Health Protection Report
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News

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Web-based real-time surveillance for norovirus hospital outbreaks

The first of a new series of monthly reports on hospital norovirus outbreaks is published in the Infection Reports section of this issue of *HPR* [1], the output from a web-based, real-time surveillance system recently launched by the Health Protection Agency.

Outbreaks of norovirus in hospitals cause substantial operational difficulties necessitating ward closures at a time of year when there is already an increased demand for hospital services. They also attract considerable media attention each year. The economic impact of these operational difficulties is estimated to be more than £100 million each year to NHS inpatient services [2].

Until this year, there had been no dedicated system for surveillance of hospital-associated norovirus outbreaks despite a clear need for timely and representative information. In consultation with the Infection Prevention Society, and after pilot and local initiatives in the East of England and elsewhere, the HPA launched a voluntary scheme for web-based surveillance of norovirus outbreaks in acute NHS hospitals in December 2008.

The main aims of this system are to provide:

- a source of timely information to assess the current level of impact of outbreaks in hospitals
- a useful tool for epidemic intelligence to local infection control and public health teams.

Despite its voluntary nature, the scheme provides features aimed at encouraging participants to report It employs field-tested definitions for cases and outbreaks, and both suspected and laboratory-confirmed outbreak reports are accommodated. These data will be available for users in real time, through an online database; this will enable epidemiological analyses to be conducted for public health purposes providing local, regional and national overviews of the impact of norovirus infection in hospitals. Acute trusts and Health Protection Units (HPUs) can use the system to be alerted to outbreaks occurring in their region. Roll-out to non-acute trusts will be added at a later stage.

The system is designed to be useful for Infection Control Teams (ICTs) at NHS Trusts, who will be the primary reporters to the scheme. Regional laboratories, who all now perform molecular (PCR) diagnostics for norovirus, will be able to report investigated outbreaks through regular (weekly or fortnightly) updates of microbiological results to the HPA Centre for Infections. The HPA will check if these laboratory-reported outbreaks are entered on the system by Infection Control Teams. If they have not yet been entered, the HPA (via the local HPUs) will then contact Trust Infection Control Teams and ask them to report these outbreaks (ie there is internal validation of completion of reporting to this system).

Trusts users will be able to: (i) enter data about their trust; (ii) see in detail the data they have entered; (iii) view summary information on other norovirus outbreaks reported from their region; and (iv) download a spreadsheet with all their data. HPUs, Regional Directors, Regional Epidemiologists and Regional Microbiologists will be able to carry out (ii)-(iv) and be able to access all data on outbreaks reported from their region. In addition to the data being available in real-time for infection control staff and HPUs, the following reports will be made during the height of norovirus season (usually October to March):

- weekly reports to the National Infection Update teleconference (the notes of this meeting are widely circulated including to Department of Health staff),
- monthly reports in the *Health Protection Report* (published online).

Access to the system is via the web address:
http://www.hpa-bioinformatics.org.uk/noroOBK/home.php.

References

1. HPA. Suspected and laboratory-confirmed reported norovirus outbreaks, with regional breakdown: weeks 51/08 to 01/09. *Health Protection Report* [serial online] 2009, **3**(6); enteric infections, http://www.hpa.org.uk/hpr/infections/enteric.htm.

2. Lopman BA; Reacher MH; Vipond IB; Hill D ; Perry C; Halladay T; et al. Epidemiology and cost of nosocomial gastroenteritis, Avon, England, 2002-2003. *Emerging Infectious Diseases* 2004: **10**(10); 1827-34.

Acceleration of HPV vaccination catch-up campaign

The Department of Health has circulated guidance to PCTs, SHAs and HPUs encouraging them to accelerate delivery of the catch-up programme of vaccination against human papillomavirus (HPV) infection that was officially launched in all parts of the United Kingdom last September [1].

The routine immunisation programme in England (offering vaccination to girls aged 12-13 years – school year 8) began in September 2008, together with catch-up targeting girls aged 17-18 – school year 13 – with plans to stagger the catch-up to girls between these years (ie born between Sept 1991 and August 1995) over the next two years (school years 2009/10 and 2010/11).

As a result of the suggested revised timetable detailed in the guidance issued by the Director of Immunisation on 30 January 2009 [2], all girls and young women born between 1 September 1991 and 31 August 1995 should be offered the vaccine next year (school year 2009/10). This will bring forward, by one year, the age of protection from HPV infection by immunisation of girls born between Sept 1993 and August 1995.

