Communicable Disease Update

Public Health Department, Health Service Executive South (SE)

Volume Issue ,

In this Issue

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IN THE NEWS

New Notifiable Diseases

The revised schedule of infectious diseases (S.I. No. 452/2011) with a number of new additions were passed into legislation on 21st September 2011. The list is available to view at http://www.irishstatutebook.ie/2011/en/si/0452.html. The new diseases added are: HIV, CRE, Chikungunya , Cytomegalovirus Infection (congenital), Dengue, Klebsiella pneumoniae (invasive), Pseudomonas aeruginosa (invasive) , Group B streptococcal infection (invasive), Leprosy, Lyme disease, Respiratory syncitial virus, Varicella/chickenpox (hospitalised cases), and West Nile fever.

Measles outbreaks in Europe and in Ireland

Over 26,000 confirmed measles cases were reported to the WHO Europe Regional Office for the first 6 months of this year. Over 50% of these cases were from France, with the greatest number of cases there in the 20-29 year age group. In addition, there have been 11 measles deaths reported in Europe, 80% of whom were > 10 years.

The last reported case of endemic measles in the Americas was in 2002. In 2011, there have been several outbreaks reported, linked to the importation of measles virus from other regions, especially Europe. The largest was in Quebec, Canada, which involved 742 reported cases.

In Ireland, as of 17th October, we have seen 259 reported measles cases (185 lab confirmed) since the beginning of 2011. Most of these are linked to an outbreak in Dublin, mainly associated with unvaccinated children but with cases also seen in those in their 20s and 30s. However, cases are now being seen in areas outside the Dublin region. In the South East, there has been one confirmed case of measles to date in 2011. However, there is a risk of the measles outbreak also spreading here. It is important to identify and notify clinically suspicious cases early, so that public health actions can be carried out to prevent the spread of the virus.

Shigella in MSM in UK

The Health protection agency (HPA) in the UK is currently investigating an outbreak of *Shigella flexneri* among men who have sex with men (MSM). The HPA is recommending that MSM presenting with acute diarrhoea in the UK should have a stool sample taken for culture with a specific request for Shigella testing. To help interrupt onward transmission, the HPA is also recommending that patients with laboratory confirmed infection should be treated with ciprofloxacin, subject to antimicrobial sensitivity. The epidemic curve indicates ongoing transmission rather than a point source. We would like to advise that GPs consider shigella as a possible diagnosis and to test appropriately; male patients (aged 30-50 years) presenting with diarrhoea, particularly if they have reported travel to the UK (Manchester/London) in the last 6-9 months.

Recent Publications at www.hpsc.ie

- Determination of the burden of Hepatitis C virus infection in Ireland
- Invasive Group A Streptococcal disease in Ireland 2004-2010

Sexually Transmitted Infections (STIs) in General Practice

Key Points

- Improving surveillance for action is currently the public health priority in relation to STIs. Please remember to notify all STIs to the Medical Officer of Health, Department of Public Health, HSE, Lacken, Kilkenny. This should be done in an envelope stamped Private and Confidential and with a return name and address on the back.
- *Chlamydia trachomatis* infection is the most commonly diagnosed bacterial STI in the South East, accounting for 83% of laboratory confirmed STIs in 2010. Sampling is now very straightforward in men with only a first void urine required for laboratory confirmation.
- A swab should always be obtained from patients with clinically suspected Herpes Simplex virus infection.
- HIV is now a notifiable disease, as of 21/09/2011.
- There were 29 notifications of syphilis in the South East in 2010 indicating that this is a disease which is still prevalent.
- Advice on safer sexual practices should be given to all patients with an STI.
- Patients with an STI can be referred to the STI clinic at Waterford Regional Hospital (WRH) for further clinical care, for a full STI screen or for partner notification. This should be done by phoning to make an appointment on 051-842646. It is not a walk-in service.

More information and guidance can be obtained from the British Association of Sexual Health and HIV (BASHH) website at www.bashh.org

Surveillance of STIs in the South East

Laboratory and clinical notifications, respectively, for 2009 and 2010 are compared in Table 1. Notifications of ano-genital warts come mainly from the STI clinic.

Table 1 Laboratory confirmed STI sand clinical notifications in the South East for 2009 - 2010

Laboratory notifications	**2009**	**2010**
Chlamydia trachomatis infection	657	685
Gonorrhoea	67	66
Herpes simplex (genital)	41	38
Lymphogranuloma venereum	0	1
Trichomoniasis	13	10
Syphilis	30	29
Total laboratory notifications	**808**	**828**
Clinical notifications	**2009**	**2010**
Ano-genital warts	389	412

Chlamydia Trachomatis

Chlamydia trachomatis infection is the most commonly diagnosed STI in the South East, accounting for 83% of laboratory confirmed STIs in 2010. There were 685 cases of Chlamydia reported in 2010, comprising 258 males and 427 (62%) females. Of those with recorded data, 401 (59%) were GP patients and 267 (39%) were hospital outpatients, almost all of whom attended the STI clinic. More than two-thirds of cases (461) were aged 20-29 years.

