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News

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Influenza B outbreaks and seasonal influenza vaccine composition

Samples from two influenza outbreaks in primary schools in West Yorkshire in December 2005 have been virologically confirmed as influenza B/HongKong/330/2001-like.

Since the start of the 2005-06 influenza season in October 2005, there have been sporadic detections of influenza B viruses made from samples collected for routine testing and from sentinel surveillance schemes. Influenza B viruses of both of the influenza B lineages (B/Yamagata/16/88 lineage and B/Victoria/2/87 lineage), that circulated during the 2004-05 season, have been detected.

The influenza B isolates from the B/Yamagata/16/88 lineage have been characterised as antigenically similar to the reference virus B/Shanghai/361/2002, and the influenza B isolates from the B/Victoria/2/87 lineage as antigenically similar to the reference virus B/HongKong/330/2001. The 2005-06 influenza vaccine contains a B/Shanghai/361/2002-like virus, that, while antigenically different from the B/Victoria/2/87 lineage, should offer some cross-protection to those receiving the vaccine.

The circulation of influenza B/HongKong/330/2001 does not yet represent a significant public health concern as those affected in the influenza B outbreaks have been school children who are not recommended for influenza vaccination by the Department of Health. There have been no confirmed outbreaks of influenza B in older age groups, and other high risk groups, this season. Influenza activity currently remains low in the United Kingdom. A full evaluation of this season's influenza vaccine composition will not be made until a suitable number of influenza isolates have been collected from the older age and other high risk groups that receive the vaccine.

Human cases of avian influenza A (H5) in Turkey

The World Health Organization (WHO) influenza reference laboratory, London has confirmed that samples taken from three children in a cluster of human cases with respiratory illness in Turkey have tested positive for avian influenza A (H5). It will be important to rule out human-to-human transmission through detailed field investigation of the cluster.

WHO has reported the deaths of two children who developed respiratory symptoms, and there are reported to be a number of other suspected cases in the children's family, who work closely with poultry, and their contacts. The precise number of people affected has not yet been confirmed. The Health Protection Agency (HPA) is working closely with WHO and the European Centre for Disease Control to obtain further details. A group of experts, convened by WHO, will be travelling to Turkey to assist with the investigation of this incident.

Although these are thought to be the first fatal human cases of H5 avian flu outside East and South East Asia, avian influenza still remains an avian virus that causes disease predominantly in birds and only very rarely in humans. The majority of human cases confirmed to date have had close contact with infected poultry (1) and the latest suspected human cases follow poultry outbreaks of avian influenza in Turkey.

International and national pandemic alert levels have not changed. The HPA has stated that the risk to people travelling to Turkey remains low (2). As with all areas that have reported poultry influenza A (H5N1) outbreaks, travellers to Turkey are advised to avoid close contact with poultry (3).

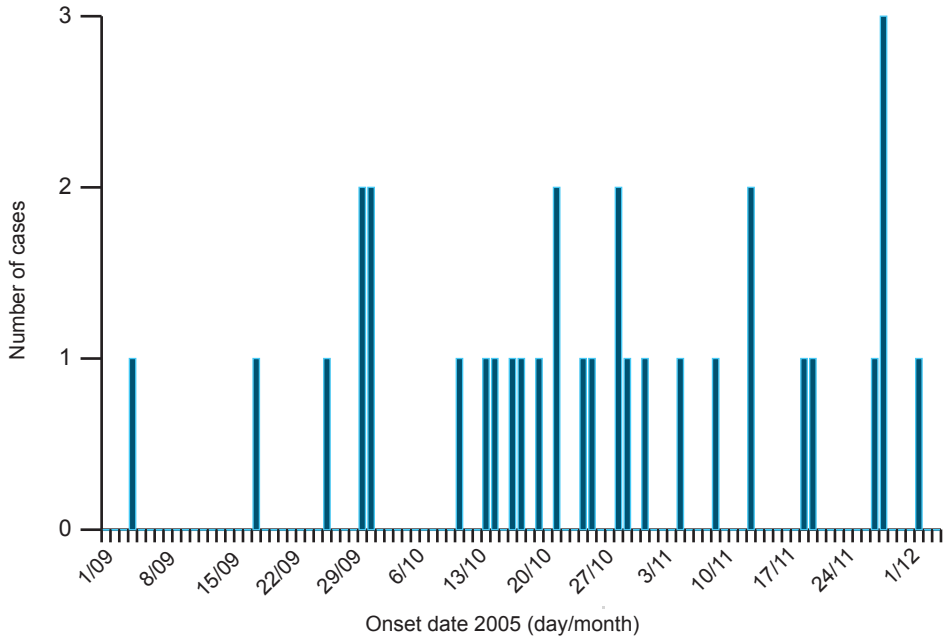
References
1. The Writing Committee of the World Health Organization (WHO) consultation on human influenza A/H5. Avian influenza A (H5N1) infection in humans. *N Engl J Med* 2005; **353**: 1374-85.Available at <http://content.nejm.org/>.
2. HPA Suspected human cases of avian flu in Turkey [*Press Release*.]. London; Health Protection Agency, 5 January 2006. Available at <http://www.hpa.org.uk/hpa/news/articles/press_releases/2006/060105_avianflu_turkey.htm>.
3. National Travel Health Network and Centre (NaTHNaC). Avian influenza - advice for travellers to affected areas. NaTHNaC website [online] 04 November 2005 [cited 5 Janaury 2006]. Available online at <http://www.nathnac.org/travel/news/avianinfluenza_advice.htm>.