References

1. HPA. Roll-out of cervical cancer vaccination programmes in the United Kingdom, *Health Protection Report* [serial online] 2009, **2**(36): news, http://www.hpa.org.uk/hpr/archives/2008/news3608.htm#hpv

2. Department of Health. Acceleration of the HPV vaccination catch-up campaign. Available at: http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_094025

Infection reports

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Enteric

General outbreaks of foodborne illness in humans, England and Wales: weeks 01-04/2009

Preliminary information has been received about the following outbreaks.

Health Protection Unit	Organism	Location of food prepared or served	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence*
West Midlands	Campylobacter	School	December	8	1		
SW London	Salmonella Enteritidis PT 14B	Residential institution	January	3	3		
National	*S.* Typhimurium PT U321	Shop retailer	Nov/Dec	13	13	Salad vegetables	D, M

* M (microbiological): identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food; D (descriptive): a significant statistical association between consumption of the suspect vehicle and being a case.

Salmonella infections (faecal specimens), England and Wales: reports to the HPA (Salmonella data set), December 2008

Details of 394 serotypes of Salmonella infections recorded in December are given in the table below. In January 2009, 283 Salmonella infections were recorded.

Organism	**Cases December 2008**
S. Enteritidis PT4	28
S. Enteritidis (other PTs)	104
S. Typhimurium	105
S. Virchow	15
Others (typed)	142
Total Salmonella (provisional data)	394

Common gastrointestinal infections, England and Wales: laboratory reports: weeks 01-04/09

Laboratory reports	**Number of reports received**				**Total reports**	**Cumulative total**	
	01/09	**02/09**	**03/09**	**04/09**	**01-04/09**	**01-04/09**	**01-04/08**
Campylobacter	495	578	611	597	2281	2281	1972
***Escherichia coli* O157 ***	5	5	12	5	27	27	28
Salmonella †	72	83	92	70	317	317	513
Shigella sonnei	9	20	12	7	48	48	26
Rotavirus	91	145	237	305	778	778	544
Norovirus	345	439	350	310	1444	1444	1079
Cryptosporidium	32	48	42	32	154	154	96
Giardia	46	47	43	48	184	184	179

*Vero cytotoxin–producing isolates (data from Health Protection Agency's Laboratory of Gastrointestinal Pathogens - LGP).
† Data from Laboratory of Gastrointestinal Pathogens.

Typhoid and paratyphoid, England and Wales: laboratory reports, Oct - Dec 2008

Organism and phage type	Infection acquired abroad			
	Number of cases	Yes	No	Not reported
***S.* Typhi**				
B1	1	1	–	–
D1	8	2	–	6
E1	25	13	–	12
E9 Varient	17	8	–	9
O	1	–	–	1
28	2	–	–	2
42	1	–	–	1
46	1	1	–	–
53	1	–	–	1
Degraded VI-	1	1	–	–
Untypable	2	1	–	1
Untypable Vi-Strain 1	1	–	–	1
Untypable Vi-Strain 2	6	4	–	2
Untypable Vi-Strain 7	1	–	–	1
Total	**68**	**31**	**–**	**37**
***S.* Paratyphi A**				
1	5	2	–	3
1A	4	3	–	1
2	10	7	–	3
3	3	–	–	3
4	11	7	–	4
6A	7	4	–	3
13	13	6	–	7
Total	**53**	**29**	**–**	**24**
***S.* Paratyphi B**				
Dundee	1	–	–	1
Taunton	2	1	–	1
Total	**3**	**1**	**–**	**2**

Sixty-eight cases of Salmonella typhi infection were reported in the fourth quarter of 2008. Thirty one cases were infected abroad: (Indian subcontinent 24, Iraq 2, Egypt 1, Ghana 1, Nigeria 1, unspecified country abroad 2). In 37 cases the country of infection was not stated.

Fifty-three cases of S. paratyphi A infection were reported. Twenty-nine cases were infected abroad (all Indian subcontinent). In 24 cases the country of infection was not stated.

Three cases of S. paratyphi B infection were reported, One was infected abroad (South America). In two cases the country of infection was not stated.

Suspected and laboratory-confirmed reported norovirus outbreaks, with regional breakdown: weeks 51/08 to 01/09

This is the first of a new series of reports emanating from the system of surveillance of hospital norovirus outbreaks launched in mid-December 20008 [1] aimed at providing a timely national estimate of the burden that such outbreaks represent for hospitals.

Since the surveillance system was launched in mid-December 2008, there have been 102 outbreaks reported, as at 9 February 2009. A total of 29 NHS trusts from all regions of England have reported one or more outbreaks.

