

Health Protection Report

weekly report

Volume 2 Number 50 Published on: 12 December 2008

Current News

- ▶ Use of antiviral drugs for influenza
- ▶ Wound botulism cases in injecting drug users in the Republic of Ireland

Infection Reports

Enteric

- ▶ General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/08
- ▶ Salmonella infections (faecal specimens), England and Wales: reports to the HPA (Salmonella data set), October 2008
- ▶ Common gastrointestinal infections, England and Wales: laboratory reports, weeks 45-48/08
- ▶ Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2008 (provisional)

Zoonoses

- ▶ Common animal-associated infections, England and Wales: laboratory reports, weeks 27-39/08
- ▶ *Toxoplasma gondii* infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 27-39/08
(Amended 19 December 2008)

Emerging infections/CJD

- ▶ Creutzfeldt-Jakob disease (CJD) update report

Diary

- ▶ British Paediatric Surveillance Unit conference: *Celebrating Recent Achievements*, 3 March 2009, London.

News

Volume 2 Number 50 Published on: 12 December 2008

▶ **Use of antiviral drugs for influenza**

▶ **Wound botulism cases in injecting drug users in the Republic of Ireland**

Use of antiviral drugs for influenza

On 12 December 2008 the UK Department of Health issued a letter to NHS staff in England to inform them that the use of antiviral drugs for the treatment or prophylaxis of influenza was now recommended, in line with NICE guidance [1].

The HPA has reviewed the most recent influenza data from a range of clinical, virological and epidemiological surveillance schemes for England. They show an increased level of influenza activity indicating we are now entering a period when there is a substantial likelihood that people presenting with an influenza-like illness are infected with influenza, ie influenza is circulating in the community.

During week 49/2008, the NHS Direct cold/flu and fever calls exceeded baseline levels [2]. The proportion of cold/flu calls increased from 0.9% to 1.2% in week 49/08 (1.2% is the threshold). Fever calls in the 5-14 age-group increased to 10.0% in week 49/08, exceeding the threshold of 9% [3]. The national RCGP national ILI GP consultation rate in week 49 increased sharply to 27.6 consultations per 100 000 GP consultations and is just below the threshold of 30 per 100,000. The threshold is exceeded in central England (37.5) and among 15-44 year olds (32.1). Of the samples referred to the Centre for Infections' Respiratory Virus Unit (RVU) during weeks 48/08 and 49/08, 139 were positive for influenza A, eight A (H1) and 131 A (H3) and two for influenza B. The influenza A viruses characterised so far are well matched to strains contained in the current vaccine. HPA has also received reports of nine outbreaks of influenza-like-illness in various settings across the country, several of which have been confirmed as influenza A.

References

1. National Institute for Health and Clinical Excellence. Oseltamivir, amantadine and zanamivir for the prophylaxis of influenza (including a review of NICE technology appraisal guidance 67). *London*: National Institute for Health and Clinical Excellence, September 2008. Available at: <http://www.nice.org.uk/Guidance/TA158>.
 2. Cooper DL, Verlander NQ, Elliot AJ, Joseph CA, Smith GE. Can syndromic thresholds provide early warning of national influenza outbreaks? *J Public Health (Oxf)*. 2007 Nov 20: doi 10.1093/pubmed/fdm068.
 3. HPA. HPA Weekly National Influenza Report. Published on 10 December, 2008. Available at: http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1228894718273.
-
1. Chief Medical Officer, Professor Sir Liam Donaldson. The influenza immunisation programme 2008/09. *London*: Department of Health, 31 March 2008, http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalletters/Chiefmedicalofficerletters/DH_083812.
 2. http://www.immunisation.nhs.uk/Vaccines/Flu/Resources/vaccine_uptake_2008_2009.
-

Wound botulism cases in injecting drug users in the Republic of Ireland

Botulism is a rare but serious disease with wound botulism being the most common presentation in the UK since 2000. Wound botulism occurs when spores of *Clostridium botulinum* contaminate a wound, germinate and produce botulinum neurotoxin in vivo. The disease is associated with traumatic wounds and abscesses and has been reported in drug users such as those injecting heroin or sniffing cocaine. Wound infections due to *C. botulinum* were not recognised in the UK or the Republic of Ireland before 2000 [1]. However, between 2000 and 2007 there were a total of 141 reported cases of wound botulism, all associated with the practice of injecting heroin into muscle or skin.

