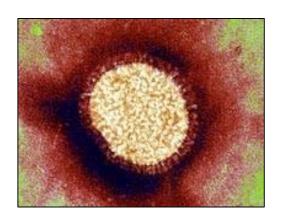


Dr George Kassianos

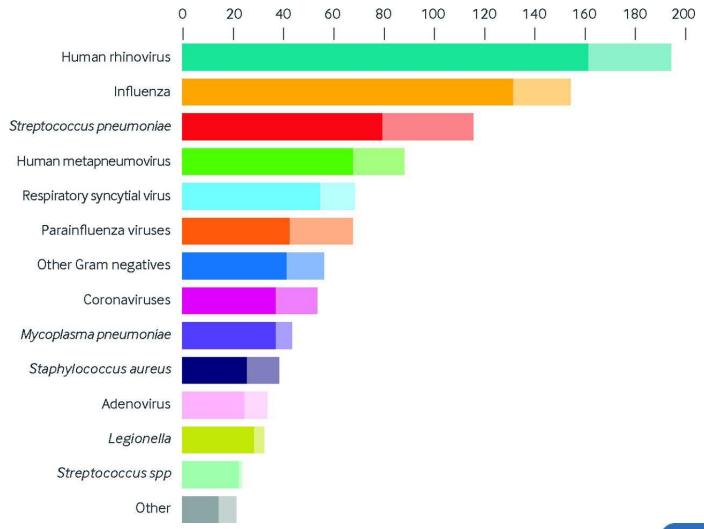
General Practitioner (GP), England, UK
President British Global & Travel Health Association
Chairman RAISE Pan-European Committee on Influenza
National Immunisation Lead – Royal College of General Practitioners

The burden of circulating Influenza in England



- ~10% of all Respiratory Hospital admissions and deaths can be attributed to circulating influenza
- The highest admission rates are for both influenza A & B strains attributed to children under 5 years of age
- The highest influenza-attributed death rates
 are seen in the group of elderly patients with chronic diseases

Fig 3 Pathogens detected in patients with radiographic community acquired pneumonia from the Centers for Disease Control EPIC study.



Richard G Wunderink, and Grant Waterer BMJ 2017;358:bmj.j2471





England: Major causes of death - 2015



	Males		Females (% of all female deaths)		
	(% of all male deaths)				
1	Heart disease		Dementia and Alzheimer's		
		14.2%	disease	15.3%	
2	Dementia and Alzheimer's		Heart disease		
	disease	8.0%		8.8%	
3	Lung cancer		Stroke		
		6.5%		7.5%	
4	Chronic lower respiratory		Influenza and pneumonia		
	diseases	6.2%		6.0%	
5	Stroke		Chronic lower respiratory		
		5.6%	diseases	6.0%	
6	Influenza and pneumonia		Lung cancer		
		5.1%		5.1%	
7	Prostate cancer		Breast cancer		
		4.2%		3.7%	
8	Colorectal cancer		Colorectal cancer		
		3.0%		2.4%	
9	Leukaemia and lymphomas		Kidney disease and other		
		2.6%	diseases of the urinary system	1.9%	
10	Cirrhosis and other liver		Leukaemia and lymphomas		
	disease	1.9%		1.9%	

https://www.gov.uk/government/publications/health-profile-for-england/chapter-2-major-causes-of-death-and-how-they-have-changed Issued: July 2017

