Information required to undertake a post exposure rabies risk assessment

With people travelling over the summer break, the Rabies and Immunoglobulin Service (RlgS), based at Public Health England Colindale, want to remind you of the information required to undertake a post exposure risk assessment and further sources of guidance which may be useful to our healthcare practitioners.

Our standard advice for all patients who have been bitten, scratched or licked by an animal whilst overseas is that they should seek and follow local medical guidance in the country of exposure and contact their General Practitioner on return back to the United Kingdom.

For a post exposure rabies risk assessment for your patient please contact RlgS or your local health protection team (HPT) (contact details overleaf).
Please have the following information to hand when you call for advice:

- Country of exposure
- Animal – dog, cat etc.
- Date of the exposure
- Anatomical site of exposure
- Previous rabies immunisation history
- Dates and details of any rabies post exposure treatment (PET) already received
- Patient weight, to calculate immunoglobulin dose if required

Treatment can be sent directly to GP surgeries in England for arrival the morning of the next day (Tuesday to Friday) or available for pre-arranged patient or courier collection from specific sites across England including weekends and Bank Holidays.

RIGS Core hours:

- Monday-Friday 0900-1700
- RIGS Nurses are available to assist with enquiries and post exposure rabies risk assessments

Out of hours (OOH) Mon-Friday outside of the core hours – Weekends and Bank Holidays 0900-1700

- Rabies Post Exposure Treatment (PET) is considered urgent but not an emergency. PET will not usually be issued in evenings or at night
- Exceptions are severe bites to the head and neck in an untreated patient
- A Public Health England on-call consultant is available for emergencies and assistance with the risk assessment during the OOH period
- Most risk assessments and dispatch of treatment can be performed the next working day
- At weekends and bank holidays vaccine and immunoglobulin will be issued for pick up at a single timed slot only

For further information

PHE Guidelines on rabies post exposure treatment (June 2017): weblink 1
Rabies post exposure risk assessment form and calendar: weblink 2
Green Book Rabies: weblink 3
**RIgS contact details:**
RIgS is available for healthcare professionals only
Telephone: 020 8327 6204 Monday-Friday 09.00-17.00 with on call support for emergencies outside these hours
Email: rigs@phe.gov.uk – for NON-urgent enquiries only
How to find your local health protection team: [weblink 4]

**Other useful links**
Rabies risks in terrestrial animals by country: [weblink 5]
Rabies: risk assessment, post-exposure treatment, management: [weblink 7]
Travel Health Pro rabies factsheet: [weblink 9]

**Other services within the RIgS team**
In addition to providing risk assessments for post exposure to rabies, the Rabies and Immunoglobulin Service (RIgS), does the same for vulnerable patients exposed to chickenpox, shingles, measles, hepatitis A and hepatitis B and provide immunoglobulin if indicated. We also issue botulinum and diphtheria antitoxin.

**Varicella (chickenpox)**
Susceptible individuals in certain high risk groups (immunosuppressed individuals, pregnant women, neonates) are at risk of severe chickenpox if exposed and therefore post exposure prophylaxis with VZIG is recommended. The objective of VZIG is to reduce the severity of symptoms rather than prevent infection and recently updated PHE guidance on the indications and risk assessment to inform the need for VZIG is available at [weblink 14].

Varicella vaccine is not routinely offered in the UK but recommended for close contacts of immunosuppressed individuals ([weblink 6]). In such circumstances, GPs must complete and submit an FP10 prescription form for non-routine vaccine as normal, to the NHSBSA to claim reimbursement. The GP will also receive a fee payment.

Patients may have questions about current varicella control strategy in the UK and if they have questions, they can be directed to towards the NHS Choices page ([weblink 16]) for an explanation of why varicella vaccine isn’t available as part of the NHS routine immunisation programme.
Measles

Revised guidelines for the public health management of measles in England have recently been published by PHE (weblink 27). These guidelines provide detailed recommendations on the:

i. risk assessment and appropriate laboratory investigation of suspected measles cases, and

ii. identification and management of susceptible contacts in order to limit ongoing transmission and prevention of severe disease in high risk groups.

The national guidelines refer to separate Guidelines on Post-exposure Prophylaxis (PEP) for Measles (weblink 28), also newly revised by PHE. These describe indications for PEP for contacts of measles cases and the high-risk groups that should be prioritised for PEP: immunosuppressed individuals being the highest-priority category, followed by immune-competent, high-risk groups such as pregnant women and infants.

