Patient Group Direction (PGD) for the Administration of

COMBINED LOW DOSE DIPThERIA, TETANUS AND INACTIVATED POLIO VACCINE (Td/IPV – Revaxis ®)

by Registered Professionals to Individuals Accessing NHS Services in Durham, Darlington, Tees (DDT) and Cumbria, Northumberland, Tyne & Wear (CNTW)

YOU MUST BE AUTHORISED BY NAME, UNDER THE CURRENT VERSION OF THIS PGD BEFORE YOU ATTEMPT TO WORK ACCORDING TO IT.

Direction Number: - NECSAT 2014/007
Valid from: 15th May 2014
Review date: 1st February 2016
Expiry date: 31st May 2016

This patient group direction has been developed & produced by: -

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<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Medicines Optimisation Pharmacist (North of England Commissioning Support)</td>
<td>Marie Thompkins (Senior Pharmacist)</td>
<td></td>
<td>01/05/2014</td>
</tr>
<tr>
<td>Medicines Optimisation Pharmacist (North of England Commissioning Support)</td>
<td>Hira Singh (Senior Pharmacist)</td>
<td></td>
<td>01/05/2014</td>
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<tr>
<td>Consultant Public Health Medicine (Public Health England, DDT)</td>
<td>Dr Malathi Natarajan (Senior Doctor)</td>
<td></td>
<td>14/05/2014</td>
</tr>
<tr>
<td>Immunisation and Screening Manager (Public Health England, DDT)</td>
<td>Sandra Ansah (Senior Nurse)</td>
<td></td>
<td>01/05/2014</td>
</tr>
<tr>
<td>Immunisation and Screening Coordinator (Public Health England, CNTW)</td>
<td>Jane Morphet (Senior Nurse)</td>
<td></td>
<td>01/05/2014</td>
</tr>
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</table>

This PGD has been approved for use in Durham, Darlington and Tees by: -

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<tr>
<th>Title</th>
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<th>Date</th>
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<tbody>
<tr>
<td>Assistant Medical Director (DDT Team, NHS England)</td>
<td>Dr James Gossow (Governance Authorisation)</td>
<td></td>
<td>14/05/14</td>
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This PGD has been approved for use in Cumbria, Northumberland, Tyne & Wear by: -

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<th>Date</th>
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<tbody>
<tr>
<td>Medical Director (CNTW Area Team, NHS England)</td>
<td>Dr Mike Prentice (Governance Authorisation)</td>
<td></td>
<td>16/05/14</td>
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## 1. Clinical Condition or Situation to Which the Direction Applies

### Indication (defines situation or condition)

Immunisation against tetanus, diphtheria and polio diseases

### Objectives of care

To prevent infectious disease and promote health. To reduce morbidity & mortality and to eradicate disease.

### Inclusion criteria (as per Public Health England (PHE) Green Book Guidance (Sept. 2013))

Only use those criteria that are specific to your authorised role & competence.

Ensure appropriate consent has been obtained before commencing any vaccination.

Any individual aged 10 years and over:

- Requiring the routine "second" booster immunisation dose of Td/IPV following a primary course of immunisation
- Required as the first combined tetanus, polio and diphtheria (Td/IPV) booster dose at least 5 years after last dose of the primary course against diphtheria, tetanus and polio.
- Requiring to complete a primary course of tetanus, diphtheria or poliomyelitis vaccine*
- As a primary course in previously un-immunised individuals, or where there is an incomplete, uncertain or no history of primary immunisation against diphtheria, tetanus, and poliomyelitis (See HPA guidance)*
- As an additional booster dose prior to travel, for travellers going into areas where medical attention may not be accessible and whose last dose of a tetanus-containing vaccine was more than 10 years ago*, even if the individual has received five doses of vaccine previously, (See current on-line Green Book, chapter 30, page 372).
- Following a tetanus-prone injury if appropriate, (refer to on-line Green Book - chapter 30, page 371) for detailed information about the management of tetanus-prone injuries).

