



REMINDER – changes to the meningococcal C (MenC) vaccination schedule from 1 July 2016. Flyer now available to order.

Due to the success of the MenC programme the infant dose of MenC that is normally given at three months of age will be removed from the childhood immunisation schedule from 1 July 2016. All children will continue to be offered a combined Hib/MenC vaccine when they reach one year of age. This, along with the adolescent MenACWY vaccination, will help to provide protection to infants and children.

A flyer for parents and healthcare workers to explain these changes to the MenC programme from 1 July is now available to download or order from the DH Orderline ([weblink 1](#); product code 2904568), and can also be downloaded from the immunisation website ([weblink 2](#)).

Additionally, the complete routine and routine childhood schedules have been updated to reflect this change ([weblink 3](#)).

Further information can be found in the April edition of Vaccine Update ([weblink 4](#)), and in the official guidance for professionals ([weblink 5](#)).

Uncertain vaccine status?

The algorithm for “vaccination of individuals with uncertain or incomplete immunisation status” (available at [weblink 15](#)) has been updated and becomes effective from July 1st to reflect changes to the MenC immunisation programme. Please ensure that you replace any paper copies with this updated version.

Error in annual flu letter

Please note the table on page 3 of the annual flu letter had an error in the first column giving age-adjusted relative risk of flu related death. The figures had a percentage symbol after them which should not have been there. This error has been rectified and the correct version of the document can be downloaded from the following [weblink 6](#).

Resources

New resources for national flu immunisation programme



A new resource “Increasing influenza immunisation uptake among children: Best practice guidance for General Practice” has been published. This resource brings together evidence and best practice examples in a summary document of key strategies to improve vaccine uptake.

It can be downloaded from [weblink 13](#). The easy read version of the flu leaflet “All about flu and how to stop getting it” for people with learning disabilities has been updated for the 2016/17 flu season. This can be downloaded from the website and copies ordered for free – see [weblink 18](#).

Vaccine Supply

BCG vaccine availability

BCG vaccines are available to order on ImmForm in line with the advice outlined in the BCG Vaccine Update special edition (see [weblink 11](#)). Please note, where local stocks allow BCG vaccine from the Statens Serum Institute (SSI) which has had expiry extension to 31 August 2016, should be used in preference to the alternative unlicensed InterVax BCG vaccine. See PHE webpages (from [weblink 12](#)) for more information on the use of the InterVax BCG vaccine which has a different presentation to SSI BCG vaccine. The link to all the accompanying resources is now live. The leaflets and guidance can be found at [weblink 14](#).

Primary infant vaccine

Ordering for Pediacel remains restricted to 3 doses per order, per week in England. Restrictions are also in place for Wales and Scotland. Infanrix IPV-Hib is available to order, with no restriction on volume. 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.

If using Infanrix IPV-Hib, please remember that the Hib component is supplied in a separate freeze dried vial and must be reconstituted before administering the vaccine. Infanrix-IPV is not suitable for primary immunisation as it lacks the Hib component and is therefore only suitable for boosting those who have completed their primary immunisations.

MenC Vaccine Ordering

A reminder that the MenC infant vaccination programme will cease for England, Wales and Northern Ireland on 1 July 2016. MenC vaccine (NeisVac-C®) will remain available to order for England and Wales through ImmForm until 1 July 2016. Any stock remaining in fridges on 1 July 2016 should be retained until it expires at which point it should be disposed of in line with local policies. Any stock disposal should be recorded on the ImmForm website as a stock incident. ImmForm accounts in Scotland will continue to be able to order NeisVac-C past 1 July 2016.

Pre-School Booster

The pre-school booster will be changing from Infanrix IPV to Repevax later in 2016. More information on this switch will appear in Vaccine Update in due course.

Shingles vaccine

The shingles vaccine (Zostavax) remains available for those who are eligible for vaccination in the 2015/16 programme year. Further information on eligibility can be found at [weblink 7](#).

PPD2TU

Due to manufacturing delays, orders for PPD2TU (Mantoux) are currently restricted to 1 pack per account per fortnight for NHS customers and closed for private customers.

PPD10TU

Due to manufacturing delays, PPD10TU (Mantoux) ordering through ImmForm is currently closed. If you require PPD10TU, please contact the ImmForm helpdesk on 0844 376 0040 or helpdesk@immform.org.uk.