The data presented below relate to the 62 outbreaks that have been reported since 1 January 2009, of which 46 (74%) resulted in some form of ward closure. Bed day loss was reported from 38 outbreaks, resulting in a mean of 23 days lost per reported closure (total of 892 bed days lost). A total of 660 patients and 161 staff were reported to be affected in the 62 outbreaks (median number affected per outbreak: 10 and 2, respectively). Twelve outbreaks were reported to be ongoing (at 9 February).

The norovirus season runs from July to June, week 27 of each year to week 26 of the next – eg week 27/07 to week 26/08 (in order to capture the winter peak in one season). Monthly reports will be made in the *Health Protection Report* during the height of each norovirus season. The background to the establishment of the web-based, real-time surveillance system generating this data is discussed in the news section of this issue of *HPR* [1].

Under-reporting to this voluntary scheme is likely to be substantial; however, the HPA will seek to minimise this through active follow-up of outbreaks investigated by Regional Laboratories where no matching outbreak report exists.

In the future, outbreak reports will be linked with strain typing data in order to characterise the molecular epidemiology of noroviruses circulating in healthcare settings.

Suspected and laboratory-confirmed reported norovirus outbreaks, with regional breakdown: weeks 51/08 to 01/09*

	Total outbreaks			Outbreaks from 1.01.09 to 9.02.09			Ongoing outbreaks
	Outbreaks	Ward closure	Lab-confirmed	Outbreaks	Ward closure	Lab-confirmed	
East of England	7	6	5	1	1	1	2
East Midlands	12	9	10	10	7	8	–
London	5	5	1	2	2	1	–
North East	3	2	1	3	2	1	–
North West	32	23	19	24	17	13	2
South East	10	9	1	6	5		2
South West	6	6	4	1	1	1	2
West Midlands	8	8	3	2	2		1
Yorkshire and Humberside	19	10	10	13	9	7	3
Total	**102**	**78**	**54**	**62**	**46**	**32**	**12**

* ie from system launch, on 19.12.2008, to 9.02.2009.

Note regarding laboratory reports for the 2008/09 season as a whole: The number of lab reports for norovirus during the 2008/09 season, to week 5/09, was 4492 – which is an 18% increase on the total (3815) reported for the same period during the 2007/08 season.

Reference

1. HPA. Web-based real-time surveillance for norovirus hospital outbreaks. *HPR* **3**(6): news; http://www.hpa.org.uk/hpr/archives/2009/news0609.htm#slno.

Zoonoses

Common animal-associated infections, England and Wales: laboratory reports 40-52/08

Organism	Total reports for week 40- 52		Cumulative totals for weeks 01- 52	
	2008*	2007	2008*	2007
Borrelia burgdorferi *,#	207	198	962	878
Leptospira hardjo **,##	2	1	5	1
Leptospira icterohaemorrhagiae **,##	1	10	11	34
Leptospira other **, ##	19	11	43	39
Pasteurella haemolytica	–	–	2	1
Pasteurella multocida	37	78	249	310
Pasteurella pneumotropica	1	5	5	14
Pasteurella other/ spp	14	7	74	70
Toxocara canis	–	–	1	1
Toxocara other/ spp	–	–	–	–
Toxoplasma gondii §	11	35	65	107
Coxiella burnetii	3	11	35	54
Chlamydia (Chlamydophila) psittaci	7	7	48	38
Capnocytophaga spp	1	1	20	15
Mycobacterium marinum	–	4	8	17
Orf virus	–	2	1	2
Echinococcus granulosus	0	3	18	10

* Provisional data; ** By specimen date; # Lyme Diagnostic Unit and CDSC; ## Leptospira Reference Unit and CDSC; § Toxoplasma reports to LabBase only.

Commentary

Borrelia burgdorferi (Lyme borreliosis): (207)

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	6	2	–	8	56
10-14	–	3	1	4	31
15-24	7	4	1	12	68
25-44	30	59	2	91	364
45-64	38	24	1	63	272
≥65	15	14	–	29	171
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	**96**	**106**	**5**	**207**	**–**
Cum. total weeks 01- 52/2008	**447**	**493**	**19**	**–**	**962**

Country visited (4 th Quarter reports)	Number of cases
France	3
Germany	5
Sweden	1
Czech Republic	1
USA (Eastern seaboard)	4
Finland	1
Poland	2
Slovenia	1
Slovakia	1
Austria	1

Leptospirosis: (22)
Indigenous cases (15):

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	1
15-24	–	2	–	2	6
25-44	–	3	–	3	15
45-64	–	7	–	7	14
≥65	1	2	–	3	4
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	**1**	**14**	**–**	**15**	**–**
Cum. total weeks 01- 52/2008	**2**	**38**	**–**	**–**	**40**

Infections were reported from regions throughout England and Wales.