National increase of Vero-cytotoxin producing *E. coli* O157 phage type 8 – Case-control study

A case control study carried out by the Health Protection Agency Centre for Infections (CfI) has shown that the recent increase in Vero-cytotoxin producing *Escherichia col*i O157 (VTEC O157) phage type 8 (PT8) infections (1,2) appears to have been associated with cooking raw beef or consuming dishes containing beef, particularly minced beef, at home in the five days before illness onset. No retail outlet was identified as being associated with beef consumption or the sale of minced beef.

Between 1 October and 21 December 2005, 79 cases of VTEC O157 PT8 infection in England and Wales were confirmed by the HPA Laboratory of Enteric Pathogens (LEP). This compares with 21 isolates received between 1 October and 31 December 2004. Thirty-five primary cases (out of a total of 44 primary cases) shared the same *Xbal* pulsed field gel electrophoresis (PFGE) profile (profile 1). Of these cases, 25 were female and 10 male. The median age was 20 years (range 1 to 75 years). Onset dates were available for 32 cases and ranged between 4 September and 2 December 2005 (figure 1). Five cases were hospitalised; no deaths have been reported. This increase in cases with VTEC O157 PT 8 PFGE profile 1 represents the first national outbreak of VTEC O157.

Figure 1 Epidemic curve of VTEC O157 PT8 PFGE profile 1 cases in England by onset of illness (n=32): 1 September 2005 to 4 December 2005



A matched national case-control study was undertaken by CfI to test the primary null hypothesis, generated by a detailed trawling questionnaire of eight cases (1), that infection was not associated with the consumption of burgers outside the home. The study also investigated the association of hot chicken cooked outside the home, fresh fruit consumed at home, and burger accompaniments. Cases were those infected with VTEC O157 PT 8 of PFGE profile 1, received and confirmed by LEP on or after the 1 October 2005, and who were resident in England and Wales. Asymptomatic controls were matched to a case by age, sex, and geographical location and nominated by the case. Cases and controls with a history of recent foreign travel or contact with individuals with

gastrointestinal symptoms in ten days prior to the interview were excluded. Fifteen cases and 30 controls were suitable for inclusion in the analysis.

The data were grouped into general exposures. Grouped and specific exposures were initially analysed separately. Any variables with an odds ratio* (OR) higher than 1 and p<0.3 were considered for a multivariable analysis where variables were added in a stepwise fashion. Looking at the grouped exposures separately, only general beef exposure was significant following the multivariable analysis (13 cases exposed; OR 5.09; 95% CI 1.02, 25.47). Although 28 specific exposures were significant in the single variable analysis many of these had very few cases exposed. In the multivariable analysis the only variables which were both significant and had more than three cases exposed were specific beef variables. Looking at the specific beef variables, the two which could explain most cases were minced beef consumption (seven cases exposed, OR 4.40; 95% CI 1.01, 19.14) and handling of raw beef in the household (nine cases, OR 4.70; 95% CI 1.20, 18.45). Due to small numbers and correlation between variables it was not possible in the multivariable model to determine which of the specific beef variables were the independent risk factors. All beef related products were specified by cases as being cooked at home. Analysis of the location where people had consumed or bought food failed to identify a retail outlet linked with either beef consumption or the sale of minced beef.

Footnotes

*The odds ratio is the ratio of the odds of an event in one group divided by the odds in another group. An odds ratio of 1 indicates that the condition or event under study is equally likely in both groups. An odds ratio greater than 1 indicates that the condition or event is more likely in the first group. And an odds ratio less than 1 indicates that the condition or event is less likely in the first group.

References

1. Health Protection Agency. National increase in Vero-cytotoxin-producing *Escherichia coli* O157 (VTEC O157) PT8 - Update. C*ommun Dis Rep CDR Wkly* [serial online] 2005 [cited 5 January 2006]; **15**(50): News. Available at: <http://www.hpa.org.uk/cdr/archives/2005/cdr5005.pdf>.

2. Health Protection Agency. Increase in Vero cytotoxin-producing *Escherichia coli* O157 PT8 infections in England. *Commun Dis Rep CDR Wkly* [serial online] 2005 [cited 5 Janauary 2006]; **15**(47): News. Available at: <http://www.hpa.org.uk/cdr/archives/2005/cdr4705.pdf>.

