



Immunisation news

The flu vaccine: our best protection against an unpredictable virus

PHE has published its annual mid-season flu vaccine effectiveness report at [web link 1](#) showing that the vaccine has provided low protection this winter because of a mismatch between the A(H3N2) vaccine strain and the main A(H3N2) strain circulating in the UK.

The current vaccine is still expected to protect against flu A(H1N1)pdm09 and flu B, both of which are being detected this season, so anyone in an at-risk group should still be vaccinated if they have not already been.

Throughout the last decade, there has generally been a good match between the strains of flu in the vaccine and those that subsequently circulate, so it's important that we do all we can to ensure people in at-risk groups are not discouraged from having flu vaccination now, or in the future.

The World Health Organization monitors flu globally and each year recommends the strains of flu virus that should be included in the flu vaccine for the forthcoming flu season. It takes from February through to August/September to produce sufficient quantities of the vaccine. If a change in the virus is detected once production has started it is not possible to change it.

It's not possible for the World Health Organization to fully predict the flu strains that will circulate in any given season, and there is always a risk of a drift occurring as we have seen this year. But this does not happen every season. The last time a drifted strain circulated like this was in 2003/4, when we saw the A/Fujian strain circulate. That means that in nine out of ten seasons the vaccine provides good to moderate protection against the circulating strains.

Looking back at last year's figures, we can see the impact the new live attenuated influenza vaccination programme has had, for example, in those areas of England where children of primary school age were offered vaccine:

- the cumulative GP consultation rate for 'influenza-like illness' in all age groups was higher in non-pilot areas (**64.5/100,000**) compared with pilot areas (**17.7/100,000**).
- the cumulative influenza positivity rate in all ages in primary care in non-pilot areas was **16.2%** compared with **8.5% in pilot** areas.
- the cumulative proportion of emergency department respiratory attendances was **8.7%** in non-pilot areas compared with **5.5%** in pilot areas.

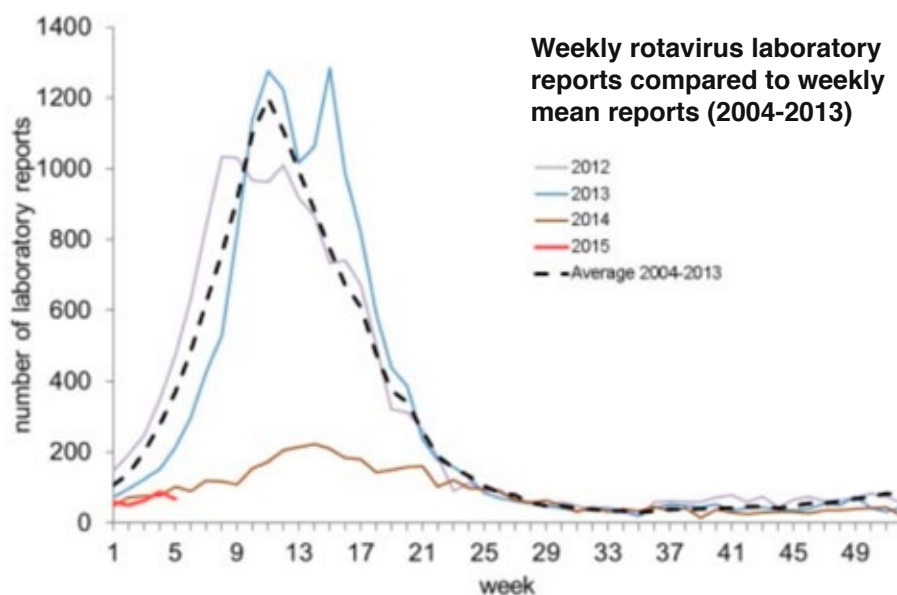
It's important to note that these figures relate to 'all age groups' and not just the school children themselves. In other words, by vaccinating the children we protect others in the population by reducing the amount of flu that circulates, which is one of the strategic aims of the childhood part of the national flu vaccination programme. For up-to-date figures on all aspects of the flu vaccination programme, see [web link 1](#).