Influenza

A highly infectious illness which spreads rapidly in closed communities

• Even people with mild or no symptoms can infect others

NICE: Vaccination is the most effective way of preventing illness from influenza

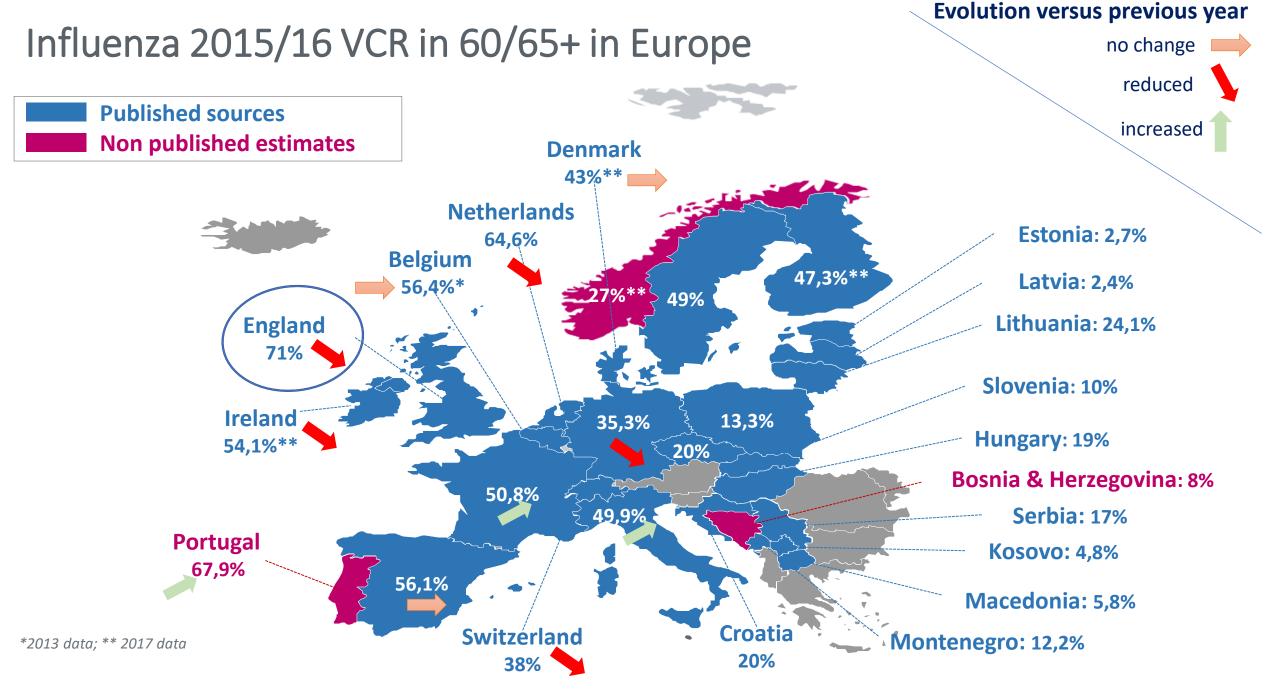
Antiviral drugs are not a substitute

for vaccination



NICE. Oseltamivir, amantadine and zanamivir for the prophylaxis of influenza (including a review of existing Guidance no.67).

http://guidance.nice.org.uk/page.aspx?o=440453



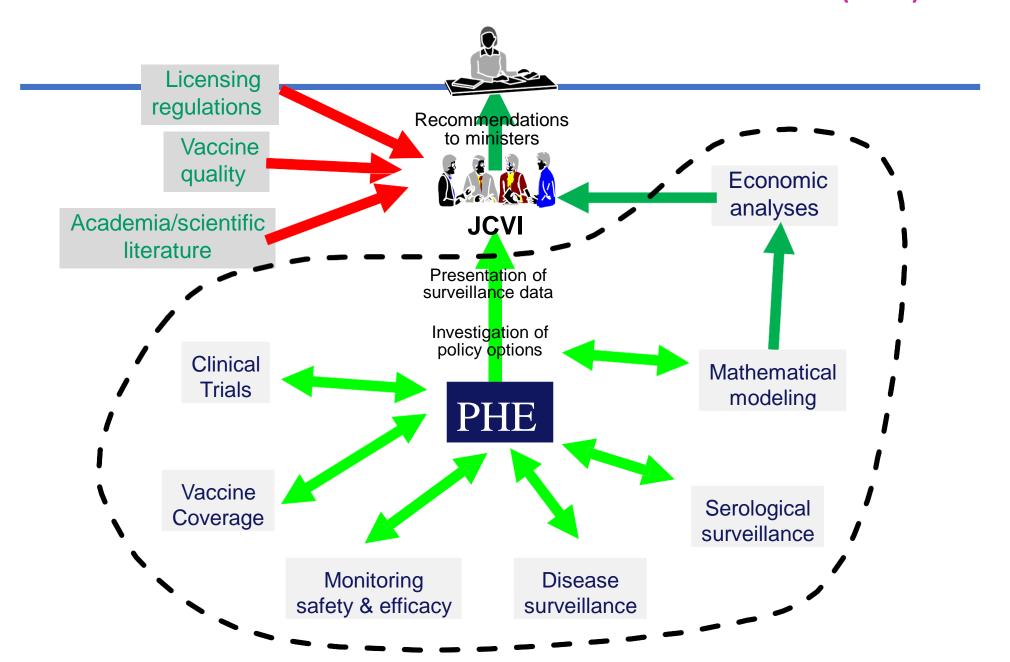
Outline

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The Joint Committee on Vaccinations & Immunisations (JCVI)

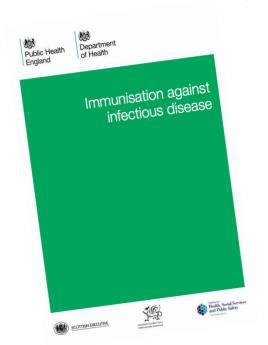


Outline

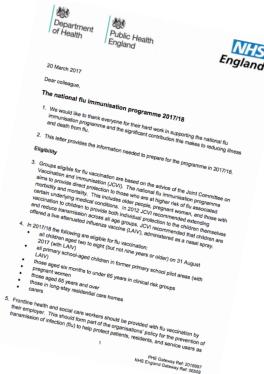
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The Government Department of Health (DH)

- Carries out JCVI Recommendation Considers JCVI Advice
- Updates regularly The Green Book according to advice it receives from the JCVI
- Publishes e-Letters to HCPs from the Chief Medical Officer
- Publishes regular surveillance data







Department of Health.