Report on infection control IT implementation and evaluation published

The Department of Health has published a report produced on their behalf by the Health Protection Agency on infection control information technology (ICIT) implementation and evaluation (IEA)(1,2).

The ICIT/IAE project was undertaken to implement and further evaluate the three software packages recommended by an earlier project (3). The principal aim of the ICIT/IAE project was to provide recommendations about the use of infection control software to support local infection control teams and infection control practices in NHS Trusts. The scope of the project was to implement and then evaluate three infection control packages for local use. Each product was tested in three NHS Trusts (nine Trusts in total).

Eight out of the nine Trusts experienced delays during implementation. The Trusts that volunteered for the project recorded lead times for implementation of between two weeks and twelve months. Two were still on-going 18 months after the start of the project. Broadly, both trust and company issues contributed to the excessive implementation times in eight of the nine pilot Trusts. Trusts and suppliers need to agree on a timetable, the roles and availability of key players.

Valuable lessons were learned about addressing the problems that may be encountered by Trusts when installing and implementing new software, but the three software products investigated were all potentially capable of achieving the required functionality. There was, therefore, no single recommendation for a 'best buy'.

References

1. Health Protection Agency, Department of Health. The infection control IT implementation and evaluation project. London: Health Protection Agency, 2005. Available at <http://www.hpa.org.uk/infections/topics_az/hai/ICITIAE_report_Dec_2005.pdf>.
2. The infection control IT implementation and evaluation project. Department of Health website [online] [cited 5 January 2006]. London: Department of Health, 2005. Available at <http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4125620&chk=5K9TmZ>.
3. ASEPTIC: a systems evaluation project for infection control. Final report. Plymouth: South Devon Health Information Service, 2003. Available at <http://www.hpa.org.uk/infections/topics_az/hai/ASEPTIC_FinalReport1.pdf>.

Respiratory

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Respiratory Routine Data Reports

Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 48-52/05

Table 1 Reports of influenza infection made to HPA Centre for Infections, by week of report: weeks 48-52/2005

Week	Week 48	Week 49	Week 50	Week 51	Week 52	Total
Week ending	04/12/05	11/12/05	18/12/05	25/12/05	01/01/06	
Influenza A	**11**	**3**	**1**	**1**	**–**	**16**
Isolation	–	–	1	–	–	**1**
DIF*	1	–	–	–	–	**1**
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	–	–	–	–	–	–
Other†	10	3	–	1	–	**14**
Influenza B	**2**	**–**	**2**	**6**	**–**	**10**
Isolation	1	–	–	–	–	**1**
DIF*	1	–	2	5	–	**8**
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	–	–	–	–	–	–
Other†	–	–	–	1	–	**1**
Influenza (untyped)	**–**	**–**	**–**	**–**	**–**	**–**
Isolation	–	–	–	–	–	–
DIF*	–	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–	–
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, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report: weeks 48-52/2005

Week	Week 48	Week 49	Week 50	Week 51	Week 52	Total
Week ending	04/12/05	11/12/05	18/12/05	25/12/05	01/01/06	
Adenovirus*	17	12	26	27	2	**84**
Coronavirus	–	–	–	–	–	**–**
Parainfluenza†	17	8	13	14	3	**55**
Rhinovirus	8	-	5	5	2	**20**
Respiratory syncytial virus (RSV)‡	373	419	693	540	107	**2132**

*Respiratory samples only. Excludes diagnoses made by electron microscopy (EM).
†Includes parainfluenza types 1, 2, 3, 4, and untyped.
‡ Excludes diagnosis made by electron microscopy (EM).

Table 3 Respiratory viral detections by age group: weeks 48-52/2005

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Unknown	Total
Adenovirus*	28	14	6	21	12	3	–	**84**
Coronavirus	–	–	–	–	–	–	–	**–**
Influenza A	–	1	3	5	5	2	–	**16**
Influenza B	3	1	4	1	1	–	–	**10**
Parainfluenza†	30	9	5	5	4	–	2	**55**
Rhinovirus	11	7	–	–	2	–	–	**20**
Respiratory syncytial virus (RSV)‡	1749	294	22	22	14	9	22	**2132**

*Respiratory samples only.
†includes parainfluenza types 1, 2, 3, 4, and untyped.
‡ Excludes diagnoses made by electron microscopy (EM).