* (off-label use – refer to legal status section)

### Exclusion criteria (Refer to current SPC and Green Book Guidance (Online version) for additional details)

#### General exclusions

- Children under 10 years of age.
- No valid consent
- Patient is acutely unwell (postpone vaccination until recovered. Minor infections without fever or systemic upset are not reasons to postpone immunisation)
- Confirmed anaphylactic reaction to a previous dose of Revaxis or any other vaccine containing diphtheria, tetanus or poliomyelitis viruses, their components, their excipients or residues carried over from manufacture.
- Severe hypersensitivity to any ingredient or component of the vaccine(s) – (please also refer to precautions section).
- Have experienced encephalopathy or encephalitis, not due to another identifiable cause, within 7 days of administration of a previous dose of Revaxis or its components.
- Neurological complications following earlier immunisation against tetanus/diphtheria/polio, where no underlying cause is found & recovery is not complete within 7 days.
- Have a pre-existing evolving neurological condition (including unstable epilepsy). Defer immunisation until condition has stabilised or cause of condition identified (consider referral to specialist)

Refer also to current Summary of Product Characteristics (SPC), BNF and Green Book (current on-line version) for full list of details
Exclusion criteria (continued)

- Seizures associated with fever occurring within 72 hours of an immunisation. Further immunisation should be deferred if an underlying cause is not found and the child did not recover completely within 24hrs, until the condition is stable. If a cause is identified or the child recovers within 24 hours, immunisation should continue as recommended.

- Revaxis® should not be administered to subjects who completed a primary vaccination course or received a booster of a vaccine containing diphtheria or tetanus toxoids within the previous 5 years. This will minimise the risk of adverse effects.

Refer also to current Summary of Product Characteristics (SPC), BNF and Green Book (current on-line version) for full list of details

Precautions

- Pregnancy (known or suspected) or breast feeding
  - NB. The current on-line Green Book states that, “Diphtheria, tetanus or polio vaccines may be given to pregnant women when the need for protection is required without delay. There is no evidence of risk from vaccinating pregnant women or those who are breast feeding with inactivated viral or bacterial vaccines, or toxoids.”

- Hypersensitivity reactions to previous dose of vaccine or component of vaccine:
  - NB. “Local adverse reactions that generally start within a few hours of the injection and are usually mild and self-limiting. Although these are often referred to as ‘hypersensitivity reactions’, they are not allergic in origin, but may be either due to high titres of antibody or a direct effect of the vaccine product, e.g. endotoxin in whole-cell bacterial vaccines. The occurrence or severity of such local reactions does not contraindicate further doses of immunisation with the same vaccine or vaccines containing the same antigens
  - Individuals with immunosuppression and HIV infection should still be vaccinated according to the schedule. These individuals may not make a full antibody response and re-immunisation should be considered. Specialist advice may be required.

Action if excluded

- Discuss with or refer to clinician/doctor. Ensure all actions/decisions are documented.
- The risk to the individual of not being immunised must be taken into account.
- If postponement due to acute illness, arrange a future date for immunisation.

Circumstances in which further advice should be sought from doctor and/or specialist

- Patient meeting the exclusion criteria
- Patient requires additional information in order to decide whether or not to have the vaccination

Action if patient declines treatment

- Ensure patient/guardian/carer fully understands the risks of declining vaccination.
- Advise about protective effects of vaccine & the risks of infection and disease complications.
- Document refusal, advice given, actions/decisions in notes (written or electronic). Inform or refer to doctor as appropriate.
2. Description of Treatment.

Name, strength & formulation of drug

REVAXIS ® (Sanofi Pasteur MSD Ltd) – Low dose diphtheria, tetanus, and inactivated polio vaccine (Td/IPV)

- 0.5ml suspension for injection in a prefilled syringe, (type I glass with a (latex free) plunger-stopper).
- REVAXIS has a cloudy white appearance, which may sediment in storage. Shake well before administration.