CQC findings – immunisation in primary care

CQC have recently completed the first round of inspections of GP practices in England. CQC found that most practices were running very efficient immunisation services. The immunisation schedule is complex and regularly changes and the skill, expertise and time needed to deliver the vaccination programmes is often underestimated. CQC recognises the enormous contribution GPNs make to the successful delivery of immunisation services. There were issues with storage of vaccines and misunderstandings around the legal frameworks and these are outlined below.

Cold chain

- Vaccines must be stored within the conditions of their product licence, that is between 2°C and 8°C. If the storage temperature is outside of this range, vaccine effectiveness cannot be guaranteed and the medicines licence may no longer be valid.
- Findings outside of this range and usually higher than 8°C degrees are being recorded with no action taken.
- Recording of the fridge temperature is delegated to staff who do not understand the correct procedure to follow if the temperature is outside of the required range.
- The fridge is overstocked with vaccines with air less able to circulate freely between boxes of vaccines.
- Use of a data-logger being used as a justification for failing to record daily temperatures.
- Failure to re-set the temperature when minimum and maximum temperatures recorded.
- Fridge temperature set too high resulting in frequent rise to above 8°C when door opened.

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For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
• No defined responsibility for oversight of vaccine ordering and storage meaning that new stock not placed behind shorter dated vaccines and unclear system for ensuring refrigeration of vaccines on delivery.

• CQC recommends vaccine cold chain monitoring is undertaken by suitably trained staff and that where temperatures outside of the recommended range are found, appropriate further action is taken in keeping with practice policy.

Legal framework

• Lack of understanding regarding the necessity for legal authorisation for administration of vaccines.

• Out of date Patient Group Directions (PGDs) with no alternative system in place.

• Health Care Assistants named on PGDs.

• No valid system in place to authorise HCAs to administer vaccines, for example a Patient Specific Direction could be used.

Coverage of eligible population

• On occasions low uptake is reported for individual vaccines, for example pneumococcal conjugate vaccine (PCV) that is out of step with other vaccines given at the same time.

• CQC recommend that practices liaise with their local CHIS to ensure records of all vaccines administered are appropriately notified to CHIS.

• To address low uptake, CQC consider whether the following are in place: adding alerts to the records of non-attenders, contacting and reminding parents and provision of appointments at varied times and days.

• CQC inspectors also ask if the practice is providing NHS travel vaccines (typhoid, hepatitis A, tetanus/diphtheria/polio and cholera).

• Unless the practice have specifically opted out of this part of the contract, and made alternative arrangements with the CCG, GP practices have an obligation to provide these vaccines to eligible patients free of charge.

New regular feature: Meet the team

Our recent conference brought to our attention that it would be very helpful to see the teams based in London (in Colindale and Waterloo) and around England and to explain how their work supports the national programmes. In upcoming editions we will be inviting screening and immunisation teams to contribute so if you are interested please get in touch and email publications@phe.gov.uk

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Meet the pertussis team

Pertussis (whooping cough) is caused by Bordetella pertussis and is a serious, potentially life-threatening respiratory, notifiable, vaccine preventable disease. The pertussis team at PHE, Colindale is made up of consultant medical microbiologists and epidemiologists, laboratory scientists including clinical scientists, biomedical scientists and healthcare scientists; epidemiology scientists, statisticians, data managers, information officers and administrators. Members of the teams from the Immunisation, Hepatitis & Blood Safety Department and the Vaccine Preventable Bacteria Section in the Respiratory and Vaccine Preventable Bacteria Reference Unit work together on the enhanced surveillance and control of pertussis. Laboratory confirmation of clinically suspected cases of pertussis infection can be achieved by a culture, PCR detection of B. pertussis DNA from nasopharyngeal/pernasal swabs, nasopharyngeal aspirates or throat swabs; or antibody detection performed on serum or oral fluid. Guidance on timing, specimen type and target age groups for the various tests can be found on the PHE website1. All laboratory-confirmed cases are followed up to obtain additional data including vaccine status to support the evaluation of the vaccine programme.

