Infectious Diseases Bulletin
Winter 2012

Pertussis Guideline Update

The National Immunisation Advisory Committee (NIAC) has issued new recommendations for pertussis vaccination of pregnant women and co-housing of preterm infants to protect those who are too young to be fully vaccinated.

Is it just a cough?
Or is it whooping cough?

Tdap (Tetanus, diphtheria, acellular pertussis) should be offered to close family contacts of infants born before 32 weeks gestation as they may not have received protection via maternal immunisation. This includes:

- Siblings in the household who should receive age appropriate vaccines including Tdap at 11-14 years
- Older adolescents who have not received a pertussis containing vaccine in the previous 10 years ideally two weeks before close contact with the infant

Pregnant women who have not received a pertussis vaccination in the last 10 years should be offered Tdap (Boostrix). Tdap is a low dose tetanus (T), diphtheria (d) and acellular pertussis (p) booster vaccine. This vaccine should be given between 28-32 weeks gestation. The timing has been changed to give protection to the very young infant via the maximum transfer of maternal antibodies. Tdap may be offered to women later in pregnancy or to the unvaccinated women in the week after delivery but this may be less effective in protecting the infant.

Non-immune mothers, siblings and fathers are the most likely groups to transmit pertussis to the newborn infant. Bisgard et al. Ped Infect Dis J. 2004

For further information see www.immunisation.ie/en/HealthcareProfessionals/Pertussis/
Gonorrhoea is a public health problem in Ireland. This is because:

- Gonorrhoea incidence is increasing in Ireland,
- Gonorrhoea is becoming increasingly difficult to treat,
- Gonorrhoea it is known to increase the risk of contracting and transmitting HIV.

The primary sites of this sexually transmitted infection are the mucous membranes of the urethra, endocervix, rectum, pharynx and conjunctiva. Haematogenous spread can occur, but fortunately is rare. Gonorrhoea is often asymptomatic, especially in women. If left untreated, infection can lead to long-term health consequences such as pelvic inflammatory disease, ectopic pregnancy and infertility in women; men can suffer epididymo-orchitis or prostatitis and babies born to infected mothers can develop ophthalmia neonatorum.

Co-infection with *Chlamydia trachomatis* is estimated to occur in 35-40% of gonorrhoea cases.

**Antibiotic Resistance:** After a steady rise in minimum inhibitory concentrations (MICs) in recent years, resistance and even treatment failures to extended-spectrum cephalosporins have now been confirmed in Europe and worldwide. In Ireland, there has also been cases of cephalosporin resistant gonorrhoea.

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012*</th>
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<tbody>
<tr>
<td>Male</td>
<td>308</td>
<td>463</td>
<td>532</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>106</td>
<td>119</td>
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<tr>
<td>Unknown</td>
<td>6</td>
<td>22</td>
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<tr>
<td>TOTAL</td>
<td>379</td>
<td>591</td>
<td>659</td>
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</table>

**Figure 1:** Annual Number of Cases of Gonorrhoea in Dublin, Wicklow and Kildare 2010 to 2012 to date*

(* all data as recorded on 09/11/2012, note that figures are liable to change with validation)

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**Advice for General Practitioners:**

- Refer all suspected or diagnosed gonorrhoea to a GUIDE (Genitourinary and infectious disease) clinic for contact tracing and further STI testing
- Most cases are initially investigated by Urine/swab NAAT (Nucleic Acid Amplification Test) testing but where possible a culture of specimens should also be carried out.
- Treat all suspected or confirmed cases with Ceftriaxone 500mg IM plus Azithromycin 2gr PO (single dose each)
- Those with cephalosporin/penicillin allergy should be referred to a GUIDE clinic for appropriate management
- A test of cure using NAAT should be obtained TWO weeks after completion of antibiotic therapy. If the results are positive, refer to a GUIDE clinic for appropriate management
- If the patient has persistent symptoms or signs after treatment, refer to a GUIDE clinic.

**First Line Treatment**

Ceftriaxone 500mg IM PLUS Azithromycin 2gr PO (single dose each)

This treatment is also suitable for pregnant or breastfeeding women.

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**Guide Clinic:** St. James’s Hospital, Dublin 8, Tel: (01) 4162315 (Young Persons Only clinic on Thursday)

**Mater Hospital:** Dublin 7, Tel: (01) 8032063

**Gay Men’s Health Service (GMHS):** Baggot St. Hospital, Dublin 4 Tel: (01) 6699553 (GMHS is only for men who have sex with Men and transgender people)
Infectious syphilis continues to be a major public health threat in Ireland.