Legal Status:

POM – Prescription Only Medicine.
(The use of the vaccine in this PGD is off-label but follows current Public Health England guidance)

Dosage/ Dose range:

0.5ml (1 single dose)

Route/ Method:

Intramuscular injection (IM) preferably into the deltoid muscle: -

- Td/IPV must not be administered by intra-dermal or intravascular routes.
- For individuals with a bleeding disorder vaccines should be given by deep subcutaneous injection.
- If given at the same time as other vaccines it should be given at separate sites, preferably in a different limb.
(Please refer to the manufacturer’s SPCs and on line version of the Green Book for detailed information).

Frequency of Administration: (Refer to PHE Green Book Guidance (Sept. 2013) for additional details)

<table>
<thead>
<tr>
<th>ROUTINE CHILDHOOD RE-INFORCING IMMUNISATION (Second booster dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 10 years or over</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>FIRST BOOSTER IMMUNISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children aged 10yrs or over &amp; adults</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNKNOWN OR INCOMPLETE IMMUNISATION STATUS (as a primary immunisation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children aged 10yrs or over and adults</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

Please refer to the Immunisation Against Infectious Diseases (Green Book), online Chapters 15, 26 and 30 for full details.
Frequency of Administration - continued

- A routine **second booster dose** of Td/IPV to patients aged 10 years and above,
  (Ideally given 10 years after first (pre-school) booster dose, (but no less than five years where previous doses have been delayed, in order to bring child back in to the routine vaccination schedule).

- **First (Td/IPV) booster dose** for patients aged 10 years and above,
  (who **have not** already received the first booster at least 5 years after the primary course against diphtheria, tetanus and polio).

- **A primary course of three doses** (given at one month intervals) to previously unimmunised individuals or where
  there is no history of primary immunisation against diphtheria, tetanus and polio (**this use is “off-label”**).

- If primary course is interrupted it should be resumed but not repeated, allowing 1 month between remaining doses.

- **To complete a primary or booster course** where there is an incomplete history of 5 doses of immunisation against
diphtheria, tetanus and polio (**This use is off label**).
  - The interval between the last dose of Td/IPV given for primary immunisation and the first booster dose of Td/IPV should be at
    least 5 years.
  - The interval between the first booster dose of Td/IPV and the second booster dose of Td/IPV should be 5-10 years. (See
    Green Book & HPA guidance)

- **A single booster dose** (i.e. above the usual 5-dose course) prior to travel,
  - for travellers going into areas where medical attention may not be accessible and whose last dose of a tetanus containing
    vaccine was more than 10 years ago*, even if the individual has received five doses of vaccine previously, (See current on-

- **A single booster dose** (i.e. above the usual 5-dose course) to travellers
  - who require protection against diphtheria, tetanus or polio and the final dose of the relevant antigen was received more than
    10 years ago* (See on-line Green Book chapters 15 (p.115) & 26 (p.319) – (this use is “off-label”)

- **A single booster dose** following a tetanus prone injury,
  - The timing of tetanus for tetanus prone injuries may or may not require an injection. Please refer to on-line Green Book -
    chapter 30, page 371) for detailed information about the management of tetanus-prone injuries).

Please refer to the Immunisation Against Infectious Diseases (Green Book), online Chapters 15, 26 and 30 for full details.