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 48-52/2005

Week	Week 48	Week 49	Week 50	Week 51	Week 52	Total
Week ending	04/12/05	11/12/05	18/12/05	25/12/05	01/01/06	
Coxiella burnettii	–	–	–	1	–	1
Respiratory *Chlamydia* sp*	4	6	14	–	–	24
Mycoplasma pneumoniae	17	74	23	18	8	140
Legionella sp	8	9	13	–	1	31

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

Table 5a Reports of legionnaires' disease (pneumonic and non-pneumonic*) cases in England and Wales, by week of report: weeks 48-52/2005

Week	Week 48	Week 49	Week 50	Week 51	Week 52	Total
Week ending	04/12/05	11/12/05	18/12/05	25/12/05	01/01/06	
Nosocomial	–	1	–	–	–	**1**
Community	1	4	5	–	1	**11**
Travel abroad	5*	4	7	–	–	**16**
Travel UK	3*	–	1	–	–	**4**
Total	**8**	**9**	**13**	**–**	**1**	**31**
Male	**4**	**9**	**11**	**–**	**–**	**24**
Female	**3**	**–**	**2**	**–**	**1**	**6**
Unknown	**1**	**–**	**–**	**–**	**–**	**1**

*Including case who travelled both abroad and to UK.

Thirty-one cases were reported with pneumonia – 24 males aged between 35 and 86 years, six females aged between 47 and 66 years, and one foreign national of an unknown age and sex. Eleven cases had community-acquired infection. There was one death, M 86y. Seven travel cases were associated with an outbreak in a shopping centre in Spain .

Nineteen cases were travel associated: Spain (10), England (3), Dominican Republic (1) (including one foreign national), France/Switzerland (1), Italy/Scotland/England (1), Mexico (1), Sardinia (1), Turkey (1).

Table 5b Reports of Legionnaires' disease (pneumonic and non-pneumonic*) cases by region of report in England and Wales: weeks 48-52/2005

Region	Nosocomial	Community	Travel (Abroad)	Travel	Total
North East	–	–	3	–	**3**
Yorkshire & the Humber	–	–	3	–	**3**
East Midlands	–	–	–	1	**1**
East of England	–	2	2	1	**5**
London	–	2	1*	–	**3**
South East	–	2	1	–	**3**
South West	–	2	–	1	**3**
West Midlands	1	2	3	–	**6**
North West	–	1	2	–	**3**
Wales	–	–	1	–	**1**
Total	**1**	**11**	**16**	**4**	**31**

*Including case who travelled both abroad and to UK.

Travel health

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Links to travel health websites

Travel Health Reports

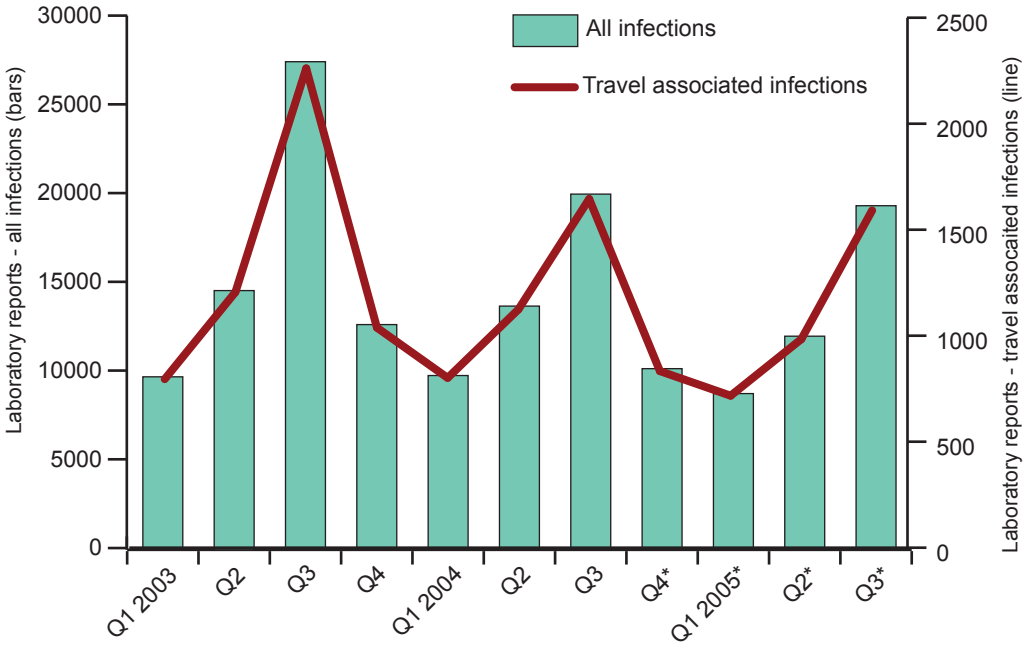
Imported infections, England and Wales: July to September 2005

This third quarter report on imported infections in England and Wales covers the period from July to September 2005 inclusive. The data presented in this report should be interpreted in conjunction with the report *Illness in England, Wales, and Northern Ireland associated with foreign travel – a baseline report to 2002* (1), especially the content under the section 'Sources of data on travel-associated illness and their limitations for analysis'. Please note that all data presented are provisional and subject to change; the confirmed final data will be presented annually.

Of the infections in table 1 that were reported via LabBase2*, there were slightly fewer infections reported in England and Wales in the third quarter of 2005 (21,441)† compared with the same period in 2004 (22,062)‡ . Travel history reporting has increased to 15.3% compared to the second quarter of 2005 (11.4%), but is less than the third quarter of 2004 (21.2%). The overall proportion of travel history reporting, however, is still low and limits the interpretation of the following data.

