



# Health Protection Report

weekly report

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### Recommendations for gonorrhoea testing using molecular methods

Nucleic acid amplification tests (NAATs) have revolutionised the detection of many sexually transmitted infections in recent years, particularly genital chlamydial infection for which good diagnostic tests were not available previously. NAATs are highly sensitive and specific and this allows the use of non-invasively taken specimens such as urine and self-taken vaginal swabs. This has enabled an increasing proportion of diagnoses of chlamydial infection to be made outside the GUM clinic setting – ie in general practice, community contraceptive services and (in England) in a range of community healthcare and non healthcare-based settings, as part of the National Chlamydia Screening Programme (NCSP) [1].

The diagnosis of gonorrhoea differs from chlamydia in that the use of culture for the isolation of the infective agent, *Neisseria gonorrhoeae*, has historically provided a specific and reliable test. However, the sensitivity of culture is very reliant on good procedures and requires invasively taken specimens. In this context, the use of NAATs has many advantages, not least because of the possibility of screening for both chlamydial and gonococcal infection by a “dual testing” procedure.

There has, however, been confusion and misunderstanding about the use of molecular testing for *N. gonorrhoeae*, particularly in combination with chlamydia, because these two infections differ in their distribution in the population and their prevalence. An expert group coordinated by the HPA and including representatives of the major stakeholders has therefore produced guidance covering both the correct procedures to be followed when NAATs are used for *N. gonorrhoeae* testing and the limitations of those procedures [2].

The guidance is supported by a new laboratory standard method which includes standard operating procedures, algorithms and guidance notes in order to promote high quality practices and to help assure compatibility of test results produced by different laboratories [3].

### References

1. Trends in diagnoses of sexually transmitted infections in the UK: update for 2008, *Health Protection Report* 3(29), 24 July 2009.
  2. HPA / British Association for Sexual Health and HIV. *Guidance for gonorrhoea testing in England and Wales*. Downloadable from BASHH website at: [http://www.bashh.org/news/478\\_2010-hpa-guidance-on-gonorrhoea-testing](http://www.bashh.org/news/478_2010-hpa-guidance-on-gonorrhoea-testing) [290 KB PDF].
  3. HPA. Detection of *Neisseria gonorrhoeae* using molecular methods. National Standard Method QSOP 62 Issue 1. Downloadable from the HPA National Standard Methods website at: <http://www.hpa-standardmethods.org.uk/documents/qsop/pdf/qsop62.pdf> [230 KB PDF].
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## Defra zoonoses report for 2008

The Department for Environment, Food and Rural Affairs (Defra) has published the 11th annual report on zoonoses in the UK [1], covering a wide range of diseases and infections transmitted naturally between vertebrate animals and man.

The report for 2008 focuses on the major food and waterborne zoonoses and those that are notifiable diseases of animals. A number of incidents that occurred during the year involving human and/or animal infections are noted; the zoonoses involved include: campylobacter, salmonella, verotoxigenic *Escherichia coli* O157 (VTEC O157), bovine tuberculosis, *Lyme borreliosis*, Q fever, hydatid disease and avian influenza.

The report presents considerable analysis of human and animal data on salmonella infections (which affect humans most commonly following consumption of raw or lightly-cooked foods containing eggs or chicken) and VTEC O157 (following contact with agricultural animals) during the year. In both cases, the overall downward trend in incidence of human cases was continued. Nevertheless, a number of UK-wide surveys of salmonella in foodstuffs and animal populations were carried out during the year – including surveys of fresh chicken on retail sale, pooled raw shelled egg from catering premises, speciality meats and salamis, and ready-to-eat nut kernels – in all of which contamination with salmonella species was detected, suggesting a potential risk to human health.

In the case of human cases of campylobacter, the most common cause of bacterial food poisoning in the UK, there was a 10% increase in 2008 compared with 2007, a trend which has continued, according to more recently published data on this particular infection [2].

Production of the Defra annual report involves the bringing together of information from a wide variety of sources, including zoonoses detected in man, food or animals, and the collaboration between veterinary and medical professionals. It is produced in conjunction with the Devolved Administrations, the Veterinary Laboratory Agencies, Scottish Agricultural Colleges, Health Protection Scotland, the Health Protection Agency, Food Standards Agency, Public Health Wales and the Departments of Health of the UK.