Vaccine Ordering for the Children's Flu programme

Last winter more people than ever received a vaccination against flu as part of the national flu immunisation programme. In addition, children in the first two years of primary school education were offered flu vaccination in all areas. These major achievements, which contribute significantly to reducing illness and deaths caused by the influenza virus, are a credit to all involved with the programme.

We want to build further this coming winter. The roll-out of immunisation to more primary school-aged children will continue, and we are aiming to increase vaccine uptake rates, particularly among those who are most vulnerable to the effects of flu.

However, over ordering of Live Attenuated Influenza Vaccine (LAIV) for the children's flu programme is a continuing difficult issue. A review of order volumes of Fluenz Tetra/FluMist Quadrivalent against uptake data for 2015/16 found significant disparity between the two, which we would like to see reduced as much as possible for the 2016/17 season. This was also apparent for 2013/14 and 2014/15 seasons.

Over **400,000 doses** of LAIV distributed across the system by PHE in 2015/16 flu season were not administered to children. This is clearly a disappointingly large number of doses, and has a significant cost impact for the vaccine programme. Do you know the number of vaccines that remained unused in your own fridge at the end of the last season?

A short expiry date and cold chain failures aside, we think most of this unused vaccine is due to over ordering and is avoidable. **We need your help** to significantly reduce the amount of vaccine which is ordered but goes unused in the 2016/17 season.

Excess LAIV ordering

During the 2015/16 children's flu programme, approximately 2,247,000 doses of LAIV were issued to the NHS. Uptake data shows that around 1,826,000 children were vaccinated in total, meaning that over 400,000 doses were issued to the NHS but not administered (or administered but not recorded) to children. This equates to 19% of the total number of doses ordered by all providers; 3% of the volume ordered by school teams, and 29% of the volume ordered by GPs.

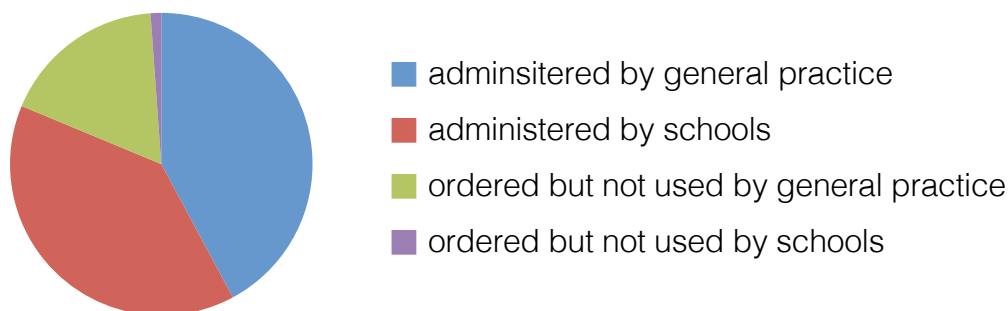


Figure 1: Illustration of how the total issued volume was utilised by children's flu programme providers

At a list price of £21.60 per dose of LAIV (inc VAT), the indicative value of the excess vaccine ordered by providers through ImmForm and not used is over £9m in total; £0.5m worth of vaccine not used in schools programmes, and £8.5m worth of vaccine not used in general practice – an average of more than £1,000 per practice.

Aside from the financial consequences, over ordering can contribute to central delays in releasing stock and the implementation of ordering restrictions.

LAIV recorded as wastage

Only 24,000 (6%) of the 400,000 doses of LAIV that were ordered by providers and not administered to children were recorded on ImmForm as wastage. Of these, around 16,000 doses (64%) were recorded as 'avoidable', mainly 'expired before use'. The data also suggests that a significant amount of over-ordering occurred at the start of the season.

At the end of the season 130,000 doses of LAIV (33% of the total ordered by providers) that were ordered by providers and not administered to children were collected as part of the planned product withdrawal. This left approximately 265,000 doses of LAIV ordered but not administered to children, and are as yet to be accounted for.

