



Public Health  
England



# Who can be vaccinated safely?

Understanding contraindications and precautions to  
vaccines

2017



# Learning objectives

- Explain general contraindications and precautions to vaccines
- Identify where to locate vaccine specific contraindications and precautions
- Relates contraindications and precautions to the type of vaccine being used
- Describe false contraindications (those perceived to be real)



# On your tables

You have 1 minute to define these two terms

**Contraindication**

**Precaution**



## Contraindication

**MUST NOT** be given

However:

- the condition/treatment causing the contraindication could be temporary.
- Vaccination may be possible in the future

## Precaution

**MAY** be given

Dependant on:

- Risk/benefit assessment
- May require specialist advice/referral



# Precaution for all vaccines

- If an individual is acutely unwell, immunisation may be postponed until they have fully recovered. This is to avoid wrongly attributing any new symptom or the progression of symptoms to the vaccine.
- Minor illnesses without fever or systemic upset are not valid reasons to postpone immunisation.



# Vaccine specific precautions

Listed per vaccine in the Online Green Book chapters

May include:

- Pregnancy
- Breastfeeding
- Medical condition
- Prematurity
- HIV/immunosuppression
- Unstable neurological conditions
- Egg allergy



## E.g. MMR vaccine

- Idiopathic thrombocytopenia purpura (ITP)
- Allergy to egg
- Premature infants
- Immunosuppression and HIV
- Neurological conditions



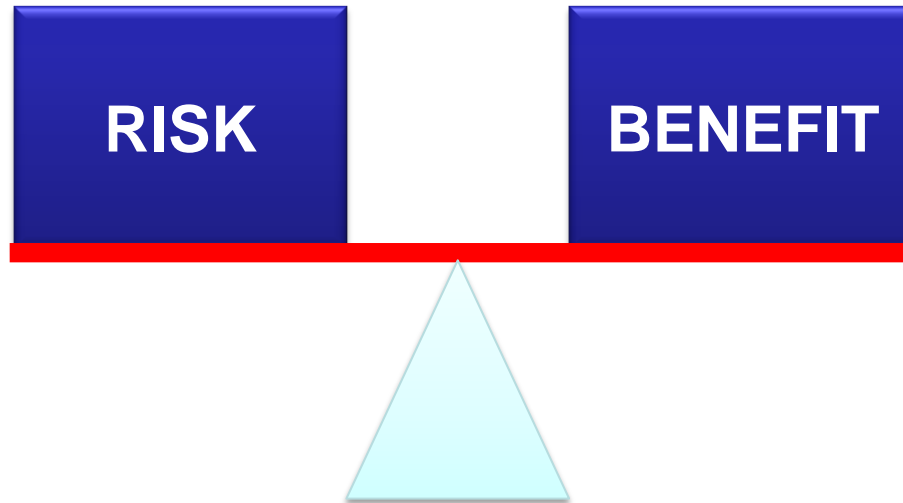
## Example: MMR vaccine

- Idiopathic thrombocytopenia purpura (ITP): reassures safety of vaccinating and action to take if occurs within 6 weeks of vaccination
- Allergy to egg: reassures safe to vaccinate, provides evidence to support this
- Premature infants: vaccinate at chronological age
- Immunosuppression and HIV: should not be given to immunosuppressed patients but some specific guidance for HIV positive patients
- Neurological conditions: advice on who not to vaccinate but reassurance on family members with epilepsy





# Precautions: decision making



VACCSline



**A short film**

# **Deciding whether to give the whooping cough vaccine**

**Link:**

**<http://vk.ovg.ox.ac.uk/stories>**



# Contraindications for all vaccines

**All vaccines are contraindicated in those who have had:**

- a confirmed anaphylactic reaction to a previous dose of a vaccine containing the same antigens, or
- a confirmed anaphylactic reaction to another component contained in the relevant vaccine, e.g. neomycin, streptomycin or polymyxin B (which may be present in trace amounts in some vaccines).