A cluster of six cases of suspected wound botulism in injecting drug users in Dublin, Ireland, has been reported since the end of November. A patient with symptoms including diplopia, dysarthria and dysphagia and a history of injecting drug use by "skin popping", was admitted to a hospital in Dublin with suspected botulism. Serum from the patient, taken prior to administration of antitoxin, was tested for *C. botulinum* toxin by the Food Safety Microbiology Laboratory and *C. botulinum* type B neurotoxin was detected by bioassay; confirming a clinical diagnosis of botulism. The patient was treated with antitoxin and is improving. A further five injecting drug users with suspected wound botulism have presented in Dublin and testing on clinical specimens and a suspected contaminated batch of heroin is on going.

Microbiological testing confirms the clinical diagnosis in around 41% of wound botulism cases either by detection of botulinum neurotoxin in serum or isolation of *C. botulinum* from wounds. Reasons for the low confirmation rate include timing of specimen collection as once toxin reaches the nerve endings it binds irreversibly; the amount of toxin in the serum being below the level of detection; low volume of serum reducing sensitivity of the test and wound or pus being taken after administration of antimicrobial therapy so organisms may not be viable.

Botulism produces a progressive, symmetrical, descending, flaccid paralysis. Patients may present with blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. There is usually no fever, no loss of sensation and no loss of awareness. If untreated, paralysis may progress to the arms, legs, trunk, and the respiratory muscles and may lead to death. Clinicians should suspect botulism in any patient with an afebrile, flaccid paralysis. Botulinum antitoxin is effective in reducing the severity of systems if administered early in the course of the disease for all forms of botulism and should not be delayed for the results of microbiological testing. In cases of wound botulism, antimicrobial therapy and surgical debridement are important to reduce the organism load and avoid relapse after antitoxin treatment. *C. botulinum* is sensitive to benzyl penicillin and metronidazole.

Information on the supply of botulinum antitoxin is available from the Health Protection Agency, Centre for Infections duty doctor on 020 8200 6868 (24 hours). Information on specimen and sample testing can be obtained from Dr Kathie Grant or Vina Mithani at the Food Safety Microbiology Laboratory.

All cases occurred in heroin injectors. Seventy cases occurred in England; the remainder occurred in Scotland (12 cases), Wales (2 cases) and the Republic of Ireland (4 cases). Of the 40 cases in 2004, 36 occurred in England, and of the 12 that were laboratory confirmed, 10 were due to type A. There was some geographical clustering of the cases during 2004, with most cases occurring in London and in the Yorkshire and Humberside region of northeast England.

Infection reports

Volume 2 Number 50 Published on: 12 December 2008

Enteric

- ▶ **General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/08**
- ▶ **Salmonella infections (faecal specimens), England and Wales: reports to the HPA (Salmonella data set), October 2008**
- ▶ **Common gastrointestinal infections, England and Wales: laboratory reports, weeks 45-48/08**
- ▶ **Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2008 (provisional)**

Zoonoses

- ▶ **Common animal-associated infections, England and Wales: laboratory reports, weeks 27-39/08**
- ▶ **Toxoplasma gondii infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 27-39/08**
(Amended 19 December 2008)

Emerging infections/CJD

- ▶ **Creutzfeldt-Jakob disease (CJD) update report**
-

Enteric

General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/08

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
AGW Wiltshire	Salmonella Enteritidis PT1	School	November	8	8	-	-
East Midlands North	Campylobacter	Restaurant	November	3	3	Chicken liver	D

D (descriptive): other evidence, usually descriptive, reported by local investigators as indicating the suspect vehicle or food.

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

Details of serotypes of 878 Salmonella infections recorded in October are given in the table below. In November 2008, 412 Salmonella infections were recorded.

Organism	Cases October 2008
S. Enteritidis PT4	72
S. Enteritidis (other PTs)	347
S. Typhimurium	155
S. Virchow	36
Others (typed)	268
Total Salmonella (provisional data)	878

I

Common gastrointestinal infections, England and Wales: laboratory reports, weeks 45-48/08

Laboratory reports	Number of reports received				Total reports	Cumulative total	
	45/08	46/08	47/08	48/08		45-48/08	01-48/08
<i>Campylobacter</i>	1046	897	819	553	3315	46379	49005
<i>Escherichia coli</i> O157*	7	15	15	11	48	908	686
<i>Salmonella</i> †	157	115	72	24	368	9006	11205
<i>Shigella sonnei</i>	27	22	14	8	71	757	951
Rotavirus	82	67	49	39	237	13607	12687
Norovirus	124	144	166	154	588	5375	5003
Cryptosporidium	142	111	127	97	477	3801	2931
Giardia	80	77	57	51	265	3060	2843

*Vero cytotoxin-producing isolates (data from HPA's Laboratory of Enteric Pathogens (LEP).