Reported serovars were: *L.* Icterohaemorrhagiae (1), *L*. Hardjo (1), *L*. Saxkoebing (3) and for nine patients, the serovar was not determined.

Overseas acquired infections (7):

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	1
15-24	–	4	–	4	8
25-44	–	2	–	2	5
45-64	–	1	–	1	5
≥65	–	–	–	–	–
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	–	**7**	–	**7**	**19**
Cum. total weeks 01- 52/2008	**2**	**17**	–	–	**19**

Infections were acquired in Borneo (3), Thailand (3), SE Asia (1). The serovars identified were Autumnalis (Borneo) and *L.* Bataviae (Borneo) and *L.* Saxkoebing (Thailand) for the remainder, the serovars remained unconfirmed at the time of reporting.

The following table lists countries visited during 2008 by patients diagnosed with overseas-acquired leptospirosis.

Country visited	Number of cases**
Australia	1
Bangladesh	1
Borneo	5
Dominican Republic	2
Ecuador	1
Hong Kong	1
Indonesia	1
Malaysia	1
New Zealand	1
Nigeria	1
Philipines	1
SE Asia	4
Thailand	4

** Some patients reported visiting more than one country

During this reporting period, 4 cases (3 overseas acquired and one indigenous infection) were reported by NHS laboratories to the HPA national surveillance system and there were 17 statutory notifications (NOIDS).

Pasteurella: (52)
Pasteurella haemolytica: (–)
Pasteurella multocida: (37)
Pasteurella pneumotropica: (1)
Pasteurella aerogenes: (–)
***Pasteurella* spp:** (14)

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	2	–	–	2	18
10-14	1	–	–	1	9
15-24	0	2	–	2	12
25-44	4	5	–	9	51
45-64	9	9	1	18	117
≥65	13	6	–	20	121
Not stated	–	–	–	–	2
Total weeks 40- 52/2008	**29**	**22**	**1**	**52**	**–**
Cum. total weeks 01- 52/2008	**184**	**142**	**4**	**–**	**330**

Two patients reported infected dog bites and six patients reported cat bites and/or scratches.

***Toxocara*:** Nil report

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	–
15-24	–	–	–	–	–
25-44	–	–	–	–	–
45-64	–	–	–	–	–
≥65	–	–	–	–	–
Not stated	–	–	–	–	1
Total weeks 40- 52/2008	–	–	–	–	–
Cum. total weeks 01- 52/2008	**–**	**–**	**1**	**–**	**1**

Toxoplasmosis: See separate *Toxoplasma* report below.

Coxiella burnetii: (3)

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	–
15-24	–	–	–	–	1
25-44	1	–	–	1	12
45-64	–	2	–	2	19
≥65	–	–	–	–	3
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	**1**	**2**	**–**	**–**	**3**
Cum. total weeks 01- 52/2008	**6**	**28**	**–**	**–**	**35**

Patients were reported by laboratories in the south west of England.

Chlamydia (Chlamydophila) psittaci: (7)

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	1
10-14	–	–	–	–	1
15-24	–	–	–	–	2
25-44	2	–	–	2	18
45-64	1	1	1	3	18
≥65	1	1	–	2	8
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	**4**	**2**	**1**	**7**	**–**
Cum. total weeks 01- 52/2008	**20**	**20**	**8**	**–**	**48**

No clinical or epidemiological details were reported.

***Capnocytophaga* spp**: (1)

Age group	Female	Male	Unknown	Total: weeks	Cumulative total:
<10	–	1	–	–	3
10-14	–	–	–	–	–
15-24	–	–	–	–	–
25-44	–	–	–	–	2
45-64	–	–	–	–	2
≥65	–	–	–	–	8
Not stated	–	–	–	–	5
Total weeks	**–**	**1**	**–**	**1**	**–**
Cum. total weeks 01-	**5**	**8**	**7**	**–**	**20**

No clinical or epidemiological details were available for these patients.

