CURRENT NOTES

Syphilis IgM false positive tests

46/1101 Syphilis testing laboratories became aware of a problem associated with one of the commercial syphilis IgM test kits as result of a Medicines and Healthcare Regulatory Agency (MHRA) alert in November 2011. The test was producing higher than expected numbers of false positives. Three batches of the manufacturer’s test kit were implicated and these have now been withdrawn from use. They were, however, used in eight laboratories across the UK, including three in Scotland, between November 2010 and September 2011.

Following this alert, there has been a national lookback exercise to examine the extent of the problem across the UK. The Health Protection Agency (whose national reference laboratory for sexually transmitted infections first spotted the problem and alerted the manufacturers and the MHRA) has been leading the management of this incident. The IgM test is one of a set of four different types of laboratory tests which, alongside the clinical symptoms, are used to diagnose syphilis infection.

Patients whose management was affected by a false positive test result could have been either incorrectly diagnosed with syphilis or diagnosed with early syphilis when they had late stage infection (the latter requiring further antibiotic doses). All such patients will be contacted this week (starting from 13 March) by healthcare professionals to alert them to the fact that they may have been affected by the results from this test kit. There are around 75 people across the UK who have been identified as possibly affected by this problem, including a few cases (<10) in Scotland. Some further rechecking of samples in England is ongoing. People who have been tested and given a negative syphilis test result have not been affected by this incident. For further information see the HPA’s press release at http://www.hpa.org.uk/NewsCentre/NationalPressReleases/2012PressReleases/120313Syphilislookbackexercise/.

For information, there were 152 cases of infectious (primary, secondary and early latent) syphilis recorded in Scotland during 2010 – the second successive year for which a decrease has been observed. Of the 152 cases, 140 (92%) were men, of whom 110 (79%) were men who had sex with men. More details are available in the annual report available at: http://www.hps.scot.nhs.uk/ewr/redirect.aspx?id=48653.

ECDC risk assessment on seasonal influenza 2011/2012 in Europe

46/1102 On 12 March 2012, the European Centre for Disease Prevention and Control (ECDC) published its annual risk assessment on seasonal influenza 2011/2012 in Europe. ECDC points out that on this occasion the seasonal influenza epidemics in Europe started unusually late and unlike the last few winters have not followed any particular geographical progression.

The assessment follows a structure that was established in the 2009 pandemic and gives an early description of the epidemics of seasonal influenza in the EU/EEA countries drawing on the experience of the first affected countries. The assessment identifies the special features of the current season, especially areas where public health or clinical actions are justified. It also highlights areas of uncertainty and therefore priorities for further work. The first ECDC seasonal influenza risk assessment was published in January 2011.

Virological surveillance data for the season shows that the epidemics have so far been dominated by the A(H3N2) viruses, but recently the proportion of B viruses has increased. The data also show that some A(H1N1)pdm09 viruses are also circulating, although these are far lower in numbers than in the previous two seasons. However, they are over-represented among those people most severely affected who have been hospitalised with a confirmed infection. Antiviral resistance to the neuraminidase inhibitors is almost non-existent this season.

At this stage, the role that B viruses will play towards the end of the season is uncertain. Other areas of uncertainty are the degree of effectiveness of the seasonal influenza vaccine in a season when there is an imperfect match between the vaccine and the circulating A(H3N2) viruses and the level of premature mortality that can be expected in older people due to the dominance of the virus A(H3N2). It will be difficult to tease apart the effects due to the influenza from those consequences of the cold weather. [ECDC News Release, 12 March 2012. http://ecdc.europa.eu/en/press/news/Lists/News/ECDC_DispForm.aspx?List=32e43ee8%20De230%20%2DD4424%20Da783%20D857421240%20 29a&ID=578&RootFolder=%20%20Fen%2Fpress%2Fnews%2FList%2FNews]
Mycoplasma pneumoniae in Scotland