# NOT contraindications

- family history of any adverse reactions following immunisation
- previous history of the disease (except past exposure to TB)
- contact with an infectious disease
- premature birth
- stable neurological conditions, e.g. cerebral palsy, Down's syndrome
- asthma, eczema or hay fever
- mild self-limiting illness without fever, e.g. runny nose
- treatment with antibiotics or topical or inhaled steroids
- child's mother or someone in the household being pregnant
- currently breast-feeding or being breast-fed
- history of jaundice after birth
- under a certain weight etc.



# Vaccine specific contraindications

- Egg Allergy
- Latex Allergy
- Live vaccines & immunosuppression
- Non injectable live vaccines



# Egg Allergy

- Individuals with a confirmed anaphylactic reaction to egg should not receive yellow fever vaccine or Epaxal (hep A)
- All children with egg allergy should receive the MMR vaccination as a routine procedure in primary care



# Egg allergy and injectable inactivated flu vaccines

- severe anaphylaxis to egg which has previously required intensive care = refer to specialists for immunisation in hospital

Other individuals with egg allergy CAN have:

- Egg-free inactivated vaccine
- Vaccine with a very low ovalbumin content ( $<0.12 \mu\text{g/ml}$  - equivalent to  $<0.06 \mu\text{g}$  for a 0.5 ml dose)

Ovalbumin content published annually, for 2016/17 vaccines:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/535573/Vaccine-update-248-June-2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/535573/Vaccine-update-248-June-2016.pdf)



### Influenza vaccines for the 2016/17 influenza season



Supplier	Name of product	Vaccine Type	Age Indications	Ovalbumin content µg/ml (µg/dose)	Contact details
AstraZeneca UK Ltd	Fluenz Tetra ▼	Live attenuated, nasal	From 24 months to less than 18 years of age	≤1.2 (≤0.24/0.2ml dose)	Fluenz Tetra® for use in the national children flu programme should be ordered through ImmForm** Otherwise: 0845 139 0000
GSK	Fluarix™ Tetra ▼	Split virion inactivated virus	From 3 years	≤0.1 (≤0.05/0.5ml dose)	0800 221 441
MASTA	Imuvac®	Surface antigen, inactivated virus	From 6 months	0.2 (0.1/0.5ml dose)	0800 358 7468
	Inactivated Influenza Vaccine (Split Virion) BP	Split virion, inactivated virus	From 6 months	≤0.1 (≤0.05/0.5ml dose)	
Mylan (BGP Products)	Influvac®	Surface antigen, inactivated virus	From 6 months	0.2 (0.1/0.5ml dose)	0800 358 7468
	Imuvac®	Surface antigen, inactivated virus	From 6 months	0.2 (0.1/0.5ml dose)	
	Influenza vaccine, surface antigen, inactivated	Surface antigen, inactivated virus	From 6 months	0.2 (0.1/0.5ml dose)	
Pfizer Vaccines	CSL Inactivated Influenza Vaccine	Split virion, inactivated virus	From 5 years	≤2 (≤1/0.5ml dose)	0800 089 4033
	Enzira®	Split virion inactivated virus	From 5 years	≤2 (≤1/0.5ml dose)	
Sanofi Pasteur MSD	Inactivated Influenza Vaccine (Split Virion) BP	Split virion, inactivated virus	From 6 months	≤0.1 (≤0.05/0.5ml dose)	0800 085 5511
	Intanza® 15 micrograms	Split virion, inactivated virus	60 years of age and over	≤0.24 (≤0.024/0.1ml dose)	
Seqirus Vaccines Ltd, formerly Novartis Vaccines	Agrippal®	Surface antigen, inactivated virus	From 6 months	≤0.4 (≤0.2/0.5ml dose)	08457 451 500

\*\* In England, this vaccine should be ordered online via the ImmForm website: [portal.immform.dh.gov.uk](http://portal.immform.dh.gov.uk)

Note, the ovalbumin content is provided in units of µg/ml and µg/dose.

None of the influenza vaccines for the 2016/17 season contain thiomersal as an added preservative.