The pertussis team collate and report national data on notified and laboratory confirmed cases and vaccine coverage; issue national public health guidance including updates to changes to laboratory methods2 and provide expert advice. The team are responsible for the coordination of the ongoing national outbreak investigation and response including evaluation of the pertussis immunisation programme for pregnant women.

The team’s activities are focussed on providing a robust evidence-base to inform any changes to management or vaccine policy with the overriding aim of reducing infections particularly in young infants, most at risk from severe disease.

Annual flu vaccine uptake – how are you doing?

The ImmForm website provides an Uptake Summary Tool to help NHS England Screening and Immunisation Teams and practice managers monitor and improve influenza vaccine uptake. Throughout the influenza season, weekly emails will direct people to ImmForm where weekly cumulative vaccine uptake for areas/practices are available.

Access to the uptake summary tool data is restricted depending on the permissions the user has on ImmForm. For example, GP practice managers may view influenza vaccine uptake of their practice only and CCG leads may view a list of influenza vaccine uptake of all of the practices and drill down to the practice level data within the CCG.

Once logged on to the website, please select “Data Collection”, followed by “Flu”, and finally “Uptake Summary”.

The Uptake Summary Tool serves as a visual aid and enables teams to assess influenza vaccine uptake on weekly basis.

**CCG leads view:** The PHE Comparator allows you to select how you would like to compare the current influenza vaccine uptake figures (i.e. Uptake % this time last year, Current National Uptake %, Current Regional or CCG I Average Uptake %, and National end of season Ambition %)

Data are displayed in a table format which can be exported to Excel. The data are presented in three different colours:

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Uptake % is equal to or better than the comparator %</td>
</tr>
<tr>
<td>Orange</td>
<td>Uptake % is less than 5% below the comparator %</td>
</tr>
<tr>
<td>Red</td>
<td>Uptake % is 5% or more below the comparator %</td>
</tr>
</tbody>
</table>

1 The ImmForm Uptake Summary Tool is used for surveillance purposes and should not be used to calculate payments. ImmForm and CQRS data may use different extraction rules and therefore may result in different values.

2 The data displayed are provided by GP IT suppliers (EMIS, TPP, INPS, and Microtest).
CCG leads and GP practice managers view: Practice level data display information by selection criteria and indicate the number of vaccinations necessary to meet the National Ambition. The full screen option allows you to compare your current vaccine uptake with the previous season.

Vaccine ordering information for the children’s national flu vaccination programme

General Practice

Last year

Last flu season (2016/17), order controls were put into place through ImmForm for General Practice (GP) account customers. The aim was to reduce the amount of Live Attenuated Influenza Vaccine (LAIV), or Fluenz Tetra, that was ordered across England, but not administered to children. The controls were tailored to each practice and worked by allocating an amount of vaccine to each GP, based on the number of registered eligible patients. This approach was generally well received and resulted in a 50% reduction in the amount of flu vaccine ordered but not administered to children in general practice. PHE would like to thank you all for your efforts to prevent avoidable wastage of vaccine and look forward to continuing this trend this coming flu season.

Information for 2017 to 2018

GPs will be subject to allocation based controls similar to last year. However, this year the timing and levels of changes to the allocations have been set out in advance, based on ordering patterns from last season to help planning. Please note that these limits are subject to change as necessary (i.e. to increase allocations earlier than planned), to respond to the needs of the programme.

The intention is to apply the following controls to those accounts ordering for the GP part of the programme:

- In the first 4 weeks all customers will be able to order up to the national average uptake for 2 and 3 year olds in 2016 (40% of eligible cohort). Requests for extra vaccine will be considered on a case by case basis.

- In the next 4 weeks, all practices will be able to order up to last year’s INDIVIDUAL uptake (or remain at 40% if individual uptake was lower). Requests for extra vaccine will be considered on a case by case basis.

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• After these first 8 weeks all practices may order a maximum of 2 packs per week (one order per week). Requests for additional vaccine will continue to be considered on a case by case basis.

Any changes to this schedule in-season will be communicated via the news item on the ImmForm front page.

Requests for additional vaccine should be sent via the ImmForm helpdesk (helpdesk@immform.org.uk / 0844 376 0040) and should be sent in good time before your order cut-off. Out of schedule deliveries will be by exception only.