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**Maximum dose**

Maximum dose: **0.5ml**

**Maximum number of vaccinations:**

Please refer to the **“Frequency of Administration”** sections above

**Follow up treatment:**

As per current PHE Immunisation Schedule (see Appendix 1)
3. Further Aspects of Treatment:

### Relevant Warnings & Potential Adverse Effects

**Relevant Warnings:** - See Manufacturers SPC for full details / current Green Book online Chapters 9, 15, 26 & 30

**Potential Adverse Effects/ Reactions:** - Usually transient and only last a few days after vaccination.

**Please be aware of Resuscitation Council Guideline changes (2010)**

<table>
<thead>
<tr>
<th>Very common &amp; Common reactions</th>
<th>Mild swelling, erythema, pain and redness at injection site.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pyrexia, Headache, Vomiting, Nausea and Vertigo</td>
</tr>
<tr>
<td>Less common effects</td>
<td>Malaise, Myalgia</td>
</tr>
<tr>
<td>Rarely</td>
<td>Convulsion, Anaphylactic reaction, Lymphadenopathy, Arthralgia, Diarrhoea, Pallor, Cyanosis</td>
</tr>
</tbody>
</table>

See Manufacturers SPC for full details of all potential adverse reactions.

### Identification and Management of Adverse Reactions

- Patient/ Carer / Guardian requested to report side effects
- **Advice on management including anaphylaxis:** - Chapter 8 of the Green Book provides detailed advice on managing ADRs following immunisation, e.g. Analgesia for pain &/or fever; prevention of dehydration; drinking plenty of clear fluids).
- Refer to doctor if appropriate. Please be aware of Resuscitation Council Guideline changes (2010)

Please refer to current SPC “special warnings & special precautions for use” section for full details & relevant online chapters of the Green Book.

### Reporting Procedure of Adverse Effects

- Report to doctor if appropriate & document in patient's medical records.
- All suspected Adverse drug reactions to vaccines occurring in children, or in individuals of any age after vaccines labelled with a black triangle (▼), should be reported to the MHRA using the yellow card scheme.
- For established vaccines only report serious adverse reaction. Please refer to [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard) and Green Book-Chapter 9 (20th March 2013).

See manufacturers Summary of Product Characteristics for details of all potential adverse reactions.

### Advice to Patient / Carer (verbal or written)

- Explain protection level expected from vaccine.
- Provide a patient information leaflet and discuss as required.
- Provide advice on & explain potential warnings & side effects and request to report them if they occur.
- Provide advice on management of adverse reactions (see above and manufacturers SPC).
- Explain procedure for dealing with anaphylaxis /severe allergic reactions. Explain the “Out of Hours” procedure.
- Give date of next vaccine if applicable.
- Complete patient-held vaccination record
- Provide patient with vaccination record card (to include date of next vaccination, completion of course or blood test) if applicable.
**Arrangements for Referral to Medical Advice**

- Doctor appointment as and when appropriate

**Records**

In all cases manual records including the Personal Held Child Record, computerised records and data collection for Child Health Information Services (CHIS) should include:

- Patient’s name and date of birth;
- Reason vaccination required;
- Date of administration;
- Dose, site and route of injection;
- Brand name, batch number & expiry date of vaccine;
- Whom administered by & signature of vaccinator (if not recorded on computer);
- Confirmation that there are no contraindications; That side effects have been discussed; Support literature given (if applicable);
- Signature and printed name and designation (in black ink) for paper records. For computer records, ensure data authentication of practitioner delivering care.

**Additional Facilities**

- Access to a current BNF and updated Green Book information
- Store in a refrigerator (+2°C to +8°C). Discard if frozen. Have access to a telephone.
- Stock control & storage of vaccines in accordance with national and local policies / protocols/ guidelines.
- Emergency equipment available including immediate access to Epinephrine (Adrenaline) 1 in 1000 injection (as a minimum).
  (Please refer to PGD for adrenaline as applicable)

**Special Considerations / Additional Information**

- Td/IPV (Revaxis) vaccine can be given at the same time as other vaccines or immunoglobulins, including MMR, HPV, MenC and Hepatitis B vaccine etc, but at a different injection site – either in different limbs or at least 2.5cms from the concomitant immunisation.
- Vaccine normal appearance is a cloudy white suspension that may sediment during storage. Shake the pre-filled syringe well to distribute the suspension uniformly before administering the vaccine.
- Td/IPV vaccine should be maintained at a temperature of +2°C to +8°C
  (Please see updated Green Book – Online version, Chapters 15, 26, 30 and the manufacturer’s SPC)

