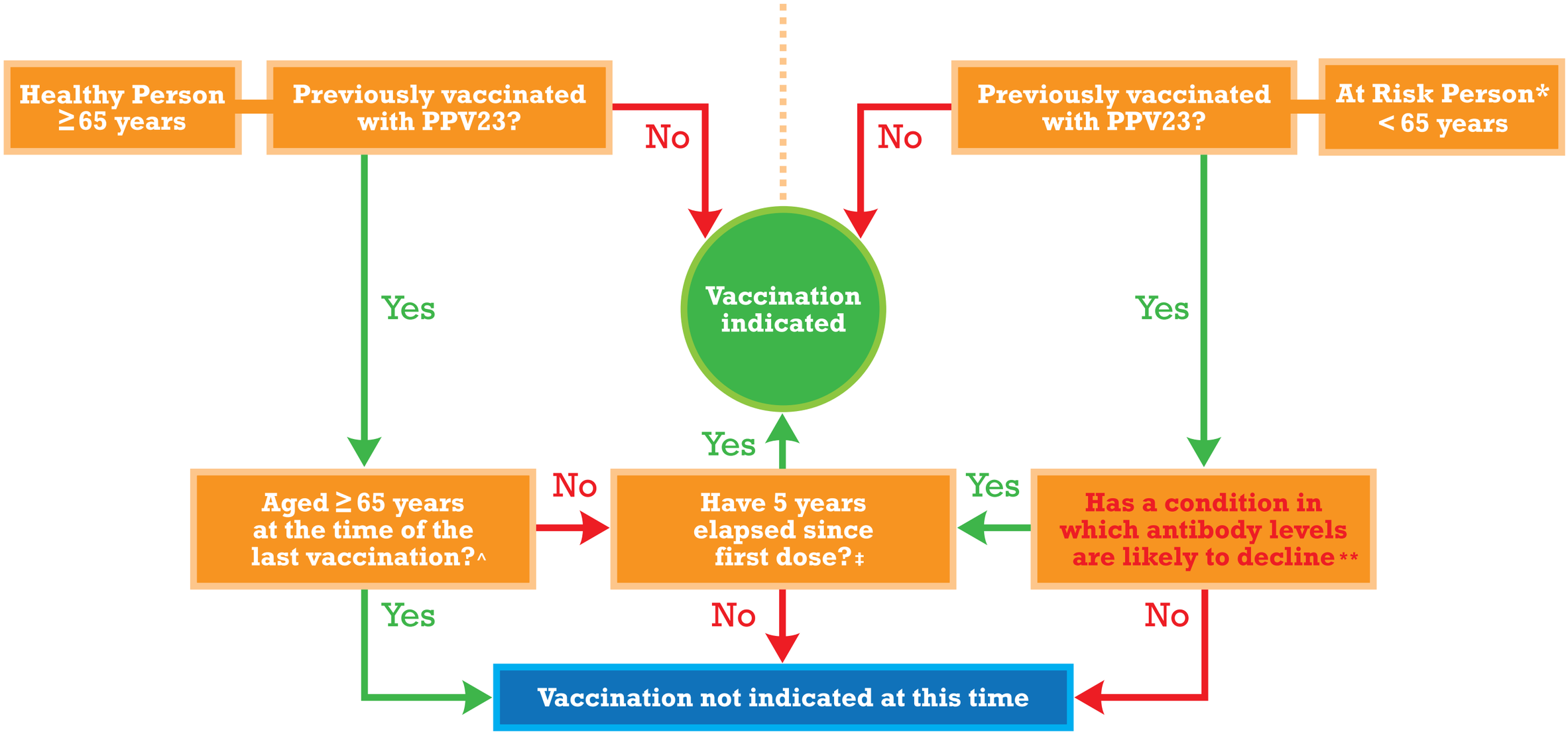
Health Protection Surveillance Centre
www.hpsc.ie

Health Products Regulatory Authority
www.hpra.ie

Be Winter Ready
www.winterready.ie

Visit https://www.hpra.ie/homepage/medicines/medicines-information/vaccines to read the licensed information about influenza or PPV23 vaccines.

Pneumococcal Polysaccharide Vaccine (PPV23)
Algorithm for Vaccination



* Asplenia or splenic dysfunction (splenectomy, sickle cell disease, coeliac syndrome);chronic renal, heart, lung, liver disease, diabetes mellitus, complement deficiency, immunosuppressive conditions; CSF leak, cochlear implant recipients or candidates for implants; children < 5 years with history of invasive disease.
^ Revaccination not indicated for any person who has received a dose of PPV 23 at age ≥ 65 years.
‡ If vaccination has been given during chemotherapy or radiotherapy revaccination 3 months after treatment is indicated.
** Those with no spleen, with splenic dysfunction, immunosuppression including HIV infection, nephrotic syndrome, renal transplant or chronic renal disease.