46/1103 An article in the current edition of Eurosurveillance1 reports on an examination of the current epidemiology of M. pneumoniae in Scotland which was considered timely given the recent increasing incidence seen in other countries in the UK, Europe and elsewhere. The study found a substantial peak in the number of M. pneumoniae laboratory reports submitted to the national surveillance programme during the autumn/winter of 2011, following a smaller peak in the previous autumn/winter of 2010. The M. pneumoniae activity had been low from 2008 until the autumn of 2010. As expected, this picture was consistent with an increase in M. pneumoniae laboratory reports in England and Wales in the same period. The estimated overall incidence of M. pneumoniae in Scotland in 2011 was around 10-fold lower than that reported in other northern European countries. However, the incidence proved highest in the youngest age group, in contrast to a recent study in which incidence was highest in 5-14 year-olds. Reporting of M. pneumoniae in the UK is not mandatory and reports only arise from the active microbiological investigation of patients with respiratory symptoms, mainly those presenting to hospitals. Therefore, the figures are likely to underestimate the true extent of the epidemic in Scotland, particularly in the community.

Low levels of macrolide resistance have been reported in Europe but not from other countries in the UK. In a preliminary analysis, moreover, the study found one genotypically resistant isolate, however, a full assessment of the level of macrolide resistance in Scotland is required and is now underway.

As it was possible to differentiate reports into narrow age bands, it was clear that in Scotland, M. pneumoniae was most frequently reported in the youngest children, particularly those one year and younger. The incidence was also highest in the age group of 0-4 year-olds, with 67.5 per 100,000. A limitation of this study is that denominator testing data is not currently captured by the surveillance programme, so it was not possible to determine whether the proportion of M. pneumoniae-positive children in this age group was less than that in older age groups, as found in other studies. Numerically however, figures indicated a significant burden in infants, which has previously been under-appreciated. A study examining the clinical course, treatment and outcomes of M. pneumoniae infection in infants is now underway.

There also proved to be significantly fewer M. pneumoniae reports from serology compared to respiratory specimens in children aged 0-4 years. This may be due to the ease of obtaining upper respiratory tract specimens for PCR, compared to blood specimens for serology, in the youngest patients. Therefore, in hospitals where only serological testing is available, M. pneumoniae infections in young children may be under-diagnosed.

The majority of M. pneumoniae reports in Scotland originated from two large laboratories which test almost exclusively by PCR as part of in-house multiplex real-time PCR screens for respiratory pathogens. In the future, as this molecular syndromic screening approach becomes more widespread, more infants are likely to be tested for M. pneumoniae, and more infections found. During M. pneumoniae epidemics, there may be a requirement to change empirical prescribing for community-acquired pneumonia from beta-lactam antibiotics to macrolides in the most affected age groups. However, further work is required to determine the clinical consequences of M. pneumoniae infection in infants and the need for antibiotic treatment.

Reference

Diphtheria / tetanus recommendations updated on TRAVAX

46/1104 The TRAVAX team has recently completed systematic reviews of its recommendations on diphtheria and tetanus (October 2011 – February 2012) which have resulted in changes to the ways in which both are is listed on the TRAVAX country pages.

Rather than diphtheria and tetanus vaccination appearing as ‘Usually Advised’, they will both now appear under either ‘Usually’ or ‘Sometimes’ advised. For both categories of recommendation clinicians are advised to ensure that intending travellers have received a full primary course of vaccine. In addition:

Diphtheria
- Usually Advised - travellers should be offered a booster of diphtheria vaccine if it has been more than ten years since their last dose.
- Sometimes Advised - boost travellers who may be mixing closely with the local population if it has been more than ten years since their last dose.

Diphtheria is found in many countries across the world. It is spread mainly from person to person so herd immunity is possible through mass vaccination. The review looked at incidence of disease and vaccine uptake, including average uptake over five years. [Source: Travax News, 27 February 2012. http://www.travax.nhs.uk/news/news-record-page.aspx?id=1140]

Tetanus
- Usually Advised - travellers should be offered a booster of tetanus vaccine if it has been more than ten years since their last dose.
- Sometimes Advised - boost travellers who may be unable to access medical facilities promptly in the event of injury if it has been more than ten years since their last dose.
Tetanus is found worldwide and there is no protective herd immunity afforded through vaccination. The review looked at incidence of disease, including neonatal tetanus cases, vaccine uptake and considered access to appropriate medical services, specifically tetanus immunoglobulin. Countries with a high incidence of tetanus and where access to appropriate treatment was considered problematic were placed in the ‘usually’ advised category.

