

GGNHSB PHPU NEWSLETTER

www.show.scot.nhs.uk/ggnhsb (TEL: 0141 201 4917/FAX:0141 201 4950)

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Hib 'catch-up' campaign

In response to the recent rise in cases of *Haemophilus influenzae* type b disease, the Chief Medical, Nursing and Pharmaceutical Officers at the Scottish Executive Health Department, have issued a letter describing plans for a Hib vaccination 'catch-up' campaign which will target all children between the ages of 6 months and 4 years.

The introduction of the Hib vaccine in 1992 caused a dramatic fall in cases of Hib disease in children under 5 years and was so successful that cases of invasive Hib disease in this age group fell by 98% between 1992 and 1998. However, a small but significant rise in cases in the under-5s has occurred since 1998, so further enhancement of immunity is thought necessary.

It is anticipated that the campaign, offering children between the ages of 6 months and 4 years an additional dose of Hib, will commence in the early summer of 2003. The Scottish Immunisation and Recall System (SIRS) will be modified to identify and call/recall all eligible children.

GPs will be advised when stocks of vaccine are available and how to obtain it, therefore they should not place orders for additional Hib vaccines until notified.

Surveillance data has shown that children who have received at least 2 doses of combined DTaP-Hib vaccine (containing *acellular* pertussis) appear to be at a higher risk of Hib disease than those who have received at least 2 doses of DTwP/Hib vaccine (containing *whole-cell* pertussis). We therefore advise that infants are given **DTwP/Hib** vaccine in their primary immunisation schedule and **not** DTaP-Hib unless there is a valid contraindication to the DTwP. In such instances, the DTaP (Infanrix) and Hib (Hiberix) vaccines should be given at the same time but **separately**, one in each limb (see article on DTaP/DTwP overleaf). Current stocks of DTaP/Hib (Infanrix-Hib) should **not** now be used and should be discarded in line with local procedures for disposal of unused pharmaceuticals. **Do not return it to Farillon.**

DTaP is still the vaccine recommended for use in the pre-school immunisation programme. The reasons for giving high quality DTwP rather than DTaP to infants for primary immunisation are explored in the research paper¹ below.

¹Miller E; Overview of Recent Trials of Acellular Pertussis Vaccines; *Biologicals*;1999;27:79-86

MMR and immunity overload

There is **no** evidence that the triple MMR (measles, mumps, and rubella) vaccine causes immune-system overload and makes children more vulnerable to serious bacterial infection, according to a study published in *Archives of Disease in Childhood*². If anything, the study shows that the jab seems to protect children.

Researchers from the Public Health Laboratory Service (PHLS) monitored all cases of serious bacterial infection, such as septicaemia/meningitis and pneumonia among 1 to 2-year-old children admitted to hospital within 3 months of an MMR jab. The hospitals were all in the former Thames region in southern England and the monitoring period was from April 1991 to March 1995.

The authors identified 436 hospital admissions in children who had been vaccinated with the MMR jab in the preceding three months. Forty-one cases were excluded because the children had an underlying condition or were re-admissions.

Of the remainder, 116 children had invasive bacterial infection and 279 had pneumonia. But after taking into account the background prevalence of a given infection, there was no evidence that the MMR jab increased the risk of serious infection. In fact, it seemed to protect children against the risk of pneumonia.

The authors conclude that their results do not support the popular notion that MMR somehow impairs the immune system and increases susceptibility to infection through simultaneous exposure to three live attenuated viruses. Their findings do not justify fears of "immunological overload," much vaunted by opponents of the jab, or the call for single vaccines.

²Miller et al; *Bac. inf....and MMR:Arch Dis Child*;2003;88:222-3

Cryptosporidium Report 2003

The report of the GGNHSB Incident Management Team's (IMT) investigation of the *Cryptosporidium* contamination of the Milngavie (Mugdock) Water Treatment Works in August 2002, is now available on-line. The IMT's key recommendation was the urgent need for construction of a new water treatment work with adequate filtration. Access the report on the web-site below (or call the PHPU on 201 4917 for a hard copy).

www.show.scot.nhs.uk/ggnhsb/PubsReps/reports/crypto/cryptofinal.doc

Efficacy of pertussis vaccines

There have been recent concerns in the media about the relative safety and efficacy of whole-cell and acellular pertussis vaccines.