† Data from Health Protection Agency's Laboratory of Gastrointestinal Pathogens.

Salmonella serotypes recorded in the Health Protection Agency salmonella data set: July to September 2008 (provisional)

All serotypes recorded in the HPA salmonella data set in the third quarter of 2008 are listed below. There were more than ten reports of 30 serotypes, two to ten reports of 68 serotypes, and one report of 61 serotypes.

More than 10 reports of the following serotypes were received: July to September 2008

Serotype	No. of reports
S. Agona	118
S. Anatum	13
S. Arizonae	12
S. Bareilly	13
S. Blockley	14
S. Braenderup	25
S. Chester	14
S. Corvallis	27
S. Enteritidis	1901
S. Hadar	27
S. Haifa	31
S. Heidelberg	14
S. Infantis	53

S. Java	27
S. Kentucky	62
S. Kottbus	17
S. Mbandaka	11
S. Montevideo	23
S. Newport	63
S. Oranienburg	11
S. Paratyphi A	16
S. Saint-Paul	22
S. Schwarzengrund	20
S. Senftenberg	17
S. Stanley	43
S. Thompson	26
S. Typhi	18
S. Typhimurium	612
S. Unnamed	92
S. Virchow	92

Between two and 10 reports of each of the following serotypes were received: July to September 2008

S. Aberdeen	3
S. Abony	4
S. Adelaide	2
S. Agama	3
S. Ajiobo	3
S. Albany	2
S. Amager	3
S. Anecho	2
S. Bispebjerg	5
S. Bovis-Morbificans	10
S. Brandenburg	2
S. Bredeney	6
S. Cerro	2
S. Chailey	2
S. Colindale	4
S. Cubana	4
S. Derby	6
S. Drypool	3

S. Dublin	4
S. Duesseldorf	2
S. Durham	6
S. Ealing	2
S. Emek	2
S. Galiema	4
S. Gold-Coast	6
S. Halle	4
S. Havana	3
S. Indiana	3
S. Isangi	2
S. Javiana	8
S. Kedougou	4
S. Kiambu	3
S. Kingston	2
S. Kintambo	2
S. Larochelle	3
S. Litchfield	2
S. Livingstone	4
S. London	8
S. Manhattan	2
S. Mendoza	2
S. Mikawasima	8
S. Minnesota	2
S. Mississippi	4
S. Muenchen	9
S. Muenster	8
S. Napoli	9
S. Nchanga	2
S. Nima	2
S. Ohio	7
S. Oritamerin	2
S. Oslo	2
S. Othmarschen	2
S. Panama	2
S. Paratyphi B	7
S. Pomona	3
S. Poona	9
S. Potsdam	3
S. Reading	6

S. Richmond	4
S. Rissen	3
S. Singapore	2
S. Stanleyville	9
S. Takoradi	2
S. Tennessee	8
S. Tudu	2
S. Uganda	3
S. Weltevreden	9
S. Zanzibar	4

One each of the following serotypes were received: July to September 2008

S. Abadina	1
S. Agbeni	1
S. Alachua	1
S. Altona	1
S. Apapa	1
S. Arechavaleta	1
S. Arkansas	1
S. Baildon	1
S. Berkeley	1
S. Berta	1
S. Binza	1
S. Blukwa	1
S. Bonn	1
S. Bournemouth	1
S. Bron	1
S. Coeln	1
S. Cotham	1
S. Durban	1
S. Eastbourne	1
S. Edinburg	1
S. Fairfield	1
S. Freetown	1
S. Gaminara	1
S. Give	1
S. Glostrup	1
S. Hartford	1

S. Hato	1
S. Herston	1
S. Hofit	1
S. Hvittingfoss	1
S. Johannesburg	1
S. Kambole	1
S. Kasenyi	1
S. Kimuenza	1
S. Lagos	1
S. Landala	1
S. Lanka	1
S. Loma-Linda	1
S. Makiling	1
S. Menhaden	1
S. Miami	1
S. Minneapolis	1
S. Mishmar-Haemek	1
S. Ndolo	1
S. Nyborg	1
S. Onderstepoort	1
S. Orion	1
S. Ridge	1
S. San-Diego	1
S. Seremban	1
S. Sofia	1
S. Szentes	1
S. Taunton	1
S. Tel-El-Kebir	1
S. Thomasville	1
S. Ughelli	1
S. Umbilo	1
S. Vejle	1
S. Waedenswil	1
S. Wandsworth	1
S. Widemarsh	1