**Customers should remember when determining flu vaccine order volumes for children that provision for 4 year olds has moved to school providers.**

**School Providers**

**Last year**

Last season the number of doses that were ordered by schools providers but not administered to children was significant. If levels of vaccine ordered in the first few weeks of this season are as high as last year, then PHE will need to place restrictions on vaccine ordering for schools providers. It is not possible to apply restrictions to school providers in the same way as we have successfully managed for GPs, due to the variables in programme management across the country. Options for controlling stock from the centre are limited to a fixed volume restriction on the amount of vaccine which can be ordered by each account, irrespective of the size of the programme being delivered by each provider. **This could lead to disruption in programme delivery.**

It is important that school providers take extra care in determining the amount of vaccine they order to better match the pattern of delivery through the season and realistic uptake rates. Your support with this approach will help the NHS save a significant amount of money and ensure that vaccine remains available to those who need order it, throughout the season.

**Information for 2017 to 2018**

There will be a high level cap in place. This will allow school providers to order up to 300 packs (3000 doses) in any one week. **This is a limit and not a target.** Our advice to hold no more than 2 weeks’ worth of stock at any one time still applies, and should be adhered to by all providers. This will avoid the need to restrict vaccine availability further for the schools programme.

We know that there may be instances where school providers need to order more than 300 packs (3000 doses) in a week. Where this is the case, please contact the ImmForm helpdesk to arrange a large order. These will be dealt with on a case by case basis and will be by exception. If a provider covering a large area feels that they need a higher weekly cap than 300 packs (3000 doses) to deliver their programme, they should discuss their requirements with their commissioner in the first instance.

Orders will be monitored regularly and commissioners will be alerted to any unusual ordering activity and requests for additional vaccine.

**Please** take measures to ensure that ordering of LAIV is better matched with the pattern of delivery to eligible children, and based on realistic expected uptake rates.
We would ask all those responsible for the ordering of LAIV vaccine to review their past ordering, identify the ways in which ordering can be better informed and act on them. This will ensure vaccine is available for those who need it and save the NHS a significant amount of money.

Practices that ordered significantly more vaccine than they delivered to children in 2016/17 may be contacted individually, to help raise awareness to this issue.

**The General Principles for LAIV ordering**

- Remember that LAIV is supplied in a 10-dose pack
- Remember that you can order weekly and receive weekly deliveries
- Be realistic about the amount of vaccine that you need, and when you need it
- Spread your orders over the course of the flu vaccination season – later ordered stock will have a later expiry date and will last longer
- Hold no more than 2 weeks’ worth of stock in your fridge. Local stockpiling can cause delays or restrictions on stock being released to the NHS, and increases the risk of significant loss of stock if there is a cold chain failure in your supply chain or premises.

**Inactivated flu vaccine ordering**

The inactivated influenza vaccines, procured by PHE for children who are contraindicated for Fluenz Tetra and in a clinical risk group, will also be subject to the following ordering controls:

- Inactivated influenza vaccine (split virion) BP will have an initial cap of 5 doses per order per week, and
- Fluarix Tetra® will have an order cap of 30 doses per order per week.

These controls will also be regularly reviewed and updates on changes will be provided on the ImmForm news item.

**Vaccine information and availability 2017 to 2018**

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. 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 2017/18.

The following vaccines will be available for the 2017/18 influenza season for children, and are expected to be available to order via the ImmForm website from late September.

Further details on the timing of availability of vaccines for each part of the programme (2 and 3 year olds through GPs, and 4 to 8 year olds through school-based programmes) will be published as information becomes available.

Please refer to guidance from your respective health departments on supply of influenza vaccines in Scotland, Wales and Northern Ireland.
Vaccine Manufacturer Indicative date for ordering to start

- **Fluenz Tetra (LAIV)**  AstraZeneca UK Ltd  Late September
- **Inactivated influenza vaccine (split virion)** BP  Sanofi Pasteur  Late September
- **Fluarix Tetra**  GSK  Late September

Eligibility and the type of vaccine to offer children under 18 is as follows:

