December 2003

Closing the Loop

Communicable Disease Bulletin for the Eastern Regional Health Authority

Contents Issue 1:

Editorial Board

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Introduction

Welcome to the first issue of *Closing the Loop*, a new quarterly publication, which will report on communicable disease in the region. It will be distributed to our partners in the control of communicable disease: community care medical and nursing personnel, GPs, hospital clinicians, laboratory scientists and infection control nurses.

Infectious disease surveillance is an ongoing and dynamic process. GPs, hospital clinicians and laboratory scientists collect data on infectious diseases, which are then collated, analysed and interpreted by public health personnel. Information must then be disseminated to 'those who need to know' in order that action may be taken. The term surveillance loop is used to describe this process. A continuous 'loop' is required to ensure effective and efficient surveillance in the region, in order that:

- Outbreaks are detected, investigated and managed
- Trends in endemic disease are monitored
- Interventions, such as immunisation, are evaluated
- The progress of control measures are assessed
- The performance of public health programmes are measured
- Lessons are learned from outbreaks to inform future policy and practice and the prevention of future outbreaks

Through the publication of *Closing the Loop*, the Department of Public Health aims to complete the 'surveillance loop' by feeding information back to those who have provided the original data and by providing up-to-date information on the common communicable diseases. It is hoped that this will foster relationships between all those involved in the control of communicable disease in the community, in hospitals and in the Department of Public Health.

Infectious Disease Notification Process

Statutory notification of infectious diseases was introduced in Ireland in 1947. Medical practitioners are obliged to inform in writing the relevant Medical Officer * in his/her health board as soon as he/she becomes aware of or suspects that a patient is suffering from or is the carrier of an infectious disease. The principle regulations are contained in Infectious Disease Regulations 1981, Amendment Regulations 1985 and 1988. Notification by telephone is required where a serious outbreak is suspected, for a number of diseases (acute anterior poliomyelitis, bacterial meningitis, including meningococcal septicaemia, cholera, ornithosis, plague, smallpox, typhus, viral haemorrhagic diseases and yellow fever). In the Eastern Regional Health Authority (ERHA) the Department of Public Health collates disease notifications from the three area boards and submits aggregated data to the National Disease Surveillance Centre (NDSC) on a weekly basis, which in turn collates and analyses data on a national level.

A standard form for completion by the notifying medical practitioner is employed in this region. A sample form may be seen on the next page. Supplies of these forms may be obtained from the Department of Public Health. At present there is no standard form for use on a national basis. The notification process attracts a payment of €2.54 for the notifying doctor.

*(In the east the medical officer is the Director of Public Health. Functions are delegated to Specialists in Public Health Medicine (SPH) and Senior Area Medical Officers (SAMO) as appropriate.)

For routine day-to-day matters, the SAMO in a Community Care Area is usually the person who initiates disease specific public health action to prevent spread of infection in the community, This may involve contact tracing, the provision of chemoprophylaxis, immunisation, public education and reassurance and outbreak investigation when required

A list of the Infectious Diseases currently notifiable may be seen on the last page (Table 1 and 2) where the data on notifications is presented. While hospital laboratories are not included in the current statutory notification process a voluntary system operates in the region, whereby consultant microbiologists submit reports on a regular basis.

Enhanced Surveillance

An enhanced surveillance system is in place nationally for meningococcal disease, E.Coli 0157 and for tuberculosis whereby health boards are requested to supply more detailed information by fax to the NDSC, as cases are detected and also in the form of quarterly returns.

Communicable Disease Notification Data


INFECTIOUS DISEASE NOTIFICATION FORM

Surname
Forename
Address
Birth date
Diagnosis
Date notified

INFECTIOUS DISEASE NOTIFICATION FORM

Surname
Forename
Address
Age
Occupation
Diagnosis
Suspected
Confirmed
Date onset of symptoms
Other relevant information
Doctor
Signature
Date

Notification data for 2001, 2002 and provisional data for eleven months of 2003 have been collated and analysed. Figure 1 shows the number of notifications in each of the area health boards. Figure 2 shows the notifications received by community care areas grouped by Area Health Board. The fact that community care areas with pockets of socio-

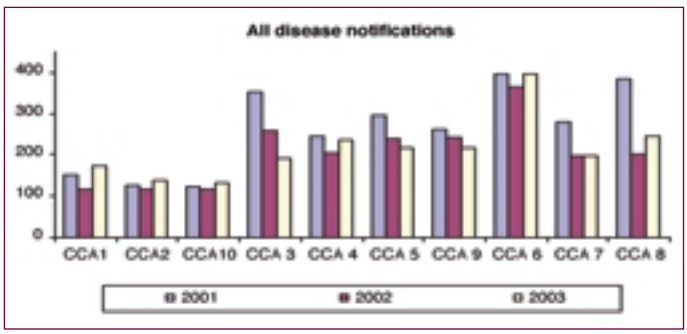

Figure 1 Infectious disease notifications in area health boards (2003 data Jan-Nov)*