Zoonoses

Common animal-associated infections, England and Wales: laboratory reports, weeks 27-39/08

Organism	Total reports for week 27- 39		Cumulative totals for weeks 01- 39	
	2008*	2007	2008*	2007
<i>Borrelia burgdorferi</i> *,#	419	280	589	511
<i>Leptospira hardjo</i> **,##	3	–	1	–
<i>Leptospira icterohaemorrhagiae</i> **,##	1	12	9	36
<i>Leptospira</i> other **,##	17	20	21	16
<i>Pasteurella haemolytica</i>	1	–	–	1
<i>Pasteurella multocida</i>	47	87	212	232
<i>Pasteurella pneumotropica</i>	–	4	4	9
<i>Pasteurella</i> other/ spp	6	22	60	63
<i>Toxocara canis</i>	1	–	1	1
<i>Toxocara</i> other/ spp	–	–	–	–
<i>Toxoplasma gondii</i>	4	6	24	32
<i>Toxoplasma</i> other/ spp§	11	13	30	40
<i>Coxiella burnetii</i>	8	24	32	43
<i>Chlamydia (Chlamydophila) psittaci</i>	13	12	44	31
<i>Capnocytophaga</i> spp	7	4	7	4
<i>Mycobacterium marinum</i>	3	3	8	13
Orf virus	–	–	2	–
<i>Echinococcus granulosus</i>	6	–	18	7

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

Commentary

Borrelia burgdorferi (Lyme borreliosis): (438)

Reports were received from all English regions (430) and Wales (8); for 5 patients the source laboratory was unknown. Sixty two percent of reports were from the South East and South West health regions of England . All age groups were represented and the near equal male:female ratio observed in previous reports was maintained.

Age group	Female	Male	Total
<10	19	13	32
10-14	8	7	15
15-24	12	17	29
25-44	42	97	139
45-64	67	68	135
≥65	34	34	68
Not stated	–	1	1
Total	182	237	419

Thirty five patients reported overseas travel. The total number of reports received is similar to the same period in 2007.

Country visited	Number of cases
Hungary	2
Germany	3
Sweden	9
Czech Republic	3
USA (Eastern seaboard)	7
Northern Europe (unspecified)	4
Italy	1
Poland	3
Slovenia	1
Slovakia	2

Leptospirosis: (21)

Indigenous cases (13):

Age group	Female	Male	Total
<10	–	–	–
10-14	–	1	–
15-24	–	4	4
25-44	–	4	6
45-64	1	3	3
≥65	–	–	–
Not stated	–	–	–
Total	1	12	13

Infections were reported from regions throughout England and Wales; one patient died (serovar not determined).

Reported serovars were: *L. Icterohaemorrhagiae* (2), *L. Australis* (1), *L. Saxkoebing* (1) and for 10 patients, the serovar was not determined.

Overseas acquired infections (8):

Age group	Female	Male	Total
<10	–	–	–
10-14	–	–	–
15-24	1	3	3
25-44	1	2	2
45-64	–	1	–
≥65	–	–	–
Not stated	–	–	–
Total	2	6	8

Infections were acquired in Borneo (2), Thailand (1), SE Asia (1), Bangladesh (1), Malaysia (1), Philipines (1) and Ecuador (1). The serovars identified were *L. Grippotyphosa* (Philipines) and *L. Hardjo* (Thailand), for the remainder, the serovars remained unidentified at the time of reporting.

During the same reporting period, three cases were reported (provisionally) by NHS laboratories to the HPA national surveillance system.

Pasteurella: (54)

Pasteurella haemolytica: (1)

Pasteurella multocida: (47)

Pasteurella pneumotropica: (–)

Pasteurella aerogenes: (–)

Pasteurella spp: (6)

Age group	Female	Male	Unknown	Total
<10	2	–	–	2
10-14	0	1	1	2
15-24	1	1	–	2
25-44	5	3	–	8
45-64	10	8	–	18
≥65	15	7	–	19
Not stated	–	–	–	–
Total	33	20	1	54

Five patients reported infected dog bites and five patients reported cat bites and/or scratches.

Toxocara: (1)

Age group	Female	Male	Total
<10	–	1	1
10-14	–	–	–
15-24	–	–	–
25-44	–	–	–
45-64	–	–	–
≥65	–	–	–
Not stated	–	–	–
Total	–	1	1

Toxocara canis was identified in a child who had consumed dog faeces.

Toxoplasmosis: See separate *Toxoplasma* report below.

