



Health Department

Dear Colleague

Planned changes to the routine Childhood Immunisation Programme

This letter provides advance notice of the Scottish Executive Health Department's plans to introduce important changes to the childhood immunisation programme that will start later this year. These changes will ensure that young children in this country are offered the best protection against serious vaccine-preventable diseases.

We propose to introduce these changes in the summer, and a firm date will be announced as soon as vaccine supply and other issues have been finalised. A further more detailed Chief Medical Officer/Chief Nursing Officer/ Chief Pharmaceutical Officer letter, with supporting documentation, will follow as soon as possible.

The proposed changes, recommended by the Joint Committee on Vaccination and Immunisation (JCVI), are:

- the introduction of a new vaccine to protect against pneumococcal infection;
- a pneumococcal vaccination catch-up programme;
- amending the MenC vaccination schedule to give two doses of vaccine in the first year of life, and a booster dose in the second year;
- the addition of a booster dose of Hib vaccine in the second year of life.

From the Chief Medical Officer, Chief Nursing Officer and Chief Pharmaceutical Officer

**Dr Harry Burns MPH FRCS(Glas)
FRCP(Ed) FFPH
Paul Martin RN RHV DMS MBA
Professor Bill Scott BSc MSc
FRPharmS**

St Andrew's House
Edinburgh EH1 3DG
Telephone 0131-244 2836
Fax 0131 244-2835

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For action

Chief Executives, NHS Boards
Medical Directors, NHS Boards (to cascade to General Practitioners; Infectious Disease Consultants; Consultant Paediatricians; Consultant Physicians)
Heads of Midwifery
Practice Nurses
Health Visitors
Community Pharmacists
Chief Pharmacists
Immunisation Co-ordinators
Consultants in Public Health Medicine
Scottish Prison Service
Directors of Nursing, NHS Boards
Specialists in Pharmaceutical Public Health
NHS Health Scotland

For information

Directors of Public Health
Clinical Director, HPS
General Manager, HPS
Chief Executive, NHS Health Scotland
NHS 24

Further Enquiries

Policy Issues

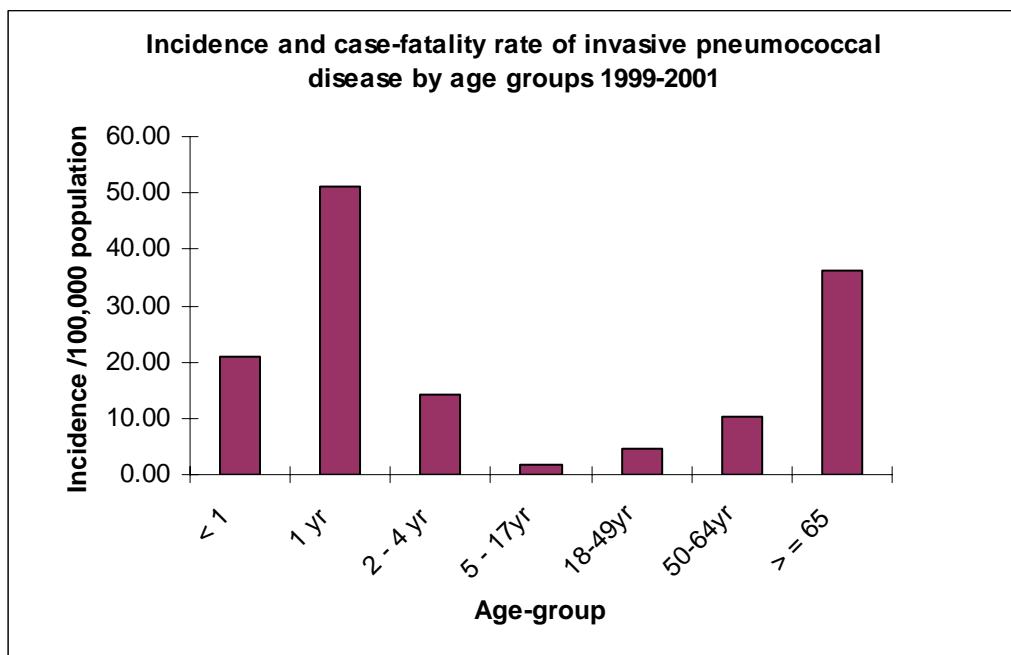
Mr John Froggatt
3ES, St Andrews House
john.froggatt@scotland.gsi.gov.uk