## References

1. Defra. *Zoonoses report: United Kingdom 2008*. Downloadable from Defra website: <http://www.defra.gov.uk/foodfarm/farmanimal/diseases/atoz/zoonoses/documents/report-2008.pdf> [1 MB PDF].
2. HPA. *Increased campylobacter cases in 2009*, *Health Protection Report* 3(31), 7 August 2009.

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## Leprosy notifications in England and Wales, 1950-2009

Leprosy, caused by the bacillus *Mycobacterium leprae*, is a curable infectious disease, which became notifiable in 1951. Since then, a register of all cases has been maintained, initially by the Ministry of Health, then by the Department of Health and Social Security. Since 1982, the HPA Centre for Infections has curated the national register of patients.

The incidence of leprosy has fallen substantially over time, with more than 330 cases notified between 1950-1959, compared to less than 40 between 2000 and 2009 (see figure). Between the inception of the register and the end of 2009, a total of 1429 cases were notified in England and Wales.

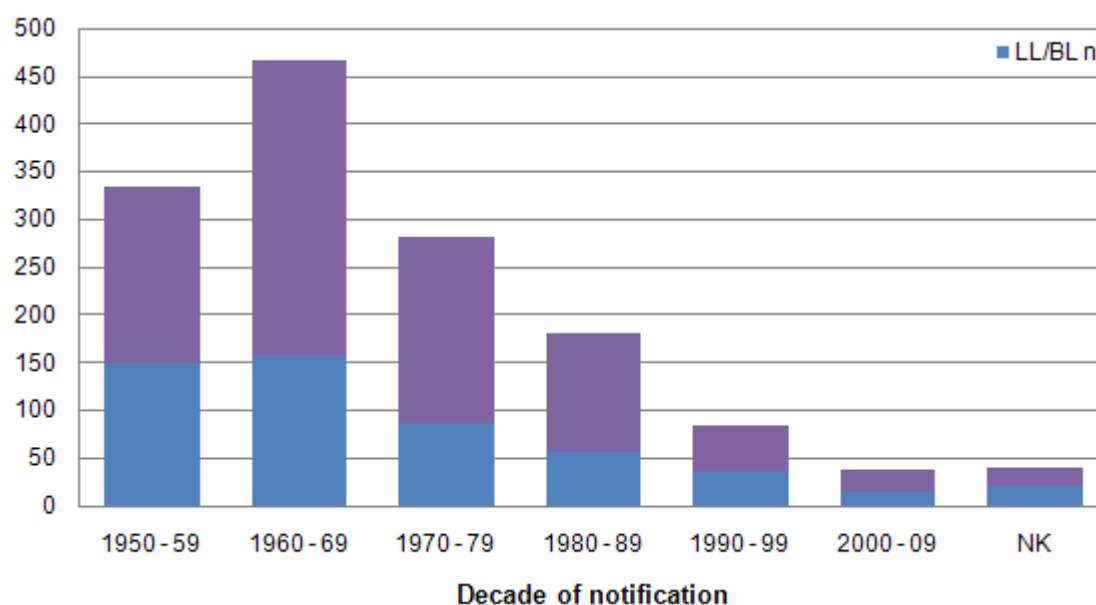
The spectrum of disease ranges (in order of increasing pathology) from tuberculoid forms, with few lesions and low levels of bacilli, to lepromatous leprosy – a more severe and infectious form of the disease. Of the 1429 cases notified between 1951 and 2009, 36% (520/1429) of all cases notified in England and Wales had

a known diagnosis of lepromatous or borderline lepromatous forms of leprosy. Forty four percent (508/1157) of all cases notified in England and Wales were born in the Indian subcontinent and, to date, there has not been a single case reported that was proven to be indigenously acquired. Sixty-eight percent (954/1408) of all cases in the register were male and 70% (929/1325) were aged 15-44 at notification, reflecting the known higher risk of this disease in men after puberty [1].

It is important to acknowledge that under-notification of leprosy is likely. The rare nature of this disease leads to lower awareness of its clinical presentation and diagnosis, with likely repercussions for completeness of reporting. However, the extent of this is unknown.