**References**

- **NICE**: Good Practice Guidance (August 2013) – Patient Group Directions.
- **Nursing and Midwifery Council (NMC), 2007**: Standards for Medicines Management.
- **Nursing and Midwifery Council (NMC), 2007**: Record Keeping Advice Sheet.
- **Nursing and Midwifery Council (NMC), 2008**: Code of Professional Conduct: standards of conduct, performance & ethics for nurses and midwives.
- **Resuscitation Council (UK), October 2010**: Emergency Medical Treatment of anaphylactic reaction by first medical responders and community nurses. [www.resus.org.uk/siteindx.htm](http://www.resus.org.uk/siteindx.htm)
- Sanofi Pasteur MSD Limited, Revaxis ® - **Summary of Product Characteristics** (SPC), 22/05/08 (accessed from Electronic Medicines Compendium on 05/03/14).
- **Public Health England**: specification No.12; Td/IPV (teenage booster) immunisation programme
4. Characteristics of Healthcare Professional Staff

Only those healthcare professionals that have been specifically authorised by their clinical lead/supervisor/manager may use this PGD for the indications defined within it.

Under current legislation, only the following currently registered healthcare professionals may work under Patient Group Directions (PGDs). These professionals may only supply or administer medicines under a PGD as named individuals. These professionals include -

| Pharmacists | Nurses | Chiropodists/Podiatrists |
| Health Visitors | Physiotherapists | Midwives |
| Dieticians | Optometrists | Registered Orthoptists |
| Prosthetists and Orthotists | Radiographers | Occupational Therapists |
| Speech and Language Therapists | Dental Hygienists | Dental Therapists |

State registered paramedics or individuals who hold a certificate of proficiency in ambulance paramedic skills issued by the Secretary of State, or issued with his approval.

Qualifications required (professional registration applies to specific professions)

Professionals using this PGD must be currently registered with their relevant professional body, e.g.
- For Nurses: - Nursing & Midwifery Council (NMC)
- For Pharmacists: - General Pharmaceutical Council (GPhC)
- For Allied Health Professionals: - Health Professions Council

Additional requirements (applies to all staff)

- Maintain knowledge of vaccinations; either through a recognised course or through in-house training supported by attendance at vaccination study day(s).
- Meet the HPA National minimum standards in immunisation training 2005 either through training or professional competence ensuring that annual training is offered to all staff.
- Have up to date resuscitation skills and anaphylaxis training (and competent to recognise & manage anaphylaxis).
- Competent to undertake immunisations and have a current authorised Adrenaline PGD.
- Will have undertaken training in the role, care and administration of the medicine specified in the PGD.
- Have access to a current BNF and Immunisation against infectious disease (Green Book).
- Any additional training requirements as deemed necessary by your organisation or authorising body.

Continued training requirements (applies to all staff)

- Annual attendance at an update on resuscitation skills and the management of anaphylaxis within the community/primary care (mandatory).
- Maintenance of own level of updating and competence with evidence of continued professional development.
- Annual updates in immunisation (recommended).
- Any continued training requirements as deemed necessary by your organisation or the authorising body.
Management & Monitoring of Patient Group Direction NECSAT 2014/007

Td/IPV - REVAXIS® vaccine

Individual Healthcare Professional Authorisation

This form can to be used for the purpose of managing, monitoring and authorising the use of this Patient Group Direction by the named healthcare professional.