In some countries, particularly within Europe, North America, and parts of the Caribbean, where cases of tetanus were rare and most travellers would be able to promptly access appropriate medical facilities in the event of injury, routine boosting against tetanus was not considered necessary. [Source: Travax News, 15 February 2012. http://www.travax.nhs.uk/news/news-record-page.aspx?id=1118]

**Europe - zoonoses, zoonotic agents and food-borne outbreaks in 2010**


In 2010, 99,020 salmonellosis cases in humans were reported and the decreasing trend in case numbers continued. Most member states met their Salmonella reduction targets for poultry, and Salmonella is declining in these populations. In foodstuffs, Salmonella was most often detected in fresh broiler and turkey meat.

Campylobacteriosis was the most commonly reported zoonosis with 212,064 human cases. Campylobacter was most often detected in fresh broiler meat. The number of human listeriosis cases decreased slightly to 1,601. Listeria was seldom detected above the legal safety limit from ready-to-eat foods at retail.

A total of 4,000 confirmed verotoxigenic Escherichia coli (VTEC) infections were reported and this number has been increasing since 2008. VTEC was also observed in food and animals. The numbers of human yersiniosis cases have been decreasing in recent years and, 6,776 cases were reported in 2010. Yersinia enterocolitica was isolated also from pig meat and pigs, while 133 cases of Mycobacterium bovis and 356 cases of brucellosis in humans were also reported.

The prevalence of bovine tuberculosis in cattle increased, and the prevalence of brucellosis decreased in cattle, sheep and goat populations. Trichinellosis and echinococcosis caused 223 and 750 confirmed human cases, respectively. These parasites were mainly detected in wildlife. The number of Q fever cases in humans decreased to 1,414. In animals Q fever was found in domestic ruminants. There were two human cases of rabies in 2010 and the number of rabies cases in animals slightly increased.

Most of the 5,262 reported food-borne outbreaks were caused by Salmonella, viruses, Campylobacter and bacterial toxins and the main food sources were eggs, mixed or buffet meals and vegetables.

**Report on local malaria transmission in Greece 2011**

46/1106 Following outbreaks of Plasmodium vivax infection in 2011 among Greek residents with no travel history (see Current note 45/3401 at http://www.hps.scot.nhs.uk/ewr/redirect.aspx?id=48844), two support missions were carried out to assess the situation in Greece in September and October 2011: one by ECDC and the other jointly conducted by ECDC, WHO and the Hellenic Centre of Disease Control and Prevention (KEELPNO). The assessment teams visited all the affected districts to review the risks of potential re-establishment of malaria transmission in Greece and propose preparedness and response measures. The summarised findings of both missions are presented in the Joint ECDC/WHO mission related to local malaria transmission in Greece in 2011, published on 2 March and available at http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=829.

To reduce possibilities for onward transmission, short-term recommendations include reliable diagnosis of malaria among all population groups and prompt and adequate treatment. In the longer term, the development of an integrated preparedness and response plan for malaria should be considered – the plan should cover epidemiological surveillance, clinical management, laboratory diagnosis, entomological monitoring and vector control.

**Raw milk review**

46/1107 The Board of the Food Standards Agency (FSA) will decide, at its next meeting, whether the FSA should review the current rules governing the sale and marketing of unpasteurised, or raw, drinking milk and cream. This follows developments in the sale of raw milk which have seen producers using new routes of sale for their products, such as the internet and vending machines.

An outline of the current controls and possible approaches to managing the risks associated with raw milk and cream has been published (at http://www.food.gov.uk/multimedia/pdfs/board/fsa120305.pdf) and will be considered by the FSA Board at its next meeting on 20 March.

Most milk and cream on sale in the UK is heat-treated to kill any harmful bacteria or virus that could be present. However, restricted sales of raw drinking milk and cream are allowed in England, Wales and Northern Ireland where unpasteurised cows’
milk can only be sold direct to consumers from farms or direct from the farmer. This includes routes such as farmers’ markets and milk rounds, or as part of a farm catering operation. The sale of raw milk is not allowed in Scotland.