Coxiella burnetii: (8)

Age group	Female	Male	Unknown	Total
<10	–	–	–	–
10-14	–	–	–	–
15-24	–	–	–	–
25-44	–	4	–	4
45-64	–	3	–	3
≥65	–	1	–	1
Not stated	–	–	–	–
Total	–	8	–	8

Patients were reported by laboratories in South Wales, the south west of England, the West Midlands and South East England. One patient had been filming the birth of lambs on a farm.

Chlamydia (Chlamydophila) psittaci: (16)

Age group	Female	Male	Unknown	Total
<10	–	–	–	–
10-14	–	–	1	1
15-24	1	–	–	1
25-44	3	1	2	6
45-64	2	2	4	8
≥65	–	–	–	–
Not stated	–	–	–	–
Total	6	3	7	16

No clinical or epidemiological details were reported.

Capnocytophaga spp: (5)

Age group	Female	Male	Unknown	Total
<10	–	–	–	–
10-14	–	–	–	–
15-24	–	–	–	–
25-44	–	2	–	2
45-64	1	1	–	2
≥65	1	–	–	1
Not stated	–	–	–	–
Total	2	3	–	5

No clinical or epidemiological details were available for these patients.

Mycobacterium marinum: (3)

Age group	Female	Male	Total
<10	–	–	–
10-14	–	–	–
15-24	–	–	–
25-44	–	1	1
45-64	1	–	1
≥65	1	–	1
Not stated	–	–	–
Total	2	1	3

No clinical or epidemiological details were available for these patients.

Orf: (Nil report)

Echinococcus granulosus : (6)

Age group	Female	Male	Unknown	Total
<10	–	–	–	–
10-14	–	–	–	–
15-24	1	1	–	2
25-44	1	1	–	2
45-64	1	1	–	2
≥65	–	–	–	–
Not stated	–	–	–	–
Total	3	3	0	6

All cases were reported from London and the South East England health regions.

Toxoplasma gondii infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 27-39/08

(Amended 19 December 2008)

The Health Protection Agency, in collaboration with the National Public Health Service for Wales (NPHSW), is currently reviewing the number of cases of *Toxoplasma gondii* infection diagnosed by the Toxoplasma Reference Unit (TRU) in Swansea (1). This report describes *T. gondii* infections diagnosed in the third quarter of 2008 (weeks 27-39). Further data will continue to be reported quarterly in subsequent Health Protection reports.

Reporting of data on a number of HIV positive individuals has been delayed for the past two quarters due to limited availability of the ISAGA testing kits required for confirmation of toxoplasmosis in immunocompromised patients. Testing will be completed when kits become available and this quarter's data may include cases initially detected during the previous quarter. Once the kit supply problems are resolved the remaining cases from the second and third quarters will be tested and results will be reported in a future *Health Protection Report*.

Table 1. *Toxoplasma gondii* diagnoses by age group and status, Toxoplasma Reference Unit: weeks 27-39/2008

Age group	Status					Total: wks 27-39/08	Cumulative total: wks 1-39/08
	Acute	Cong-enital	HIV	Organ donor/recipient	Not known		
<0	–	–	–	–	–	–	3
<1	–	2	–	–	1	3	5
1-9	2	–	–	–	1	3	8
10-14	2	–	–	–	–	2	5
15-24	16	–	1	1	1	19	47
25-44	46	0	10	–	3	59	165
45-64	13	–	6	5	1	25	69
65-79	2	–	–	–	1	3	6
≥80	–	–	–	–	–	–	1
Not known	1	–	–	–	–	1	2
Total wks 27-39/08	82	2	17	6	8	115	–
Cum. total wks 1-39/08	226	7	58	12	8	–	311

Table 1 describes the age distribution of cases of *T. gondii* infection diagnosed by the TRU during the third quarter of 2008, by case status. A total of 115 *T. gondii* infections were confirmed during weeks 27 to 39 of 2008 (30 June to 28 September), bringing the total to 311 cases so far in 2008. Cases are classified by the TRU using specific laboratory and clinical diagnostic criteria [2, 3].

Of the 115 cases diagnosed this quarter, 82 were classed as acute cases of toxoplasmosis in immunocompetent individuals, two were cases of congenital toxoplasmosis, 58 were in patients known to have HIV infection, and six were in organ donors or recipients.

During the same period a total of 15 cases (provisional data) were reported by NHS laboratories to the HPA national surveillance system [4], compared with 26 for the same period in 2006 [5] and 19 for 2007 [4].