- This page is to be retained by the individual healthcare professional/practitioner.
- This PGD is to be read, agreed to and signed by all registered Healthcare Professionals it applies to. Healthcare Professionals must be authorised by the person(s) named below before using the PGD.
- By signing this document, the healthcare professional confirms that they understand the PGD, that they are competent to work under this PGD, that they will practice in accordance with the parameters of the PGD and accept full clinical responsibility for any decisions made with using this PGD.
- Patient Group Directions should be used in conjunction with reference to national or local policies, guidelines or standard text (e.g. manufacturers Summary of Product Characteristics) and DO NOT replace the need to refer to such sources.

Name of Healthcare Professional: - __________________________

is authorised to administer

**Combined Td / IPV VACCINE (Revaxis®)**

……under this Patient Group Direction (NECSAT 2014/007)

Signature of Healthcare Professional: - __________________________

Date signed: - __________________________

State profession: - __________________________

**Authorisation to use this PGD by:** -

This above named healthcare professional has been authorised to work under this PGD by:

Name of Manager/Clinical Lead: - __________________________

Signature of Manager/Clinical Lead: - __________________________

Date signed: - __________________________

PGD Valid from: 15th May 2014  |  Review Date: - Feb. 2016  |  Expiry Date: - 31st May 2016
This form can be used for the purpose of managing, monitoring and authorising the use of this Patient Group Direction by the named healthcare professionals.

- This page should be signed by all healthcare professionals authorised to use this PGD and retained and kept on file by the service/practice manager as a record of all practitioners authorised to use this PGD

The following healthcare professionals are authorised to administer Td/IPV (REVAXIS®) vaccine under the Patient Group Direction (NECSAT 2014/007)

<table>
<thead>
<tr>
<th>Healthcare Professional</th>
<th>Authorised by:</th>
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<tbody>
<tr>
<td>Name</td>
<td>Signature</td>
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PGD Valid from date: 15th May 2014  PGD Expiry Date: 31st May 2016
### Appendix 1 – The complete routine immunisation schedule 2013/14

<table>
<thead>
<tr>
<th>When to immunise</th>
<th>Diseases protected against</th>
<th>Vaccine given</th>
<th>Immunisation site¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two months old</td>
<td>Diphtheria, tetanus, pertussis (whooping cough), polio and <em>Haemophilus influenzae</em> type b (Hib)</td>
<td>DTaP/IPV/Hib (Pediacel)</td>
<td>Thigh</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal disease</td>
<td>PCV (Prevenar 13)</td>
<td>Thigh</td>
</tr>
<tr>
<td></td>
<td>Rotavirus</td>
<td>Rotavirus (Rotarix)</td>
<td>By mouth</td>
</tr>
<tr>
<td>Three months old</td>
<td>Diphtheria, tetanus, pertussis, polio and Hib</td>
<td>DTaP/IPV/Hib (Pediacel)</td>
<td>Thigh</td>
</tr>
<tr>
<td></td>
<td>Meningococcal group C disease (MenC)</td>
<td>Men C (NasVac-C or Menjugate)²</td>
<td>Thigh</td>
</tr>
<tr>
<td></td>
<td>Rotavirus</td>
<td>Rotavirus (Rotarix)</td>
<td>By mouth</td>
</tr>
<tr>
<td>Four months old</td>
<td>Diphtheria, tetanus, pertussis, polio and Hib</td>
<td>DTaP/IPV/Hib (Pediacel)</td>
<td>Thigh</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal disease</td>
<td>PCV (Prevenar 13)</td>
<td>Thigh</td>
</tr>
<tr>
<td>Between 12 and 13 months old – within a month of the first birthday</td>
<td>Hib/MenC</td>
<td>Hib/MenC (Menitorix)</td>
<td>Upper arm/Thigh</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal disease</td>
<td>PCV (Prevenar 13)</td>
<td>Upper arm/Thigh</td>
</tr>
<tr>
<td></td>
<td>Measles, mumps and rubella (German measles)</td>
<td>MMR (Priorix or MMR VarPRO)²</td>
<td>Upper arm/Thigh</td>
</tr>
<tr>
<td>Two and three years old³</td>
<td>Influenza* (from September)</td>
<td>Flu nasal spray (Fluenz) (annual) (if flu vaccine unsuitable, use inactivated flu vaccine)</td>
<td>Nasostris</td>
</tr>
<tr>
<td>Three years four months old or soon after</td>
<td>Diphtheria, tetanus, pertussis and polio</td>
<td>dTaP/IPV (Repevax) or dTeP/IPV (Infanrix-IPV)³</td>
<td>Upper arm</td>
</tr>
<tr>
<td></td>
<td>Measles, mumps and rubella</td>
<td>MMR (Priorix or MMR VarPRO) (check first dose has been given)³</td>
<td>Upper arm</td>
</tr>
<tr>
<td>Girls aged 12 to 13 years old</td>
<td>Cervical cancer caused by human papillomavirus types 16 and 18 (and genital warts caused by types 6 and 11)</td>
<td>HPV (Gardasil)</td>
<td>Upper arm</td>
</tr>
<tr>
<td>Around 14 years old</td>
<td>Tetanus, diphtheria and polio</td>
<td>Td/IPV (Revaxis), and check MMR status</td>
<td>Upper arm</td>
</tr>
<tr>
<td>65 years old</td>
<td>Pneumococcal disease</td>
<td>PPV Pneumococcal polysaccharide vaccine (Pneumovax II)</td>
<td>Upper arm</td>
</tr>
<tr>
<td>65 years of age and older</td>
<td>Influenza*⁴ (from September)</td>
<td>Flu injection (annual)</td>
<td>Upper arm</td>
</tr>
<tr>
<td>70 years old</td>
<td>Shingles (from September)</td>
<td>Shingles (Zostavax)</td>
<td>Upper arm (subcutaneous)</td>
</tr>
</tbody>
</table>