Medical Issues

Dr Elizabeth Stewart
2N.14 St Andrews House
3ES, St Andrews House
dr.elizabeth.stewart@scotland.gsi.gov.uk

Vaccination against pneumococcal infection

Pneumococcal infection is most common in babies, young children and the elderly (figure 1). Each year, there are around 40 to 50 cases of invasive pneumococcal disease (IPD) in children under two years of age in Scotland. Estimates vary, but on average, it is estimated that there are up to 3-5 deaths each year in Scotland in this age group from invasive pneumococcal disease. A study of invasive pneumococcal disease in Scotland between 1999 and 2001, found that of 160 patients under five years of age diagnosed in that period, 35% had pneumococcal meningitis (Kyaw, M. et. al). Studies show that up to 50% of those who survive pneumococcal meningitis will be left with permanent disabilities including deafness, cerebral palsy or blindness (Bedford et al., 2001).



Source: Health Protection Scotland (HPS)

Figure 1: Invasive pneumococcal disease (IPD) by age per 100,000 population

A pneumococcal conjugate vaccine (Prevenar[®] ¹) will be introduced into the routine immunisation programme. The vaccine protects against seven common strains of pneumococcal bacteria that are responsible for around 82% of IPD in young children in the UK. The vaccine is licensed for use in children from two months of age.

Prevnar[®] has been used in the USA since 2000. Since its introduction, the incidence of IPD caused by the seven serotypes in the vaccine has fallen by 94% in children under five years of age and by 62% in individuals aged five and over (CDC, 2005). The significant decline in IPD in individuals who have not been vaccinated points to a more widespread population effect, similar to the UK experience after the introduction of meningococcal C vaccination.

¹ Prevenar[®] and Prevnar[®] are the trade names for pneumococcal vaccine in the UK and the USA respectively.

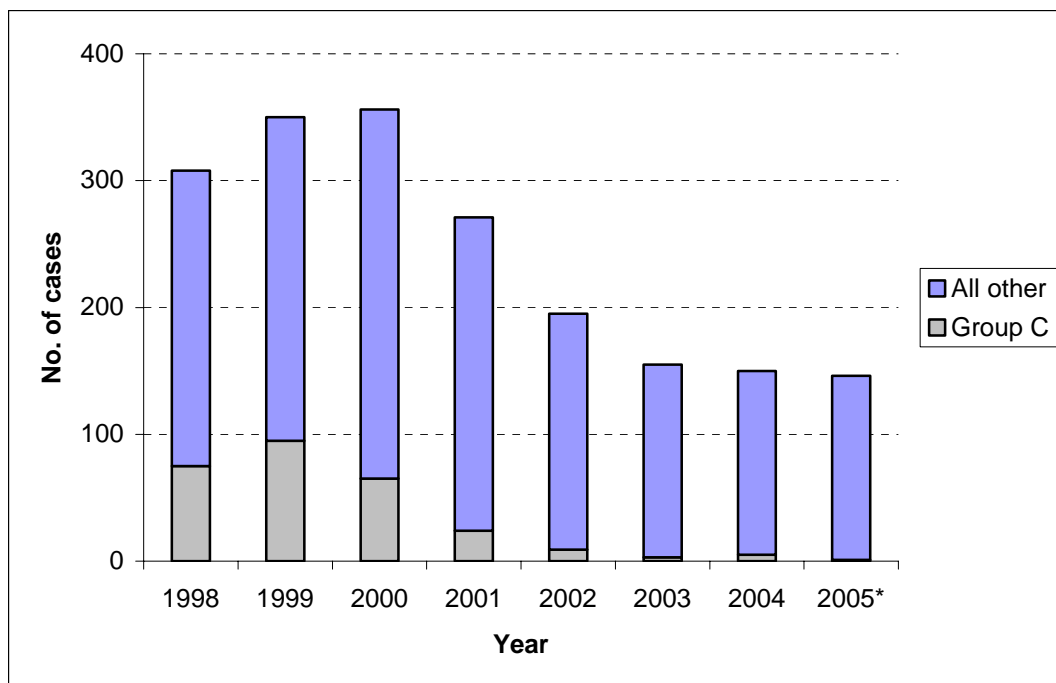
When it is introduced in the UK, Prevenar[®] will be offered routinely to all children at two, four and 13 months of age.