Table 2. *T. gondii* diagnoses by region, Toxoplasma Reference Unit, England and Wales: weeks 27-39/2008

HPA Region	Total: weeks 27-39/2008	Cumulative total: weeks 1-39/2008
East Midlands	1	4
East of England	12	29
London	51	136
North East	1	9
North West	9	21
South East	11	34
South West	15	28
Wales	4	5
West Midlands	5	18
Yorkshire and Humber	6	19
Not known	–	8
Total	115	311

As seen in previous quarters, the majority of cases diagnosed by the TRU in the third quarter of 2008 were referred by laboratories in the London region (44%). A significant proportion of cases was also referred from the South West (13%) and South East (10%) regions.

Table 3. *T. gondii* diagnoses by age and sex, Toxoplasma Reference Unit: weeks 27-39/2008

Age group	Female	Male	Unknown	Total: weeks 27- 39/2008	Cumulative total: weeks 01- 39/2008
<0	–	–	–	–	3
<1	2	1	–	3	5
1-9	2	1	–	3	8
10-14	–	2	–	2	5
15-24	8	10	1	19	47
25-44	32	27	–	59	165
45-64	9	14	2	25	69
65-79	1	2	–	3	6
>80	–	–	–	–	1
Not known	–	1	–	1	2
Total weeks 27-39/2008	54	58	3	115	–
Cum. total weeks 1- 39/2008	156	124	31	–	311

As shown in table 3, the majority of *T. gondii* infections diagnosed during weeks 27-39 of 2008 were in females (47%), of which the majority were aged 25-44 (60%). A similar age/sex distribution has been seen throughout the year so far, in part due to testing in women pre- and during pregnancy.

Table 4. Principal reported symptoms associated with *T. gondii* infection, Toxoplasma Reference Unit weeks 27-39/2008

Main reported symptom	Status					Total: wks 27-39/08	Cumulative total: wks 01-39/08
	Acute	Cong-enital	HIV	Not known	Organ recip't/donor		
Lymphadenopathy	45	–	–	–	1	46	137
Ocular	6	–	–	–	–	6	14
Probable ocular*	3	–	–	–	–	3	4
Malaise	2	–	–	–	–	2	3
Abnormal LFT's	1	–	–	–	–	1	2
Chronic systemic	1	–	–	–	–	1	1
Headaches	1	–	–	–	–	1	1
Pyrexia	1	–	–	–	–	1	5
Rash	1	–	–	–	–	1	1
Renal and respiratory failure	–	–	–	–	–	–	1
Ring enhancing brain lesions	–	–	–	–	–	–	1
Tiredness	–	–	–	–	–	–	2
Toxoplasmic encephalitis	–	–	–	–	–	–	2
Alveolar shadowing	–	–	–	–	–	–	1
Asymptomatic	–	–	–	–	–	–	2
Brain lesions	–	–	1	–	–	1	1
Hepatitis	–	–	–	–	–	–	1
Neutropenia	–	–	–	–	–	–	1
Post viral illness	–	–	–	–	–	–	1
Pregnant	10	–	–	–	–	10	23
Pre-pregnancy	2	–	–	–	–	2	2
Mother of congenital foetus	4	–	–	–	–	4	6
Mother of congenital infant	1	–	–	–	–	1	3
Congenital foetus (no further clinical details)	–	–	–	–	–	–	4
Congenital infant	–	1	–	–	–	1	2
Hydrocephalus	–	1	–	–	–	1	2
Organ donor	–	–	–	–	2	2	4
Organ recipient	–	–	–	–	3	3	6
Not given	4	–	16	8	–	28	80
Total weeks 27-39/2008	82	2	17	8	6	115	–
Total weeks 1-39/2008	226	7	58	8	12	–	311

* 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 predominant symptom given on the patient's laboratory request form, by case status. The most commonly reported symptom was lymphadenopathy, which was reported in 55% of acute cases. Among the cases classed as acute, 10 were in pregnant women (where congenital toxoplasmosis has not been confirmed), four were in pregnant women for whom congenital toxoplasmosis was confirmed in the foetus, and one was in the mother of an infant with confirmed congenital toxoplasmosis.

Patients with HIV infection are often screened for *T. gondii* infection in the absence of clinical signs of toxoplasmosis, as reactivation of latent *T. gondii* infection can cause severe disease in immunocompromised individuals.