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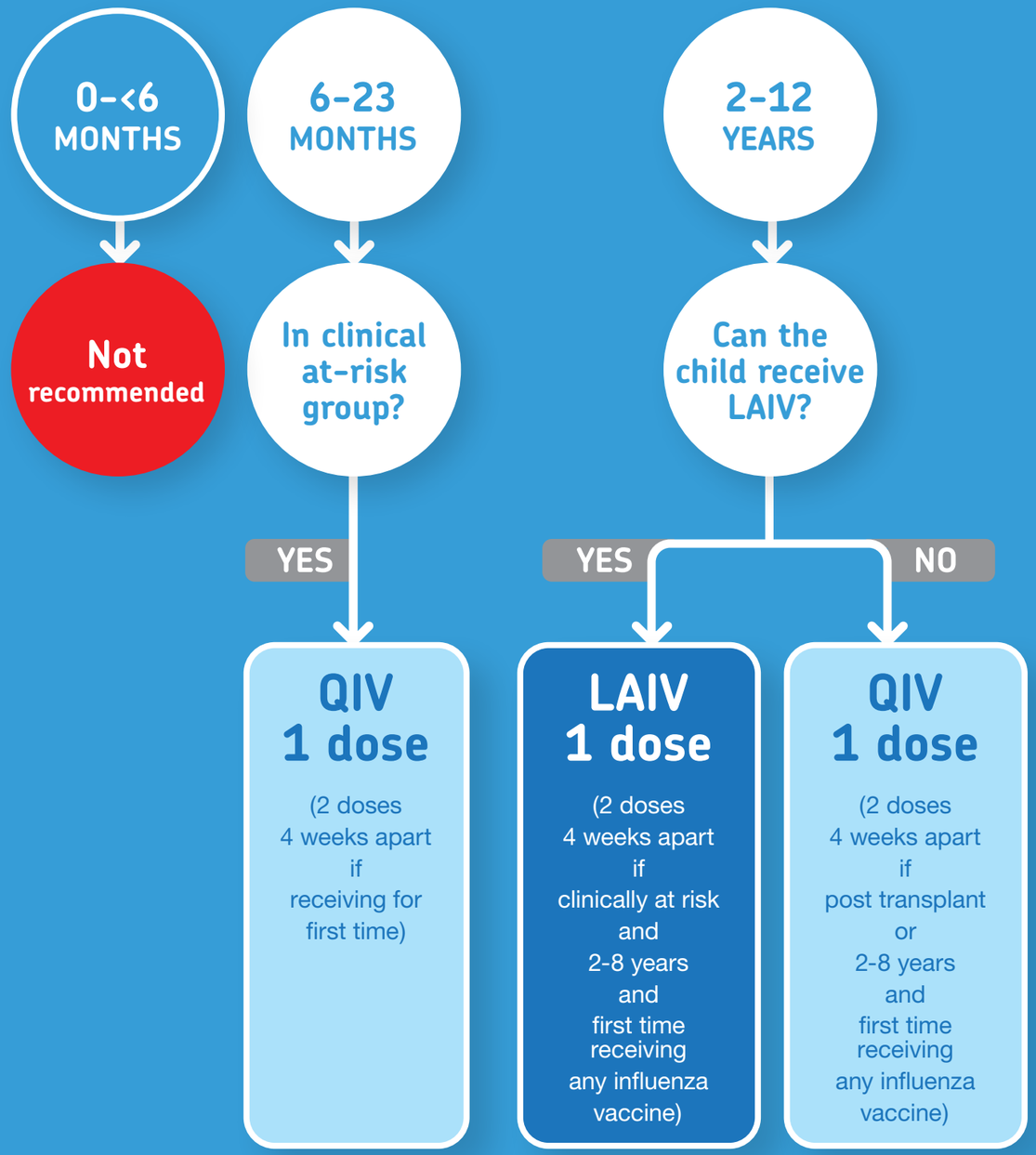
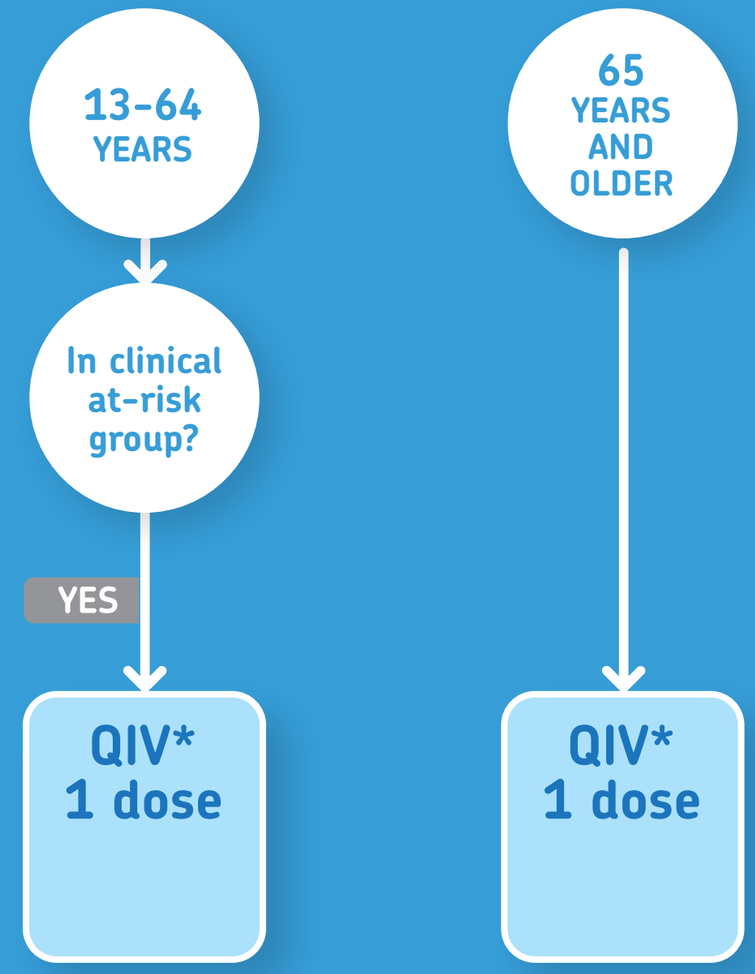