# Egg allergy and Live Attenuated Influenza Vaccine (LAIV)

- Severe anaphylaxis to egg requiring intensive care = refer to specialist in hospital
- All other egg allergic children can be vaccinated in primary care/school.



# LAIV and asthma

- Egg-allergic children with asthma can receive LAIV if their asthma is well controlled
- **Defer** in children with a history of active wheezing in the past 72 hours/increased their use of bronchodilators in the previous 72 hours. **If their condition has not improved after a further 72 hours then, to avoid delaying protection in this high risk group, these children should be offered an inactivated influenza vaccine.**

## **LAIV not recommended for children and adolescents:**

- with severe asthma or active wheezing, for example those who are currently taking oral steroids or who have been prescribed oral steroids in the last 14 days for respiratory disease.
- high dose of an inhaled steroid – Budesonide >800 mcg/day or equivalent (e.g. Fluticasone >500 mcgs/day) – refer to specialist. **As these children are a defined risk group for influenza, those who cannot receive LAIV should receive an inactivated influenza vaccine.**



# Latex

If an individual has a history of severe (i.e. anaphylactic) allergy to latex, vaccines supplied in vials or syringes that contain latex should not be administered, unless the benefit of vaccination outweighs the risk of an allergic reaction to the vaccine.

If possible, an alternative latex-free vaccine should be administered.

For latex allergies other than anaphylactic allergies (e.g. a history of contact allergy to latex gloves), vaccines supplied in vials or syringes that contain latex can be administered.




Browser address bar: <https://www.medicines.org.uk/emc/medicine/19016>

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### Company contact details



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+44 (0)1628 635 072

**Before you contact this company:** often several companies will market medicines with the same active ingredient. Please check that this is the correct company before contacting them. [Why?](#)

### Active ingredients



HELP & FEEDBACK



# On your tables

A patient states they are allergic to latex and don't think they can have the vaccine you are recommending.

What history do you need to take before advising further?



# Pregnancy

PHE follow up women vaccinated with:

- MMR
- Varicella
- HPV (*lack of data rather than suspected risk of harm*)

If given, must be reported to PHE

- Advice also about shingles vaccine given in pregnancy

More info (including leaflets) at:

<https://www.gov.uk/vaccination-in-pregnancy-vip>

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# Immunosuppression & live vaccines

Live vaccines can, in some situations, cause severe or fatal infections in immunosuppressed individuals due to extensive replication of the vaccine strain.

Vaccine specific information must be accessed

Chapter 6 of the Online Green Book has full details which are summarised on next slide:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/147824/Green-Book-Chapter-6-v2\\_0.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/147824/Green-Book-Chapter-6-v2_0.pdf)

**VACCSline**



# Immunosuppression & live vaccines

- patients with evidence of severe primary immunodeficiency
- patients currently being treated for malignant disease with immunosuppressive chemotherapy or radiotherapy, or who have terminated such treatment within at least the last six months
- patients who have received a solid organ transplant and are currently on immunosuppressive treatment
- patients who have received a bone marrow transplant, until at least 12 months after finishing all immunosuppressive treatment, or longer where the patient has developed graft-versus-host disease
- patients receiving systemic high-dose steroids, until at least three months after treatment has stopped.
- patients receiving other types of immunosuppressive drugs, until at least six months after terminating such treatment.
- immunosuppression due to human immunodeficiency virus (HIV) infection





# Shingles (zoster) vaccine

More detailed guidance on administration to patients on immunosuppressive medications due to age group being vaccinated (over 70)





# Non injectable live vaccines

- Precautions around onward transmission of live virus
- [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/474438/PHE factsheet for HCW and headteachers on LAIV - concerns about viral shedding.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/474438/PHE_factsheet_for_HCW_and_headteachers_on_LAIV_-_concerns_about_viral_shedding.pdf)



## Key message

- The Online Green Book sets out the contraindications & precautions for every vaccine
- Know what type of vaccine you are using and identify CI and precautions
- Access chapter 6,7 & 8 of the Online Green Book to familiarise with information