<table>
<thead>
<tr>
<th>Eligible cohort</th>
<th>Which vaccine</th>
<th>Setting in which it is normally offered</th>
<th>Key notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months to less than 2 years old</td>
<td>Offer suitable inactivated flu vaccine.</td>
<td>General practice</td>
<td>Eligibility is based on age at which they present</td>
</tr>
<tr>
<td>2 and 3 years olds (but not 4 years or older) on 31 August 2017*</td>
<td>Offer LAIV. If LAIV is medically contraindicated, then offer suitable inactivated flu vaccine.</td>
<td>General practice</td>
<td>Children who turn 2 years of age after 31 August 2017 are not eligible. Children who were 3 and turn 4 after 31 August 2017 remain eligible</td>
</tr>
<tr>
<td>Children in reception class and school years 1, 2, 3 and 4 (aged 4 to 8 years on 31 August 2017)**</td>
<td>Offer LAIV. If LAIV is medically contraindicated, then offer suitable inactivated flu vaccine.</td>
<td>School based provision</td>
<td>At risk children may be offered vaccination in general practice if the school session is late in the season or parents prefer it</td>
</tr>
<tr>
<td>Children in school year 5 and above (aged 9 years or older on 31 August 2017) and less than 18 years old</td>
<td>Offer LAIV. If LAIV is medically contraindicated, then offer suitable inactivated flu vaccine.</td>
<td>General practice</td>
<td></td>
</tr>
</tbody>
</table>

*Date of birth on or after 1 September 2013 and on or before 31 August 2015.

** Date of birth on or after 1 September 2008 and on or before 31 August 2013.

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Giving a second dose of Fluenz Tetra for children at risk groups

The patient information leaflet provided with LAIV states that children should be given two doses of this vaccine if they have not had flu vaccine before. However, the Joint committee on Vaccination and Immunisation (JCVI) considers that a second dose of the vaccine provides only modest additional protection. On this basis, JCVI has advised that most children should be offered a single dose of LAIV. However, children in clinical risk groups aged 2 to less than 9 years who have not received flu vaccine before should be offered two doses of LAIV (given at least four weeks apart).

Influenza Vaccines for the 2017 to 2018 influenza season

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Name of product</th>
<th>Vaccine Type</th>
<th>Age indications</th>
<th>Ovalbumin content micrograms/ml (micrograms/dose)</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td>AstraZeneca UK Ltd</td>
<td>Fluenz Tetra</td>
<td>Live attenuated, nasal (quadrivalent)</td>
<td>From 24 months to less than 18 years of age</td>
<td>≤0.12 (≤0.024/0.2ml dose)</td>
<td>0845 139 0000</td>
</tr>
<tr>
<td>GSK</td>
<td>Fluarix™ Tetra</td>
<td>Split virion inactivated virus (quadrivalent)</td>
<td>From 3 years</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td>0800 221 441</td>
</tr>
<tr>
<td>MASTA</td>
<td>Imuvac®</td>
<td>Surface antigen, inactivated virus</td>
<td>From 6 months</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td>0113 238 7552</td>
</tr>
<tr>
<td></td>
<td>Inactivated Influenza Vaccine (Split Virion) BP</td>
<td>Split virion, inactivated virus</td>
<td>From 6 months</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quadrivalent Influenza Vaccine (Split Virion, inactivated)</td>
<td>Split virion, inactivated virus</td>
<td>From 3 years</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td></td>
</tr>
</tbody>
</table>

Subscribe to Vaccine Update [here](#). Order immunisation publications [here](#). For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
<table>
<thead>
<tr>
<th>Supplier</th>
<th>Name of product</th>
<th>Vaccine Type</th>
<th>Age indications</th>
<th>Ovalbumin content micrograms/ml (micrograms/dose)</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mylan (BGP Products)</strong></td>
<td>Influvac® sub-unit</td>
<td>Surface antigen, inactivated virus</td>
<td>From 6 months</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td>0800 358 7468</td>
</tr>
<tr>
<td></td>
<td>Imuvac®</td>
<td>Surface antigen, inactivated virus</td>
<td>From 6 months</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Influenza vaccine, suspension for injection (influenza vaccine, surface antigen, inactivated)</td>
<td>Surface antigen, inactivated virus</td>
<td>From 6 months</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td></td>
</tr>
<tr>
<td><strong>Pfizer Vaccines</strong></td>
<td>Influenza vaccine (Split Virion, inactivated), prefilled syringe</td>
<td>Split virion, inactivated virus</td>
<td>From 5 years</td>
<td>≤2 (≤1/0.5ml dose)</td>
<td>0800 089 4033</td>
</tr>
<tr>
<td></td>
<td>Enzira®</td>
<td>Split virion inactivated virus</td>
<td>From 5 years</td>
<td>≤2 (≤1/0.5ml dose)</td>
<td></td>
</tr>
<tr>
<td><strong>Sanofi Pasteur Vaccines</strong></td>
<td>Quadrivalent Influenza Vaccine (Split Virion, inactivated)</td>
<td>Split virion, inactivated virus</td>
<td>From 3 years</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td>0800 854 430</td>
</tr>
<tr>
<td></td>
<td>Inactivated Influenza Vaccine (Split Virion) BP</td>
<td>Split virion, inactivated virus</td>
<td>From 6 months</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td></td>
</tr>
<tr>
<td><strong>Seqirus Vaccines Ltd</strong></td>
<td>Agrippal®</td>
<td>Surface antigen, inactivated virus</td>
<td>From 6 months</td>
<td>≤0.4 (≤0.2/0.5ml dose)</td>
<td>08457 451 500</td>
</tr>
</tbody>
</table>

