Scottish Vaccine Update
Health Protection Scotland

Issue 66 December 2017 © HPS

NHS National Services Scotland

Supply problems with pneumococcal polysaccharide 23-valent vaccine (PPV23)

There is a current shortage of the PPV23 vaccine which is likely to continue for the foreseeable future. There is only one licensed vaccine available and the volume available is unlikely to be sufficient to vaccinate the whole 65 year old cohort this winter.

PPV23 is currently recommended for:

- individuals aged 2 years or over in clinical risk groups (table) and
- individuals aged 65 years or over

The PPV23 programme is an enhanced service and often delivered alongside the influenza programme, although only a single lifetime dose is recommended for most individuals. Because of the relatively short duration of protection, and the increasing incidence with age, there are no major concerns about deferring vaccination in over 65 year olds for several months or until next year. The enhanced service payment allows for this delay.

It is recommended that practices should plan to deliver the healthy elderly programme throughout the year, rather than linking it to the flu programme. This will help to ensure stock demand is more consistent across the year. Stock should be ordered in small quantities to cover the requirements each month, thus also reducing the risk of wastage.

For practices that have stock, the priority should be to offer vaccine to those newly diagnosed with conditions in the high and moderate priority groups (table). When such individuals are first identified, if no vaccine is currently available, it is important to ensure that their records are flagged in order to call them for a future appointment. Other aspects of management should be in place and optimised (for example antibiotic prophylaxis, influenza vaccination, or booster doses of PCV13) – as advised in relevant guidance or by the specialist clinician caring for the patient.

Opportunistic vaccination of those in the high and moderate priority groups who have not already been vaccinated, and booster doses for those with splenic dysfunction and chronic kidney disease is less urgent and can be planned when sufficient stock has been secured.

Please also note that the national stock of PCV13 (Prevenar13®), or separately procured PCV10 (Synflorix®), should not be used in place of PPV23. As herd immunity from the infant and toddler programme has reduced levels of infections in the elderly for those 13 serotypes to very low levels, and only PPV23 can provide any protection against the serotypes that now predominate in that age group.

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Table 1: Priority groups for Pneumococcal polysaccharide 23-valent vaccine (PPV23)

Clinical risk group	Examples (decision based on clinical judgement)
High priority	
Asplenia or dysfunction of the spleen	This also includes conditions such as homozygous sickle cell disease and coeliac syndrome that may lead to splenic dysfunction.
Immunosuppression	Due to disease or treatment, including patients undergoing chemotherapy leading to immunosuppression, bone marrow transplant, asplenia or splenic dysfunction, HIV infection at all stages, multiple myeloma or genetic disorders affecting the immune system (e.g. IRAK-4, NEMO, complement deficiency). Individuals on or likely to be on systemic steroids for more than a month at a dose equivalent to prednisolone at 20mg or more per day (any age), or for children under 20kg, a dose of 1mg or more per kg per day.
Individuals with cerebrospinal fluid leaks	This includes leakage of cerebrospinal fluid such as following trauma or major skull surgery.
Individuals with cochlear implants	It is important that immunisation does not delay the cochlear implantation.
Moderate priority	
Chronic respiratory disease	This includes chronic obstructive pulmonary disease (COPD), including chronic bronchitis and emphysema; and such conditions as bronchiectasis, cystic fibrosis, interstitial lung fibrosis, pneumoconiosis and bronchopulmonary dysplasia (BPD). Children with respiratory conditions caused by aspiration, or a neurological disease (e.g. cerebral palsy) with a risk of aspiration. Asthma is not an indication, unless so severe as to require continuous or frequently repeated use of systemic steroids (as defined in Immunosuppression above).
Chronic heart disease	This includes those requiring regular medication and/or follow-up for ischaemic heart disease, congenital heart disease, hypertension with cardiac complications, and chronic heart failure.
Chronic kidney disease	Nephrotic syndrome, chronic kidney disease at stages 4 and 5 and those on kidney dialysis or with kidney transplantation.
Chronic liver disease	This includes cirrhosis, biliary atresia and chronic hepatitis.
Diabetes	Diabetes mellitus requiring insulin or oral hypoglycaemic drugs. This does not include diabetes that is diet controlled.
Low priority	
Healthy over 65s	