Mycobacterium marinum: Nil report

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	–
15-24	–	–	–	–	–
25-44	–	–	–	–	3
45-64	–	–	–	–	2
≥65	–	–	–	–	1
Not stated	–	–	–	–	1
Total weeks 40- 52/2008	**–**	**–**	**–**	**–**	**–**
Cum. total weeks 01- 52/2008	**4**	**4**	**–**	**–**	**8**

Orf: Nil report

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	–
15-24	–	–	–	–	–
25-44	–	–	–	–	–
45-64	–	–	–	–	–
≥65	–	–	–	–	1
Not stated	–	–	–	–	–
Total weeks 40- 52/2008	**–**	**–**	**–**	**–**	**–**
Cum. total weeks 01- 52/2008	**–**	**1**	**–**	**–**	**1**

Echinococcus granulosus: Nil report

Age group	Female	Male	Unknown	Total: weeks 40- 52/2008	Cumulative total: weeks 01- 52/2008
<10	–	–	–	–	–
10-14	–	–	–	–	–
15-24	–	–	–	–	3
25-44	–	–	–	–	5
45-64	–	–	–	–	3
≥65	–	–	–	–	4
Not stated	–	–	–	–	3
Total weeks 40- 52/2008	**–**	**–**	**–**	**–**	**–**
Cum. total weeks 01- 52/2008	**8**	**7**	**3**	**–**	**18**

Toxoplasma gondii infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 40-52/08

Age group	Status					Total: wks 40-52/08	Cumulative total: wks 1-52/08
	Acute	Cong-enital	HIV	Organ donor/ recipient	Not known		
<0	–	1	–	–	–	1	5
<1	–	–	–	–	–	–	5
1-9	1	–	–	–	–	1	8
10-14	–	–	–	1	–	1	5
15-24	13	–	4	1	2	20	68
25-44	33	–	8	1	1	43	210
45-64	14	–	8	2	4	28	96
65-79	–	–	–	–	–	–	7
≥80	–	–	–	–	–	–	1
Not known	1	–	1	–	–	2	4
Total wks 40-52/08	**62**	**1**	**21**	**5**	**7**	**96**	**–**
Cum. total wks 01-52/08	**287**	**8**	**83**	**17**	**14**	**–**	**409**

Table 1 describes the distribution of cases of *T. gondii* infection diagnosed by the TRU during the 4th quarter of 2008, by case status. A total of 96 *T. gondii* infections were confirmed during the final quarter (weeks 40-52) of 2008. This brings the total for 2008 to 409 cases. Cases are classified by the TRU using specific laboratory and clinical diagnostic criteria [2,3].

Of the 96 cases diagnosed this quarter, 62 (65%) were classed as acute cases of toxoplasmosis in immunocompetent individuals, 1 was a case of congenital toxoplasmosis, 21 were in patients known to have HIV infection, and 5 were in organ donors or recipients.

During the final quarter of 2008* a total of 11 cases of *T. gondii* infection were reported by NHS laboratories to the HPA national surveillance system, compared with 25 in the same period in 2007 [4], and 14 in 2006. During the whole of 2008 there were 65 cases reported to the national surveillance system, compared with 95 during 2007 [4] and 93 during 2006.

* provisional data

Table 2. *T. gondii* diagnoses by region, Toxoplasma Reference Unit, England and Wales: weeks 40-52/2008

HPA Region	Total: weeks 40-52/2008	Cumulative total: weeks 1-52/2008
East Midlands	3	7
East of England	9	38
London	41	179
North East	3	12
North West	9	30
South East	9	43
South West	10	37

Wales	3	8
West Midlands	6	23
Yorkshire and Humber	3	24
Not known	–	8
Total	**96**	**409**

Table 2 describes the regional distribution of cases of *T. gondii* infection diagnosed by the TRU. As seen in previous quarters, the majority of cases were referred by laboratories in the London region (43%).

Table 3. *T. gondii* diagnoses by age and sex, Toxoplasma Reference Unit: weeks 40-52/2008

Age group	Female	Male	Unknown	Total: weeks 40-52/2008	Cumulative total: weeks 1- 52/2008
<0	1	–	–	1	5
<1	–	–	–	–	5
1-9	–	1	–	1	8
10-14	1	–	–	1	5
15-24	6	13	1	20	68
25-44	28	14	1	43	210
45-64	14	12	2	28	96
65-79	–	–	–	–	7
>80	–	–	–	–	1
Not known	1	–	1	2	4
Total weeks 40-52/08	**51**	**40**	**5**	**96**	**–**
Cum. total weeks 1- 52/2008	**206**	**166**	**37**	**–**	**409**

Of the cases diagnosed in the fourth quarter of 2008 for which information on gender was available, the majority (53%) were in females, of which 55% were aged 25-44. Males comprised 42% of cases diagnosed in this quarter, with a majority (35%) aged 25-44. A similar age sex distribution was seen throughout the year, with 50% of cases detected in females and 40% in males. The 25-44 age group comprised 51% of cases diagnosed by the TRU during 2008.