- Publishes the Annual Flu Plan
- Publishes regularly Vaccine Update
- Annual Contract for GPs





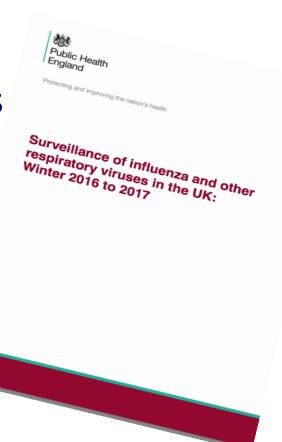


https://www.gov.uk/search?q=Vaccine+Update

https://https://www.gov.uk/government/publications/flu-plan-winter-2016-to-2017 https://www.gov.uk/government/publications/national-flu-immunisation-programme-plan www.england.nhs.uk/wp-content/uploads/2017/03/sfl-pneumococcal-2017-18-service-specification.pdf

Department of Health

- Funds research through Public Health England (PHE)
- Funds the influenza vaccines free for all in the 'at risk'
- PHE publishes practical & helpful information¹:
 - Videos, slide presentations, eLearning for HCPs
 - Posters, Leaflets
 - Letters of invitation to populate & send to patients
 - Letters to Head teachers, Parents
 - Information on vaccines characteristics
 & Disease Surveillance





Departments Worldwide How government works Get involved Policies Publications Consultations Statistics Announcements

2017 to 2018 flu season

Flu vaccination: invitation letter template for children aged 2 and 3 years

12 July 2017 Guidance

Flu vaccination: invitation letter template for at risk patients and their carers

12 July 2017 Guidance

Flu vaccination: easy read invitation letter template

12 July 2017 Guidance

Flu vaccines for children

15 June 2017 Guidance

Flu vaccination: who should have it this winter and why

12 June 2017 Guidance

Flu vaccination in schools

11 May 2017 Guidance

Flu vaccination: leaflets and posters

11 May 2017 Promotional material

Flu vaccination: easy read childhood nasal flu leaflet

19 September 2016 Guidance

Flu vaccination: easy read flu leaflet

22 June 2016 Guidance

National flu immunisation programme plan

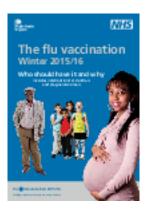
20 March 2017 Guidance

https://www.gov.uk/government/collections/annual-flu-programme#2017-to-2018-flu-season

NHS All about flu and how to stop getting it EasyRead version for people with learning disabilities

Leaflets and letters for patients¹



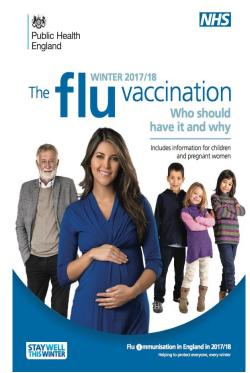








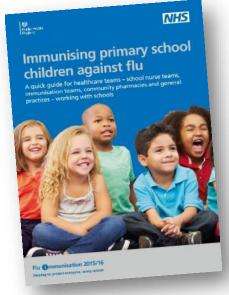






https://www.gov.uk/government/collections/annual-flu-programme
https://www.gov.uk/government/publications/flu-vaccination-leaflet-for-pregnant-women

Leaflets and letters for patients, teachers and parents¹⁻⁵



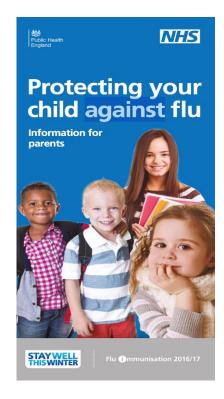






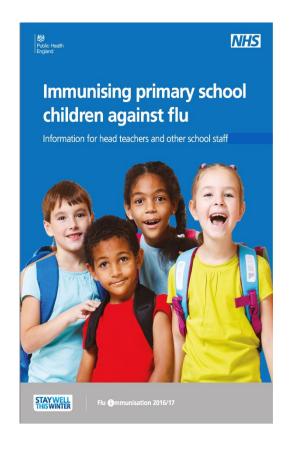


The School Programme



[Provider letterhead plus NHS logo] TEMPLATE LETTER FOR SCHOOL-AGED
CHILDREN
[Date]
Dear Parent/Guardian,
Your child's annual flu vaccination is now due
This vaccination programme is in place to help protect your child against flu. Flu oa be an unpleasant illness and sometimes causes serious complications. Vaccinatin your child will also help protect more vulnerable friends and family by preventing th spread of flu.
Please complete the enclosed consent form (one for each child) and return to the school [by/ within] [INSERT DATE or TIME FRAME] to ensure your child receive their vaccination.
The vaccination is free and recommended for young children, and will be given by quick and simple spray up the nose.
A leaflet explaining the vaccination programme is enclosed and includes detail about the small number of children for whom the nasal vaccine is not appropriate.
Last year, most children offered the vaccine in schools had the immunisation.
If you have any queries please contact the healthcare team on [INSERT NUMBER].
Yours sincerely,
[Signed by Provider]
If your child becomes wheezy or has their asthma medication increased afte you return this form, please contact the healthcare team on [phone number].
If you decide you do not want to vaccinate your child against flu, please return the consent form giving the reason. This will help us plan and improve the service.
For further information see: www.nbs.uk/child-flu