There is a clear seasonal pattern of infection reporting in England and Wales including reporting of travel-associated infections (figure 1). The number of reported infections increases in the summer months, and although this may reflect several factors this period coincides with the time when increased numbers of people travel, both abroad and within the UK (United Kingdom). In 2004, the third quarter contained the largest proportion of visits abroad made by UK residents (33%, compared to 26% in the second quarter, 22% in the fourth, and 18% in the first) (3).

Figure 1 Infections in England and Wales reported via Labbase 2 by quarter: 2003 to 200



* Provisional data and may be subject to change.

Table Imported infections in England and Wales: July to September 2005

	Total reports for Jul - Sep				Cumulative totals for Jan - Sep			
	2005*		2004		2005*		2004	
Organism	**Travel-related**	**All reports**	**Travel-related**	**All reports**	**Travel-related**	**All reports**	**Travel-related**	**All reports**
Gastrointestinal Infections								
Bacterial								
Salmonella spp	964	4380	976	6038	1788	8005	1788	10127
Campylobacter spp	367	14126	384	13,203	862	33337	1003	34944
Shigella flexneri	11	68	4	48	34	226	27	179
Shigella dysenteriae (*)	7	14	10	12	19	28	26	39
Shigella sonnei	20	262	22	211	86	692	69	567
Shigella boydii (*)	14	28	11	23	34	54	48	81
Other (species unknown)	3	30	3	36	4	79	4	105
Salmonella Typhi	21	50	36	61	86	152	89	155
Salmonella Paratyphi (A,B,C)	46	72	46	76	95	167	100	159
Vibrio cholerae O1 (*)	10	11	5	6	–	–	5	7
Vibrio parahaemolyticus	1	6	3	8	3	17	9	20
Protozoal								
Entamoeba histolytica	3	36	9	78	19	131	32	217
Entamoeba coli	2	20	3	21	5	47	9	64
Giardia lamblia	72	780	69	849	170	1934	232	2354
Cryptosporidium	66	1497	53	1268	96	2399	96	2615
Cyclospora spp	5	10	8	17	12	43	16	51
Endolimax nana	1	7	1	13	1	32	5	30
Helminths								
Strongyloides stercoralis	1	2	–	8	1	8	3	28
Strongyloides spp	1	2	–	5	1	4	1	6
Ancylostoma duodenale	–	–	–	–	–	–	–	1
Necator americanus	–	–	–	–	–	–	–	–
Hookworm unspec	–	2	1	8	1	7	5	20
Ascaris lumbricoides (round worm)	1	18	1	21	3	43	7	68
Trichuris trichiura (whip worm)	1	8	4	16	2	23	9	46
Hymenolepis diminuta	–	–	–	–	–	–	–	–
Hymenolepis nana	–	1	–	1	–	4	1	5
Hymenolepis spp	–	–	–	–	–	–	–	–
Taenia saginata	1	5	2	17	5	23	10	55
Taenia spp	1	8	–	7	1	23	1	25
Gnathostoma spp	–	1	–	1	–	2	–	3
Diphyllobothrium latum (fish	–	–	–	–	1	1	–	–

tape worm)								
Arthropod borne infections								
Malaria	NA	NA	NA	NA	NA	NA	NA	NA
Arboviruses								
Dengue virus	1	18	2	4	1	21	2	13
Chikungunya virus	–	–	–	–	–	–	–	–
Ross river virus	–	–	–	–	–	–	–	1
Sandfly fever virus	–	1	–	–	–	1	–	–
Unspecified	–	3	–	6	–	3	–	8
Leishmaniases								
Cutaneous	–	1	5	5	4	6	20	24
Visceral	–	–	–	1	1	1	2	3
Unspecified	1	8	5	9	1	10	7	14
Filariases								
Loa loa	–	–	–	1	–	–	2	6
Wucheria bancrofti	–	–	–	–	–	–	–	–
Mansonella perstans	–	–	1	1	–	–	1	1
Onchocerca vulvulus	–	–	–	–	–	–	–	–
Unspecified	–	–	–	–	–	1	–	1
Lyme borreliosis (†)	31	306	32	294	44	400	74	390
Miscellaneous								
Schistosome infections								
Schistosoma mansoni	–	4	4	5	–	6	9	16
Schistosoma haematobium	–	3	–	5	5	18	5	23
Schistosoma intercalatum	–	–	–	–	–	–	–	–
Schistosoma spp	1	6	2	9	3	11	4	21
Other infections								
Leptospirosis (†)	3	6	4	10	9	28	7	17
Legionnaires' disease (‡)	46	149	55	121	–	–	95	205
Coxiella burnetii (Q fever)	–	5	–	3	–	18	1	34
Rickettsia spp	–	1	–	2	–	10	–	2

NA= Data not available at time of publication.