Influenza vaccines for the 2017/18 influenza season (note the ovalbumin content is provided in units of micrograms/ml and micrograms/dose)

None of the influenza vaccines for the 2017/18 season contain thiomersal as an added preservative.
Vaccine Supply

Change to InterVax BCG vaccine recommendations

The supply of BCG vaccine for the UK programme remains fluid due to on-going manufacturing issues with the UK licensed supply from AJVaccines. However, there is currently sufficient stock of Intervax BCG vaccine to open ordering more widely to all eligible groups, including Occupational Health teams. Please see weblink 10 for the full list of eligible groups and updated advice, published July 2017.

Please note that future supply remains uncertain and further restrictions could be implemented at short notice.

Update on availability of hexavalent vaccine (Infanrix hexa®)

As a reminder, infants born on or after 1 August 2017 should be offered Infanrix hexa® (DTaP/IPV/Hib/HepB) as part of the national immunisation programme. In preparation for that, Infanrix hexa® ordering will open on ImmForm from the beginning of September 2017.

Infants born before 1 August 2017 who have commenced a primary vaccine course using DTaP/IPV/Hib (Pediacel® or Infanrix-IPV+Hib®) should continue with this vaccine where supplies remain in place.

Full details on the planned switchover from pentavalent to hexavalent vaccine are provided in the special edition Vaccine Update published in July 2017 (weblink 11).

In view of the shortage of monovalent hepatitis B vaccines, to preserve vaccine for birth and 4 week doses in infants born to hepatitis B infected mothers, ordering for Infanrix hexa (DTaP/IPV/Hib/HepB) via ImmForm has opened early. Therefore Infanrix hexa can be given to babies at 8 weeks old instead of monovalent hepatitis B vaccine (even if the baby was born before 1 August 2017). To avoid confusion, if a baby starts on Infanrix hexa they should complete their primary vaccine course with Infanrix hexa.

All other babies born before 1 August should continue with pentavalent vaccine if they commenced on it.

Bank Holiday deliveries

Due to the Summer Bank Holiday there will be no deliveries or order processing by Movianto UK on Monday 28 August 2017. Please see the table below for revised order and delivery dates.

For customers with a delivery day of Monday, please be aware that after the 21 August, your next available delivery day will be the Monday 4 September.

For customers requiring a scheduled delivery on the Tuesday 29 or Wednesday 30 August, orders will need to be placed before the Summer Bank Holiday by 11:55AM on Thursday 24 and Friday 25 August respectively.
You are reminded to be prepared for the break in deliveries and to order accordingly. Please make sure you have sufficient room in your fridge for any additional vaccine you wish to stock over this holiday period, bearing in mind the recommendation that only two to four weeks of vaccine stock be held at any one time.