immunisation cons	sent f	orm		N	HS
int detalls					
me:		First name:			
of birth:	Gender:	Girl 🗌 Boy 🗌	School and clas	5:	
number (If known):	Home tel	ephone:	1		
address:			GP name and a		
			GP name and a	acress:	
	Parent/gu	ardisn mobile:			
Post code:					
our child been diagnosed with asthma?		child already had a stember 2016?	flu veccination	Yes" 🗆	No 🗆
and your child is currently taking d steroids (i.e. uses a preventer or	Does your child have a disease or treatment that severely affects their immune system? (e.g. treatment for leuksemia) Yes* No				
ir inhaler), please enter the medication and daily dose (e.g. Budescride icrograms, four putte per day):	is anyone in your family currently having treatmenthat severely affects their immune system? (e.g. they need to be kept in isolation)			Yes*	No 🗆
	Does your child have a severe egg allergy? (needing hospital care)			Yes. 🗆	No 🗆
, and your child has taken steroid s because of their asthms in the past seks please enter the name, dose	Is your child receiving salicylate therapy? s.e. aspirin)		Yes*	No 🗆	
ngth of course:	*If you an	swered Yes to any	of the above, plea	se give detail	s:
e let the immunisation team know child has to increase his or her a medication after you have rearmed know if your child has been wheezy in the pu					
ne nasal flu vaccine contains products deriver de for otherwise healthy children. More inform					ine
ent for Immunisation (please tick YES					
ES, I consent for my child to ceive the flu immunisation.		□ NO, I DO NO	Coansent to my ch	niid receiving	the flu
please give reason(s) below:					
ture of parent/guardian parental responsibility):				Date DD/M	млүү



NHS

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CLEARLY DEFINED GROUPS TO BE VACCINATED

Influenza Vaccination

- All children aged 2, 3 (GPs) & 4 to 8 years (schools)
- All patients aged ≥ 65 y
- All pregnant women
 - at any stage of pregnancy
- Groups at risk
 - age 6 m to 64 y
- Children in former primary school pilot areas

- In long-stay Residential Homes (not prisons, young offenders institutions, university halls)
- Carers (on carer's allowance, main carer of elderly, child or disabled)
- Health & Social Care

 Staff (in direct contact with patients –
 Employers finance vaccination)
- Locum GPs (own GP)
- Any other → at GP's discretion

Influenza Vaccination

Groups at risk aged 6m to 64 y

- Chr. Respiratory
 Disease (Asthma requiring
 frequently inhaled/oral steroids,
 COPD, Interstitial lung dis, cystic
 fibrosis, Pneumocon.,
 bronchopulmonary dysplasia,
 children previously admitted with
 LRT disease)
- Chr. Heart Disease (congenital, HF, CHD, HTN with cardiac complications)
- Chr. Liver Disease (fatty liver, cirrhosis, biliary atresia, chronic hepatitis)
- Morbidly Obese BMI ≥40

- Chr. Kidney Dis. (stage 3,4,5, nephrotic syndrome, transplant)
- Chr. Neurological Dis. (stroke, TIA, Polio, MS, cerebral palsy, learning dis., Parkinson's, motor neurone disease)
- Diabetes
- Asplenia, Splenic Dysfunction (homozygous sickle cell dis., coeliac dis. that may lead to hyposplenism)
- Immunosuppression active disease or treatment, oral prednisolone ≥20mg for >1m Child <20kg => ≥1mg per kg b.w. per day)

Promotion of Vaccine Uptake

- Speak to Patient Groups
- Speak to Local Newspapers
- ➤ Local Radio













Parliament - Westminster Flu Day: Jane Ellison MP the Public Health Minister





MPs & Lords receive the Flu Vaccine Photograph in their local newspaper

Doctors' duty General UK's Regu to be to be issued February 2010

General Medical Council

UK's Regulating Body for Doctors

Good medical practice

Getting an annual influenza vaccination: a professional responsibility



Good medical practice

27 Whether or not you have vulnerable* adults or children and young people as patients, you should consider their needs and welfare and offer them help if you think their rights have been abused or denied.^{13,14}

Protect patients and colleagues from any risk posed by your health

- 28 If you know or suspect that you have a serious condition that you could pass on to patients, or if your judgement or performance could be affected by a condition or its treatment, you must consult a suitably qualified colleague. You must follow their advice about any changes to your practice they consider necessary. You must not rely on your own assessment of the risk to patients
- 29 You should be immunised against common serious communicable diseases (unless otherwise contraindicated).
- **30** You should be registered with a general practitioner outside your family.

Some patients are likely to be more vulnerable than others because of their illness, disability or frailty or because of their current circumstances, such as bereavement or redundancy. You should treat children and young people under 18 years as vulnerable

Other HCPs

• Nurses, Midwives & Health Visitors => NMC Code requires registrants to "take all reasonable personal precautions necessary to avoid any potential health risks to colleagues, people receiving care and the public"¹



 Others such as Physiotherapists, Radiographers, Paramedics registered with the Health & Care Professionals Council: "You must take all reasonable steps to reduce the risk of harm to service users, carers and colleagues as far as possible"2

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Flu Vaccines provided by the Department of Health for the defined groups of patients at risk

 Children's intranasal influenza vaccine supplied to GPs and Schools centrally by the Government

- GPs purchase flu vaccine from manufacturers
 - vaccine list price cost reimbursed to GPs by the Government
 - obtained discount (20% 40%) from manufacturers → GPs' profit
 - GPs maintain vaccine cold chain

