NHSGG and CLYDE NEWSLETTER

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Norovirus

Noroviruses are the leading cause of viral gastroenteritis throughout the year in the UK, and account for 50% of all known causes of gastroenteritis throughout the world. Norovirus infections are sometimes referred to as "winter vomiting virus" or rather misleadingly as "gastric flu." The disease is characterised by nausea, vomiting and abdominal pain, with or without diarrhoea. Other symptoms may include general lethargy, weakness, muscle aches and a low-grade fever. The infection is usually self-limiting and conservative management including rehydration is recommended.

The modes of spread are faecal-oral, airborne, via food and water and contamination of the environment (e.g. door handles, hand rails, toilets). The incubation period is 24-48 hours and the infectious dose is small. It is communicable during the acute phase and until approximately 48 hours after diarrhoea has ceased. Exclusion of staff as well as school and nursery children is advised if they are symptomatic and should extend until 48 hours after diarrhoea ceases. Immunity is probably short-lived.

It is important during institutional outbreaks of diarrhoea and vomiting for staff to obtain stool specimens for the purpose of excluding more serious bacterial causes and confirming viral causation. Specimens should be sent to the local bacteriology departments and to the Scottish Virology Centre at Gartnavel Hospital. Specific diagnosis of norovirus is obtained using real-time PCR assays which give results within a few hours.

Infection-control principles effective against norovirus are scrupulous hand-washing (supplemented by alcohol-based gels) and environmental cleaning and disinfection, particularly of vomit, which initially produces aerosolisation and dispersal of the virus particles.

Outbreaks in schools, nurseries, care homes, day centres and other institutional establishments should be reported to the PHPU from where infection-control advice can be obtained.

HIV-testing and treatment

Following on from last month's article about early HIV diagnosis, clinicians should be aware that the Counselling Clinic at the Brownlee Centre in Gartnavel General (211 1089) is also a source of advice regarding HIV testing. The Brownlee Centre is the only HIV-treatment centre in Glasgow and all HIV-positive patients are treated there by infectious diseases and GUM consultants.

Chickenpox can be fatal

A recent article in the Archives of Disease in Childhood (*Severe complications of chickenpox in hospitalised children in UK and Ireland: Cameron, Allan, Johnston et al Nov 2007*) has highlighted the seriousness of childhood chickenpox and advocates the routine use of varicella vaccination in children in the UK.

The authors base their conclusions on data collected from paediatricians in the UK and Ireland for children up to 16 years of age who were admitted to hospitals with severe complications resulting from chickenpox infection. During the monitoring period, 13 months between 2002 and 2003, 188 cases were reported to the British paediatric Surveillance Unit. Of these, 112 met the criteria giving a case rate of 0.82 per 100,000.The average age of the children admitted was 3 years.

The complications included septic shock, pneumonia, and encephalitis as well as ataxia, toxic shock syndrome and necrotising fasciitis.

Almost half the children (46%) had additional bacterial infections. Six children died (one in utero) and although 4 of 5 of the other children had pre-existing medical conditions they were not in groups targeted for vaccination. Post discharge, 4 of 10 children had ongoing problems including ataxia and skin scarring.

The authors point out that the rate of chickenpox has been increasing among pre-school children and for every 1000 cases 2-5 children will require hospital admission.

In conclusion they advocate switching from MMR to the recently licensed MMRV, whilst recognising that some public concern still surrounding MMR safety may make this difficult.

Hep A vaccine post-exposure

A recent large trial from Kazakhstan (reported in the *N. Eng J Med. 2007;357:1685-94*) suggests there is little to choose between vaccine and immunoglobulin for post-exposure prophylaxis against hepatitis A. Contacts of people with hepatitis A were given an IM injection of immunoglobulin or vaccinated against the virus at some time during the two weeks after exposure. Fewer than 5% in each group developed symptomatic hepatitis A (4.4% in the vaccine gp *v.* 3.3 % in the immunoglob. gp). Being more readily available, less painful on injection and with no concerns about its safety, (cf. immunoglobulin and blood products), the vaccine is now used for post-exposure prophylaxis in the US and other countries.

Infection Prevention & Control Programme 07/08 - update

The aim of the ICP is to reduce the rate of hospital acquired infections (HAI) and reach the targets set by the Scottish Government Health Department.