* Data on cholera, *S .boydii* and *S .dysenteriae* supplied by the HPA Centre for Infections Laboratory of Enteric Pathogens.

† The Zoonoses Surveillance Reference Unit, CDSC Wales, supplied data for Lyme borreliosis and leptospirosis on behalf of the Leptospira Reference Unit, Hereford and the Lyme Disease Reference Unit, Southampton.

‡ Data on legionnaires' disease supplied by the Legionella Section of the Respiratory Diseases Department of CfI. All data extracted from Labbase 2 on 5 December 2005 unless otherwise specified.

Gastrointestinal infections

Bacterial infections

Gastrointestinal infections are the most frequently reported type of infection in England and Wales and, although under-reported, are the most common infection in travellers. In the third quarter of 2005, *Salmonella* spp (non-typhoidal) were the most frequently reported infection associated with recent travel abroad (964 travel associated cases among 9380 total cases) even though more campylobacter infections are reported in England and Wales in general (14,126 in total of which 367 reported recent travel abroad). Travel history reporting is usually more complete for *Salmonella* spp than for *Campylobacter* spp, with 55.8% of *Salmonella* spp reports having any information about travel history compared with only 3.9% for *Campylobacter* spp. All salmonella infections are usually followed up and this means that better information is available. Travel history reporting for salmonella infections has, however, declined in 2005 compared to 2004 where it increased from 56.3% in the first quarter of 2004 to 68.3% in the fourth quarter. Travel history reporting for *Campylobacter* spp is historically under estimated in routine surveillance systems (4). It has been shown from the campylobacter sentinel surveillance scheme that around 20% of *Campylobacter* spp are imported from abroad (5).

Of the *Salmonella* spp reports that stated recent travel abroad, 49% (470/964) reported recent travel abroad to Europe, 21% (201/964) to north Africa and the middle east, 8% (74/964) to the Indian sub-continent (ISC), 4% each to sub-Saharan and southern Africa, south east Asia and the far east, and the Caribbean. The top three countries of travel most frequently reported were Spain, including resort islands of the Canaries and Balearics (22%, 208/964), Greece, (11%, 106/964), and Turkey (10%, 92/964); country of travel was not stated for 7%, 71/964).

A similar pattern was seen for *Campylobacter* spp. Of reports that stated recent travel abroad, 45% (166/367) reported travel to Europe, 19% (71/367) to north Africa and the middle east, and 13% (47/367) to the ISC. The top three most frequently reported countries of travel were Spain (26%, 95/367), Turkey (7%, 24/367) and India and Morocco (6% each, 21/367); country of travel was not stated for 8%, (29/367).

In the first quarter of 2005, there were 402 reports of infection with *Shigella* spp , 28 due to *S. boydii* and 14 due to *S. dysenteriae*, the organisms that cause dysentery-like (bloody diarrhoea) illness. Thirteen per cent of all *Shigella* spp reported recent travel abroad, the majority having travelled to northern African and the middle east (19 reports, mainly to Egypt [11]) and the ISC (19 reports, mainly to Pakistan [11].

There were 11 reports of *Vibrio cholerae* O1, ten of which had travelled abroad. Of those, eight had travelled to the Indian sub-continent, one to China, and one to Mexico.

Where available, the travel history associated with gastrointestinal (GI) infection, in particular *Salmonella* spp and *Campylobacter* spp, tends to reflect the travelling patterns of UK travellers, as GI infections are common worldwide. During the summer months (*ie*, the second and third quarters of the year), the proportion of British travellers who travel to the Mediterranean coast (*eg*, Spain, Greece, Turkey) tends to be higher than in the winter months (first and fourth quarters of the year). For example, in 2004, 21.5% of all visits abroad by UK residents were to Spain, 63% of those in Summer and 37% in Winter. Similarly more visits were made to Turkey and Greece in the summer months (78% and 84% respectively) compared to the winter months (22% and 16% respectively) (3).