Chlamydia trachomatis, an obligate intracellular parasite, is one of three species of Chlamydia which cause disease in humans. Different serovars produce different diseases:

- Sexually acquired genital infections in the adult and perinatally transmitted infections of the neonate and infant;
- Lymphogranuloma venereum (LGV)
- Trachoma

The latter two tend to be tropical diseases, although an upsurge of LGV has been seen in Europe in recent

years, largely in men who have sex with men (MSM). A rectal Chlamydial swab should be taken using a proctoscope if a patient (especially MSM) presents with proctitis.
Genital chlamydial infection is important from a public health and clinical perspective as it is common, often asymptomatic, there are important complications and it is easily treatable. It is reported that approximately 5-10% of sexually active women under 24 and men between 20-24 in the UK may be infected (National Chlamydia Screening Programme UK, 2010). Genital infections are asymptomatic in about 70% of women and 50% of men, although patients can present with symptoms of cervicitis or urethritis. Untreated infection can have serious long-term consequences, particularly for women, in whom it can lead to pelvic inflammatory disease (PID), ectopic pregnancy and tubal factor infertility. In addition, infection can lead to complications in pregnancy and conjunctivitis and pneumonia in newborns. In men it can result in painful testicles and, in both men and women, it may lead to Reiter's Syndrome.
With the adoption of Nucleic Acid Amplification Tests (NAATs, which are very sensitive and specific) in WRH to detect Chlamydia Trachomatis, testing of men is now much easier and a urethral swab is no longer generally necessary. Investigation should be with a first void urine in men and with a cervical swab or patient-taken vulvo-vaginal swab in women. A first void urine can also be taken in women.
Treatment of uncomplicated infection in men and women is as follows (BASHH, 2006);

- Azithromycin 1g po stat; OR

Doxycycline 100mg po bd for 7 days (contraindicated in pregnancy).
Treatment is highly efficacious and test of cure is not routinely required.
Patients should be advised to avoid sexual intercourse (even with a condom), including oral sex or any genital-mucous membrane contact until they and their partner(s) have completed treatment or until seven days after treatment if treated with Azithromycin.
Treatment in pregnancy or at risk of pregnancy:

- Erythromycin 500mg po bd x 14 days; OR

Amoxycillin 500mg po tds x 7 days.
These are less efficacious treatments and therefore, test of cure is required five weeks after finishing treatment. Advise no sexual intercourse until after a negative result is obtained on this test of cure.
Patients who test positive for Chlamydial infection should also be tested for other STIs, including an HIV test and, where indicated, hepatitis B screening and vaccination.
Partner notification should be pursued in all patients identified with Chlamydia infection. This can be done in general practice or patients can be referred to the STI clinic in Waterford Regional Hospital for this service. All partners should be offered and encouraged to take up a full STI screen, including HIV test and, if indicated, hepatitis B screening and vaccination (BASHH, 2006). Partners who are reviewed should be given treatment for Chlamydia at the same time as they present for testing.

Gonorrhoea

There were 66 cases of gonorrhoea reported in the SE in 2010, comprising 38 (58%) males and 28 females. Thirty-seven cases were in the 20-29 year age-group. Over half (53%) were GP patients.
The British Association for Sexual Health and HIV has updated the UK National Guideline for the Management of Gonorrhoea in Adults in 2011(BASHH, 2011). It is worth highlighting changes since the 2005 guideline which include the following:

- NAATs can be used for both anogenital and pharyngeal specimens. All positive results should be confirmed on culture before treatment.
- First-line treatment is now Ceftriaxone 500mg IM stat plus Azithromycin 1g po stat.
- Test of cure is recommended for all cases

A patient information leaflet is currently in preparation (see BASHH website)
Patients with gonorrhoea should be referred to a specialist service where testing for other STIs and partner notification can be undertaken. All patients with gonorrhoea should be screened for genital infection with C. trachomatis or receive presumptive treatment for this infection.