Pharmacists dispense flu vaccine and make a profit

At-risk Patients

If the Government thinks it is important and provides the flu vaccine free

then

it must be worth having it

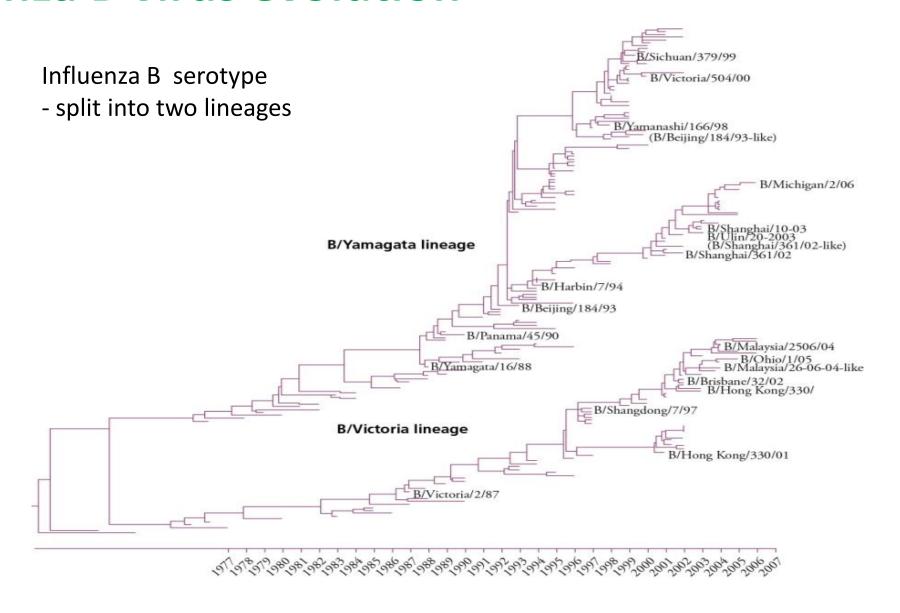
All influenza vaccines are available to GPs

- Quadrivalent Live Attenuated Influenza Vaccine
 - intranasal LAIV (2 to 17 years)

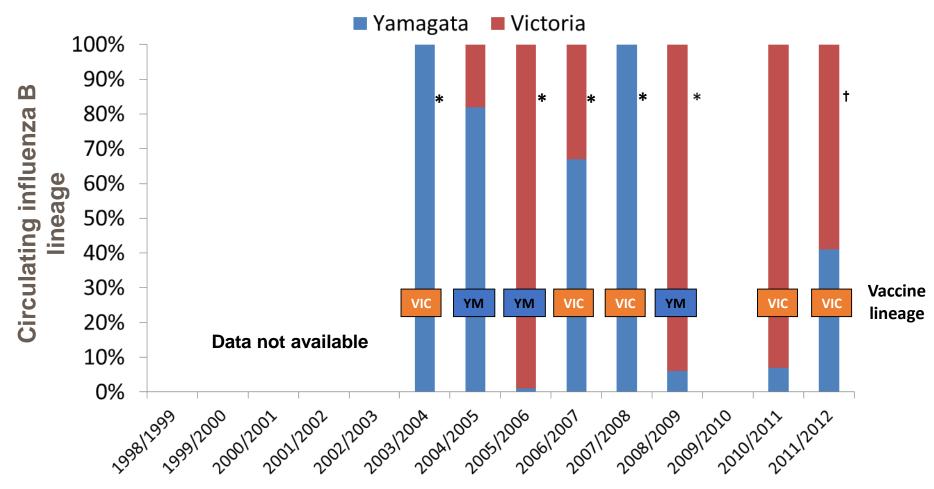
 Trivalent Influenza Inactivated Vaccine (any age from 6 months)

 Quadrivalent Influenza Inactivated Vaccine (any age from 4 years – >36 months)

Influenza B virus evolution



Vaccine mismatch in the UK



*Vaccine mismatch (>60% mismatch); †Partial vaccine mismatch (<80% matched) Limited seasonal influenza circulation in 2009–10 during the H1N1 pandemic

VIC, Victoria lineage; YM, Yamagata lineage

Influenza vaccine recommendation

Trivalent influenza vaccine

- an A/Michigan/45/2015 (H1N1)pdm09-like virus
- an A/Hong Kong/4801/2014 (H3N2)-like virus
- a B/Brisbane/60/2008-like virus (Victoria lineage)

Quadrivalent influenza vaccine

- contains the above three viruses
- plus a B/Phuket/3073/2013like virus (Yamagata lineage)



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Who vaccinates free the 'at risk' patients

- Primary Care
 - GP Practices
 - Pharmacists (from 2015)
- School Services
- Hospitals

Paediatricians in the UK

Based mainly in hospitals
→ minimal/no involvement in vaccinating children

Primary Care General Practice



- ➤ A Lead member of staff responsible for the influenza campaign
- ➤ Team to organise & oversee campaign all staff involved regular meetings audit identify target patients
 - > Ensure vaccine supply and cold chain
 - Display advertising influenza vaccination material posters, leaflets, website, waiting room TV screen, consulting rooms
 - Photograph HCPs been vaccinated are displayed in Practice premises, TV screen, Website



GPs' appointments are available Please ask at reception today

FLU FICTION



Dr George Kassianos, Immunisation Lead for RCGP GP at Ringmead Medical Practice

FICTION

The flu jab gives you flu.