Table 4. Principal reported symptoms/reason for testing associated with acute cases of *T. gondii* infection (as reported in Table 1), Toxoplasma Reference Unit weeks 40-52/2008

Principal reported symptom/reason for testing	Total weeks 40-52/2008	Cumulative total weeks 1-52/2008
Lymphadenopathy	42	178
Pregnant (asymptomatic)	7	26
Ocular	4	16
Mother of congenital case	3	13
Pyrexia	2	6
Pre-pregnancy	2	4
Abdominal pains	1	1
Abnormal LFTs	1	3
Malaise	–	3
Probable ocular*	–	3
Tiredness	–	2
Asymptomatic	–	1

Chronic systemic	–	1
Headaches	–	1
Hepatitis	–	1
Neutropenia	–	1
Pancytopenia	–	1
Post viral illness	–	1
Rash	–	1
Recent miscarriage	–	1
Not given	–	23
Grand Total	**62**	**287**

* The designation ‘probable ocular' refers to patients with serological evidence of relatively recent *T. gondii* infection (significantly raised IgG titre) and clinically compatible signs of ocular toxoplasmosis, but no ocular fluid was available for PCR confirmation

Table 4 shows the main reported symptom given on the laboratory request form, for cases classed as acute. The most commonly reported symptom in the final quarter of 2008 was lymphadenopathy, which was associated with 68% of acute cases.

During 2008 a total of 26 acute cases were diagnosed among pregnant women (where congenital toxoplasmosis has not been confirmed) and 13 were in mothers of congenitally infected babies. A total of 16 of the acute cases of toxoplasmosis confirmed by the Reference Laboratory during 2008 reported ocular symptoms.

References

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Emerging infections, Update: July - December 2008 report

Monthly summaries of notable events and developments of potential public health importance are produced by the Emerging Infections and Zoonoses Department, for circulation to recipients including the Chair and members of the National Expert Panel on New and Emerging Infections (http://www.advisorybodies.doh.gov.uk/nationalexpertpanel/index.htm). Incidents reported over recent months are shown in the table below. Events are identified through horizon scanning activities and then logged and systematically followed up. Multiple sources are scanned including: ProMED online http://www.promedmail.org; World Health Organization sources (Disease Outbreak News http://www.who.int/csr/don/en/, Weekly Epidemiological Record http://www.who.int/wer/en/, etc), *Eurosurveillance* http://www.eurosurveillance.org/Default.aspx); CIDRAP online http://www.cidrap.umn.edu/index.html; CDC *Morbidity and Mortality Weekly Report (http://www.cdc.gov/mmwr/)* Emerging Infectious Diseases Journal (http://www.cdc.gov/ncidod/EID/index.htm), and the wider scientific literature.

Table 1 Summary of notable events/incidents of potential public health significance: July to December 2008

Month reported	Incident	Location / Description
July	Antimicrobial resistance and prescribing	**England, Wales & NI:** HPA 2007 report published
	Crimean-Congo Haemorrhagic Fever	**Turkey:** 41 fatalities; country's first case of human-human transmission suspected
	Henipaviruses	**Australia:** Hendra virus - 7 equine cases;2 human (vets) **Ghana:** fruit bats seropositive for Henipavirus **India:** Known geographical distribution of Nipah virus extended 1000km on finding seropositive bats
	Marburg Haemorrhagic Fever	**Netherlands ex-Uganda:** woman died after visiting cave where bats were present
	Monkeypox	**DR Congo:** 470 cases, 22 deaths since Jan 08
	Poliomyelitis	**Pakistan :** 2 cases WPV1 in unvaccinated children **Afghanistan :** 2 new cases WPV1 in Uruzgan province
	Onchyomadesis	**Spain :** 213 confirmed cases in young children; possible aetiology coxsackie virus
	Q fever	**Netherlands:** large outbreak, 677 cases reported so far in 2008
	Report on global frontiers and infectious diseases	**UK:** House of Lords Select Committee report on the effectiveness of intergovernmental organisations in controlling the spread of disease
	Rift Valley Fever	**Swaziland:** first ever outbreak; 22 cases in cattle on farm
	Sporadic CJD-like illness	**USA:** 16 cases of a new form of prion disease, designated “proteinase-sensitive prionopathy (PSPr)”
	Tuberculosis (caprine)	**UK:** extensive *M. bovis* outbreak in goat herd
	Undiagnosed haemorrhagic disease	**China:** Press reports of 3 fatal cases of an unidentified disease in Shandong with a further 6-7 cases hospitalised