There is an inherent food safety risk associated with drinking raw milk because germs normally killed by pasteurisation may be present. The sale of raw milk is therefore strictly controlled. Older people, infants and pregnant women are particularly vulnerable to food poisoning, so are advised not drink it.

The FSA Board will be asked to approve a review of the current controls. The review process will include consultation with industry and consumer groups. [Source: FSA Press Release, 9 March 2012. http://www.food.gov.uk/news/newsarchive/2012/mar/rawmilk]

**Legionella pneumophila in metalworking fluids**

46/1108 The Health and Safety Executive (HSE) asked the Health and Safety Laboratory (HSL) to gather supporting evidence as to whether or not water miscible metalworking fluids (MWFs) pose a *Legionella* infection risk and whether a *Legionella* risk assessment and appropriate actions are necessary. Three short studies were undertaken with the aim of determining a) whether free living *Legionella* survive in different types of MWF, b) whether amoebae, that act as hosts for the replication of *Legionella*, survive in different types of MWF and c) whether a greater concentration of *Legionella* cells can be detected in samples of used water-miscible MWFs compared to samples of potable mains water used in their preparation. In summary, the findings reported here suggest that neither free-living *Legionella* nor amoebae proliferate in water miscible MWFs.

The study therefore concluded that if premises manage bacterial contamination of MWF systems in accordance with COSHH Essentials MW5 - Managing sumps and bacterial contamination and the guidance on HSE’s Metalworking Fluids - bacterial contamination web pages, then they will be compliant with L8 (HSE, 2002) in respect to the management of these cold water systems. If microbial colonisation is kept to a minimum in MWF systems, a separate *Legionella* risk assessment would not normally be necessary.

The research report RR910 - *Survival of Legionella pneumophila in metalworking fluids* can be accessed at http://www.hse.gov.uk/research/rrhtm/rr910.htm. While the report and the work it describes were funded by the HSE, its contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect HSE policy.
Notifiable diseases

Part 2 (Notifiable Diseases, Organisms and Health Risk States) of the Public Health etc (Scotland) Act came into effect on 1 January 2010 and sets out new duties for registered medical practitioners, NHS boards and directors of diagnostic laboratories. GP practices should familiarise themselves with the Scottish Government guidance on the new notification requirements at: http://www.scotland.gov.uk/Topics/Health/NHS-Scotland/publicact/Implementation/Timetable3333.

Registered medical practitioners report notifiable diseases based on ‘clinical suspicion’. As such, notifications may not be subject to laboratory report confirmation. The published figures will record therefore how many diseases have been clinically suspected.

Patient notifications can, however, be reclassified. When, for example, a suspected (and notified) tuberculosis case is subsequently reported as negative by a laboratory (and found not to be a health protection risk) it would subsequently be removed from the disease totals.

Diseases to be notified by registered medical practitioners with effect from 1 January 2010:

<table>
<thead>
<tr>
<th>Notifiable Diseases which come into effect on 1 January 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anthrax</em>&lt;br&gt; <em>Meningococcal disease</em>&lt;br&gt; <em>Severe Acute Respiratory Syndrome (SARS)</em>&lt;br&gt; <em>Botulism</em>&lt;br&gt; <em>Necrotising fasciitis</em>&lt;br&gt; <em>Smallpox</em>&lt;br&gt; <em>Brucellosis</em>&lt;br&gt; <em>Tetanus</em>&lt;br&gt; <em>Cholera</em>&lt;br&gt; <em>Paratyphoid</em>&lt;br&gt; <em>Clinical syndrome due to E. coli O157 infection (see note 1)</em>&lt;br&gt; <em>Pertussis (Whooping Cough)</em>&lt;br&gt; <em>Typhoid</em>&lt;br&gt; <em>Clinical syndrome due to E. coli O157 infection (see note 1)</em>&lt;br&gt; <em>Plague</em>&lt;br&gt; <em>Viral haemorrhagic fevers</em>&lt;br&gt; <em>Poliomyelitis</em>&lt;br&gt; <em>Viral haemorrhagic fevers</em>&lt;br&gt; <em>Haemophilus influenzae Type b (Hib)</em>&lt;br&gt; <em>Rabies</em>&lt;br&gt; <em>West Nile fever</em>&lt;br&gt; <em>Measles</em>&lt;br&gt; <em>Rubella</em>&lt;br&gt; <em>Yellow Fever</em></td>
</tr>
</tbody>
</table>

It is recommended that those diseases above marked with an * require urgent notification, i.e. within the same working day.