### Immunisations for those at risk⁷

<table>
<thead>
<tr>
<th>At birth, 1 month old, 2 months old and 12 months old</th>
<th>Hepatitis B</th>
<th>Hep B</th>
<th>Thigh</th>
</tr>
</thead>
<tbody>
<tr>
<td>At birth</td>
<td>Tuberculosis</td>
<td>BCG</td>
<td>Upper arm (intradermal)</td>
</tr>
<tr>
<td>Six months up to two years</td>
<td>Influenza*⁴</td>
<td>Inactivated flu vaccine (annual)</td>
<td>Upper arm/thigh</td>
</tr>
<tr>
<td>Two years up to under 65 years</td>
<td>Pneumococcal disease</td>
<td>PPV Pneumococcal polysaccharide vaccine (Pneumovax II)</td>
<td>Upper arm</td>
</tr>
<tr>
<td>Over two up to less than 18 years</td>
<td>Influenza*⁴</td>
<td>Flu nasal spray (Fluenz) (annual) (if flu vaccine unsuitable, use inactivated flu vaccine)</td>
<td>Nasostris</td>
</tr>
<tr>
<td>18 up to under 65 years</td>
<td>Influenza*⁴</td>
<td>Inactivated flu vaccine (annual)</td>
<td>Upper arm</td>
</tr>
<tr>
<td>From 28 weeks of pregnancy</td>
<td>Pertussis</td>
<td>dTaP/IPV (Repevax)</td>
<td>Upper arm</td>
</tr>
</tbody>
</table>

¹ Where two or more injections are required at once, these should ideally be given in different limbs, ² This is defined as children aged two or three years (but not four years) on 1 September 2013. ³ The vaccine is given prior to the flu season – usually in September and October. ⁴ Where this is not possible, injections in the same limb should be given 2.5cm apart. For more details see Chapters 4 and 11 in the Green Book. All vaccines are given intramuscularly unless stated otherwise. ⁵ This vaccination will be introduced during the 2013/14 academic year. ⁶ The vaccine supplied will depend on the brands available at the time of ordering. ⁷ See individual chapters of the Green Book for clinical risk groups.