Protozoal infections

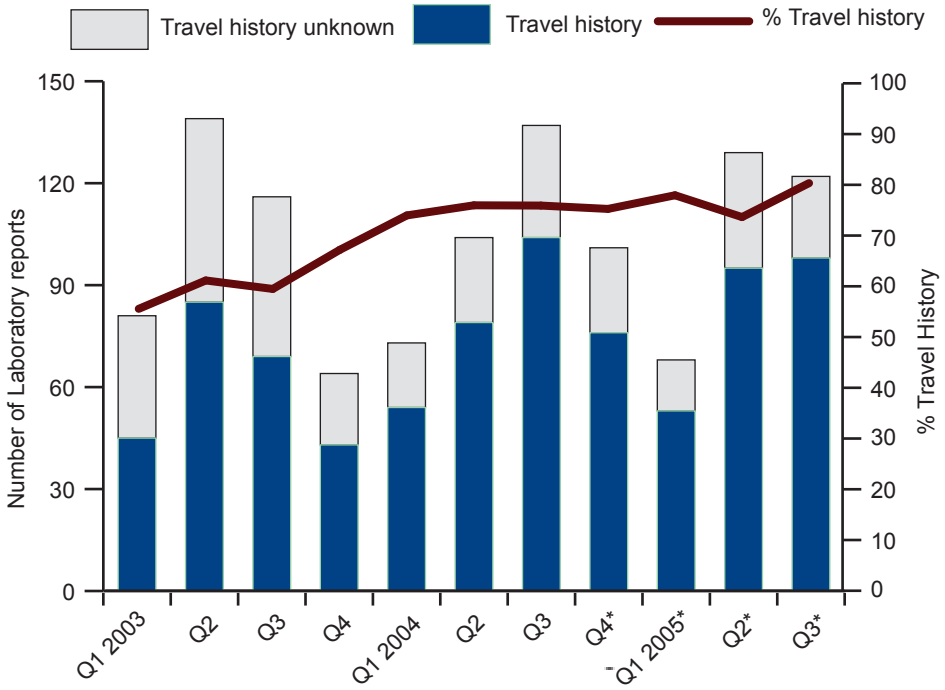
During the third quarter, there were 1497 reports of cryptosporidiosis in total in England and Wales, of which 73 (4.9%) had any information stated about travel history. Sixty-six reports stated recent travel abroad; the most reported region of travel was Europe (29 reports). There were 780 reports of *Giardia lamblia*, of which 74 (9.5%) had any information about travel history – all reported travel. The most frequently reported regions of travel were the ISC (21 reports) and Europe (18 reports). Other infections reported in this category included *Entamoeba histolytica* (36 reports, of which three reported foreign travel, one to Nepal, one to India, and one to Malaysia), *Ent. coli* (20 reports, of which two reported recent travel, one to Tunisia and one to Egypt), *Cyclospora* spp (ten reports, of which five reported recent travel, three to Turkey, and two to Mexico), and *Endolimax nana* (seven reports, of which one report recent travel to India).

Enteric fever

Eighty per cent of all enteric fever reports had some information about travel history compared to 76% in the third quarter of 2004 and 74% in the second quarter of 2005. It is apparent since the beginning of 2003, that travel history reporting for enteric fevers has increased (figure 2). In the third quarter of 2005, there were 50 reports of *Salmonella* Typhi, of which 21 reported recent travel abroad. Eighteen reports stated recent travel to the ISC (eight to Pakistan, five to India, three to Bangladesh, and one each to Sri Lanka and Nepal), one stated travel to Ghana, and two had no country stated. There were 72 reports of *S.* Paratyphi (66 *S. Paratyphi* A and six *S.* Paratyphi B), of which 46 stated recent travel abroad (41 *S.* Paratyphi A and five *S.* Paratyphi B). Thirty-eight reports of *S.* Paratyphi A stated travel to the ISC (24 to India, 13 to Pakistan, and one to Sri Lanka), two

travelled to Brazil, and one to Peru; two cases of paratyphoid B had recently travelled to South America (unspecified country) and one each travelled to Malaysia, Peru, and Nepal.

Figure 2 Reports of enteric fever and travel history reporting by quarter, England and Wales: 2003 to 2005



* Provisional data and may be subject to change.

Helminths
In the third quarter of 2005, there were 47 reports of helminth infection, of which six stated recent travel abroad. One report each of *Ascaris lumbricoides* which reported travel to The Gambia, *Strongyloides* sp with travel to Cuba, *Strongyloides stercoralis* with travel to Pakistan, *Taenia saginata* with travel to China, *Taenia* sp with travel to Africa (unspecified country), *Trichuris trichiura* with travel to Ethiopia. Helminth infections can persist in the body for months and it may not be possible to say for certain where these infections were acquired.

Arthropod borne infections

Dengue
Eighteen cases of dengue fever were reported through the routine laboratory reporting system compared to only four in the same period in 2004; one report stated recent travel to Sri Lanka.

Leishmaniasis
There were nine cases of leishmaniasis reported in the third quarter. Of those, one case had travelled to Belize but the type of leishmaniasis was not stated in the report. There was only one case of cutaneous leishmaniasis identified through the routine laboratory reporting system; this, and the other seven reports of unspecified type had no travel history.

Lyme borreliosis
In England and Wales, laboratory-confirmed reports of Lyme borreliosis are at slightly higher levels than seen at the same time in previous years; these include infections acquired in the UK and overseas. A total of 400 reports were received up to the end of September 2005, compared with an annual average of 310 reports during the same period, 2001 to 2004. Three hundred and six case reports were received in the third quarter of 2005, of which 31 cases were known to have been infected overseas, primarily in northern European countries and on the eastern seaboard of the United States. Most of the overseas cases have been in holiday-makers. Cases of Lyme borreliosis have also been reported in people taking holidays or travelling within the UK, especially to endemic areas such as the Lake District, the Yorkshire moors and the Highlands and Islands of Scotland. Anecdotal reports indicate that tick numbers have increased in both the UK and northern European countries after a relatively wet summer in 2004 followed by a mild winter in 2004 - 05. The seasonal pattern remains similar to that of previous years with the peak of laboratory reporting in the months

of July, August, and September; this represents a likely peak of onset of symptoms in early summer and is consistent with the major tick feed period in late spring to early summer.

