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61, Colindale Avenue
London
NW9 5EQ

T +44 (0) 20 8327 7084
www.gov.uk/phe

Attention: General practitioners, practice managers and practice nurses

Dear colleague, 09 October 2017

Re: Shortage of Pneumococcal polysaccharide vaccine - recommendations for general practice

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 although the company are expecting more stock deliveries during October, the volume anticipated is unlikely to be sufficient to vaccinate the whole 65 year old cohort this winter.

After discussion with the BMA's General Practitioners Committee, the attached document has been produced to provide advice for general practices during this time. The main recommendation is that practices plan to deliver the bulk vaccine programme across the year. For those at high risk, it is important to ensure that other preventive measures, including influenza vaccination, are implemented. It is also recommended that the records of such patients are flagged so that they can be called for vaccine once the stock situation improves.

There is no shortage of the PCV13 vaccine used in infants and toddlers but this vaccine is not suitable for protection of older people.

Yours faithfully,

Dr Mary Ramsay
Head of Immunisation, Hepatitis, Blood Safety and Countermeasures Response

Pneumococcal polysaccharide 23-valent vaccine (PPV23)

Background

PPV23 is currently recommended for:

- individuals aged 2 years or over in clinical risk groups (table) and
- individuals aged 65 years or over.[1]

The vaccine covers the 23 most common serotypes of *Streptococcus pneumoniae* (the pneumococcus) that are responsible for a range of diseases including meningitis, septicaemia and pneumonia. Pneumococcal infection occurs in the extremes of age with the highest incidence in infants and the elderly, particularly those over the age of 75 years.

The vaccine differs from the PCV13 vaccine used for the routine childhood programme, as it covers an additional 10 serotypes, and is not conjugated to a protein. PPV23 provides modest protection of limited duration, and the level of protection conferred is lower in individuals aged over 75 years. Booster doses are not recommended for most individuals at risk as there is limited evidence of additional protection, although five yearly boosters are recommended for asplenic patients and those with chronic kidney disease.[1] In contrast, a course of PCV13 provides excellent protection to young infants and also reduces the nasopharyngeal carriage of *S. pneumoniae* – leading to high levels of herd immunity. The infant PCV programme has therefore been highly successful in controlling the 13 serotypes across all age groups, including the elderly. The remaining 10 serotypes in PPV23, and the other serotypes not covered in any vaccine, are now responsible for the majority of residual disease.[2]

Current arrangements

The PPV23 programme is commissioned as 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.[3]

Advice on how to manage and plan your PPV23 programme

Given the long term shortages of PPV23 vaccine, and the imminent shortages this winter, 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 and that stock can be ordered in small quantities to cover the requirements each month, thus also reducing the risk of wastage.

If you are able to procure 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 please ensure that their records are flagged in order to call them for a future appointment. Also ensure that other aspects of management are optimised and in place (for example antibiotic prophylaxis, influenza vaccination, or booster doses of PCV13) - as advised in relevant guidance[4,5] 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 the 13 (or 10) serotypes to very low levels, and only PPV23 can provide any protection against the serotypes that now predominate in that age group.

References

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Table: 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 below).
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	