



Introduction of hexavalent vaccine into the routine childhood immunisation programme for babies born on or after 1 August 2017

As set out in April's edition of Vaccine Update, in late September/early October, Infanrix hexa[®] (DTaP/IPV/Hib/HepB) will replace both Pediacel[®] and Infanrix/IPV+Hib[®] (DTaP/IPV+Hib) for routine childhood immunisations at 8, 12 and 16 weeks of age.

The introduction of a hexavalent vaccine means that as well as being protected against diphtheria, tetanus, pertussis, polio and Hib, babies will also be protected against hepatitis B. The introduction of a vaccine that protects against hepatitis B is an important milestone in the fight against viral hepatitis. World Hepatitis Day takes place on 28 July each year and aims to highlight the global health burden from all forms of viral hepatitis and galvanise efforts to tackle the problem. With the availability of effective vaccines and treatments for hepatitis B and curative treatments for hepatitis C, the World Health Organisation (WHO) goal of elimination of viral hepatitis as a major public health concern now seems to be within our reach.

The introduction of a hepatitis B containing vaccine into the UK routine childhood immunisation programme also fulfils the WHO recommendation that every country should routinely immunise children against hepatitis B, as part of the global strategy to eliminate this virus.

More details on World Hepatitis Day can be found at [weblink 1](#).

CONTENTS

Changes to the routine and selective immunisation schedules

Presentation of hexavalent vaccine

Vaccine ordering and minimising wastage

Immunisation against infectious disease (the Green Book)

Training materials for healthcare professionals

Patient Group Directions

Leaflets for parents

The Red Book – Personal Child Health Record Book (PCHR)

Routine monitoring of vaccine coverage for the hexavalent vaccine

Local monitoring of vaccine coverage data

Changes to the routine and selective immunisation schedules

There is no change to the timing of the routine childhood immunisation schedule with the introduction of the hexavalent vaccine but babies born on or after 1 August 2017 will be offered Infanrix hexa[®] (DTaP/IPV/Hib/HepB) in place of pentavalent vaccine (DTaP/IPV/Hib) at 8, 12 and 16 weeks of age.

The schedule has changed for the selective neonatal hepatitis B immunisation programme for babies born to hepatitis B infected mothers. These babies will still require a dose of monovalent vaccine immediately after birth and at 4 weeks of age and then follow the routine schedule with hexavalent vaccine (at 8, 12 and 16 weeks of age). They will require a further dose of monovalent hepatitis B vaccine at one year of age and should be tested to exclude infection at the same time (see table one below). A further dose of hepatitis B-containing vaccine at 3 years and 4 months is no longer recommended for those children who have completed their routine primary immunisations with the hexavalent hepatitis B-containing vaccine.

However the pre-school booster visit (for MMR and DTaP/IPV or dTaP/IPV vaccinations) provides an opportunity to check the child has been appropriately managed, i.e. fully immunised against hepatitis B and tested for infection.

Table one: Hepatitis B doses in the immunisation schedule for routine childhood and selective neonatal hepatitis B programmes

Age		Routine childhood		Babies born to hepatitis B infected mothers
Birth	X		✓	Monovalent HepB (Engerix B [®] or HBvaxPRO Paediatric [®]) (with HBIG if indicated)
4 weeks	X		✓	Monovalent HepB (Engerix B [®] or HBvaxPRO Paediatric [®])
8 weeks	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])
12 weeks	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])
16 weeks	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])	✓	DTaP/IPV/Hib/HepB (Infanrix hexa [®])
1 year	X		✓	Monovalent HepB (Engerix B [®] or HBvaxPRO Paediatric [®]) Test for HBsAg

Presentation of hexavalent vaccine

Please note, Infanrix hexa® is presented in two parts, a pre-filled syringe and a separate vial containing the powdered Hib component. The vaccine must be reconstituted by adding the contents of the pre-filled syringe to the vial containing the powder. Further details can be found in the Infanrix hexa® Summary of Product Characteristics at [weblink 2](#).



Vaccine ordering and minimising wastage

Infanrix hexa® is expected to be made available to order through ImmForm from the beginning of September 2017 in readiness for the planned switch over in late September/early October 2017.

To avoid potential wastage, ImmForm customers should aim to run down the volume of DTaP/IPV/Hib (Pediace® and Infanrix-IPV+Hib®) vaccines held in stock and only order the minimum volume to complete vaccination of babies born before 1 August 2017.

Infanrix hexa® should only be given to older babies (ie born before 1 August 2017) if there are no locally held vaccine stocks and no further Pediace® or Infanrix-IPV+Hib® can be ordered through ImmForm.

Following the introduction of Infanrix hexa® for babies born on or after 1 August 2017, in order to avoid any wastage of the existing vaccines used for this programme, any remaining stocks of DTaP/IPV/Hib (Pediace® and Infanrix-IPV+Hib®) should be used for babies who have already started courses with Pediace® or Infanrix-IPV+Hib® (second or third dose). If vaccine supplies still remain, then as a temporary measure, DTaP/IPV/Hib (Pediace® or Infanrix-IPV+Hib®) can be used for pre-school boosting at the age of 3 years and 4 months.

Once DTaP/IPV/Hib stocks are used up, pre-school boosting should revert back to Repevax® (dTaP/IPV).

Immunisation against infectious disease (the Green Book)

The hepatitis B chapter of the Green Book has been updated and is available at [weblink 3](#).

