NHSGG and CLYDE NEWSLETTER

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HIV – improving early diagnosis

The Department of Health recently sent a letter from the Chief Medical Officer, Sir Liam Donaldson, to colleagues in England on the subject of improving the detection and diagnosis of HIV in non-HIV specialties including primary care[1]. HIV remains a significant public health challenge. In Scotland the cumulative number of infected HIV persons at 30th June 2007 was 5150. Since 2002 the number of new cases in Scotland has risen significantly and the statistics for NHS Glasgow and Clyde mirrors this national picture.

There are two risk groups contributing to the rise. Firstly there has been the increase in the number of infected heterosexual males and females acquiring the disease abroad from high prevalence countries, such as those in sub-Saharan Africa, and then coming to Scotland. In NHS Greater Glasgow and Clyde there were 16 such cases in 2000 and 47 in 2006. Secondly men who have sex with men (MSM) are the other group in Scotland at high risk of acquiring HIV infection. The number of new cases has increased from 21 in 2000 to 56 in 2006.

A significant proportion of people diagnosed late with HIV infection had been in contact with healthcare professionals in the preceding year with symptoms. Signs and symptoms may be either non-specific or specific and HIV testing within the General Practice setting would expedite referral directly to HIV services. There may be circumstances where it is appropriate to offer testing to those with an unacknowledged but identifiable risk.

GPs and other clinicians are encouraged to consider testing patients who may be at risk of HIV especially if they have come from countries with high prevalence rates. It is well recognized that late diagnosis has a major impact on the morbidity and mortality among those with HIV. HIV testing does not need to be lengthy but as a minimum there should be an opportunity for pre-test discussion to ensure informed patient consent to the test. Patients should be reassured that there is no requirement for the test to be disclosed for insurance purpose if it is negative[2]. For further advice please telephone the Sexual Health Advisors on 0141 211 8634 or contact the Sandyford Initiative professional helpline on 0141 211 8646. http://www.sandyford.org/

[1] *Department of Health CMO letter 13 September 2007 Improving the detection and diagnosis of HIV in non-HIV specialties including primary care.*

[2] *Association of British Insurers Statement of Best Practice on HIV and Insurance (October 2004)*

Infanrix-IPV+Hib™ booster

Please note that to avoid any confusion during the Hib catch-up programme (November 2007 – March 2009), all practices are asked to return supplies of Repevax and Infanrix-IPV to the local vaccine-holding centre by October 31st. Infanrix-IPV+Hib™ should now be used for *all* pre-school boosting.

NHSGG&C Public Health Pharmacy has written to all GP practices in the Greater Glasgow & Clyde area with further details of the return procedure.

Infanrix-IPV+Hib is a thiomersal-free vaccine.

Best practice in immunising

An article by L. Diggle and S.Richards recently published in *Primary Health Care (17,7,41-46 2007)* outlines the evidence in support of best clinical immunising practice.

Pre-immunisation

The evidence shows that preparing the child and parents before immunisation is very important. The nurse should always explain which immunisations are about to be given, the diseases against which they protect, the risks these diseases pose to the unimmunised child, common side-effects of the vaccines and how theses should be managed.

Consent

Nurses/doctors should be aware that there is no legal requirement for consent for immunisation to be given in writing. It is more important to explain what is to take place than obtaining signature on a piece of paper.

Managing the child before and after the injection

Time should be taken in explaining to the parents how best to hold the child; promising a sticker prior to injection and praising afterwards is recommended.

Injection sites

Currently for children under one year of age the preferred injection site is the antero-lateral thigh. For pre-school children the deltoid muscle of the arm is more suitable. The WHO advises that the deltoid be used for children over 15 months of age although clinical judgement should contribute to the decision for these older children.

Injections

Currently nurses administer two injections simultaneously although there is no evidence that there is decreased discomfort for the child compared with sequential administration. If two injections are to be given, the parents and child should be warned beforehand.

For further details, please see full article.

Meningococcal disease

Recent deaths attributable to invasive meningococcal disease (IMD) in NHS Greater Glasgow and Clyde and NHS Grampian have underlined the need for increased vigilance as cases of IMD increase in winter months, especially after the onset of the influenza season.

The incidence of IMD is highest in infancy and in young adults. Most cases are now caused by the group B strain for which, as yet, no vaccine has been developed. However, every opportunity should be used to ensure that all those aged 24 and under should continue to be vaccinated against Men C. (One dose is sufficient for all those aged one year and over who have not previously received Men C vaccine).