References

1. National Public Health Service for Wales website. Toxoplasma Reference Unit. Available at: <http://www.wales.nhs.uk/sites3/page.cfm?orgId=457&pid=25359>.
 2. Health Protection Agency. Investigation of toxoplasma infection in pregnancy. National Standard Method QSOP 59 Issue 1, 2006. Available at: <http://www.hpa-standardmethods.org.uk/documents/qsop/pdf/qsop59.pdf>
 3. Health Protection Agency. *Toxoplasmosis: Information for health professionals*. Available at: http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733799638?p=1191942176127
 4. Health Protection Agency. Common animal associated infections, England and Wales laboratory reports: weeks 27-39/2007. *Health Protection Report* [serial online] 2007; **1**(40). Available at: <http://www.hpa.org.uk/hpr/archives/2007/hpr4008.pdf>.
-

Emerging infections/CJD

Creutzfeldt-Jakob disease (CJD) update report

Creutzfeldt-Jakob disease (CJD) update report

This six-monthly report provides an update on reports of incidents of potential iatrogenic (healthcare-acquired) exposure to CJD via surgery, and on the National Anonymous Tonsil Archive. Data are correct as of 5 December 2008.

For numbers of CJD case reports, readers should consult data provided by the national CJD Surveillance Unit (NCJDSU), Edinburgh [1]. The latest yearly analysis of vCJD reports (onsets and deaths) is also available from the NCJDSU website [2].

Reports of incidents of potential iatrogenic exposure to CJD via surgery: 1 January 2000 to 30 June 2008

There were a total of 350 incidents reported during this period (table 1). Twelve surgical incidents were reported between 1 January and 30 June 2008 (since the previous update report). A surgical incident occurs when a patient undergoes surgery but is only identified as having CJD or being at risk of CJD at a later date. This means that the ACDP TSE Working Group infection control guidelines would not have been followed. The surgery carried out on an index patient with, or at risk of CJD, may result in contamination of the instruments with abnormal prion protein. Table 1 shows the number of CJD surgical incidents reported to the CJD Incidents Panel from January 2000 to June 2008 by the diagnosis of the index patient.

Table 1. CJD Surgical Incidents (n=350) reported to the CJD Incidents Panel, by diagnosis of index patient: January 2000 to June 2008

Diagnosis of index patient	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
1. Sporadic (possible, probable or definite)	7	19	22	23	16	17	29	14	6	153(44%)
2. vCJD (possible, probable or definite)	6	14	22	5	4	1	2	–	–	54(16%)
3. Familial including "at risk" familial	–	2	2	7	1	3	6	–	–	21(6%)
4. "At risk" vCJD blood component recipient	–	–	–	–	4	10	6	1	–	21(6%)
5. "At risk" - vCJD plasma product recipient	–	1	2	–	10	17	7	8	5	50(14%)
6. "At risk" - other	–	–	2	2	1	2	4	–	–	11(3%)
7. CJD type unclear/ CJD unlikely	1	1	–	4	–	1	2	–	–	9(3%)
8. Not CJD	2	1	4	7	7	1	–	–	1	23(7%)
9. Other	–	–	1	1	1	2	1	–	–	6(2%)
10. No longer considered "at risk"	–	–	1	–	–	–	–	1	–	2(1%)
Total	16	38	56	49	44	54	57	24	12	350(100%)

Investigation of surgical incidents may result in advice to remove surgical instruments from clinical use (to quarantine, destroy, or donate for research). Such advice is generally only given for instruments considered to be potentially contaminated with the CJD agent that have not undergone a certain number of cycles of use and decontamination since their use on an index patient. Hospitals are asked to consider

sending any instruments to be permanently removed from use to the Surgical Instrument Store (held by the Health Protection Agency, Porton Down) for research. In the second half of 2007, there were no incidents in which instruments were permanently removed from use.

The Panel may advise contacting and informing some patients of their possible exposure to CJD in a surgical incident. Such advice is generally only given for patients who have definitely been exposed to potentially contaminated instruments which have been used on risk tissues in certain index patients. The Panel may advise that some of these patients should be considered "at-risk of CJD for public health purposes" and asked to take certain precautions (ie not to donate blood or other tissues and to inform their medical and dental carers prior to any invasive procedures) in order to reduce the risk of transmitting the CJD agent further. Since 2000, 20 incidents have given rise to such advice (table 2). One of these incidents was reported in the first half of 2008. The Panel has so far categorised 64 patients as "at-risk"; 13 of whom died before notification. Three patients have not been notified due to local, clinical decisions.