### Spring Bank Holiday orders and deliveries

<table>
<thead>
<tr>
<th>Delivery date</th>
<th>Order cut-off date</th>
<th>Order cut-off time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 21 August 2017</td>
<td>Thursday 17 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Tuesday 22 August 2017</td>
<td>Friday 18 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Wednesday 23 August 2017</td>
<td>Monday 21 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Thursday 24 August 2017</td>
<td>Tuesday 22 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Friday 25 August 2017</td>
<td>Wednesday 23 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td><strong>Monday 28 August 2017</strong></td>
<td><strong>Closed – No deliveries</strong></td>
<td></td>
</tr>
<tr>
<td>Tuesday 29 August 2017</td>
<td>Thursday 24 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Wednesday 30 August 2017</td>
<td>Friday 25 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Thursday 31 August 2017</td>
<td>Tuesday 29 August 2017</td>
<td>11:55 AM</td>
</tr>
<tr>
<td>Friday 01 September 2017</td>
<td>Wednesday 30 August 2017</td>
<td>11:55 AM</td>
</tr>
</tbody>
</table>

### Vaccine supply for non-routine programmes

#### Hepatitis A

**Adult**
- GSK: Havrix PFS singles and Havrix PFS packs of 10 are currently unavailable and are unlikely to be available until 2018.
- Sanofi Pasteur: limited supplies of Avaxim are available. It is likely there will be order restrictions in place.
- MSD: A limited supply of VAQTA Adult is available with some stock being delivered mid-September. There will be restricted supplies of VAQTA for the remainder of 2017.

**Paediatric**
- GSK: Havrix Paediatric singles will be unavailable until October 2017. There will be restricted supply of this vaccine for the remainder of 2017.
- GSK: Havrix Paediatric packs of 10 will experience supply constraints for the remainder of 2017.
- MSD: VAQTA Paediatric is unavailable until mid-October.
Hepatitis B

Due to the global supply shortages, there is a limited stock of hepatitis B vaccine available in the UK. The situation has become particularly critical during August but limitations on supply are likely to continue until early 2018. To ensure that stock is available for those individuals at highest and most immediate risk of exposure to hepatitis B, ordering restrictions are in place and vaccine is being supplied according to the risk-based prioritisation categories detailed in the PHE temporary guidance at weblink 17.

Please note that there should be no delay in giving the early doses of hepatitis B vaccine to babies born to hepatitis B mothers. If hepatitis B monovalent paediatric vaccine is not immediately available from either manufacturer (GSK or Merck), an alternative hepatitis B containing vaccine should be given so that these babies are vaccinated on time.

Additionally, ordering for Infanrix hexa (DTaP/IPV/Hib/HepB) via ImmForm has opened early so that Infanrix hexa can be given at 8 weeks instead of monovalent hepatitis B vaccine in babies born to hepatitis B infected mothers. This will help preserve monovalent vaccine for birth and 4 week doses.

A mechanism is in place to allow for exceptional next-day orders if there is an urgent and immediate need for an individual following a thorough risk assessment.

Adult

- GSK: Engerix B PFS singles will experience supply constraints until September, and will then be unavailable until early 2018.
- GSK: Engerix B PFS packs of 10 are currently unavailable until late 2017.
- GSK: Engerix B vials are available, however supplies are limited.
- GSK: Fendrix is available but may be constrained if demand remains high.
- MSD: HBVAXPRO 10µg is unavailable until early September.
- MSD: HBVAXPRO 40µg is unavailable until late August.

Paediatric

- GSK: Engerix B Paediatric singles will be unavailable in August and experience constrained supply for the remainder of 2017.
- GSK: Ambirix is available but supply is constrained for the remainder of 2017.
- MSD: HBVAXPRO 5µg: Limited stocks are currently available.

Combined hepatitis A and hepatitis B vaccine

- GSK: Supplies of the adult presentation (Twinrix) and paediatric presentation (Twinrix Paediatric) will be constrained until late 2017.
- GSK: Ambirix is currently available.
Combined Hepatitis A and Typhoid
- GSK: Hepatyrix is unavailable until at least 2019.
- Sanofi Pasteur: ViATim is currently unavailable. Supplies are likely to become available from October.

Typhoid
- GSK: Typherix is unavailable until at least 2019.
- Sanofi Pasteur: Typhim is available with no order restrictions.
- PaxVax: Vivotif is available.

Rabies
- GSK: Rabipur is available.
- Sanofi Pasteur: licensed Rabies Vaccine BP is out of stock. For more information contact Sanofi Pasteur.

PPV
- MSD: There is limited stock of Pneumococcal Polysaccharide Vaccine (previously known as Pneumovax II). Replenishment is due early September.

Varicella Zoster vaccine
- GSK: Varilrix is available.
- MSD: VARIVAX is currently available.

Diphtheria, tetanus and poliomyelitis (inactivated) vaccine
- Sanofi Pasteur: Revaxis is available with no order restrictions.