A review of published studies indicates that the UK whole-cell vaccine provides better protection against whooping cough than almost all acellular vaccines, including those with three components as available in the UK. The only exception is five-component vaccine which is currently unavailable. A trial has shown that children vaccinated with a three-component vaccine were 2.55 times more likely to have culture-confirmed pertussis than children receiving the UK whole-cell vaccine. Efficacy against Hib must also be considered. Combination DTaP-Hib is known to produce lower antibody levels for Hib than when the Hib vaccine is administered by itself, or in combination with DTwP.

Acellular pertussis vaccines are generally better tolerated than whole-cell products but the relative differences are more marked in older children, as reactivity to whole-cell vaccine increases with age.

Adverse events to whole cell vaccine have therefore been minimised under the current UK schedule of vaccination at 2, 3 and 4 months. The difference between acellular and whole-cell products is predominantly in the incidence of milder adverse events, which do not have an impact on health as severe as that from whooping cough or Hib infection, both of which can be life-threatening.

The preservative thiomersal plays a role in the heat inactivation of bacteria in the production of whole-cell pertussis vaccines. It is not present in the acellular pertussis products available in the UK. However, there is no evidence of any significant risk associated with the amount of thiomersal contained in vaccines (see February's newsletter)

Experience in the 1970s has shown that whooping cough remains a severe illness especially in those less than six - months of age and there is potential for a rapid increase in incidence if vaccine-uptake levels fall. It is therefore essential that maximum protection against pertussis be maintained through high uptake of primary immunisations and the recent addition of a pre-school acellular booster. Further information on the relative efficacy and safety of whole-cell and acellular pertussis vaccines is available on the SCIEH website ; www.show.scot.nhs.uk/scieh

(This article, written by Dr Claire Bramley, appeared in the SCIEH Weekly Report 18th Feb 03)

Confirmed case of 'bird flu'

An avian influenza virus has recently been confirmed in a 9-year-old boy in Hong Kong. Tests of two samples from this single case have identified the virus as the strain of influenza A (H5N1), sometimes known as "bird flu."

It is not yet known whether the other members of this boy's family who had been ill were also infected with influenza A (H5N1). Investigations are underway in Hong Kong to determine the cause of these illnesses and the source of the infection.

Two measles cases in Glasgow

Measles infection was recently confirmed in two international students who live at the John Goold Hall of Residence at University of Strathclyde. It is thought the first case was acquired abroad and the second (later) case by secondary transmission given that the two students share a flat at the hall of residence. Neither case was vaccinated and both have now fully recovered.

The Public Health Protection Unit (PHPU) worked closely with the University to offer on-site MMR vaccination to students and friends who were in *close contact* with the second case (the first case had not attended any classes since his return from abroad). Contacts included all the full-time MBA students and the other flatmates of the cases at the hall of residence.

In addition, the PHPU and the University took the opportunity to raise awareness with *all* students and staff about the risk of contracting measles if unvaccinated and to recommend they contact their GP for MMR vaccination.

Although the risk to others remains low because of the generally high uptake-rates that prevail in Glasgow, this event highlights the continuing risk to all unvaccinated individuals including international students from areas where the virus remains endemic.

PCT's infection-control audit

The Primary Care Trust's (PCT) infection-control audit tool, including guidance notes on how to use it, will be available by the end of March 2003. If you haven't previously requested a copy then contact the LHCC Manager/'GP Lead' in your area or the administrator at the PCT Prevention & Control of Infection Team (P&CIT) on **211 0233**. (Please note that copies will be sent routinely to those who made earlier requests).

Further advice regarding the tool can be obtained by contacting the P&CIT on **211 3568**.

Hand hygiene

Hand hygiene is the single most important way of minimising Healthcare Associated Infection (HAI). Good hand-cleaning techniques can be taught using the P&CIT's 'ultra-violet cabinet' which makes contaminated skin areas visible (so you can see the effectiveness, or not, of your cleaning technique!). If you'd like a member of the P&CIT to visit your health centre/surgery to discuss the importance of hand hygiene and advise on good practice then please contact the team on **211 3568**

Oops !

The glitch which prevented access to the January and February (2003) editions of the newsletter on the SHOW site has now been rectified. All previous editions are accessible at www.show.scot.nhs.uk/ggnhsb click on *Public Health* in the left-hand menu, scroll down and click on *Public Health Protection Unit* and then *PHPU Newsletters*.

If you would like to comment on any aspect of this newsletter then contact Dr Marie Laurie on 201 4933