Pneumococcal vaccination catch-up programme

A catch-up programme will be introduced to ensure that children up to two years of age, who are at most risk from pneumococcal infection, will also be offered the vaccine.

Meningococcal C (MenC) vaccination schedule

The MenC vaccination programme has been a major public health success. Before 2000, meningococcal C infection was a significant cause of morbidity and mortality in children and young adults. Figure 2 illustrates the impact that the vaccination programme has had, with reductions of over 90% of meningococcal C infection in all ages.



Source: Health Protection Scotland (HPS)

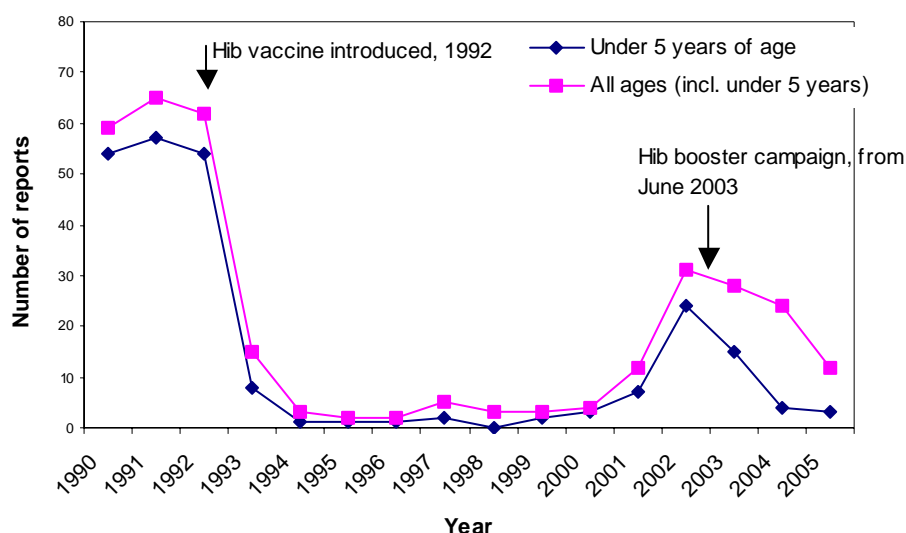
Figure 2: Laboratory reports of meningococcal disease in Scotland 1998-2005*. (*2005 data is provisional)

When the programme changes are introduced, two doses of MenC vaccine will be given in the routine immunisation schedule in the first year of life. Research has shown that two doses of MenC vaccine provide the same level of protection as three doses in the first year of life (Southern J et al.2006). A MenC booster dose will now be offered in the second year of life. This will extend protection against this serious disease through the early childhood years. The booster dose will be given as a combined Hib/MenC vaccine.

Addition of a Hib booster vaccine

The Hib vaccination programme has been another public health success. The introduction of the vaccine in 1992 resulted in a marked reduction in Hib disease in children, particularly in cases and deaths from Hib meningitis (see Figure 3).

Figure 3 Laboratory reports of invasive Hib disease in Scotland 1990-2005



Source: Health Protection Scotland

Figure 3: Laboratory reports of Hib disease in Scotland 1990-2005

From 1998, a gradual rise in Hib disease was detected and this was successfully reversed through the Hib catch-up programme (see Fig 3). Rates of the disease are now back to extremely low levels. The Hib catch-up programme also reduced the incidence of Hib disease that had occurred in older children and adults.

To ensure that protection against Hib disease is maintained throughout early childhood, and to reduce the risk of a further resurgence of the disease in future, a routine Hib booster dose is being introduced in the second year of life. This booster dose will be given as a combined Hib/MenC vaccine.