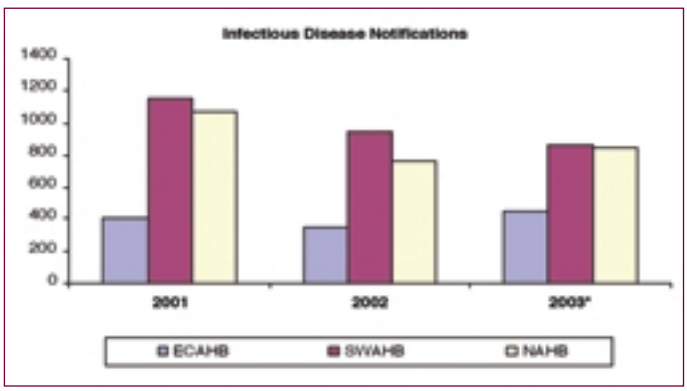

Figure 2 Infectious Disease Notifications in area boards (2003 Jan-Nov)

economic deprivation tend to have higher numbers of infectious disease notifications, supports the well-established evidence of marked social inequalities for common infectious diseases, such as respiratory, gastrointestinal and sexually transmitted infections. The success of targeted interventions such as immunisation in these areas may be assessed by observing changes over time in notification data.

What's in the News •

Influenza

Influenza is a highly infectious illness and continues to be a major public health problem. Complications are commonest and hospitalisation rates are highest in the elderly and in people with chronic conditions such as cardiovascular and respiratory disorders. Influenza activity has been relatively low in the last few years, but in September the Department of Public Health was involved in investigating 2 outbreaks in secondary schools in the region. 240 children and staff were ill altogether with high hospitalisation rates. Important measures to control the outbreak were strict hygiene precautions and sending students home. The main circulating strain (H3N2) Fujian-like strain is circulating in other countries including the UK.

Annual vaccination of 'at risk' groups is an effective, safe and cost effective way of reducing influenza deaths and illness. The composition of the vaccine is changed almost every year so that it contains the strains most likely to be effective. The current vaccine may be less effective against the current strain than in previous years, but experience in the lower hemisphere indicates that while sporadic cases in immunised individuals were observed, a major breakthrough of vaccine protection has not been recorded.

Who should be vaccinated?

The Royal College of Physicians Immunisation Advisory Committee has set out guidelines in which two groups are targeted:

1. Any individual over the age of six months who is at risk of influenza related complications
2. Those at increased risk of transmitting influenza to a person of high risk for influenza complications

The following should receive annual influenza vaccination.

- People aged 65 years and over
- Nursing home / long stay unit residents
- People with chronic medical conditions including:
- Chronic respiratory illness (cystic fibrosis, asthma)
- Heart disease
- Diabetes
- Chronic renal disease
- Immunosupression through disease or treatment including asplenia / splenic dysfunction
- Children and teenagers on long term aspirin therapy because of risk of Reyes Syndrome
- Heath care workers who have contact with patients both in the community and in health care institutions such as hospitals and nursing homes, both for their own protection and that of their patients. Information on the influenza vaccine for health care workers is available on the NDSC website at www.ndsc.ie.

There is overlap between many groups targeted for influenza and pneumococcal vaccination. While influenza vaccine must be given every year, pneumococcal vaccine is administered every 5 years only for those at highest risk of disease. Both may be given at the same time but at different sites.

Points to remember about Influenza immunisation

- Inactivated influenza vaccine contains non-infectious killed viruses and cannot cause influenza.
- Coincidental respiratory disease unrelated to influenza vaccinations can occur after vaccination.
- When immunising the elderly remember to use the opportunity to promote childhood immunisation for there grandchildren.

The National Institute for Clinical Excellence, NICE, in the UK has recommended that antiviral drugs are not a substitute for vaccination. Antiviral drugs can shorten the course of infection if given early in the disease (within 48 hours of the onset of symptoms) and provide short term protection against influenza. Oseltamivir and Zanamivir are recommended for adults at-risk and Oseltamivir is recommended for at-risk children.

Influenza Surveillance

Surveillance of influenza activity using computerised sentinel general practices in Ireland commenced in 2000. This is operated by the NDSC in collaboration with the National Virus Reference Laboratory, Irish College of General Practitioners and the Departments of Public Health. The surveillance period runs from week 40 (October) to week 20 (May). Each week the NDSC produces a report, which is sent to all those involved in influenza surveillance and also posted on the NDSC website. Results of clinical and virological data are reported along with a map of influenza activity and a summary of influenza activity worldwide.