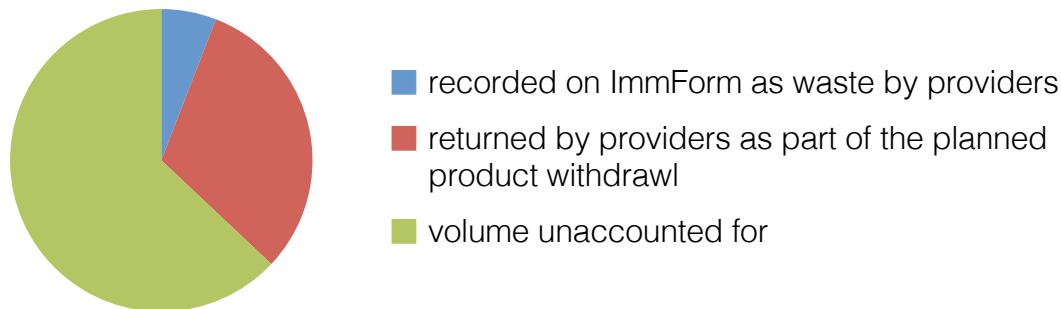


Figure 2: Illustration of levels of recorded waste

Ordering LAIV for the 2016/17

PHE is investigating ways in which excess ordering will be monitored and reduced in the 2016/17 season. Further information will be available through Vaccine Update in due course, but in the meantime please remember:

- LAIV is supplied in a **10-dose pack**
- You can get **weekly** deliveries of LAIV throughout the entire season; there is no need to order it all up-front
- Be **realistic** about expected uptake rates
- **Spread your orders over time;** later ordered stock will have later expiry dates meaning your stock will last for longer
- Do not order or hold more than 2 weeks' worth of LAIV; local stockpiling can cause delays in stock being released and increases the risk of significant loss if there are cold chain failures.

Influenza vaccine supply for the children's part of the 2016/17 national flu vaccination programme

As in previous years, PHE has centrally procured flu vaccine for children included in this year's phase of the roll out including those aged from six months to less than 18 years old in clinical risk groups. This is to simplify the supply of LAIV and inactivated flu vaccine for GPs and other providers during the phased implementation of the programme.

Aside from this central procurement of vaccine for children less than 18 years of age, it remains the responsibility of GPs and other providers to order sufficient flu vaccine directly from manufacturers for older eligible patients of the flu programme in 2016/17.

The following vaccines will be available for the 2016/17 influenza season for children, and are expected to be available to order via the ImmForm website starting from late September or early October.

Further details on the timing of availability of vaccines for each part of the programme (two- to four-year-olds through GPs, and five, six and seven year olds through school-based programmes) will be published as information becomes available through the summer.

Vaccine	Manufacturer	Indicative date for ordering to start
Fluenz Tetra (LAIV)	AstraZeneca UK Ltd	Late September/early October
Inactivated influenza vaccine (split virion) BP	Sanofi Pasteur MSD	Late September
Fluarix Tetra	GSK	Late September

Please refer to guidance from your respective health departments on supply of influenza vaccines in Scotland, Wales and Northern Ireland.

The vaccines are supplied for the following cohorts:

Vaccine	Type	Age indication	Cohort
Fluenz Tetra (LAIV), AstraZeneca UK Ltd	Quadrivalent live attenuated	From 24 months to less than 18 years of age	<ul style="list-style-type: none"> All 2, 3 and 4 year olds All children of school years 1, 2 and 3 age All primary school-aged children from previous pilot areas¹ All children from 2 years to less than 18 years old in clinical risk groups
Fluarix Tetra, GSK	Quadrivalent inactivated	From 3 years of age	<ul style="list-style-type: none"> Children in the above cohorts aged from 3 years who are contraindicated for Fluenz Tetra and in a clinical risk group
Inactivated influenza vaccine (split virion) BP, Sanofi Pasteur MSD	Trivalent inactivated	From 6 months of age	<ul style="list-style-type: none"> Children aged 6 months to less than 2 years in a clinical risk group Children aged less than 3 years who are contraindicated for Fluenz Tetra and in a clinical risk group

¹Bury, Gateshead, Leicester City and Rutland, Havering and South East Essex

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

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.

Hepatitis B vaccine ordering restrictions due to shortage of Engerix B[®] paediatric vaccines

Due to manufacturing issues, GSK's supply of a hepatitis B vaccine, Engerix B[®] to the UK has been impacted. GSK introduced ordering restrictions on Hepatitis B vaccination in May 2016, and as Engerix B[®] paediatric stock has now reached low levels, GSK is prioritising any remaining paediatric supply for infants born to hepatitis B positive mothers.

To maintain continuity of supply to this priority group, GSK have prioritised supply of Engerix B[®] Paediatric to general practice and public and private hospitals. GSK have also introduced lower ordering quantities until stock levels return to normal. To access additional quantities of this vaccine for prioritised patients, a review by the GSK medical team will be required. There are less strict restrictions on ordering adult Engerix B[®] products and the GSK hepatitis A and B combination vaccines are not affected. Supply issues are expected to be resolved by the Autumn.