Further information on the evidence-base for these recommendations is available at <http://www.advisorybodies.doh.gov.uk/jcvi/minutes.htm>.

New vaccination schedule

The new routine vaccination schedule will be:

Age at vaccination	Vaccine
2 months	DTaP/IPV/Hib + pneumococcal conjugate vaccine
3 months	DTaP/IPV/Hib + MenC vaccine
4 months	DTaP/IPV/Hib + MenC + pneumococcal conjugate vaccine
12 months	Hib/MenC
13 months	MMR + pneumococcal conjugate vaccine

The changes to the existing schedule will accommodate these improvements to the immunisation programme. The changes are essential in order to maximise the protection children are offered against vaccine-preventable diseases.

We will work with the BMA Scottish General Practitioners Committee (SGPC) and NHSS around the complete immunisation schedule and the in-year changes required to support the introduction of the new vaccines. A working group led by HPS has been established to plan the implementation of the proposed changes and amendments to SIRS.

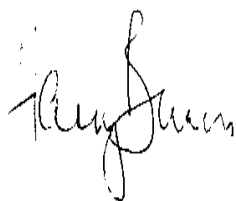
The schedule outlined above protects babies as early as possible against serious diseases. There are no additional adverse effects from having three injections at the same time. There is no scientific or medical evidence to suggest that multiple immunisation overloads the immune system of infants (Offit *et al.*, 2002, and Department of Health, 2004). This schedule has been tested in the UK, in addition to the experience from the US where Prevnar® has been given at the same time as DTaP, IPV, Hib, Hepatitis B and MMR vaccines.

Actions required now

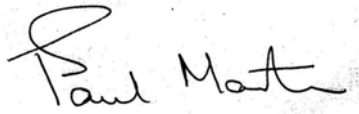
- **NHS Boards should start to plan how current immunisation services can be modified to accommodate an additional vaccination visit at 12 months in the routine programme.**
- **NHS Boards should make preparations for implementing a pneumococcal vaccination catch-up programme later this year.**

Our vaccination programme continues to deliver significant public health benefit in this country, and ensures our children are able to have the best start in life. The role played by GPs, practice nurses, health visitors and others in implementing the programme is essential, and we are grateful for your continuing efforts and support in delivering the programme.

Yours sincerely



Dr Harry Burns
Chief Medical Officer

A handwritten signature in black ink that reads "Paul Martin". The signature is written in a cursive style with a large initial 'P'.

Mr Paul Martin
Chief Nursing Officer

A handwritten signature in black ink that reads "Bill Scott". The signature is written in a cursive style with a large initial 'B'.

Professor Bill Scott
Chief Pharmaceutical Officer

References

Bedford H, de Louvois J, Halket S *et al.* (2001) Meningitis in infancy in England and Wales: follow-up at age 5 years. *BMJ* **323**: 533-6.

Centers for Disease Control and Prevention (CDC) (2005) Direct and indirect effects of routine vaccination of children with 7-valent pneumococcal conjugate vaccine on incidence of invasive pneumococcal disease--United States, 1998-2003. *MMWR Morb Mortal Wkly Rep.* **54**:893-7.

NHS Scotland (2004) *Diphtheria, tetanus, pertussis (whooping cough), polio and Hib (Haemophilus influenzae type b) vaccines for babies, young children and teenagers.* Factsheet. Edinburgh: NHS Scotland <http://www.hebs.com/services/pubs/pdf/Factsheet2004.pdf>

Kyaw, M., Christie, P., Clarke, S.C., Mooney, J., Ahmed, S., Jones, I.G., Campbell, H. [Invasive pneumococcal disease in Scotland, 1999-2001: Use of record linkage to explore associations between patients and disease in relation to future vaccination policy](#) *Clinical Infectious Diseases* 37 (10): 1283-1291 NOV 15 2003

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Offit PA, Quarles J, Gerber MA, *et al.* (2002) Addressing parents' concerns: do multiple vaccines overwhelm or weaken the infant's immune system? *Pediatrics* **109**: 124-9.