August	Anthrax guidelines	**Worldwide:** Updated WHO guidelines published
	Bluetongue	**UK:** First cases reported this summer: 8 bovine, 2 ovine
	Crimean-Congo Haemorrhagic Fever	**Greece:** 2nd case (fatal) in the country
	Dracunculiasis (Guinea Worm)	**Worldwide:** Update on campaign for global eradication
	Equine piroplasmosis	**USA:** outbreak in horses in Florida
	Haemorrhagic Fever	**DR Congo:** 5 cases (4 deaths), virus not yet diagnosed
	Hendra virus	**Australia:** update – of the 2 human cases in July, 1 died
	Leprosy	**Worldwide:** WHO - Global update
	Malaria	**France:** 2 cases in couple with no history of travel, possibly “airport malaria”
	One Health Initiative	**Worldwide:** Launched by American Veterinary Medical Association to improve collaboration between human and animal health
	Rabies	**China:** Recently published paper describes trends in human rabies cases in China from January 1990 to July 2007
	Salmonella Agona PT39	**Europe:** new strain has caused 148 cases in 9 countries; most cases reported from England (84), Scotland (35) and Ireland (12)
	Sputnik virus, viral parasite	Novel research - first discovery of a parasitic virus that can infect and cause damage to the host virus
	Tick-borne encephalitis (TBE)	**Australia :** 4 cases, cheese-borne (made with unpasteurised goats milk)
	Yellow Fever	**Côte d'Ivoire:** outbreak in Abidjan
September	*Acinetobacter baylyi*	Novel research describing *A. baylyi* for first time as a possible opportunistic human pathogen
	Avian influenza	**Indonesia:** Retrospective report of 2 deaths (July 08)
	Cardioviruses	A number of recent publications suggest some strains may also be pathogenic in humans.
	Health is Global Strategy	**UK:** Newly published cross-governmental strategy outlining a set of principles and actions which aim to improve the health of people across the world, including the UK
	Hepatitis A	**Czech Republic:** large increase compared with 2007 figures
	Hepatitis E	**Hong Kong:** increased incidence and shift in age profile cf 2007 **UK:** new research published on HEV prevalence in swine
	Gonococcal resistance	**UK:** update from the Gonococcal Resistance to Antimicrobials Surveillance Programme
	Melamine poisoning	**China:** 54000 cases and 3 deaths in young children who consumed dairy products containing melamine
	Microsporidial keratoconjunctivitis	**India:** Press reports of 7 cases in Madras

	MMR vaccine	**England:** update on 2007-8 coverage figures
	Oseltamivir-resistant H1N1	**Holland:** fatal case, leukaemia patient
	Poliomyelitis	**Afghanistan:** update on current situation **Djibouti:** imported case in 24 month old child from Ethiopia
	Tuberculosis	**UK:** extensive transmission from smear negative child with pulmonary TB
	vCJD	**Spain :** suspected familial cases (mother and son)
	West Nile Virus	**Italy:** 6 confirmed and 5 suspected equine cases, also detected in wild birds, no human cases
October	Anthrax	**UK:** Fatal inhalational anthrax in drum maker
	Arenavirus	**S Africa and Zambia :** 5 cases, 4 fatal; nosocomial spread
	Avian influenza	**Germany:** H5N1 in ducks in mixed poultry holding
	Crohn's disease, *Faecalibacterium prausnitzii*	New research suggests presence of intestinal bacterium *F.prausnitzii* plays a role in preventing the recurrence of Crohn's disease
	Ebola haemorrhagic fever	**DR Congo:** Press reports of suspected Ebola cases in Kananga
	European Bat Lyssavirus-2	**UK:** Dead bat with EBLV2 found at a heritage site
	Human Animal Infections and Risk Surveillance (HAIRS) Group	**UK:** First report on the work of the HAIRS group, 2004-2007
	Hepatitis A	**Latvia:** Outbreak in 18-29 year olds in Riga
	Lymphacytic filariasis	**Worldwide:** Update on lymphatic filariasis eradication programme
	Rabies	**Italy:** Classical rabies virus in a fox
	West Nile Virus	**Austria:** 3 avian cases of WNV2 **Italy:** country's first three human cases of WNV, in the Emilia Romagna region where virus had previously been detected in wild birds and horses
	Yellow fever virus	**Central African Republic:** 1 confirmed case, 4 suspected
	Zoonoses Report	**UK:** HPA annual Zoonoses Report published
November	*Anaplasma phagocytophilum*	**China:** cluster of human granulocytic anaplasmosis; first report of direct human-human transmission
	Bluetongue	**Switzerland:** New strain detected in goats
	Cholera	**Zimbabwe:** national health emergency declared
	Drug resistant Gram negative bacteria	**Europe:** Eurosurveillance update on AMR
	Ebola virus	**Uganda:** new species described
	Leprosy	New species identified as the cause of diffuse lepromatous leprosy
	Measles	**England & Wales:** Update
	Melamine contaminated dairy products	**China:** 294,000 children now affected