**Note 1: Escherichia coli O157**

Clinical suspicion should be aroused by (i) likely infectious bloody diarrhoea or (ii) acute onset non-bloody diarrhoea with a biologically plausible exposure and no alternative explanation. Examples of biologically plausible exposures include:

- contact with farm animals, their faeces or environment;
- drinking privately supplied or raw water;
- eating foods such as undercooked burgers or unpasteurised dairy products;
- contact with a confirmed or suspected case of VTEC infection.

Further guidance is available at: http://www.hps.scot.nhs.uk/giz/e.coli0157.aspx.

Where a case is notified as HUS (Haemolytic Uraemic Syndrome) it should NOT also be notified as ‘Clinical syndrome due to E. coli O157 infection’.

**Note 2: Tuberculosis**

For the purposes of notification, respiratory TB or non-respiratory TB should be taken to have the same meanings as the World Health Organisation definitions of pulmonary TB and non-pulmonary TB respectively:

**Pulmonary TB** is tuberculosis of the lung parenchyma and/or the tracheobronchial tree.

**Non-pulmonary TB** is tuberculosis of any other site.

Where tuberculosis is clinically diagnosed in both pulmonary and non-pulmonary sites, this should be treated as pulmonary TB.

Registered medical practitioners have been advised to contact their local NHS Board Health Protection Team for advice should they have any doubts about the diagnosis of suspected cases.

**Non-notifiable diseases**

Registered medical practitioners are no longer required to notify the diseases listed below.

- Bacillary dysentery
- Chickenpox
- Food poisoning
- Scarlet fever
- Viral hepatitis

These diseases are now covered by a list of notifiable organisms details of which will be reported by laboratories to health protection teams.
### Statutory Notification of Infectious Diseases

**Week ended 2 March 2012**

**A National Statistics release**

<table>
<thead>
<tr>
<th>Infectious Disease</th>
<th>Current week</th>
<th>Previous week</th>
<th>Current week last year</th>
<th>Total from first week of year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthrax</td>
<td>-</td>
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<tr>
<td>Botulism</td>
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<tr>
<td>Brucellosis</td>
<td>-</td>
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<tr>
<td>Cholera</td>
<td>-</td>
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<tr>
<td>Clinical Syndrome <em>E. coli</em> O157</td>
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<td>1</td>
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<td>-</td>
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<tr>
<td>Diphtheria</td>
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<tr>
<td>Haemolytic Uraemic Syndrome (HUS)</td>
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<tr>
<td>Haemophilus Influenzae Type B (Hib)</td>
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<td>Measles</td>
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<td>Meningococcal Infection</td>
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<tr>
<td>Mumps</td>
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<td>Paratyphoid Fever</td>
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<td>Pertussis</td>
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<td>9</td>
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<td>Plague</td>
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<tr>
<td>Poliomyelitis</td>
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<tr>
<td>Rabies</td>
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<tr>
<td>Rubella</td>
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<td>5</td>
</tr>
<tr>
<td>Severe Acute Respiratory Syndrome (SARS)</td>
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<tr>
<td>Smallpox</td>
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<tr>
<td>Tetanus</td>
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<tr>
<td>Tuberculosis: Respiratory</td>
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<td>Tularemia</td>
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<td>Viral Haemorrhagic Fevers</td>
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<tr>
<td>West Nile Fever</td>
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<td>-</td>
</tr>
<tr>
<td>Yellow Fever</td>
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<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>41</td>
<td>29</td>
<td>28</td>
<td>383</td>
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</tbody>
</table>

**Amendments:** Add 1 Meningococcal infections (1 x wk 6)

**Source:** Health Protection Scotland, NHS National Services Scotland