Other infections

Schistosomiasis

Thirteen cases of schistosomiasis were reported in the third quarter of 2005, four *S. mansoni* and three *S. haematobium*, compared to 19 in 2004. Only one report reported recent travel abroad (to Rwanda) despite the absence of this infection in the UK.

Leptospirosis

There were six cases of leptospirosis reported in the third quarter of 2005 of which three were associated with overseas travel to Caribbean countries. Further details of the travel histories are still awaited.

Legionnaires' disease

There were 149 cases of legionnaires' disease reported with onset dates in the third quarter of which 46 were acquired abroad. There were no notable outbreaks to mention during this period.

Further information

For further information or enquiries on the content of this report please email the CfI Travel and Migrant Health Department: <tmhs@hpa.org.uk>.

References

1. Health Protection Agency. *Illness in England, Wales, and Northern Ireland associated with foreign travel – a baseline report to 2002*. London: HPA, 2004. Available at <http://www.hpa.org.uk/infections/topics_az/travel/pdf/full_version.pdf>.
2. Health Protection Agency. Imported infections, England and Wales: July to September 2004. *Commun Dis Rep Wkly* [serial online] [cited 19 Dec 2005] 2004: **14**(45): travel health. Available at <http://www.hpa.org.uk/cdr/archives/2004/cdr4504.pdf>.
3. Office for National Statistics. *Travelpac 2004*. London: ONS; 2005. Available online at <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=14013>.
4. *Food poisoning and travellers' diarrhoea*. In: Health Protection Agency (HPA). Foreign travel-associated illness. England, Wales, and Northern Ireland – Annual report 2005. London: HPA; 2005. Available at <http://www.hpa.org.uk/hpa/publications/travel_2005/default.htm>.
5. The Surveillance Scheme Collaborators. Foreign and domestic travel and the risk of campylobacter infection: Results from a population-based sentinel surveillance scheme. *J Travel Med* 2003; **10**(2):136-8.

Footnotes

*Labbase2 is the database that collects laboratory reports of all microorganisms isolated at nearly 400 NHS and other laboratories throughout England and Wales . The database is managed and accessed at the Centre for Infections.

†Note that these figures refer to data extracted from Labbase only, and do not include cholera, *S. dysenteriae*, *S .boydii*, legionnaires' disease, Lyme borreliosis or leptospirosis where data has been obtained from other sources.

‡Note that the figures for 2004 are higher than the 18,576 previously reported in the *CDR Weekly* quarterly report in July 2004 (2). This difference is due to late loading of reports into Labbase2.

National Standards Methods

Last updated: **6 January 2006** , Volume 16, No. 1
Next update due: **2 February 2006**

Standard Method updates – Monthly content update: December 2005

The development of National Standard Methods and Algorithms is undertaken under the auspices of the Health Protection Agency (HPA) in conjunction with the NHS and the National Public Health Service for Wales (NPHSW), and with professional societies including the Association of Medical Microbiologists, Association of Clinical Microbiologists, Institute of Biomedical Science, Clinical Virology Network, and the Scottish Microbiology Association. Over 200 methods are available from the HPA Standards Unit website which covers bacteriology, virology/serology, food, water, and environmental microbiology.

National standard methods are educational and encourage participating laboratories to retain an enquiring attitude. In addition, they are designed to help ensure that laboratories provide a good clinical and public health microbiology service. Evidence of using standard operating procedures is an essential requirement of accreditation schemes. For more information, please contact the HPA Standards unit, email: <standards@hpa.org.uk>.

Monthly content update – December 2005

National Standard Methods - Guidance Notes

QSOP 31 Surveillance of polio in the UK (re-issue)

QSOP 57 The Microbiological Examination of Water Samples (re-issue)

National Standard Methods - Bacteriology Identification

BSOPID 1 Introduction to the preliminary identification of medically important bacteria (re-issue)

National Standard Methods - Food

F 18 Detection and Enumeration of Enterobacteriaceae (issue)
F 22 Enumeration of b -glucuronidase positive Escherichia coli – Most Probable Number method (issue)

Access to the National Standard Methods website

The National Standard Methods are available in both PDF and Microsoft Word format, available at <http://www.hpa-standardmethods.org.uk>. Only the direct PDF file links are available below, and to access a complete list of all available standards including access to to the MS Word versions, visit: <http://www.hpa-standardmethods.org.uk/pdf_sops.asp#Notes>.

On behalf of the Evaluations and Standards Laboratory and the National Working Groups developing SOPs, algorithms, and guidance note.