Demand for the Sanofi Pasteur MSD HBvaxPro Paediatric[®] has also increased but there are currently no supply issues with the HBvaxPro[®] adult formulation.

During this period of constrained Engerix B[®] vaccine supply, PHE agrees that the first priority group for paediatric vaccine should be infants in the selective neonatal hepatitis B programme, i.e. infants born to hepatitis B infected mothers receiving post exposure prophylaxis (PEP), followed by other lower risk indications for PEP.

Vaccine administration should never be delayed for infants born to hepatitis B infected mothers, as these infants have been exposed to a substantial volume of infectious blood during the birthing process. Available vaccine products should be used in the following order of preference:

1. Hepatitis B paediatric monovalent vaccine (Engerix-B[®] paediatric or HBvaxPRO Paediatric[®])
2. Hepatitis B adult monovalent vaccine (Engerix-B[®] and HBvaxPRO[®]).
3. A combined hepatitis A and B vaccine (e.g. Twinrix Paediatric[®])

The 1ml adult preparations of hepatitis B vaccine contain exactly twice the content of the paediatric equivalent (table). As the adult pre-filled syringe has no clear graduations, PHE recommends that the full 1ml volume (i.e. an adult dose) should be given to avoid the risk of under-dosing the child (see doses and volumes in table below). This will be off-label use of the adult vaccine and, as Patient Group Directions in current use are unlikely to specifically cover this scenario, a Patient Specific Direction will be required. Available data, although limited, does not indicate any additional safety risk from use of adult hepatitis B vaccine in infants. If an adult dose(s) of hepatitis B vaccine has been used in a child, the course can be completed with paediatric products at the appropriate ages when vaccine stock becomes available.

Vaccine product (manufacturer)	Ages	Dose	Volume
Engerix B [®] (GSK)	0-15 years	10µg	0.5ml
Engerix B [®] (GSK)	16 years and over	20µg	1.0ml
HBvaxPRO [®] (SPMSD)	16 years or over	10µg	1.0ml
HBvaxPRO Paediatric [®] (SPMSD)	0-15 years	5µg	0.5ml

Source: Green Book: Immunisation against Infectious Disease, Chapter 18: Hepatitis B, table 18.1

Latest quarterly vaccine coverage figures for children up to five years of age published

The quarterly COVER data for January to March 2016 published last week shows that vaccination coverage remains high across the UK in all routine vaccinations in children aged up to 5 years (see [weblink 8](#)). In particular, we're pleased that UK rotavirus vaccine coverage at one year increased for this recently introduced vaccine to 90.4%, compared to 89.6% in the previous quarter.

Coverage at one year for the primary course of the five-in-one vaccine (DTaP/IPV/Hib) has dropped 0.6% to 93.7%.

MMR coverage in the UK at two years increased 0.1% to 92.1% this quarter, and 95.2% of UK children have received at least one dose of MMR by their fifth birthday, with 88.8% of these receiving the recommended two doses. The UK has a world class national immunisation programme which is constantly reviewed and updated to reflect the changing nature of infectious diseases.

Vaccination figures for the UK are close to the WHO target of 95%, with several regions already reaching this objective. High coverage provides herd protection for those who aren't vaccinated and prevents diseases that are no longer common from resurgence in the population.

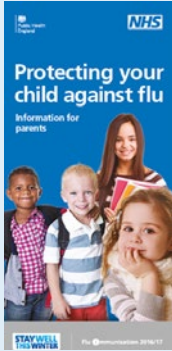


We urge all parents to check that their children are up to date with their vaccinations and to contact their GP surgery to make sure their child is protected.

Influenza programme resources

This year's influenza programme resources are listed under the 2016-2017 section – see [weblink 10](#).

Each leaflet can be searched for using its title, subject or product code, by entering these details on the browser menu on the right hand side of the [order line home page](#).

The product code can be found on the back of the leaflet or on the side of the poster.

Title	Thumbnail cover	Product code
<p>Protecting your child from flu (DL leaflet) www.gov.uk/government/publications/protecting-your-child-against-flu</p>		2902552
<p>5 reasons to vaccinate poster www.gov.uk/government/publications/five-reasons-to-vaccinate-your-child-against-flu</p>		2901251
<p>All about flu and how to stop getting it* www.gov.uk/government/publications/flu-leaflet-for-people-with-learning-disability</p>		2904202

*NB Previously this was titled Helping you stop getting flu. Product code remains the same

Shingles programme resources

The Shingles immunisation programme letter for the fourth year of the programme starting from 1 September 2016 is now available at the following [weblink 16](#).