Norovirus (Winter Vomiting Bug)

Gastrointestinal illness due to Norovirus (formerly known as Norwalk like virus (NLV) or small round structured virus (SRSV)) is extremely common in the community. Although the illness is usually mild, spread, particularly in institutions such as hospitals, nursing homes, schools and nurseries may be rapid. It has been referred to as the "winter vomiting bug" and has caused a number of outbreaks in hospitals and other institutions, which may reflect what is going on in the community. However, it can occur at any time of the year. In 2002, Norovirus affected 3,804 people during outbreaks in the ERHA region.

Currently, human beings are the only known source of NLV. Spread of the virus may occur through:

1. Person-to-person and environmental spread in settings such as hospitals and nursing home.
2. Infected food handlers
3. Contaminated food (most commonly shellfish, but also fruit and salads which have been washed with contaminated water)
4. Water: drinking water that is inadequately treated or contaminated may transmit the virus, as may contaminated ice-cubes and swimming in or brushing ones teeth with contaminated water.

Points to remember about Viral Gastroenteritis

- Proper prevention and control measures can minimise the spread of this virus.
- People who have been ill with vomiting or diarrhoea should remain out of work for two days after their symptoms have stopped. If staff return to work too early, it is possible that sickness will be reintroduced into the workplace.
- Norovirus survives very well in the environment. It is necessary to use a dilute bleach solution to clean surfaces, which have been or may have been soiled by vomitus or faeces to ensure that the virus has been destroyed. (Two capfulls of bleach in a gallon of water).

The public are usually asked to avoid visiting places where an infection has been identified. Also it is preferable for patients with viral gastroenteritis to visit their GPs rather than hospital A & E Departments. The Department of Health and Children has issued National Guidelines on the Management of Outbreaks of Norovirus in Healthcare Settings which is available on www.ndsc.ie

Useful Links and Further Reading

www.ndsc.ie/DiseaseFacts/ViralGastroenteritis

www.fsai.ie/surveillance/human/gastro_report/Acute_Gastroenteritis.pdf

Measles

Measles is a highly infectious, vaccine preventable disease.

Death from measles is highest in children under one year of age (a group too young to receive the MMR vaccine) and in those who are immunocompromised. These children can only be protected through the 'population protection' of high vaccine uptake.

The incidence of measles declined dramatically following the introduction of the measles vaccine in 1985. For successful measles control, immunisation of at least 95% of susceptible individuals with a two-dose schedule is required. The current uptake of MMR vaccine in the third quarter of 2003 is 79.8% at 2years and 75% at 12 months.

Figures 3, 4 and 5 illustrate the burden of measles in the region since January 2002.

In the first eleven months of 2003 there were 358 notifications of measles in the ERHA, the majority of which were notified in the first four months of the year. The enhanced surveillance of measles allows the number of preventable cases to be calculated based on MMR vaccination status. Of the measles cases notified in the age group 1-4 years, 67% were preventable. While the number of notifications declined in the latter months of the year, we should not become complacent about measles and assume that it is under control. Efforts to promote the MMR vaccination programme must be intensified.

When an increase in the number of vaccine preventable illnesses is observed there is often a correlation between areas of high notification and low vaccine uptake. In 2000 such a phenomenon was observed during a measles outbreak. Most of the cases occurred in the NAHB as shown in Figures 4 & 5, which show the notification rates for measles per 100,000 population in the area boards and in each community care area. As may be seen the highest rate so far in 2003 has been in the ECAHB, though it should be remembered that the rates quoted are crude rates and do not account for differing age profiles in the different boards.

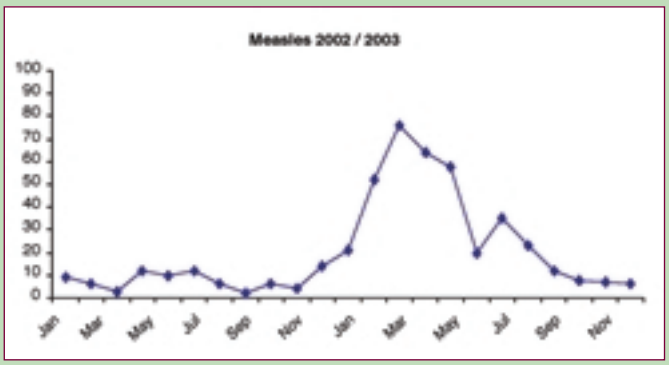

Figure 3 Measles notifications 2002-2003

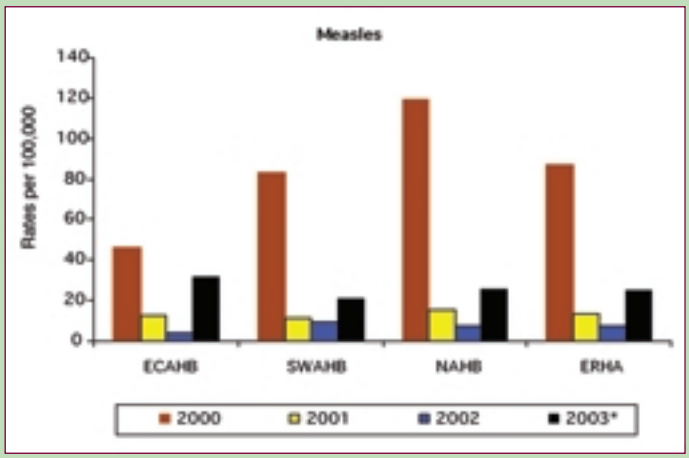

Figure 4 Measles notification rates per 100,000 population in area health boards (2003 data is for eleven months only)*