HSE-East especially Dublin continues to be an "epicentre" for transmission of syphilis in Ireland. Most cases are occurring in men. Where the sexual orientation is known, most cases are in Men Who have Sex with Men (MSM). The majority, (88%) of early syphilis cases reported in 2011 were acquired in Ireland. While numbers of early infectious cases are not at the levels they were during the outbreak 10 years ago, the sustained high levels are a concern.

The high levels of HIV co-infection indicate that risk behaviours are not reducing.

HSE East continues to account for the majority of syphilis cases notified nationally. There were 471 cases of syphilis notified during 2011. As seen in the graph of Syphilis cases in HSE East, of the 162 cases for which enhanced data was completed, 127 were found to be early (primary, secondary or early latent) syphilis.

### Stages of Syphilis

**Primary Stage:** The appearance of a single sore marks the first (primary) stage of syphilis symptoms, but there may be multiple sores. The sore appears at the location where syphilis entered the body. Because the sore is painless, it can easily go unnoticed. The sore lasts 3 to 6 weeks and heals regardless of whether or not a person is treated.

**Secondary Stage:** Skin rashes and/or sores in the mouth, vagina, or anus (also called mucous membrane lesions) mark the secondary stage of symptoms.

**Latent (hidden) Stage:** of syphilis begins when primary and secondary symptoms disappear. This stage can last for years.

### Blood Tests:

For screening, a Nonreponemal test (e.g., VDRL and RPR) is used. If this is positive, Treponemal tests (e.g., FTA-ABS, TP-PA, various EIAs, and chemiluminescence immunoassays) detect antibodies that are specific for syphilis.

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**Advice**

- Enhanced GP and clinician awareness is important for early detection.
- Suspected cases may be referred to a GUIDE clinic for treatment and contact tracing
- Notify Public Health Services if syphilis is suspected or confirmed.
- (Suspected syphilis is defined as a case with clinical symptoms and linked to another case.)
Alcohols act on the envelope of viruses and denature protein. Some enveloped (lipophilic) viruses such as herpes simplex virus, HIV, Influenza virus and Respiratory Syncytial Virus are susceptible to alcohols when tested in vitro. Other enveloped viruses are somewhat less susceptible but are killed by 60-70% alcohol including Hepatitis B Virus and probably Hepatitis C. Other non-enveloped viruses such as Hepatitis A Virus and enteroviruses (e.g. poliovirus) may require 70-80% alcohol to be reliably inactivated.

It is not clear from the literature if alcohol-based hand rubs are effective against Hepatitis A virus. For this reason, food handlers, day care providers, travellers, and anyone else who is at risk of transmitting or becoming infected with HAV are advised to wash their hands with soap and water when possible. Alcohol-based hand rubs and should be used on visibly clean hands and are a reasonable alternative if a sink is not available.

Concentrations of Alcohol more than 70% are not usually used as they cause drying of the skin and dermatitis. 60% isopropanol is the reference standard against which alcohol-based hand rubs are compared in Europe. In general ethanol has a greater activity against viruses than isopropanol.

Notifications to HSE East Department of Public Health July to December 2012

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<tr>
<th>Notifications Type/Disease</th>
<th>Jan-Jun 2012</th>
<th>Jul-Dec 2012</th>
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<tbody>
<tr>
<td>Syphilis</td>
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<tr>
<td>Other sexually transmitted</td>
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<td>C. Difficile</td>
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<td>Other Gastrointestinal</td>
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<td>986†</td>
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<td>Vaccine preventable</td>
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<td>HIV</td>
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<td>Other Blood Borne Viruses</td>
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<td>Vector borne and Zoonotic</td>
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<td>Other Viral and TSE</td>
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*as recorded on CIDR up to 05/12/2012
** not on CIDR
† There were 177 cases of measles in Jul-Dec 2011 compared to 18 cases in Jul-Dec 2012, this was due to an outbreak of measles in Dublin North inner city.
‡ There were 357 cases of norovirus in Jul-Dec 2012 compared to 97 cases for the same period last year. An increase in norovirus has been reported in both household and residential care settings.

Contact Details

The Department of Public Health
HSE-East (Dublin, Kildare, Wicklow)
Main Office: Dr Steevens’ Hospital, Dublin 8.

Notifications/ Queries:
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Fax: 01-635 2103

Infection Control Advice:
Infection Control/Communicable Disease Nurse Managers
Helen Murphy 01-6352154 Aileen O’Brien 01-6352173