NHSGG and CLYDE NEWSLETTER

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E coli O157 cases in nurseries

In recent weeks, two outbreaks of *E coli* O157 have been reported in nursery-school facilities in Fife and Grampian health boards. No link has been demonstrated between the nurseries. The *E coli* O157 organism that caused the Fife outbreak is a rare type that has been noted in 4 sporadic cases in Scotland in recent weeks. To date in the Fife outbreak there are 13 confirmed cases of which 5 children have been admitted to the Royal Hospital for Sick Children in Glasgow, with a serious condition known as Haemolytic Uraemic Syndrome (HUS).

HUS is characterised by acute renal failure, microangiopathic haemolytic anaemia, fever and thrombocytopenia; in 90% of cases it is preceded by diarrhoea. The most common cause of HUS in children is a toxin produced by *E coli* O157 and has a mortality-rate estimated at 5%. Approximately 25% of children with HUS will have long-term kidney damage and some may become dialysis-dependent.

Infection by *E coli* O157 is the most common cause of acute renal failure in Scottish children. Use of antimotility drugs to counter diarrhoea in children affected by *E coli* O157 may actually increase the chances of developing HUS. (Bloody diarrhoea is a common symptom in children with HUS). Furthermore, antibiotics are not advised for use in treating *E coli* O157 as these can increase the chance of development of HUS.

The most likely hypothesis of the origins of the outbreak strongly supports the introduction of the organism into the nursery by an infected case, with subsequent person-to-person spread, rather than a single-point source outbreak (e.g. contaminated food item served to many*). E coli* O157 has a very low infective dose, and can easily spread especially in a nursery-school environment.

In the instance of a single case of *E coli* O157 in a nursery school child, which is the usual scenario, the public health protection unit will exclude the child until 2 negative stool specimens have been obtained (minimum 24 hours apart). There will be a formal exclusion letter issued from the department to the child's parents, GP, the nursery manager and environmental health officer. A letter to rescind the exclusion will be sent when lab confirmation of 2 negative stool specimens has been obtained. New guidance on management of suspected or proven *E coli* is available at the website below www.rcpe.ac.uk/publications/articles/journal_34_1/E_coli_O157.pdf.

New hep B regime for babies

There are two groups of babies who are at increased risk of contracting hepatitis B infection:

- babies of mothers known to be infected
- babies of mothers not infected but who participate in high-risk behaviour, e.g. injecting drug users, sex workers

Babies of hepB-infected mothers **and** of high-risk mothers should be vaccinated at birth with hepatitis B vaccine. The first dose is usually given in the maternity unit.

Please note that the regime for both groups of babies is now 0, 1 month, 2 months, with a booster dose (4th dose) at ~ 12 months. However, only babies of infected mothers require antibody-testing 2 months after the booster dose (4th dose). This group (babies of hepatitis B-infected mothers) will also require a pre-school booster dose as now recommended in the Green Book.

Other high-risk groups

Injecting drug users (IDUs)

Close family contacts of a case or carrier

Foster carers

Individuals receiving regular blood or blood products and their carers

Patients with chronic renal failure

Patients with chronic liver disease

Inmates of custodial institutions

Individuals in residential accommodation for those with learning disabilities

People travelling to or planning to reside in areas of high or intermediate hepatitis B prevalence

Occupational groups

- health care workers
- laboratory staff
- staff of residential and other accommodation for those with learning disabilities
- morticians and embalmers
- prison services staff
- police, fire and rescue services

Pertussis cases increasing

Over the past few months the PHPU has been alerted to an increased number of confirmed cases of pertussis in babies too young for primary immunisation. Pertussis is a serious illness and constitutes a significant threat to health in young babies and infants.

Pertussis, commonly known as whooping cough, is an acute bacterial infection of the respiratory tract caused by *Bordetella pertussis*. Early signs and symptoms include cough and cold-like symptoms accompanied by fever. The cough can become paroxysmal i.e. repeated violent coughing without inhalation, and may be followed by a characteristic crowing or high-pitched inspiratory whoop. It should be noted that paroxysms and inspiratory whoop may not be present in infants under 6 months.