Leprosy is one of the few infectious diseases which can feasibly be eliminated since the sole source of infection is untreated human cases, it can be clinically diagnosed and there is effective multi-drug therapy to treat it. By 2003, 110 countries had reached the elimination target at national level, and 83% of the prevalent leprosy burden is in Brazil, India, Madagascar, Mozambique, and Nepal; the five most endemic countries [2].

### Number of leprosy notifications by decade, England and Wales



LL/BL: number of lepromatous or polar lepromatous / borderline lepromatous leprosy cases.  
Source: Leprosy database version 2000, as at 12/01/10.

### References

1. Britton W and Lockwood D, 2004. Leprosy. *The Lancet* **363**, 1209-1219.
2. World Health Organization. *The final push strategy to eliminate leprosy as a public health problem: questions and answers (second edition)*, 2003. World Health Organization: Geneva.

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## Infection reports

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### Respiratory

#### Laboratory reports of respiratory infections made to Cfl from HPA and NHS laboratories in England and Wales: weeks 5-8/2010

Data are recorded by week of report, but include only specimens taken in the last eight weeks (ie recent specimens).

**Table 1. Reports of influenza infection made to Cfl, by week of report: weeks 5-8/2010**

Week	Week 5	Week 6	Week 7	Week 8	Total
Week ending	7/2/10	14/2/10	21/2/10	28/2/10	
<b>Influenza A</b>	<b>22</b>	<b>32</b>	<b>27</b>	<b>15</b>	<b>96</b>
Isolation	2	1	1	-	4
DIF *	5	7	3	3	18
PCR	12	5	8	1	26
Other †	3	19	15	11	48
<b>Influenza B</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>
Isolation	-	-	1	-	1
DIF *	-	-	-	-	-
PCR	2	-	-	-	2
Other †	-	1	-	1	2
<b>Influenza (untyped)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Isolation	-	-	-	-	-
DIF *	-	-	-	-	-
PCR	-	-	-	-	-
Other †	-	-	-	-	-

\* DIF = Direct immunofluorescence.

† Other = Antibody detection, single high titre or 'method not specified'.

**Table 2. Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, single high serology titre, etc), by week of report: weeks 5-8/2010**

Week	Week 5	Week 6	Week 7	Week 8	Total
Week ending	7/2/10	14/2/10	21/2/10	28/2/10	
Adenovirus <sup>*</sup>	34	33	27	38	132
Coronavirus	–	7	–	4	11
Parainfluenza <sup>†</sup>	15	12	13	16	56
Rhinovirus	89	77	81	70	317
Respiratory Syncytial Virus (RSV)	282	222	133	139	776

\* Respiratory samples only. Excludes diagnoses made by electron microscopy (EM).

† Includes parainfluenza types 1, 2, 3, 4 and untyped

**Table 3. Respiratory viral detections by age group: data for weeks 5-8/2010**

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Un-known	Total
Adenovirus <sup>*</sup>	44	47	8	24	7	2	–	132
Coronavirus	1	5	–	1	3	1	–	11
Influenza A	4	6	10	42	31	3	–	96
Influenza B	–	–	–	3	1	1	–	5
Parainfluenza <sup>†</sup>	16	15	5	9	8	3	–	56
Rhinovirus	163	82	21	24	17	9	1	317
Respiratory syncytial virus (RSV)	570	103	14	24	29	22	14	776

\* Respiratory samples only.

† Includes parainfluenza types 1, 2, 3, 4 and untyped.

**Table 4. Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 5-8/2010**

Week	Week 5	Week 6	Week 7	Week 8	Total
Week ending	7/2/10	14/2/10	21/2/10	28/2/10	
<i>Coxiella burnettii</i>	1	–	–	1	2
Respiratory <i>Chlamydia</i> sp. <sup>*</sup>	6	1	3	–	10
<i>Mycoplasma pneumoniae</i>	6	29	15	16	66
Legionella sp.	4	8	5	6	23

\* Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

**Table 5a. Reports of Legionnaires' disease cases in England and Wales, by week of report: weeks 5-8/2010**

Week	Week 5	Week 6	Week 7	Week 8	Total
Week ending	7/2/10	14/2/10	21/2/10	28/2/10	
Nosocomial	–	–	–	–	0
Community	3(2*)	6(2*)	3	5	17
Travel abroad	1(1**)	1	2	1(1*)	5
Travel UK	–	1	–	–	1
<b>Total</b>	<b>4</b>	<b>8</b>	<b>5</b>	<b>6</b>	<b>23</b>
Male	2	7	4	4	17
Female	2	1	1	2	6

\* Onset of symptoms in 2009.