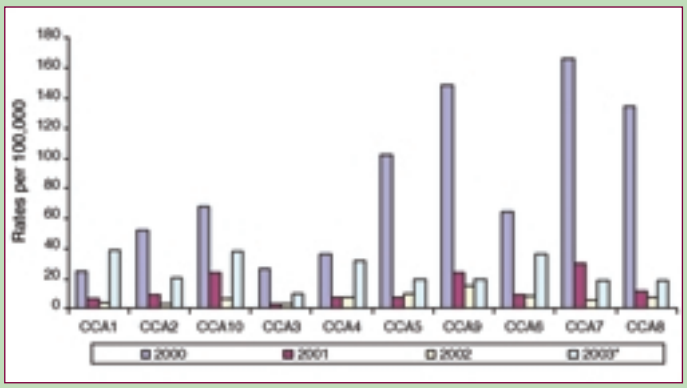

Figure 5 Notification rates per 100,000 in the community care areas

An intensive immunisation campaign took place in 2000 the benefits of which are now evident. In 2003, while the number of notifications of measles increased throughout the region there was no obvious geographical clustering of infections. As may be seen in Figure 5 an increase in notifications has occurred in most community care areas. However, the increase was not as great in the NAHB probably due to the fact that children in this region are now immune to measles either as a result of having been infected with measles in 2000 or else as a result of immunisation. MMR immunisation rates throughout the region are lower than is desirable to prevent an outbreak and children living in areas in which the 2000 measles outbreak was not significant are now more vulnerable as they were not exposed to measles infection and many are now not being immunised. Media discussion on possible adverse affects of the

MMR vaccine has posed a dilemma for many parents and health professionals about what is best for their children and patients.
Surveillance data as presented here serves as a warning signal for health professional that measles could again become an endemic disease.

Points to remember about MMR Immunisation

- Individual protection: one dose will provide immunity against measles and mumps in at least 95% of those vaccinated and against rubella in at least 95%. A second dose of vaccine has been shown to increase protection significantly.
- Population protection or herd immunity: if enough people in a community are immunised against measles, mumps or rubella, then it is more difficult for those diseases to be passed between those who have not been immunised.
- MMR vaccination provides long lasting immunity.
- Potential eradication of disease: The eradication of measles is feasible through immunisation.
- Remember when immunising children to use the opportunity to promote influenza vaccination.

Topical Disease

A topical communicable disease will be reviewed in each edition of Closing the Loop. An overview of the epidemiology, clinical picture and management will be included, which it is hoped will contain something of relevance for all our readers.
The first issue contains a review of meningitis.

Meningitis

Meningitis is inflammation of the meninges covering the brain, which results in a group of signs and symptoms called meningism. These include headache, neck stiffness, nausea or vomiting and photophobia. Acute meningitis is nearly always viral or bacterial; fungal and protozal infections occasionally occur, mainly in the immuno-suppressed patients.

Bacterial meningitis

Bacterial meningitis is a medical emergency with the clinical presentation depending on the age of the patient and the infecting organism.

Neonates: the presentation is non-specific, with features of bacteraemia. The infant is febrile, listless, and floppy and does not feed. There may also be vomiting, drowsiness, convulsions or an abnormal high-pitched cry. In this age group the commonest causes are *E.Coli* and *Group B Streptococci*. Less common causes include *Listeria Monocytogenes* (intraprtum exposure), *Neisseria Meningitides* and *Staphylococci*.

Older infants and children: signs and symptoms are also non-specific. Meningococcal infection is the commonest cause at this age and is often accompanied by a haemorrhagic rash. Less common causes are *Haemophilus Influenza Type B* and *Streptococcal Pneumoniae.*

Older children and adults: the symptoms are more specific. Fever, malaise and increasing headache are accompanied by nausea and often vomiting. Photophobia may be extreme and meningism is usually present. Meningococcal infection is also the commonest in this group and the typical rash may be present.

Viral meningitis

Viral meningitis is common and most cases are mild. The most common cause is an enteroviral infection such as echovirus or coxsackie virus. It is commonest in preschool children and tends to occur mainly in late summer. There is sometimes a history of a sore throat or diarrhoea for a few days before the onset of headache, fever and nausea or vomiting. While the headache may be severe there is usually no alteration of neurological function.