The new revised chapter sits alongside the current chapter. This chapter has been revised to include the introduction of the combination hexavalent vaccine into the routine childhood immunisation programme for babies born on or after 1 August 2017.

The older chapter includes vaccine recommendations for babies born up to and including 31 July 2017, but for indications other than babies, we recommend that you consult the new chapter that contains the most recent advice.

This is the first chapter in our new format and prints in A4. More details regarding the formatting revisions will be in the regular July edition 267 of Vaccine Update which will be published later this month.

Training materials for healthcare professionals

Training materials for healthcare professionals, including guidance on the use of hexavalent vaccine in the routine childhood programme, its use in the neonatal selective immunisation programme for babies at risk of maternal to child transmission of hepatitis B and a training slide set in both pdf and powerpoint formats are available at [weblink 4](#).

Patient Group Directions

Two new national patient group direction (PGD) templates have been developed to support the introduction of DTaP/IPV/Hib/HepB into the routine childhood immunisation programme: a PGD template for the administration of DTaP/IPV/Hib/HepB and a DTaP/IPV/Hib Booster PGD template.

The DTaP/IPV/Hib Booster PGD template has been developed to facilitate the use of remaining supplies of DTaP/IPV/Hib (Pediace^l® or Infanrix/IPV+Hib[®]) vaccine, for the pre-school booster, from 3 years and 4 months of age. Such use is recommended to prevent vaccine wastage, should supplies of DTaP/IPV/Hib remain following the introduction of DTaP/IPV/Hib/HepB into the routine childhood immunisation programme.

The existing PHE DTaP/IPV/Hib PGD template remains available and valid until 30 November 2017 to allow for the continued primary immunisation of infants born before 1 August 2017 with DTaP/IPV/Hib, so long as supplies remain available.

The new PGD documents will be published shortly and will be available at [weblink 5](#).


Please note: PHE PGDs should not be downloaded and used by providers directly from the above web-link. Prior to use by immunisers, section two of the PGDs (organisational authorisation) must have been completed as without this the PGD is not lawful or valid. Providers will need to locally obtain organisationally authorised PGDs in accordance with local policy/procedures.

Leaflets for parents

A range of communication materials for parents is available, see table two below. Leaflets and immunisation schedules which reflect the current childhood schedule, and the updated versions for use following the introduction of Infanrix hexa® are available to order. Ordering for the current versions is expected to close at the end of July 2017.

It is recommended that health professionals order sufficient stock of current leaflets to cover the period up to 31 July 2017 and also have stock available of the new versions ready to distribute from 1 August 2017.

Table two: Summary of immunisation publications which have been revised to include the introduction of the hexavalent vaccine

Front cover	Title and H&SC Orderline link	Babies born up to and including 31 July 2017 – Product code/link	Babies born on or after 1 August 2017
	Immunisations for premature babies a quick guide www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=31995799B	2901236	31995799B
	Immunisations for babies up to one year of age – main guide www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=3109328B	3109328	3109328B
	Immunisations for babies at one year of age www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=2902127B	2902127	2902127B
	Immunisations for preschool children www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=3197560B	3197560	3197560B
	Immunisations for young people https://www.orderline.dh.gov.uk/ecom_dh/public/saleproduct.jsf?catalogueCode=2902598B	2902598	2902598B

All communication materials are available to download and can be ordered from Health & Social Care Orderline at www.orderline.dh.gov.uk

Routine monitoring of vaccine coverage for the hexavalent vaccine

- Hexavalent vaccine coverage will be monitored routinely through the COVER programme alongside all other childhood immunisations.
- COVER data are extracted from Child Health Information Systems (CHIS) at the local authority level and published quarterly as official statistics.

Routine childhood programme COVER data:

- Percentage of eligible children in the local authority who have completed a primary course (3 doses), anytime up to the 1st, 2nd and 5th birthday.

Selective 'at-risk' infants programme COVER data:

- Percentage of eligible children in the local authority who have received 5 doses of HepB-containing vaccine* anytime up to the 1st birthday.
- Percentage of eligible children in the local authority who have received 6 doses of HepB-containing vaccine** anytime up to the 2nd birthday.

Local monitoring of vaccine coverage data

Hexavalent and monovalent HepB vaccine coverage will also be monitored via ImmForm

- Aggregated GP-level data will be extracted to monitor dose specific coverage at an earlier age than the routine COVER programme.
- These data are for local performance management purposes only and will not be published.

Routine childhood programme ImmForm GP data :

- Hexavalent vaccine coverage for 1, 2 and 3 doses evaluated at 6 months of age (percentage of eligible individuals who have received 0, at least 1, at least 2 and 3 doses of hexavalent vaccine).

Selective 'at-risk' infants programme ImmForm GP data :

- HepB vaccine coverage for 1, 2 and 3 doses at 3 months of age (percentage of eligible individuals who have received 0, at least 1, at least 2 and 3 doses of HepB-containing vaccine) AND
- Percentage who were tested for HBsAg at 18 months.

*two monovalent and three Infanrix hexa®

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Web links

- web link 1 <http://www.worldhepatitisday.org/en/2017-campaign>
- web link 2 <https://www.medicines.org.uk/emc/medicine/33313>
- web link 3 <https://www.gov.uk/government/publications/hepatitis-b-the-green-book-chapter-18>
- web link 4 <https://www.gov.uk/government/publications/hexavalent-combination-vaccine-programme-guidance>
- web link 5 <https://www.gov.uk/government/collections/immunisation-patient-group-direction-pgd>