FACT

The flu jab cannot give you flu as it doesn't contain any live viruses.

FICTION

A healthy diet and vitamin C will prevent flu.

FACT

Flu is a virus and can affect anyone, no matter how good your immune system is.

FICTION

The vaccine does not work, I still got flu!

FACT

Over the last ten years, the vaccine has provided good coverage against flu and it is still the best way to fight flu this winter.

FICTION

I've never had flu so I'm not likely to get it.

FACT

The flu virus mutates so you need to be vaccinated yearly for protection.

FICTION

The vaccine is not safe.

FACT

The vaccine is well-tested and has an excellent safety record.

FICTION

I'm not in an at-risk group.

FACT

Anyone can get flu and pass it on to vulnerable groups even with no symptoms.

Protect yourself, your family, colleagues and patients - be a flu fighter, get your flu jab.

In the GPs' Room
Consulting

I had my flu vaccine Have You?



If the HCP advocates, supports & promotes flu vaccination, patients do accept the vaccine

GP Practice Interventions to Increase Vaccine Uptake Rates

Flu vaccinations – Autumn / Winter

- ➤ Inform eligible patients call in by Letter or Email
- > by telephone or text message
- ➤ Patients make an *appointment* by phone or online (website) or by visiting the Reception
- ➤ Convenient times/days for vaccination (open days on weekends, evenings)
- > Audit → Act → Re-audit → Act Check Vaccination Rate

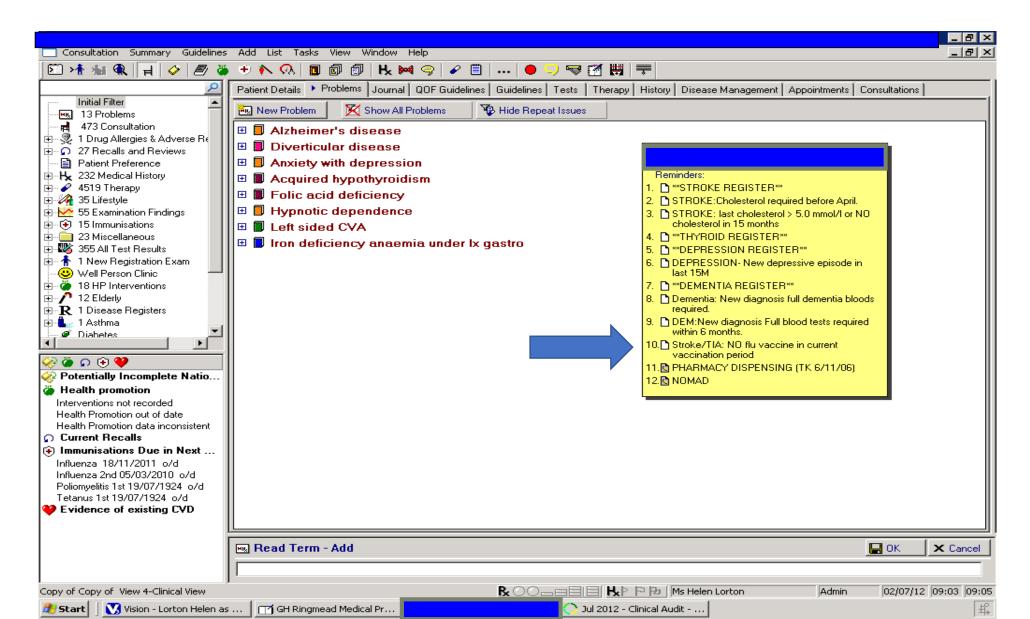
Opportunistic:

- Vaccines on clinicians' desks, renewed every half an hour
- During any nurse or doctor routine consultation
- While they are waiting at the clinic for an appointment
- While attending midwife, cervical cytology, family planning
- While they pick up their prescriptions
- While they bring a relative to the Clinic, Carers

Monthly prize to highest opportunistic vaccinator

House-bound patients

Opportunistic: Prompts => Yellow Flags



Has accurate data National IT system for GPs

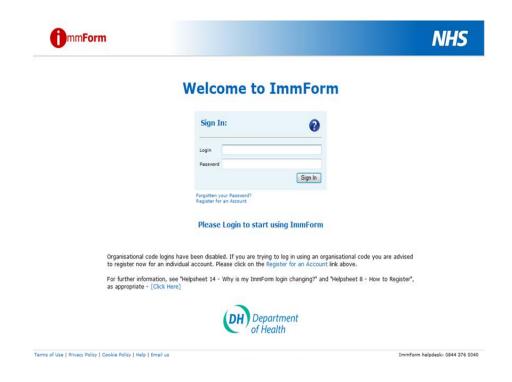




GP Practices' vaccination rates extracted weekly electronically

ImmForm England

- Website established in 2004 to collect data on the uptake of flu vaccine administered by GPs
- Weekly benchmarking comparing individual providers' performance and providing National Data