Update on switch to hexavalent (DTaP/IPV/Hib/HepB) vaccine for infants

NHS boards can no longer order pentavalent (DTaP/IPV/Hib) vaccines, Pediacel® and Infanrix® – IPV+Hib. Infanrix hexa® (DTaP/IPV/Hib/HepB) is available to order instead and should be provided to eligible infants born on or after 1 August 2017 for routine childhood immunisations at 8, 12 and 16 weeks of age. Infanrix hexa® (DTaP/IPV/Hib/HepB) should also be provided to infants born before 1 August 2017 who have commenced the primary vaccine course with pentavalent vaccine (DTaP/IPV/Hib), as the second or third doses in the schedule cannot be completed with pentavalent vaccine.

Babies born on or after 1 August 2017 to hepatitis B infected mothers will still require a dose of monovalent vaccine immediately after birth and at 4 weeks of age and should then follow the routine schedule with Infanrix hexa® (DTaP/IPV/Hib/HepB) vaccine at 8, 12 and 16 weeks of age. They will require a further dose of monovalent hepatitis B vaccine (not centrally supplied) at age 12 months and should be tested to exclude infection at the same time.

For more details on the introduction of Infanrix hexa® into the childhood immunisation programme look at issue 64 of Scottish Vaccine Update, available here.

Change to Rotarix® presentation

Rotarix® oral suspension tube presentation was introduced to the UK market earlier this year, replacing the suspension in pre-filled oral applicator presentation. Once stocks of the oral applicator are used up the vaccine in the tube presentation will be supplied.

An image for the new pack and the tube presentation is shown below.

Check the expiry date of Fluenz Tetra® vaccine

Fluenz Tetra® supplied for the children's part of the national flu programme has a shorter shelf life than other influenza vaccines. Fluenz Tetra® has been supplied with expiry dates ranging from late December 2017 and into early January 2018. There is a small supply of stock with expiry dates into early March 2018 which will become available early in the New Year. Please ensure that the expiry date is always checked before use.

Green Book chapter updates

The Green Book is available here.

Chapter 6 has been completely updated to reflect the latest evidence on contraindications and special considerations for vaccination. The updated chapter is available here.

Vaccination of individuals with uncertain or incomplete vaccination status

Public Health England has updated its advice on vaccination of individuals with uncertain or incomplete immunisation status to reflect the introduction of Infanrix hexa® vaccine. The updated version is available here.

Availability of hepatitis B containing vaccine

In the August 2017 issue of Scottish Vaccine Update, available here the temporary recommendations on use of hepatitis B vaccine were laid out as a result of a global shortage of hepatitis containing vaccine. The temporary recommendations on vaccine use have recently been updated by Public Health England. The revised recommendations and priority groups are available here.

The supply of the combined hepatitis A/hepatitis B vaccines, Twinrix® and Ambirix® has improved. This has allowed the manufacturer (GSK) to supply limited volumes of vaccine to providers for some travellers in priority group 4.

Travellers in priority group 4 should still have an individual risk assessment as vaccination is **not** routinely recommended for all travel (see TRAVAX). However, those travellers in priority group 4a may be offered immediate vaccination. Vaccination for travellers in priority group 4b and in priority group 5 (boosters) should be deferred until the supply situation improves further.

Limited supplies of Twinrix® and Ambirix® and Engerix B® Paediatric are now available to order for priority groups 1 to 4.

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Scottish Vaccine Update information on vaccine supplies is based upon information obtained from Public Health England Vaccine Update 271/2

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Published by: Health Protection Scotland

Meridian Court, 5 Cadogan Street, Glasgow G2 6QE

T: 0141 300 1100 **F:** 0141 300 1170 **W:** http://www.hps.scot.nhs.uk