Meningococcal Infection

Meningococcal infection is the spectrum of disease caused by the bacterium *Neisseria Meningitidis*. It may present as meningitis, septicaemia, or a combination of both. It is a life threatening infection and as in all types of bacterial meningitis the clinical features depend on the age of the patient.
An important feature is the appearance of a petechial rash, which indicates that septicaemia has occurred. The "glass tumbler" test may be used to distinguish a haemorrhagic rash from other types of rash. If a glass tumbler is pressed firmly against a septicaemic rash, the marks will not fade. You will be able to see the marks through the glass. Overall the mortality for meningococcal infection is approximately 5 -10%.

Children under 1 year of age, between 1 and 6 years and young people aged 15 to 18 are the groups most at risk.

Neisseria Meningitidis is present in the nasopharynx of 10% of the general population, with about 2% of children under 5 years and 25% of 15-19 year olds carrying one of a number of strains, many of which are not virulent. A person may be a carrier for up to 21 months. Systemic immunity usually develops within 14 days and if disease develops it tends to occur within one-week of acquiring the organism. This one-week "window" is used when identifying close contacts of an infected individual. Established meningococcal carriers do not tend to develop invasive disease.

While there are 13 serogroups of *Neisseria Meningitidis*, serogroups B and C account for most cases of meningococcal disease. Since the introduction of meningococcal serogroup C vaccine in October 2000, the number of cases of meningococcal C disease in the ERHA fell from 43 in 2000 to 34 in 2001 and 14 in 2002.

A number of factors predispose to meningococcal infection. These include passive smoking, crowding, recent influenza type A infection and absence of a spleen.

Notification

Once meningococcal disease is either suspected on clinical grounds or confirmed through laboratory investigations, the attending physician should notify by telephone the Senior Area Medical Officer for the local Community Care Area. This verbal notification should be followed by a written notification. The Community Care Areas should simultaneously notify the Department of Public Health and the National Disease Surveillance Centre. This forms part of the national enhanced surveillance system for meningococcal disease which first commenced in 1997. The National Meningococcal Reference Laboratory at the Children's Hospital, Temple Street, performs active surveillance on laboratory confirmed cases of invasive meningococcal disease.

Notification Data

Data on meningococcal disease are presented below for the period 1998 to 2002. Between 1st January 1998 and 31st December 2002, 787 notifications of meningitis were received for meningococcal disease. There were 27 deaths: 6 in 1998, 5 in 1999, 10 in 2000 and 2 in 2001 and 4 in 2002. To date this year there have been 3 deaths.

As may be seen in Figure 6 the rate of notifications has decreased over the last few years from a rate of 16 per 100,000 in 1999 to a rate of 6 in 2002. Please note that the rates referred to here are crude rates, i.e. they do not account for age differences in the population.

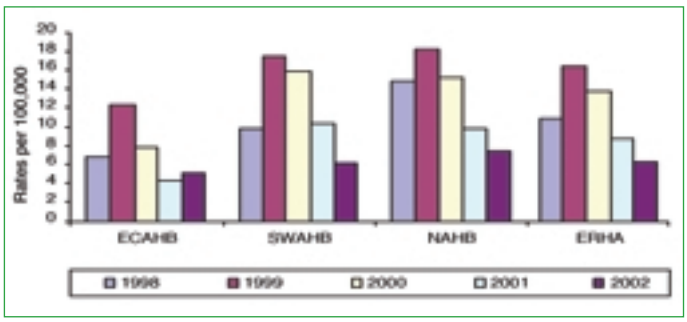

Figure 6 Notification rates per 100,000

Of the 787 cases notified 84% were laboratory confirmed: 546 (69%) were serogroup B and 137 (17%) were serogroup C. Figures 7,8 and 9 show the change in the numbers of both serogroup B and C over the period in question.

Meningococcal C Vaccine introduced in the latter half of 2000 has had a major impact on the incidence of meningococcal serogroup C disease both nationally and regionally. Figure 7 and 9 illustrate the major impact the Men C programme has had on the incidence of sero group C in this region.
Invasive meningococcal infection is endemic in all Northern European countries with a background incidence of two to three