Ordering of government free vaccines online via ImmForm

In-Hospital vaccination

School Services

 Healthcare Workers employed by the hospital

 Pregnant Mothers attending Ante-Natal Clinics



School Nurses

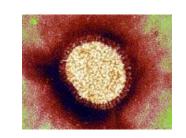


INCENTIVES for Vaccinators

Fee for GPs: £9.80 (€11) per dose

Influenza vaccination -1/9/2017 to 31/3/2018

- Age \geq 65 y on 31 March 2018
- Pregnant women (Maternity Unit too)
- Children aged 2 & 3 y
- Patients in the 'at risk' groups aged 6 m to 64 years
- Locums (own GP)



Additional incentive for GPs:

Quality & Outcomes Framework (QOF)





Indicator	Points	Payment stages
<u>CHD</u> : % of patients with CHD who have a record of flu vaccination in the preceding 1 September – 31 March	7	56-96%
STROKE : % of patients with TIA or STROKE who have had flu vaccination in the preceding 1 September – 31 March	2	55-95%
COPD : % of patients with COPD who have a record of flu vaccination in the preceding 1 September – 31 March	6	57-97%
<u>Diabetes Mellitus</u> : % of patients with DM who have had influenza vaccination in preceding 1 September to 31 March	3	55-95%

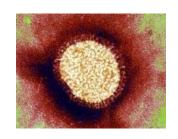




Total 18 points x €190 = €3,420 [for 7,460 patients - England]

Fee for Pharmacists: £9.14 (€10) per dose

<u>Influenza vaccination - September 2017 to March 2018</u>



- Age ≥65 y
- Pregnant women
- Patients 'at risk' aged 18 to <65 years

• Inform patient's GP by close of business on the working day following the vaccination

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England: National Uptake of free influenza vaccine in eligible population



Flu season	≥ 65s	<65 in 'groups at risk'	Pregnant women	HCWs
2014/15	73%	50%	44%	55%
2015/16	75%	48%	51%	51%
2016/17	73%	45%	50%	63%

JCVI June 2015 meeting:

https://app.box.com/s/iddfb4ppwkmtjusir2tc/1/2199012147/33352264435/1 2015-2016

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/526033/Seasonal_flu_GP_patient_groups_annual_report_2015_2016.pdf 2016-2017.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/613493/Surveillance_of_influenza_and_other_respiratory_viruses_in_the_UK_2016_to_2017.pdf

The Ringmead Medical Practice [15,600 patients] 2016-2017



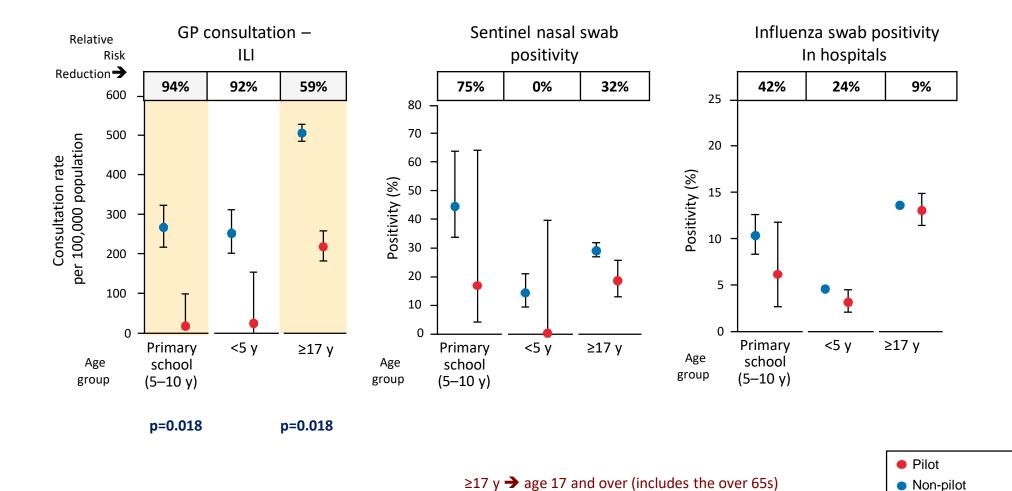
≥ 65s	<65 in 'groups at risk'	Pregnant women	HCWs
76%	64%	58%	94%

CHD	COPD	Diabetes	Stroke
98%	99%	96%	98%

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Impact of the programme: season 2014–2015 Reduction in surveillance indictors in <u>primary school</u> <u>pilot</u> areas compared with non-pilot areas