Herpes Simplex (Genital)

There were 38 cases of laboratory confirmed herpes simplex (genital) reported in 2010, comprising 24 (63%) females and 14 males. GP patients comprised 47% of the total.
Genital herpes is caused by Herpes simplex virus type 1 (HSV-1), the usual cause of oro-labial herpes or Herpes simplex virus type 2 (HSV-2), which is historically associated with sexual transmission.
Disease episodes may be initial or recurrent and symptomatic or asymptomatic (BASHH, 2007).
Following primary infection, the virus becomes latent in local sensory ganglia, periodically reactivating to cause symptomatic lesions or asymptomatic, but infectious, viral shedding.
When present, symptoms consist of painful ulceration, dysuria, vaginal or urethral discharge. Systemic

symptoms (fever and myalgia) are much more common in primary than in recurrent disease. Complications include urinary retention and meningism.
The confirmation and characterisation of the infection and its type, by direct detection of HSV from the base of genital lesions, are essential for diagnosis, prognosis, counselling and management. Therefore taking a swab (pink) is essential.
Management of primary herpes includes saline bathing, possibly topical lignocaine 5% ointment prior to micturition, analgesia, oral anti-herpes virus treatment (if within five days of onset or if new lesions still forming). Options for management of recurrent genital herpes infection include supportive treatment (saline bathing, topical Vaseline), episodic oral treatment or suppressive treatment, depending on the frequency and severity of recurrences.
Genital HSV infection in pregnancy, particularly primary infection in the third trimester, can cause serious complications and requires specialist intervention. A woman's obstetrician should always be informed of a history of genital herpes infection.

Syphilis

In 2010, there were 29 notifications of positive serology for syphilis in the South East, comprising 15 males and 14 females. The age range was 20 to 55 years. The gender and stage of syphilis infection is shown in the Table 2 below.

Table 2 Gender and Stage of Syphilis infections, 2010

Stage of Infection		Male	Female
Early	Primary	3	1
	Secondary	0	1
	Early Latent	3	1
	Latent	5	11
	Late Latent	4	0
	Total	15	14

The majority of male cases were diagnosed at the STI clinic, while the majority of female cases were diagnosed at antenatal clinics or by GPs, possibly as part of antenatal care.
Patients with syphilis should be referred to a specialist service where testing for other STIs and partner notification can be undertaken. It is critical that pregnant women diagnosed with syphilis and their unborn child are followed-up appropriately. In addition, it is reasonable for sexual partners and children born to women diagnosed with late latent syphilis of unknown duration to undergo screening to diagnose or exclude infection.

HIV

HIV is now a statutorily notifiable disease (as of 21/09/2011). Prior to this data has been collected on cases through the national HIV case-based reporting system, a voluntary anonymised surveillance system. The National Virus Reference Laboratory sends surveillance report forms on newly confirmed HIV cases to the patient's clinician for completion. Completion and return of these forms greatly facilitates collection of data on HIV cases nationally.
There were 10 cases of HIV reported in the South East in 2010. Clinicians should have a low threshold for screening for HIV in sexually active individuals, in particular those at high risk for STIs, see Box 2.

Box 1 Sexual health promotion
Publicise the practice's sexual health services.
Offer a range of contraception methods.
Consider the impact of other treatment and medical conditions on sexual health.
Publicise out of hours and holiday services.
Ensure that staff have relevant training in sexual health.
Develop a "whole practice" approach to promoting sexual health.

Box 2 Risk factors associated with STIs
Younger age (especially <20 years).
Two or more partners in preceding six months.
Use of non-barrier contraception.
Living in an inner city.
Symptoms in partner.
Current STIs.
History of past STIs.
Sexual orientation.
Ethnicity (for some STIs).

References
BASHH 2011 UK National Guideline for the Management of Gonorrhoea in Adults
BASHH 2006 UK National Guideline for the management of genital tract infection with Chlamydia trachomatis.
National Chlamydia Screening Programme. The natural history of genital Chlamydia trachomatis infection. Available at www.chlamydiascreening.nhs.uk. Last updated 2010. Accessed 14.09.201BASHH 2007 UK National Guidelines for the management of Genital Herpes
Lazaro, Neil (2006). Sexually Transmitted Infections in Primary Care. RCGP. London.

Statutory Notification of Infectious diseases

The table below shows cases of infectious diseases notified in the **HSE/SE area only** under Infectious Disease (Amendment No.3) Regulations 2003 (S.I. No. 707 of 2003).

With the exception of TB, data has been extracted from CIDR (Computerized Infectious Disease Reporting).