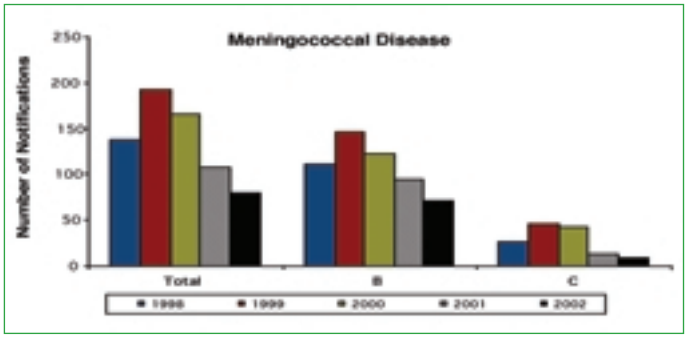

Figure 7 Number of notifications in each serogroup

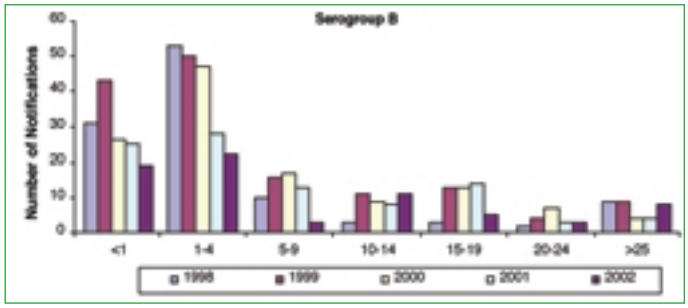

Figure 8 Serogroup B in different age groups

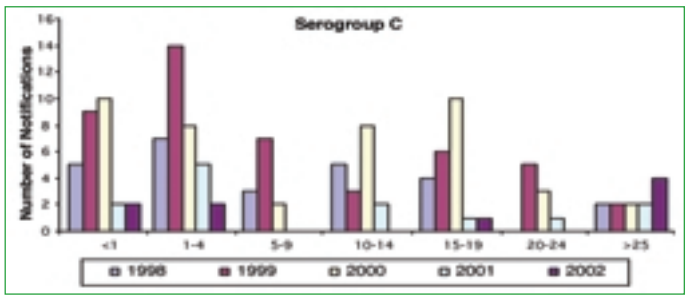

Figure 9 Serogroup C in different age groups

cultured confirmed cases per 100,000. In temperate climates such as Ireland the infection typically shows a seasonal variation with the majority of cases occurring in winter and early spring. The disease season is therefore considered to span the "epidemiological year" from July 1st to June 30th. Figure 10 shows the seasonal variation in meningitis in the last three "epidemiological years", and shows a predominance of infections in the winter months.

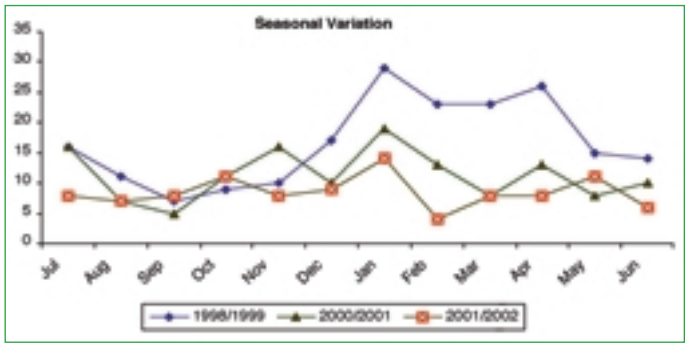

Figure 10 Seasonal variation

Response to a case

Meningococcal disease can kill a healthy person of any age within hours of the appearance of the first symptoms. Early diagnosis depends on knowing what to look for. In order to minimise both the morbidity and mortality of meningococcal disease a high index of suspicion is required by all those involved in primary and hospital based care. Pre-admission management to reduce mortality, investigation of suspected cases, case definitions, public health action after a single case and management of clusters are elements of how we should respond to a case. The following is an aide memoir for our readers and a guide for further reading.

- Pre-admission management
- Hospital management
- Confirmation of diagnosis
- Identification of close contacts
- Administration of chemoprophylaxis and vaccination where indicated
- Provide advice for parents, GPs and educational establishments

Pre-admission management

Based on the rapid clinical deterioration that can occur in meningococcal disease, on the established effectiveness of penicillin in hospital treatment and on the evidence for lack of harm early treatment of suspected cases with benzyl penicillin is recommended. Intravenous administration is preferable, but it can be given intramuscularly in shocked patients.
If there is a history of penicillin anaphylaxis (which is very rare), penicillin should not be given and the patient transferred to hospital as soon as possible.

- Adults and children age 10 years + 1200 mg Benzylpenicillin
- Children aged 1-9 years 600 mg Benzylpenicillin
- Children under 1 year 300 mg Benzylpenicillin

Guidelines for the 'Management of Meningococcal Disease in the Eastern Region - The Public Health Perspective' are currently being updated and will be available from the Department of Public Health.

Hospital management

The Working Group on Bacterial Meningitis in 1999 developed guidelines for the hospital-based management of suspected meningococcal disease. These have been adapted by individual hospitals for local use.

Confirmation of diagnosis

Once meningococcal disease is suspected on clinical grounds, the diagnosis should be confirmed as soon as possible. Accurate diagnosis is important to ensure that appropriate treatment is initiated, to assist the public health response and for epidemiological purposes. This requires close co-operation between clinicians, microbiologists and public health doctors.

Isolation of *N.Menigitidis* from a deep site (CSF, blood) is the 'gold standard' in the confirmation of invasive meningococcal disease. The chance of obtaining laboratory confirmation is increased by taking samples at the earliest available opportunity: blood samples for culture and polymerase chain reaction (PCR). Decisions about vaccination rely on identification of the serogroup.