QIV: Quadrivalent influenza vaccine (split virion, inactivated)
LAIV: Live attenuated influenza vaccine. Fluenz Tetra



*2 doses 4 weeks apart

- If receiving vaccine for the first time post haematopoeitic stem cell or solid organ transplant
- For cancer patients vaccinated while on chemotherapy and who complete treatment in the same season (regardless of previous influenza vaccination)

Seasonal influenza vaccination programme 2020/21

Quadrivalent live attenuated influenza vaccine (LAIV) and Quadrivalent inactivated influenza vaccine (QIV)

	LAIV	QIV
Name	Fluenz Tetra (egg based)	Quadrivalent Influenza Vaccine (split virion, inactivated) (egg based)
Manufacturer	Astra Zeneca	Sanofi Pasteur

Who	2 to 12 years (at the time of vaccination)	• In a risk group
		  - 6 months to less than 2 years
		  - 13 to 64 years
		• 65 and older
		• 2 to 12 years if LAIV is contraindicated

What	• 1 dose (healthy children)
	• 2 doses if
	  - in a risk group
	  - and 2 to 8 years
	  - and never had any influenza vaccine before
		• 1 dose
		• 2 doses if
		  - post HSCT or solid organ transplant
		  - or 2 to 8 years
		  - and never had any influenza vaccine before

How	**Intranasal**	**Intramuscular**
Contra-indications	• Anaphylaxis following a previous dose of influenza vaccine or any of its constituents (except ovalbumin) • Severe neutropoenia (absolute neutrophil count less than 0.5 x 10^9/L) • On combination checkpoint inhibitors (e.g. ipilumumab plus nivolumab)	
	• Asthma - acute exacerbation of symptoms, increased wheezing and/or additional bronchodilator treatment in the last 72 hours	

	LAIV	QIV
Contra-indications	• Seek specialist advice if on regular oral steroids or previous critical care admission • Concomitant use of aspirin/ salicylates • Influenza antiviral medication in the previous 48 hours • Pregnancy • Significant immunosuppression due to disease or treatment • Children who live with severely immunosuppressed persons requiring isolation (e.g. post HSCT)	
Precautions	Acute severe febrile illness, defer until recovery	
	• Children who required critical care admission for a previous severe egg anaphylaxis should be given LAIV in hospital • No aspirin/salicylates for 4 weeks after vaccine due to risk of Reye's syndrome • Avoid antiviral medication for 2 weeks after vaccine	• Seek specialist assessment for those who required critical care admission for a previous severe egg anaphylaxis • Separate QIV from PCV vaccine by at least 1 week for children aged 12-23 months
Adverse reactions	*Very common or common:* Nasal congestion/rhinorrhoea, decreased appetite, malaise, fever, headache and myalgia. (Fever rates similar to those after other childhood vaccines; generally mild and of short duration)	*Very common:* Injection site pain and swelling fever, fatigue, myalgia, and irritability in young children. *Common:* Drowsiness, sweating and arthralgia
	Very rare: Immediate allergic reactions. Guillain-Barré syndrome (risk of GBS following infection is much greater than that post vaccination)	

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