Flu vaccine is still the best protection we have against an unpredictable virus which can cause severe illness and deaths each year among at-risk groups, including older people, pregnant women and those with a health condition, even one that is well managed.

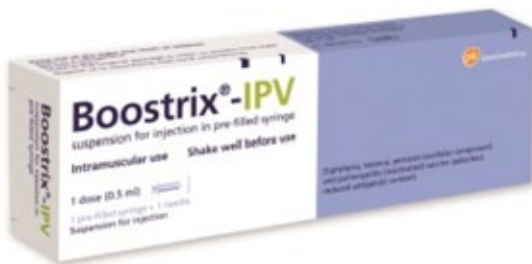
Further information can be found at [web link 2](#).

Rota in retreat for second year running

Early reports are already indicating that the incidence of rotavirus is running as low as last year. In 2014, the low rotavirus activity was associated with large reductions in primary care attendances and hospital admissions for rotavirus gastroenteritis across all age groups and, if the current trend continues, we hope to witness a similar impact in the second year of this highly successful programme.



Making sure pregnant women get the right vaccine



A number of cases of pregnant women being inadvertently immunised with shingles vaccine (Zostavax) have been reported to Public Health England (PHE). These reports have all involved pregnant women who have presented for their recommended flu or pertussis vaccine but had shingles vaccine administered in error. It is clearly important that procedures are in place to ensure that all vaccines are appropriately administered. The Boostrix-IPV and shingles vaccines are shown above.

Chickenpox and shingles vaccines are live vaccines that contain varicella-zoster virus (VZV) that has been carefully weakened to safely protect against disease. Shingles vaccine contains a higher dose of the same weakened VZV that is in the chickenpox vaccine. Any inadvertent administration of shingles (or chickenpox) vaccine during pregnancy should be reported to PHE using the vaccines in pregnancy reporting form at [web link 3](#). This national surveillance collects information on such exposures so that we can better inform health professionals and pregnant women in the future.

Women should be reassured that the weakened VZV in chickenpox and shingles vaccines has not been linked to specific problems in babies born to women who have received vaccines containing this virus whilst pregnant. Most women of child-bearing age in the UK will be immune to VZV. If already immune, the shingles vaccine will boost existing antibodies against VZV and there is no reason for any further action. It is important, however, to find out as soon as possible whether pregnant women who have inadvertently received shingles vaccine are already immune because treatment with immunoglobulin may be recommended for susceptible women and this needs to be given within ten days of the vaccination.

Further guidance on how to establish immunity and what to do if a woman is not immune is given at [web link 3](#), together with a more detailed information sheet.

Shingles vaccine coverage three months into the programme for 2014/15

Vaccine coverage data for the first three months of the 2014/15 shingles vaccination programme in England was published in January at [web link 4](#). Between September and November 2014 almost 40% of 70-, 78- and 79-year-olds had been vaccinated, marginally higher than the coverage achieved at the same time in 2013, the first year of the shingles vaccination programme. Annual coverage for the 2013/14 programme reached 62% for the routine cohort and almost 60% for the catch-up cohort and so, given current performance, it is hoped that similar or higher coverage will be achieved in the second year of the shingles programme by the end of August 2015. GP practices are urged to continue to offer shingles vaccine to the eligible cohorts in the coming months, beyond the current flu campaign in order to prevent the significant burden of disease associated with shingles among older adults in England.

Live and inactivated flu vaccines – what’s the difference? Is it important?

‘Live’ flu vaccines contain viruses that have been weakened (attenuated) in a laboratory. The virus is grown under special conditions that reduce the disease-producing ability (virulence) of the virus so that it can be safely used in immunisation. They therefore cannot cause the disease in healthy people. But as they are ‘live’ they can still replicate enough in the vaccinated person to produce a strong immune response. As this replication mimics a natural infection, the vaccines typically give good, long lasting immunity. They cannot be given to people who are immunosuppressed, however, as there is a risk that their immune system would not be able to make antibodies rapidly enough and the virus could replicate too much and cause the disease the vaccine is designed to prevent. Live intranasal flu vaccine includes these weakened viruses, which are also cold-adapted, meaning that they are designed to replicate efficiently at the colder temperatures found in the nose but not at normal body temperature.