For surveillance purposes the diagnosis of meningococcal infection is classified as 'definite', 'presumed' or 'possible'. These categories do not necessarily influence the clinical management of a suspected case or the decision to initiate chemoprophylaxis.

Definite: A case where *Neisseria Meningitidis* is detected by culture or PCR in a normally sterile site (CSF, blood, synovial fluid etc.).

Presumed: A case where the convalescent serology test is positive or Gram-negative diplococci are detected in CSF or skin-scrapings or *N. Meningitidis* is isolated from an eye, throat or nasal swab together with either the characteristic rash or clinical or laboratory features of bacterial meningitis.

Possible: A case with evidence of acute sepsis with or without meningitis, together with the characteristic purpuric rash or a case with clinical evidence of sepsis without a purpuric rash or a case with clinical evidence of sepsis without a purpuric rash and in whom *N.Menigitidis* is isolated from an eye, throat or nasal swab.

Identification of close contacts

It is important to identify individuals with close and prolonged contact with the case in a 'household type' setting.
Close contact is defined as:

- Shared living or sleeping accommodation with the patient
- Had mouth kissing contact with the patient (not cheek kissing)
- Gave mouth to mouth resuscitation to the index case
- Were in the same nursery/crèche as the patient; this includes adult carers
- Special Consideration: attendance at a party, extended family, greater than usual interaction between members of the extended family and an index case, particularly where overcrowding or adverse environmental conditions exist.

Meningococcal Infection in Schools

Where meningococcal infection occurs in a school child chemoprophylaxis is not considered necessary for classmates unless there are two or more cases of the same strain in the school during the same term.

If these cases occur in the same class all class members and staff should receive chemoprophylaxis. If the cases occur in different classes management should be guided by the interval between cases, the size of the contact group, the carriage rate in the school, whether the cases are due to a vaccine preventable strain, the degree of public concern particularly if a death has occurred and the incidence of the disease in the wider community. In such situations management should be discussed with the Specialist in Public Health Medicine dealing with the case.

Other situations

Chemoprophylaxis is not routinely recommended for passengers on public transport, e.g. bus or train, where an index case has been identified.

Chemoprophylaxis

The rationale for chemoprophylaxis is to eliminate N. Meningitidis from the nasopharynx of healthy carriers so as to reduce the risk of further transmission to other susceptible people who may have close contact with them. The period of 7 days prior to onset of symptoms in the index case is taken as the relevant 'contact-tracing window'. Individuals with significant close personal contact with the case should be identified and considered for chemoprophylaxis, and subsequent vaccination if the serogroup is A or C.

The majority of cases of meningococcal disease occur following acquisition of the organism from a healthy carrier rather than from the person with the disease.

Chemoprophylaxis should be given to close family contacts by hospital staff immediately. The Senior Area Medical Officer should ensure that all other relevant contacts are followed. Chemoprophylaxis for the index case should be initiated prior to discharge from hospital.

Rifampicin, ciprofloxacin and ceftriaxone are all recommended for chemoprophylaxis, but Rifampicin is the only antibacterial agent licensed for this purpose. Written information with regard to side effects should be given to each contact and a separate bottle of medication should be dispensed for each contact.
Dosage of Rifampicin: (orally)

- 600 mg twice daily for 2 days (adults & children over 12 years)
- 10 mg/kg twice daily for 2 days (1 to12 years)
- 5 mg/kg twice daily for 2 days (infants under 12 months)

Where Rifampicin is contraindicated Ceftriaxone may be used as a single intra-muscular injection: 250mg for adults and 125 mg in children under 12 years.

Meningococcal Vaccination

Vaccination offers the only prospect for prevention. The plain polysaccharide meningococcal vaccine (Mengivac A+C), used for many years and effective against serogroup A and C. However it it did not protect infants under 2 years of age where the risk of infection is particularly high.

The new meningococcal C (MenC) conjugate vaccine became part of the routine schedule of infant immunisations from October 2000. MenC is now given at the same time as primary immunisation at two, four and six months. A 'catch-up'

programme of immunisation commenced in October 2000, under which MenC was offered to everyone up to and including 22 years of age. Men C has also replaced the older vaccine in the immunisation of close contacts.

It is important to remember that it cannot prevent all forms of meningitis and septicaemia. Even before Men C vaccine was available, Group B meningococcal disease was generally more common, accounting for up to 80% of cases, and no vaccine can protect against it. There are many other equally deadly forms of meningitis and septicaemia that are not vaccine-preventable. For this reason, it is still crucial to be aware of the symptoms of meningitis and septicaemia.

Close contacts of meningococcal infection have a considerably increased risk of developing the disease in subsequent months, despite appropriate chemoprophylaxis. Immediate family or close contacts of cases should be given MenC if a Group C strain is isolated from the index case.

