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PHPU Newsletter

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Seasonal flu vaccine and seizures in under 5s

Seasonal influenza immunisation for healthy children was suspended in Australia in April, 2010, owing to an increased risk of febrile convulsions associated with a vaccine manufactured by CSL (Fluvax). The risk was estimated to be as high as one case per 100 doses. A thorough assessment has yet to establish a reason for this risk, which seemed to be product-specific.

A similar CSL vaccine is being used in the current UK immunisation campaign (Enzira/CSL Biotherapies generic brand) and the Department of Health has advised that it should not be used in children younger than 5 years. Several alternative brands of influenza vaccine are available in the UK and these should be used in children in clinical risk groups as recommended.

Although there was no reason to suspect that other influenza vaccines might be associated with an increased risk of febrile convulsions, the Medicines and Healthcare products Regulatory Agency (MHRA) implemented enhanced surveillance, based around the Yellow Card Scheme. A letter was issued to health professionals to encourage reporting of febrile convulsions after influenza immunisation, emphasising the importance of including the vaccine brand name in the report.

Background rates of febrile convulsion after influenza vaccines from 2000-09 and 2009-10 were calculated with data from the General Practice Research Database. Using these rates and data on the number of children immunised across the UK, the expected number of cases of febrile convulsions within 72 h of immunisation every week was established. This number was compared to the Yellow Card returns, looking for any indication of excess reporting.

As of Feb 15, 2011, MHRA had received only two reports of febrile convulsions in children younger than 5 years after influenza immunisation. At least 72 000 children had been vaccinated in this age-group at this time, among whom up to ten cases were expected to have occurred. The observed-to-expected ratio for the age-group was 0.19 (95% CI 0.02—0.67). Taking into account the possibility of under-reporting, there remains no indication that other influenza vaccines are associated with a large increase in risk of febrile convulsions as seen in Australia. This enhanced surveillance supports the decision that children in clinical risk groups should continue to receive the alternative influenza vaccines as recommended, since the balance of benefits and risks is clearly favourable.

Travel - related measles

The PHPU has been notified recently of 1 confirmed case of measles in an adult, and 2 clinical cases in children which may be travel-related. GPs are reminded that there has been a sharp increase in the number of cases of measles in European countries (principally Bulgaria, France, Italy and Germany) since early 2009.

Children at *high risk* are mainly those travelling to countries where measles is endemic (Africa and Asia), particularly if visiting friends or family and mixing with the local population. MMR vaccine can be considered from 6 months of age in high risk situations, but the response is suboptimal in this age group and immunisation with two further doses of MMR should be given at the recommended ages. In children who have received one dose of MMR at the routine age, the second dose can be brought forward to at least one month after the first. If the child is under 18 months of age and the second dose is given within three months of the first dose, then the routine pre-school dose (a third dose) should be given in order to ensure full protection.

A number of current measles outbreaks have been reported from Europe, but the general advice for travellers to these areas remains unchanged, which is to ensure the UK vaccination schedule is up to date. For children travelling to Europe, including France, HPS is not routinely recommending that childhood doses are given early. However, vaccination advice should still be considered on a case by case basis. See MMR vaccine recommendations by year of birth in the link below.

<http://library.nhsggc.org.uk/mediaAssets/PHPU/Table%20for%20measles%20vaccine%20recommendations.pdf>

Pertussis – diagnostic tests

There has been one case of clinical pertussis in an adult initially seen at A&E and subsequently admitted to hospital. Staff are reminded that the diagnostic test for whooping cough is pertussis PCR using a **per-nasal swab** which is available from RHSC and local microbiology labs. Do not use a charcoal or AMIES swab.

Culture is not done for pertussis due to fragility of the organism.

Using vaccine following storage problems

Vaccines are thermolabile medicines. This is reflected in a vaccine's Summary of Product Characteristics (SPC) or product licence, which states that vaccines should be stored at 2° to 8°C.

For potentially heat damaged vaccines e.g. after a fridge breakdown or power failure, Pharmacy Public Health assess whether the vaccine remains suitable for use. Previously these vaccines could no longer be administered under a Patient Group Direction (PGD) however recent MHRA advice allows use subject to good clinical governance procedures.

All NHS GG&C vaccine PGDs will be amended to reflect new MHRA guidance with the wording "Vaccine subject to excursion from the cold chain may continue to be used if it has been risk assessed and advised accordingly under the NHS GGC Pharmacy Public Health Standard Operating Procedure (SOP)."

Key points:

- Vaccines must be stored at 2-8°C
- Any temperature problems must be reported immediately to PPH to assess whether the vaccines remain suitable for use (Tel no : 0141 201 4424/4824)
- PPH will issue a report to the practice with recommendations regarding continued use of vaccine for clinical governance purposes.
- The potential for continued use of vaccine under a PGD is a new development.
- Amendment will be made to NHS GGC vaccine PGDs to reflect this.

Further information on storage of vaccines can be obtained from

http://www.nhsggc.org.uk/content/default.asp?page=s1540_2

Restricted MMR supplies

Immunisation staff will be aware that MMRvaxPRO® has been the only MMR vaccine available for some time. Unfortunately, this will continue until end of April 2011.

Furthermore, for a period of two weeks at the end of March/beginning of April, stock will be issued with an expiry date of 30th June 2011 (slightly less than 3 months). There may also be a period of 1-2 days at the beginning of May where stock is issued with an expiry date of end of July.

Please note this continued restriction and that best practice, as stated in the Green Book, is to hold 2-4 weeks of vaccine stocks. Staff are asked to ensure stock is rotated and minimum supplies are ordered. The PDC will ensure short-dated stock is used first.

ACWY Conjugate vaccine

A conjugated vaccine consists of a bacterial capsular polysaccharide antigen joined to a protein carrier to enhance immunogenicity. Conjugated meningococcal vaccines were principally developed to overcome the poor immunological response demonstrated by babies and young children to bacteria with polysaccharide capsules. In recent years these vaccines have included Hib, Men C, and PCV.

Polysaccharide meningococcal vaccines do not generate memory T cells and as such have a limited duration of immunity and protection (approximately 3 years). The situation is compounded by the fact that additional doses of meningococcal polysaccharide vaccines do not generate a boosting effect but result in diminished antibody responses. (This is particularly problematic in the case of immunisation with polysaccharide vaccines of persons with splenectomy or hyposplenic conditions).

Menveo®, produced by Novartis is a conjugated vaccine offering protection against serogroups A, C, W135 and Y. It is likely to offer longer lasting protection than the ACWY polysaccharide vaccines and has the added bonus of preventing nasopharyngeal carriage of the organism. (High population carriage rates equate to more cases of actual disease).

The Menveo® conjugate vaccine should be used in preference to the polysaccharide ACWY vaccine in the UK for persons with asplenia or severe splenic disorders, for contacts of confirmed cases of meningococcal disease in these serogroups and also for protection of persons going to high risk destinations including parts of Africa and pilgrimages to Hajj or Umrah.

For adults and children aged 1 year and older - vaccinate with quadrivalent meningococcal vaccine 2-3 weeks before travel.

For children under 1 year of age - vaccinate with quadrivalent meningococcal vaccine 2 months before travel (two doses needed). Menveo® (conjugate vaccine) is preferred to ACWY Vax® (polysaccharide vaccine) for all age groups (off-label use in children under 11 years of age) because of better and longer lasting protection

If you would like to comment on any aspect of this newsletter please contact Marie Laurie on 0141 201 4933 or at marie.laurie@ggc.scot.nhs.uk