The incubation period ranges from 6 to 20 days although is generally 9-10 days. Cases are *highly infectious* in the early stages of the illness. Contact tracing should be restricted to households or institutions with shared sleeping facilities e.g., hospital wards, facilities for the learning disabled.

Erythromycin chemoprophylaxis

Erythromycin prophylaxis should only be considered in households where onset of disease in the first case is within the last 21 days (for erythromycin to be effective) ***and*** where there are *vulnerable contacts (see list below).

Onset of disease in first case within last 21 days?

▼ **Yes**

*Vulnerable contacts in household?

▼ **Yes**

Identify household contacts for whom prophylaxis is required

▼

Household contacts	Prophylaxis required	Dose of erythromycin (7 days)
Adults	Yes	250-500mg qid
*Children < 5 yrs who have notcompleted primary immunisation	Yes	1mnth-2 yrs 125mg qid 2-8yrs 250mg qid
*Children ≥ 5yrs with no history of pre-school booster	Yes	2-8yrs 250mg qid >8 yrs 250-500mg qid
Children ≥ 5yrs who have had pre-school booster	No	-
Children < 5 yrs who have completed primary immunisation	No	-
*New-born infants born to mothers with confirmed or suspected pertussis	Yes	125mg qid

***Vulnerable contacts (all should receive prophylaxis)**

- Unimmunised/partially immunised infants and children
- New-born infants born to symptomatic mothers
- Chronic illness e.g. asthma, cong. heart. dis (if unvaccinated)
- Immunocompromised when not fully immunised

Hospital-based BCG clinics

Health visitors are reminded that 'at-risk' babies born at the Southern General and PRM hospitals are now appointed to hospital-based BCG clinics. The SGH clinic is held on the last Monday of the month and the PRM clinic on the last Tuesday. At both clinics a record of vaccination is made in the Child Health Record (Red Book) if available or, if not, at the back of the BCG information leaflet. Where a parent/guardian defaults twice then a letter will be sent to the GP informing them that no further appointment will be given. Should a new appointment be required then the health visitor is asked to contact the PHPU (201 4518) to arrange one at the relevant community clinic.

'At-risk' babies born at the Queen Mother Hospital are vaccinated prior to discharge and a written record is given to parents/guardians.

However, health visitors are still asked to check BCG eligibility at the birth visit to ensure that at-risk babies have either been vaccinated or have an appointment to attend a hospital-based BCG clinic.

Testing gay men for STIs

As previously reported in the PHPU newsletter (Dec 2001) there has been a rise in syphilis cases locally in recent years. Data from the National Enhanced Surveillance of Infectious Syphilis in Scotland (NESISS) database indicates that most cases have been diagnosed in men who have sex with men (MSM) and that most infections have been identified through the GUM (genito-urinary medicine) setting. However, as there is an apparent link between syphilis and HIV infection, GPs should offer information on and testing for other sexually transmitted infections (STIs), in particular syphilis, when MSM request an HIV test in the GP setting,

GPs should also take the opportunity to raise awareness of hepatitis B immunisation with this group and consider commencing or completing the hepatitis B immunisation schedule as detailed in the Green Book.

If STI-testing cannot be carried out in GP setting, full STI screening, including HIV and syphilis testing, can be obtained through the Sandyford Sexual Health Service (0141 211 8601). In addition to scheduled appointments, a walk-in service is available every weekday morning from 8.30 to 10.00am. Clients wishing to be seen must attend before 10.00am. All clients are asked to complete a triage form and are seen in order of need. Gay and bisexual men may also access The Steve Retson Project, which runs 3 evenings a week by appointment only (details at www.sandyford.org/srp).

In the event of any positive STI results, some thought should be given to partner notification. Support for this process is available through the Sexual Health Advisors at Sandyford (0141 211 8634). Further advice and information can be found at www.sxhealth.co.uk

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