We are currently updating the Shingles resources for this year and will notify you in next months Vaccine Update.

Live attenuated vaccines: avoid use in those who are clinically immunosuppressed

Immunisers are reminded that live attenuated vaccines should not routinely be given to people who are clinically immunosuppressed (either due to drug treatment or underlying illness). Following reports of administration of live vaccines to immunosuppressed individuals, the Medicines and Healthcare Products Regulatory Agency (MHRA) have published a drug safety alert. This alert highlights in particular the dangers of BCG vaccine in neonates born to mothers receiving anti-TNF agents in pregnancy and shingles vaccine in immunosuppressed elderly patients.

If there is doubt about the immune status of an individual, immunisation should be deferred until secondary care specialist advice has been sought, including advice from an immunologist if required. In addition, as a precautionary measure, babies whose mothers have received immunomodulating biologics (such as monoclonal antibodies or receptor antagonists which interfere with the immune system e.g. anti-TNF agents) in pregnancy should not receive the rotavirus vaccine. MHRA drug safety alert is available at [weblink 17](#).

Your view counts! Please tell us about your experience of managing and delivering the immunisation programme

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The Health Protection Research Unit in Immunisation, which includes researchers from the London School of Hygiene & Tropical Medicine and Public Health England, is conducting a questionnaire survey to find out how the immunisation programme is being managed in the new health system (post April 2013 reorganisation).

They are keen to learn about how health related organisations across England are working together to deliver Section 7a immunisation programmes, and to find out what is being done to monitor and improve the performance of immunisation services.

Who can take part?

The survey is targeted at anyone who plays a role in delivering and managing the immunisation programme. Whatever your role – whether as someone who gives immunisations, commissions programmes or advises on the planning and assurance of immunisation services – please do take this opportunity to share your views and experiences.

This is your chance to have your say about what is working well in your area, and also to identify issues where you feel more input may be needed. Your contribution will help inform future strategic and programmatic decision-making about the management of the immunisation programme.

How do I take part?

You can either click on the below link or copy it to your preferred internet browser. This should take you straight to the survey interface where you will be given more information about the survey. Completing the survey is completely voluntary and you will be asked to opt in on this page.

If you have any problems with accessing the survey or any questions about the purpose of the survey, you can contact Tracey Chantler or Sandra Mounier-Jack from the London School of Hygiene & Tropical Medicine, on the following email: IMMS_Survey@lshtm.ac.uk

Thank you for considering this invitation to make a difference to the way the immunisation programme is managed and delivered.

Link to access the survey:

» lshtm.qualtrics.com/SE/?SID=SV_eya3X9DbfTX0OmV

Web links

web link 1	https://www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=2904568
web link 2	https://www.gov.uk/government/publications/meningococcal-c-menc-vaccination-leaflet-for-parents
web link 3	https://www.gov.uk/government/collections/immunisation#childhood-immunisation-schedules
web link 4	https://www.gov.uk/government/collections/vaccine-update
web link 5	https://www.gov.uk/government/publications/menc-vaccination-schedule-planned-changes-from-july-2016
web link 6	www.gov.uk/government/collections/annual-flu-programme
web link 7	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/463490/Shingles_table_GP_poster_04_web.pdf
web link 8	https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2015-to-2016-quarterly-data
web link 9	https://www.gov.uk/government/publications/vaccination-of-individuals-with-uncertain-or-incomplete-immunisation-status
web link 10	https://www.gov.uk/government/collections/annual-flu-programme#2016-to-2017-flu-season
web link 11	https://www.gov.uk/government/publications/vaccine-update-issue-247-june-2016-special-edition
web link 12	https://www.gov.uk/government/publications/intervax-bcg-vaccine-training-slideset-for-healthcare-professionals
web link 13	https://www.gov.uk/government/publications/flu-vaccine-best-practice-guide-for-gps
web link 14	https://www.gov.uk/government/collections/immunisation#tuberculosis
web link 15	https://www.gov.uk/government/publications/vaccination-of-individuals-with-uncertain-or-incomplete-immunisation-status
web link 16	https://www.gov.uk/government/publications/shingles-immunisation-programme-letter-from-september-2016
web link 17	https://www.gov.uk/drug-safety-update/live-attenuated-vaccines-avoid-use-in-those-who-are-clinically-immunosuppressed
web link 18	https://www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=2904202