‘Inactivated’ flu vaccines contain viruses that have been killed or inactivated with heat or chemicals. This process destroys the viruses’ ability to replicate in the body, but keeps it ‘intact’ enough so that, when given in a vaccine, the immune system can still recognize it and make a protective antibody response. Immunosuppressed individuals can safely be given inactivated flu vaccines because they are unable to cause disease.

The type of vaccine used to protect against a particular disease will depend on a range of factors. Where both types are available, for instance with flu vaccine for children, the live vaccine is recommended because it offers much better protection in healthy children, while the inactivated vaccine must be used for immunocompromised children.

For more information on what vaccines contain, see [web link 5](#).

What do you think of the GOV.UK website?

Here's your opportunity to tell us how you think the GOV.UK website could be improved.

Go to [web link 6](#) and fill in the survey, it should only take five minutes.



Terms of use

As mentioned in last month's issue, these have now been updated and are available at [web link 7](#).

Vaccine supply

Providing a second dose of flu vaccine after the current batch of Fluenz Tetra has expired

Ordering for Fluenz Tetra closed at 11:55am on Monday 16 February.

The final batch of Fluenz Tetra which has been distributed expires on Wednesday 25 February.

If you need to give a second dose of Fluenz Tetra four weeks after the first dose (for example, for children in clinical risk groups aged two to under nine years who have not received influenza vaccine before) but your vaccine expires before that date, then it is safe and effective to give inactivated vaccine as a second dose.

Inactivated flu vaccines for children remain available to order through the ImmForm website.

Availability of Infanrix IPV Hib and Pediacel

Infanrix IPV Hib is available to order. Pediacel remains unavailable to order.

Where possible and if local stock allows, it is preferable that the same DTaP/ IPV-Hib containing vaccine be used for all three doses of the primary course. However, vaccination should never be delayed because the vaccine used for previous doses is not known or unavailable.

PPD2TU (Mantoux test)

Tuberculin purified protein derivative (PPD) containing two tuberculin units per 0.1ml (2TU) is currently available to order but a restriction of one order for one pack every two weeks is in place. Please note that each pack of PPD2TU contains ten vials with a minimum of ten doses per vial, i.e. 100 doses in all.

Temporary reduction in order quantity for BCG vaccine

There is currently a cap on orders of BCG vaccine of one pack (100 doses) per order per fortnight, due to a delay in deliveries from the manufacturer. Please note that each pack of BCG vaccine contains 100 doses of vaccine (10 vials with a minimum of 10 doses each) and efforts should be made to ensure efficient use of existing stocks. If additional stock is required in an emergency please contact the ImmForm helpdesk on 0844 376 0040.

Tetanus immunoglobulin

BPL have limited availability of supply of intramuscular tetanus immunoglobulin. In the event that BPL are unable to supply IM tetanus immunoglobulin, they will offer Subgam 750mg as an alternative in line with the PHE guidelines, see [web link 8](#).

Web links

- web link 1 <https://www.gov.uk/government/statistics/weekly-national-flu-reports>
- web link 2 <https://www.gov.uk/government/news/flu-vaccine-shows-low-effectiveness-against-the-main-circulating-strain-seen-so-far-this-season>
- web link 3 <https://www.gov.uk/vaccination-in-pregnancy-vip>
- web link 4 <https://www.gov.uk/government/publications/herpes-zoster-shingles-immunisation-programme-2013-to-2014-provisional-vaccine-coverage-data>
- web link 5 <http://www.nhs.uk/Conditions/vaccinations/Pages/vaccine-ingredients.aspx>
- web link 6 <https://surveys.phe.org.uk/TakeSurvey.aspx?PageNumber=1&SurveyID=980J9ml5>
- web link 7 <https://www.immform.dh.gov.uk/help/ImmForm%20Terms%20of%20Use%20V1.0.pdf>
- web link 8 <https://www.gov.uk/government/collections/tetanus-guidance-data-and-analysis>