	Rabies	**Brazil:** boy survived symptomatic infection **USA ex-Mexico:** immigrant died of novel rabies strain **Italy:** 2 fox cases in Friuli-Venezia area
	Tuberculosis	**South Korea:** research published on survival rates for MDR and XDR TB **UK:** increase in *M.bovis* in cattle herds and cats
	West Nile Virus	**Hungary**: increase in WNV neuroinvasive infection in 2008
	White-nosed syndrome in bats	**USA:** *Geomyces* fungal disease causing bat die-off in North East
	Wound botulism	**Ireland:** 4 cases in injecting drug users
December	Influenza	**Worldwide:** update on H5N1 and H9N2
	Communicable diseases in Europe report	**Europe:** ECDC Annual Epidemiological Report
	Ebola haemorrhagic fever	**DR Congo:** outbreak in Mweka District, Kasai Occidental **Philippines:** Ebola-Reston virus detected in domestic swine
	Hepatitis E	**Germany:** case control study published examining risk factors for autochthonous HEV infections
	Legionella	**Cyprus:** outbreak in neonatal unit
	Massilia virus	**France:** novel phlebovirus isolated from sandflies, possibly a member of the Sandfly fever Naples virus complex
	MDR-TB	**China:** paper published on MDR TB prevalence
	Plague	**Uganda:** Press reports of ongoing outbreaks in Arua and Nebbi districts
	Rabies	**Northern Ireland:** ex-South Africa : fatal case in returned volunteer worker
	vCJD, heterozygote suspected	**UK:** Press reports of suspected vCJD in a prion protein methionine/valine heterozygote

Q fever, Netherlands

A large outbreak of Q fever was reported during 2008 in the south of the Netherlands . The National Institute for Public Health and the Environment had been notified of 1014 cases by the end of the year . Cases are concentrated in Noord-Brabant province, where an outbreak occurred in 2007, and the adjacent Gelderland province. This area has a high density of dairy goats and authorities have implemented a number of measures in response to the outbreak, including mandatory notification of Q fever in ruminants and restrictions on spreading manure. Prior to the 2007 outbreak the mean national annual figure for human Q fever cases was only 15. Increased awareness and testing is thought to have contributed to increased case detection, however rural GPs report an unprecedented increase in Q fever symptoms such as pneumonia among their patients. The increased geographical distribution of cases in 2008 suggests that multiple sources are responsible for the outbreak.

http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18939,
http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18976

Sputnik virophage

Electron microscopy of the mamavirus, a newly discovered giant virus related to the mimivirus (*Acanthamoeba polyphaga)* revealed a second, small 21 gene virus, named Sputnik. Sputnik is believed to hijack the replication processes of the mamavirus, resulting in the formation of fewer and deformed mamavirus particles. This is the first discovery of a parasitic virus that can infect and cause damage to the

host virus and is being dubbed a ‘virophage' due to its similarities to bacteriophages. *Nature* (**454**)7 August 2008

Ebola virus, new species

The draft genomic sequence of the newly discovered Bundibugyo ebolavirus, which was responsible for a large Ebola haemorrhagic fever outbreak in western Uganda in 2007, has been described for the first time. This new species of ebolavirus is believed to be distantly related to the Côte d'Ivoire ebolavirus, however it is genetically distinct differing at the genome level by more than 30% from all other known species. This new discovery means that there are now five known species of ebolavirus and this will have important implications for the design of future diagnostic assays for Ebola HF disease and ongoing efforts to develop effective antivirals and vaccines.

http://www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1000212

Leprosy, new species of *Mycobacterium*

A new species of bacterium*, Mycobacterium lepromatosis,* has been identified as a cause of diffuse lepromatous leprosy (DLL), a condition mainly found in Mexico and the Caribbean. This new species was identified after analysis of the 16srRNA gene in specimens taken from two fatal leprosy cases. Subsequent testing has shown the same organism in 2 fatal cases of DLL in Singapore. It had previously been thought that all forms of leprosy were caused only by *M. leprae.*
http://www.ajcp.com/pdf/featured/Han.pdf.