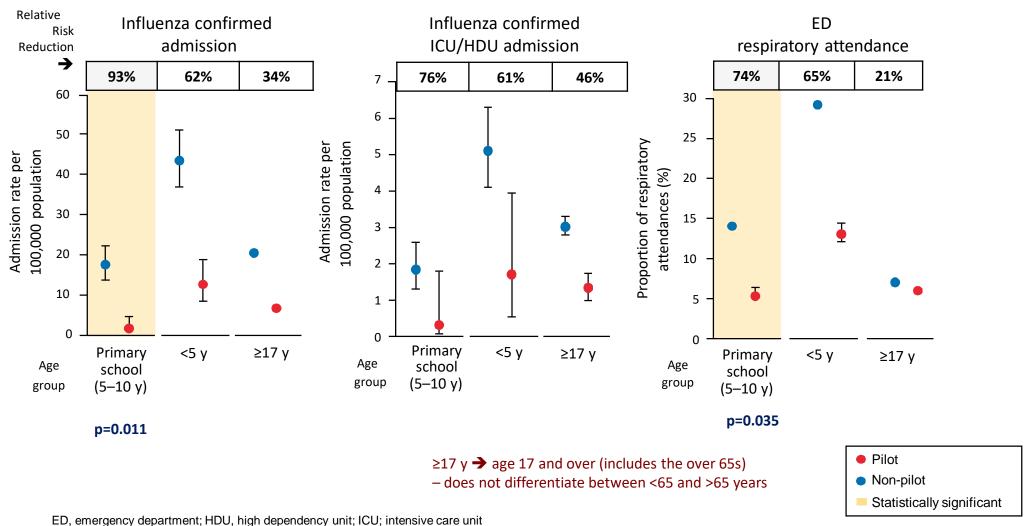


– does not differentiate between <65 and >65 years

Statistically significant

1. Pebody RG, et al. Euro Surveill. 2015; 20(39):pii=30029.

Impact of the programme: season 2014–2015 Reduction in surveillance indictors in <u>primary school</u> <u>pilot</u> areas compared with non-pilot areas



Impact of vaccinating primary school-age children in England

Significant impact among the <u>target group 5–10 years</u>¹ (average vaccine uptake 56.8%) – by reducing (RRR%)

- GP consultations: 94% (p=0.018)
- ED respiratory attendances: 74%. (p=0.035)
- Hospitalisations due to confirmed influenza infection: 93% (p=0.012)

Non-significant reductions in¹

- GP swabbing positivity: 75% (p=0.213)
- Confirmed influenza ICU admissions: 76% (p=0.271)
- Hospital nasal swab influenza positivity: 42% (p=0.187)



The indirect impact of vaccinating primary school-age children on <u>under 5-year-olds</u> was shown to be over and above any direct impact that might have been due to pre-school LAIV programme itself operated across the country (GPs vaccinated 2- to 4-year-olds – average uptake 37.6%)²

^{1.} Pebody R et al. *Euro Surveill*. 2015;20:pii=30029; 2. Public Health England. The national flu immunisation programme 2015 to 2016: supporting letter. 27 March 2015. Available at:

Impact of vaccinating primary school-age children in England

In individuals age 17 years and over (RRR%)

- Significant INDIRECT reduction in GP ILI consultations: 59% (p=0.018)
- Nonsignificant reductions in
 - GP nasal swabbing: 32%. (p=0.206)
 - ED respiratory attendances: 21% (p=0.518)
 - Influenza-confirmed hospital admissions: 34%. (p=0.434)
 - Influenza-confirmed ICU/HDU admissions: 46% (p=0.115)
 - Hospital influenza swab positivity: 9% (p=0.327)



GP consultations for ILI 2014-2015 in patients aged 50–70 years

80% lower in areas where school children are vaccinated

Visited GP with ILI

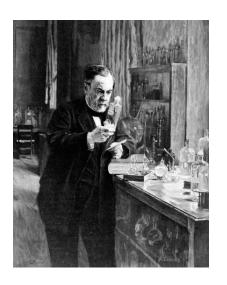
- 17.4 per 100,000 in areas with no school-based vaccination
- 9.4 per 100,000 in areas with primary school flu vaccinations (age 4–10 years)
- 3.4 per 100,000 in areas with primary and secondary school flu vaccinations (secondary school age 11–13 years only)

Annual Report of the Chief Medical Officer 2015

On the State of the Public's Health

Conclusion In order to increase flu vaccination rate you need

- A committed to prevention by vaccination Government
- Decisions on disease prevention by vaccination are best taken by experts – not politicians
- An annual influenza vaccination campaign
 - supported fully by the Government
 - carried out by committed HCPs
 - with free to patients vaccine
 - realistic incentives to vaccinators
- Clearly defined & Comprehensive list of groups at risk
- A national GP patient notes IT System



Louis Pasteur 1822–95

"When meditating over a disease, I never think of finding a remedy for it, but instead a means of preventing it"

Additional slide

If needed

Influenza vaccination: key facts for general practitioners in Europe—a synthesis by European experts based on nationa guidelines and best practices in the United Kingdom and the Netherlands

Flu Plan country



Article Details

Authors

George Kassianos, Patricia Blank, Oana Falup-Pecurariu, Ernest Kuchar, Jan Kyncl, Raul Ortiz De Lejarazu, Aneta Nitsch-Osuch, Gerrit A Van Essen

ARTICLE PAGE

Abstract

Currently there is no influenza vaccination guidance for European general practitioners. Furthermore, although the European Council recommends a target seasonal influenza vaccination rate of 75% in the elderly (65 years and above) and in anyone aged >6 months with a chronic medical condition, there remain wide discrepancies throughout Europe. A harmonised guideline regarding not only vaccination strategy but also for the consistent