\*\* Non-pneumonic case(s).

Twenty-two cases were reported with pneumonia and one was reported with non-pneumonic infection; 17 males aged 43-86yrs and six females aged 42-89yrs. Seventeen cases had community acquired infection. There was one death in a male aged 78yrs who had onset of symptoms in 2009. A further four cases also had onset of symptoms in 2009.

Six cases were travel associated: Barbados (1), Egypt/United Kingdom (1), Spain (1), United Arab Emirates (2) and United Kingdom (1).

**Table 5b Reports of Legionnaires' disease cases by region of report in England and Wales: weeks 5-8/2010**

Region/country	Nosocomial	Community	Travel abroad	Travel UK	Total
North East	–	–	1	–	1
Yorks & Humber	–	1	1(1*)	1	3
East Midlands	–	2	1	–	3
East of England	–	2(1**)	–	–	2
London	–	4(1**)	–	–	4
South East	–	2	–	–	2
South West	–	2	1	–	3
West Midlands	–	1(1**)	1(1**)	–	2
North West	–	1(1**)	–	–	1
Wales	–	2	–	–	2
Other	–	–	–	–	–
<b>Total</b>	<b>–</b>	<b>17</b>	<b>5</b>	<b>1</b>	<b>23</b>

\* Non-pneumonic case(s).

\*\* Onset of symptoms in 2009.

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## Diary

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### **Practical issues in clinical mycology UK Clinical Mycology Network (UKCMN) Monday, 7 June, Royal College of Pathologists, London**

A one-day, practically-orientated meeting for staff at centres that provide clinical mycology services covering: direct microscopy and diagnostic problems in routine laboratory work; the histopathology of fungal infections; radiology; anti-fungals; fungal serology; and molecular identification. There will be discussion of issues encountered by delegates during their routine diagnostic work or in the management of patients with fungal infections.

UKCMN aims to provide a structure for the UK-wide coordination of mycology service delivery, mycological surveillance, medical and laboratory training, diagnostic development and translational research.

<b>Venue:</b>	<b>Contact for further information/enquiries:</b>
Royal College of Pathologists, 2 Carlon House Terrace, London, SW1Y 5AF.	Registration/programme: <a href="http://www.hpa-events.org.uk/mycology10">http://www.hpa-events.org.uk/mycology10</a> . UKCMN website: <a href="http://www.hpa.org.uk/HPA/Topics/InfectiousDiseases/InfectionsAZ/1201094590966/">www.hpa.org.uk/HPA/Topics/InfectiousDiseases/InfectionsAZ/1201094590966/</a> . Email: <a href="mailto:UKCMN@hpa.org.uk">UKCMN@hpa.org.uk</a> .

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### **Practical aspects of infection control Sheffield Teaching Hospitals / Hallam University with the Hospital Infection Society Monday-Tuesday, 21-22 June, Sheffield Hallam University, Sheffield**

The 13th *Don't Panic!* meeting is intended for microbiologists and infection control nurses, public health staff and biomedical scientists. Lectures will cover: PVL – diversity, demographics and disease burden in the UK; Flu season 2009/10 – how well did we do? Specifications for invasive procedures performed away from operating theatres; Post-discharge surveillance of SSI – making it work; Update on *C. difficile* surveillance; Treating complex *C. difficile* infection; Occupational health issues (chronic MRSA carriage, managing dermatitis, skincare choices for hand washes and alcohol rubs); The Showcase Hospitals Programme; Practical aspects of ensuring a safe water supply; Universal screening for controlling MRSA – the Scottish experience; and MRSA screening and decolonization in the community: is the community up to it?

<b>Venue:</b>	<b>Contact for further information/enquiries:</b>
Sheffield Hallam University, City Campus, Sheffield, S1 1WB.	Jan Waddingham, Tel: 0114 271 3129, Fax: 0114 278 9376. e-mail: <a href="mailto:jan.waddingham@sth.nhs.uk">jan.waddingham@sth.nhs.uk</a> . Website: <a href="http://www.shu.ac.uk/faculties/hwb/cpd/dontpanic/">http://www.shu.ac.uk/faculties/hwb/cpd/dontpanic/</a> .