If a GP has clinical suspicion of IMD, parenteral benzylpenicillin should be administered before arrangements for rapid emergency admission to hospital. If there is a history of immediate allergic reaction after previous administration of penicillin, a third generation cephalosporin may be used.

Immediate dose of IV/IM benzylpenicillin for suspected meningococcal disease

Adults and children aged 10 years and over	1.2 grams
Children 1-9 years	600 mg
Children under one year	300 mg

Antibiotic chemoprophylaxis for close contacts

Close contacts are generally defined as people who live in the same household as the case, have stayed overnight in the same household as the case during the 7 days before onset of illness, or who are intimate kissing contacts such as sexual partners. It is only if there are linked cases (e.g. university outbreak) that wider use of antibiotic prophylaxis may be recommended.

The aims of chemoprophylaxis for close contacts are:

- eradicating carriage from established carriers who pose a risk of infection to others
- eradicating carriage from those who have newly acquired the invasive strain and who may themselves be at risk of invasive disease.

It is important to remember that chemoprophylaxis is not always effective, so information should also be given to close contacts on the signs and symptoms of IMD.

Rifampicin is the only licensed antibiotic for chemoprophylaxis for close contacts and is thus by far the most commonly used antibiotic. Ciprofloxacin (for adults and children aged 2 and over) and IV/IM ceftriaxone are both effective for eliminating carriage of meningococci, but less commonly used (see BNF for information on dosage regimes).

Rifampicin dosage regime (twice daily for 2 days)

Adults and children over 12 years	600mg
Children 1-12 years	10mg/kg body weight
Infants under 12 months	5mg/kg body weight

The most up-to-date national management guidelines can be obtained at:
http://www.hpa.org.uk/infections/topics_az/meningo/meningococcalguidelines.pdf

Early thiomersal exposure

Since the 1930s thiomersal has been used as a preservative in vaccines. Thiomersal is metabolised into ethyl mercury and thiosalicylate. In 1999 concerns about the level of exposure to mercury led to recommendations from the Public Health Service in the US, and the American Academy of Paediatrics, that thiomersal should be removed from all infant vaccines. It was also identified that further research should be conducted to explore the risks associated with mercury exposure from thiomersal.

A paper published in the New England Journal of Medicine in September 2007 *(Thompson W, Price C, Goodson B, et al. Early Thiomersal Exposure and Neuropsychological Outcomes at 7 to 10 Years NEJM 2007; 357: 1281-1292),* reports a cohort study conducted to explore the effects of early thiomersal exposure on neuropsychological outcomes at 7 to 10 years of age. The sample was selected from four Health Maintenance Organisations (HMOs) in the US that participate in the CDC's Vaccine Safety Datalink. Only 30% of the 3648 subjects selected for recruitment could be enrolled in the study. This was largely due to inability to locate subjects and a refusal by families to allow their children to participate. The authors acknowledge that the results may therefore be subject to selection bias. Sixty of the children who had been enrolled in the study were excluded from the final analysis. This was due to a variety of reasons including the discovery of exclusionary medical conditions during record abstraction and missing records. This resulted in 1047 children ultimately being included in the study sample. It is notable that the authors report a similar exposure distribution in the final sample and in the initial group of 3648 children who were selected for recruitment into the study.

On neuropsychological testing, at 7 to 10 years old, very few significant associations were found with exposure to mercury from thiomersal administered pre-natally or in the first 7 months of life. The associations that were identified were reported to be small, almost equally detected between positive and negative effects and were mostly sex-specific. For example, in children overall no association was found between neonatal thiomersal exposure and total IQ. However, amongst boys there was a significant positive association with performance IQ (i.e. higher scores for performance IQ) and amongst girls there was a significant negative association with verbal IQ (i.e. lower scores).

The authors concluded that their study did *not* support a causal association between early exposure to mercury from thiomersal-containing vaccines and immune globulins and deficits in neuropsychological functioning at the age of 7 to 10 years. It is important to recognise that this study had no parameter measuring autism and also that the acknowledged selection bias may have influenced the results. Although subjects were assessed for 42 neuropsychological outcomes these did ***not*** include a measure of autism. The reason given for this omission was that the CDC was conducting a separate case-control study of autism in relation to thiomersal exposure.

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