Healthcare Efficiency and Access to Treatment

Target: reduce S. aureus bacteraemia by 35% by 2010

Several strategies are currently being employed/evaluated to meet the 35% target. Infection Control Teams across the board area are collecting enhanced data (using a data collection form developed by Health Protection Scotland) in order to target not only areas with a high prevalence but also interventions associated with the acquisition of bacteraemia, e.g. central venous catheterisation. In addition, Statistical Process Control Charts are being implemented in some key areas with the aim to return information to those with the ability to change clinical practice. NHSGGC is also currently evaluating a Quality Improvement Tool that was developed in the USA and subsequently modified for Scotland by Health Protection Scotland. This tool called a 'care bundle' brings together four or five elements of strongly evidenced interventions into a single bundle, which must be applied in its entirety all of the time. Several meetings have taken place with key staff groups to introduce them to the concept and possible benefits of care bundles.

Cleanliness Champions (CC)

Target: 983 cleanliness champions by 2008

The Cleanliness Champions programme was introduced in 2002. NHSGGC has a target of training 983 champions. NHSGGC has, to date, trained **713** CCs. A dedicated resource – partially funded by NHS Education for Scotland – has been identified for the year 07/08 to meet the 983 target. This resource in the form of CC Education Co-ordinators (0.4 WTE Glasgow and Clyde Partnerships and 1 WTE Glasgow and Clyde Acute) will support the 1520 members of staff who are currently enrolled on the programme and ensure NHSGGC meets the target by March 2008.

Surveillance

The Acute Division is currently in the process of developing a methodology to return information on the numbers of hospital acquired *C. difficile and* MRSA to clinical teams in wards and departments, via Statistical Process Control Charts. These charts should be available in all relevant areas by January 2008.

NHSGGC Infection Prevention & Control Policies

NHSGGC is now fully compliant with the recommended policies outlined in the Quality Improvement Scotland HAI Standards - Healthcare Associated Infection (HAI) Infection Control (2001). The single Prevention & Control of Infection Manual has now been rolled out to Clyde area. NHSGGC Infection Prevention & Control Policies can be accessed electronically at:

http://www.nhsggc.org.uk/content/default.asp?page=s708

Education

NHSGGC has purchased a bespoke IT system to facilitate the delivery and recording of online Infection Control Learning Units to a broad range of staff groups. The pilot for this system took place in October 2007 and fifteen different educational modules will be available via this system by March 2008. Tom Walsh (Infection Control Manager) for NHSGGC has been invited by NHS Education for Scotland to lead on the development a National HAI Educational Strategy. This strategy will be issued to NHS Scotland by the beginning of 2008 and forms part of the new QIS standards on HAI.

Additional initiatives – National Prevalence Study

This study, conducted in 2005/06, was published in July 2007. The study acknowledged that the results were 'unadjusted' in terms of seasonality and patient mix, however, within NHSGGC several 'outliers' were identified. In response, NHSGGC undertook to repeat the study immediately in those 'outliers' in order to determine if further action was necessary. Funds were identified by the Infection Control Manager to second a member of staff for six months to repeat the study in the outliers and to continue the process in others areas of 'higher' prevalence as identified by the report and the local ICTs. The HPS Prevalence Team facilitated training in the process and methodology. Repeat audits showed significant improvement in all but two areas surveyed.

The Hajj pilgrimage

Please note that the following vaccinations are recommended for those going to the Hajj on pilgrimage:

Meningococcal meningitis ACW135Y (proof required)
Polio (with booster if last dose ≥ 10 years previously)
Diphtheria
Tetanus
Typhoid
Hepatitis A
Hepatitis B (men should take a disposable razor for headshaving)
Influenza

Penicillin allergy

Patients with type 1 allergy to penicillin (urticaria, laryngeal oedema, bronchospasm, hypotension etc.) *may be treated with a 2nd or 3rd generation cephalosporins in life-threatening infections according to a paper recently published in the *BMJ (2007; 335;991)*. However, in these patients *all* cephalosporins should be avoided in mild to moderate infections where an alternative antibiotic exists.

** conditions apply – refer to original paper*

Flu vaccine and chemotherapy

Practice staff should note that patients receiving either chemo or chemo/radiotherapy should be offered the flu vaccine as there is no evidence that it is contraindicated. Ideally the patient should be vaccinated 2 weeks prior to commencement of treatment or in the 3rd week of a 3-weekly treatment cycle or, if on a 2-weekly cycle of treatment, between the 9th and 12th day of treatment.

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