MMR given before the first birthday
Following several enquiries recently as to whether a dose of MMR vaccine given before the first birthday counts as a valid dose, we would like to reiterate the advice in the Green Book chapter 11 (weblink 18) which states “Any dose of MMR given below the age of one year should be discounted, and two further doses will be required at the appropriate ages.” The advice that the primary immunisations can be counted as valid doses if given up to a week early (either inadvertently or deliberately e.g. for travel reasons) does not apply to MMR. So doses of MMR given at any time prior to the first birthday are not counted as valid doses.

MMR vaccine is not usually recommended before one year of age because of the potential for maternal antibodies to still remain up to this age. Any remaining maternally-acquired measles, mumps and rubella antibodies will neutralize the vaccine viruses, preventing the child from making an antibody response to the vaccine for themselves. Once these maternal antibodies have naturally waned, the child would be left unprotected. The reduction of maternal antibodies does not happen at a fixed point and therefore the optimal age chosen for scheduling.
children is a compromise between risk of disease and the level of protection provided by either maternal antibodies or MMR vaccine. With such a compromise already in place, it is not good practice to routinely offer MMR vaccine prior to the first birthday, i.e. at a stage in the child’s life when maternal antibodies may be circulating at levels more likely to interfere with the production of vaccine-induced antibodies.

Commissioners and providers of immunisations are asked to ensure that all doses of MMR vaccine are scheduled for shortly after the child’s first birthday, unless specifically required before this – for example during a local outbreak or when travelling to endemic countries. For travel or outbreak situations, MMR vaccine can be given from six months of age but this should not be counted as a valid dose and two further doses should be given at the appropriate ages. Pro-active look back and recall for doses given prior to the first birthday is not necessary, particularly where the second dose of MMR has been given. However, if as part of routine care, immunisers notice, that a MMR vaccine was given at any time before the child’s first birthday, they should offer an additional dose.

**Focus on Shingles**

By popular demand – an additional Shingles poster available to download now!

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Shingles age breakdown poster – making Shingles eligibility easy at a glance

**weblink 19**

Subscribe to Vaccine Update [here](#). Order immunisation publications [here](#).
For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
The new Shingles poster is available to **download** only. This poster is for the period up to 31 August and then a further poster will be available from 1 September.

Why not save the link above ([weblink 19](#)) to your favourites folder in your browser? When it updates you will see the new version automatically.

You can still order Poster product code: 2942856B from the DH health and social care orderline.

Don’t forget to only use the new Shingles leaflet available to order free of charge and the new Shingles appointment postcard.

To view them both go to [weblink 20](#).

All the resources you need to encourage as many eligible patients to have their vaccination and help protect them from the pain and suffering of Shingles.

**Shingles vaccination**

**Who's eligible?**

**Aged 70 years?**

Plus anyone in their 70s who was born after 1 September 1942 and has not yet had the vaccine.

**Aged 78 years?**

Plus anyone aged 78 years old who has missed out on the vaccine.

Protect yourself from the pain of shingles – speak to your GP surgery about having your vaccine today!

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**Vaccination against shingles 2017 leaflet**

Product code: 2942856

[weblink 20](#)

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**Shingles vaccination postcard**

Product code: 2942856C

[weblink 20](#)

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Subscribe to Vaccine Update [here](#). Order immunisation publications [here](#).

For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
Publishing changes – where to find training slides

Due to Government Digital Service requirements we are no longer able to publish certain document and file formats on the PHE website. This includes PowerPoint slide sets.

We have therefore had to publish our Annual flu and Infanrix hexa training slides on Slideshare at:

**The national flu immunisation programme 2017/18 slides:** [weblink 21]

**The national childhood flu immunisation programme 2017/18:** [weblink 22]

**The hexavalent DTaP/IPV/Hib/HepB combination vaccine:** [weblink 23]

If you do not wish to use Slide share, you can use the link below where the same sets are available to download from a Box account without needing a Slide share or Linked in account.

**National Flu Programme training slideset 2017_18.pptx:** [weblink 24]

**Childhood Flu Programme training slideset 2017_18.pptx:** [weblink 25]

**Infanrix hexa training slides 28 June 2017.pptx:** [weblink 26]

Subscribe to Vaccine Update [here](#). Order immunisation publications [here](#).
For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
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