Disease	**2009 weeks 1—40**	**2010 weeks 1—40**	**2011[1] weeks 1—40**
	Cases	**Cases**	**Cases**
Acute infectious gastroenteritis [2]	618	655	603
Bacterial meningitis (not otherwise specified)	6	6	5
Brucellosis	0	0	0
Campylobacter infection	156	168	257
Chlamydia trachomatis[3]	519	525	506
Creutzfeldt Jacob disease	1	0	1
Cryptosporidiosis	59	53	65
Enterohaemorrhagic E. coli	25	16	12
Giardiasis	1	1	9
Gonorrhoea[3]	50	52	29
Haemophilus influenzae (invasive)	4	4	4
Hepatitis A (Acute)	3	1	3
Hepatitis B Acute	7	3	4
Hepatitis B Chronic	35	27	12
Hepatitis C	30	29	33
Herpes Simplex (gential)[3]	27	29	42
Influenza[4]	122	8	239
Legionellosis	0	2	0
Leptospirosis	3	3	0
Listeriosis	1	3	0
Malaria	2	6	1
Measles	19	12	2
Meningococcal disease	12	15	10
Mumps	293	21	10
Noroviral infection	57	117	90
Paratyphoid	3	0	0
Pertussis	2	2	10
Rubella	3	5	2
Salmonellosis	28	29	28
Shigellosis	2	3	3
Streptococcus group A (invasive)	7	3	7
Streptococcus pneumoniae (invasive)	73	88	67
Syphilis[3]	22	23	18
Tetanus	0	0	0
Toxoplasmosis	0	0	1
Trichomoniasis[3]	10	8	7
Tuberculosis	28	37	26
Typhoid	1	0	1
Viral encephalitis	2	3	3
Viral Meningitis	12	14	12
Total	**2243**	**1971**	**2122**

[1] Provisional data

[2] Since May 1st 2008 acute infectious gastroenteritis also now include Clostridium difficile cases

[3] STI data shown is from laboratory only and does not contain data for ano-genital warts or non-specific urethritis.

[4] Influenza figures contain all subtypes including A/H1N1 (which was only notifiable in its own right from April 2009). The peak of the winter influenza season 2009/2010 occurred in Dec 2009. The peak of the winter influenza season 2010/2011 occurred in Jan 2011.

cidr

Immunisation uptake for children at 12 months and 24 months of age in the South East and in Ireland

The decline of MenC3 uptake continues

The target uptake rate of ≥ 95% was achieved for BCG at 12 months in South Tipperary and Wexford LHOs and for D_3, P_3, T_3 Hib_3, Hib_b, Pol_3, $HepB_3$ and MMR_1 in at 24 months in South Tipperary. The recent decline in the uptake of $MenC_3$ at 24 months highlighted in the report for the previous quarter has continued and uptake is still 7% lower than one year ago. This large decline in $MenC_3$ uptake is a huge cause for concern and indicates that children are not receiving their Meningococcal sero-group C vaccinations as recommended. Results of a preliminary study into the cause of this decline were recently published in EpiInsight and are available at http://www.hpsc.ie/hpsc/EPI-Insight/Volume122011/

Immunisation uptake rates

	% Uptake at 12 months of age								
	BCG	D_3	P_3	T_3	Hib_3	$Polio_3$	$HepB_3$	$MenC_2$	PCV_2
HSE SE Q4 2010	**95**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**91**
CW/KK	94	87	87	87	87	87	87	87	88
TS	96	92	92	92	92	92	92	91	92
WD	93	93	93	93	93	93	93	93	93
WX	97	89	89	89	89	89	89	89	90
National Q4 2010	93	89	89	89	89	89	89	89	89
HSE SE Q4 2009	**95**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**90**

	% Uptake at 24 months of age									
	D_3	P_3	T_3	Hib_3	Hib_b	Pol_3	$HepB_3$	$MenC_3$	PCV_3	MMR_1
HSE SE Q4 2010	**94**	**94**	**94**	**94**	**91**	**94**	**94**	**84**	**90**	**93**
CW/KK	94	94	94	93	87	94	93	80	89	92
TS	97	97	97	97	96	97	97	89	94	96
WD	92	92	92	92	92	92	92	84	89	91
WX	94	94	94	94	90	94	94	83	90	92
National Q4 2010	94	94	94	94	84	94	93	80	88	90
HSE SE Q4 2009	**93**	**92**	**93**	**92**	**88**	**92**	**-**	**91**	**-**	**91**

The primary immunisation schedule is available at www.immunisation.ie. The immunisation uptake rates presented in this report are for children who were 12 and 24 months of age in Quarter 4-2010, i.e. children born between 01/10/2009 - 31/12/2009 and 01/10/2008 - 31/12/2008

Infectious Disease Notification: contact information

Medical practitioners and Clinical directors of diagnostic laboratories are required to transmit a written or electronic notification of a notifiable infectious disease to a Medical Officer of Health (the Infectious Diseases (Amendment) Regulations, 2000 (S.I. No 151 of 2000)). Printed copies of 'Case Definitions for Notifiable diseases' which include a booklet of standard notification forms are available from regional public health department offices, to which notifications should be returned.

Notifications can be phoned: 056 7784142, faxed: 056 7784599 or posted to:
Public Health Department, HSE South (SE), St Canice's Hospital, Lacken, Dublin Road, Kilkenny

This report is produced with the data provided by the Senior Medical Officers, Environmental Health Officers, Waterford Regional Hospital Laboratory, Hospital Clinicians, Regional STI Clinics and General Practitioners.

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