Enhanced surveillance of meningococcal disease allows the continual monitoring of vaccine coverage, vaccine failures and vaccine efficacy.

Useful Links and Further Reading

www.ndsc.ie
www.meningitis.ie
www.menigitis.org
www.meningitis-trust.org
www.hpa.org.uk/cdph

Sexually Transmitted Infections

Sexually Transmitted Disease	2000	2001	2002	2003 Jan-June
Ano-genital warts	1941	1985	1588	683
Candidiasis	458	547	546	275
Chancroid	1	1	1	1
Chlamydia Trachomatis	862	940	910	578
Genital Herpes Simplex	223	232	220	266
Gonorrhoea	193	247	120	43
Granuloma Inguinale	0	0	0	0
Infectious Hepatitis B	30	30	30	41
Lymphomagranuloma Venereum	0	0	1	0
Molluscum Contagiosum	70	69	72	30
Non-specific urethritis	719	722	630	386
Pediculosis Pubis	221	81	24	10
Trichomoniasis	57	43	49	21
Syphilis	77	266	192	85
Total	**4852**	**5163**	**4383**	**2419**

Table 1 Notifications of sexually transmitted infections

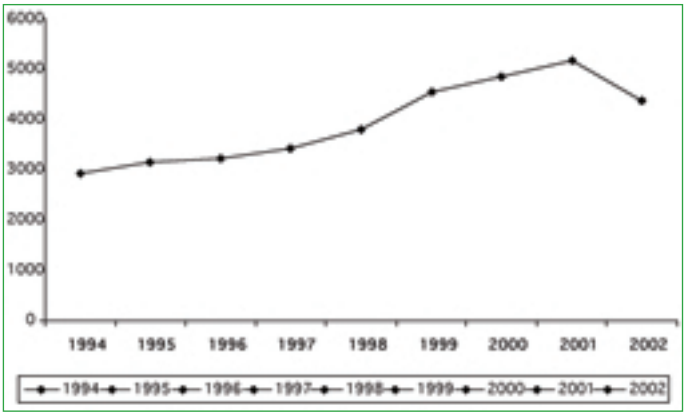

Figure 11 Notifications of sexually transmitted diseases 1994 to 2002

ERHA Infectious Disease Notifications

Communicable disease	2001	2002	2003 (Jan-Nov)
Population		1,401,444	
Acute anterior poliomyelitis	0	0	0
Acute encephalitis	1	1	23
Acute viral meningitis	94	23	21
Anthrax	0	0	0
Bacillary dysentery (Shigellosis)	19	14	19
Bacterial food poisoning (other than salmonella & dysentery)	**479**	**501**	**525**
Bacterial meningitis	**139**	**107**	**94**
Brucellosis	0	0	0
Cholera	1	1	0
Creutzfeldt Jakob Disease (definitively diagnosed)	3	3	0
Diptheria	0	0	0
Food poisoning (bacterial other than salmonella)	0	0	0
Gastroenteritis (children under 2 years)	818	645	512
Infectious mononucleosis	48	53	17
Infectious parotitis (Mumps)	22	17	19
Influenzal pneumonia	0	1	1
Legionnaires disease	2	3	4
Leptospirosis	7	0	1
Malaria	10	13	10
Measles	**184**	**105**	**358**
Ornithosis	0	0	0
Plague	0	0	0
Rabies	0	0	0
Rubella	45	19	34
Salmonellosis (other than typhoid & paratyphoid)	169	117	155
Smallpox	0	0	0
SARS ***	0	0	1
Tetanus	1	0	0
Tuberculosis	**171**	**165**	**167**
Typhoid & paratyphoid	2	4	3
Viral haemorrhage disease	**0**	**0**	**0**
Viral hepatitis Type A	**66**	**7**	**7**
Viral hepatitis Type B	**128**	**139**	**157**
Viral Hepatitis unspecified	**132**	**86**	**26**
Whooping cough	75	32	14
Yellow fever	0	0	0
Total	**2616**	**2056**	**2148**

Table 2 Disease notifications 2001, 2002 & 2003 (Jan - Nov)

Contact details for notification of infectious diseases.

C.C.A	Tel. No.	Address
1	284 3579	Tivoli Road,Dun Laoghaire,Co. Dublin
2	269 8222	Vergemount Hall, Clonskeagh, Dublin 6
3	679 2611	1-25 Lord Edward Street, Dublin 2
4	454 2511	Old County Road, Crumlin, Dublin 12
5	620 6300	Cherry Orchard Hospital, Ballyfermot, Dublin 10
6	868 0444	Rathdown Road,Dublin 7
7	857 5439	193 Richmond Road,Dublin 3
8	847 6122	Cromcastle Road, Coolock, Dublin 5
9	(045) 876 001	Poplar House, Naas, Co. Kildare
10	(0404) 68 400	Glenside Road, Co. Wicklow