Table 2 Panel advice to inform patients that they are "at risk" of CJD/vCJD: 1 January 2000 to 31 June 2008

Diagnosis of index patient	Procedure on index patient	Number of Incidents	Alive "at-risk"			Died before notification	Total
			Notified	Not notified (local decision)	Total		
Sporadic CJD	Brain biopsy	2	20	1	21	7	28
	Cataract surgery	12	19	0	19	4	23
vCJD	Appendectomy	1	0	2	2	0	2
	Cataract surgery	1*	1	0	1	0	1
"At-risk" vCJD	Endoscopy & GI surgery	4†	8	0	8	2	10
Total		20	48	3	51	13	64

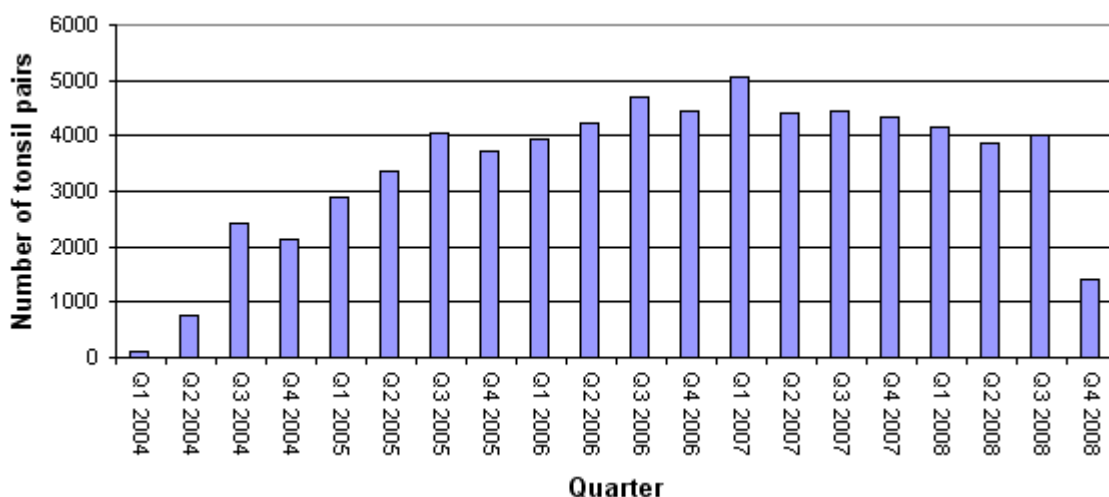
*The index patient was a blood component recipient with evidence of vCJD infection. Information about the CJD Incidents Panel can be found on the HPA website [3].

† For one incident, the total number of "at-risk" patients is still being determined.

National anonymous tonsil archive for studies of detectable abnormal prion protein

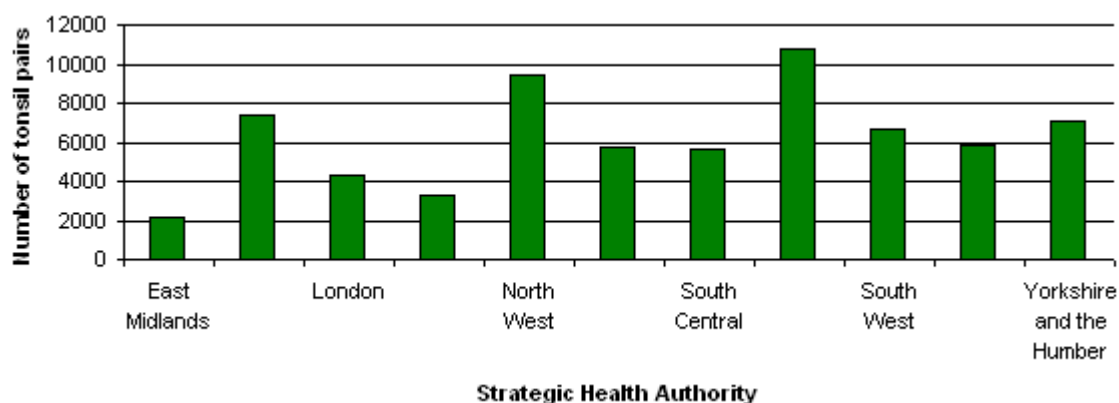
The National Anonymous Tonsil Archive (NATA) continues to receive approximately 400 tonsil pairs per week (figure 1). The archive had received a total of 67,696 tonsil pairs up to the end of October 2008 from hospitals in England and Scotland. A further 3,000 tonsil pairs have been received from the Medical Research Council Prion Unit at the Institute for Neurology, National Hospital for Neurology and Neurosurgery. Therefore the total number of tonsil pairs in the archive was 70,696. The number of collection forms that were completed but no tonsil tissue collected was 2,188 (1,426 due to patient objection and 762 due to clinical pathology being requested).

Fig 1 Number of tonsil pairs collected for NATA Quarterly: Q1 2004 to Q4 2008



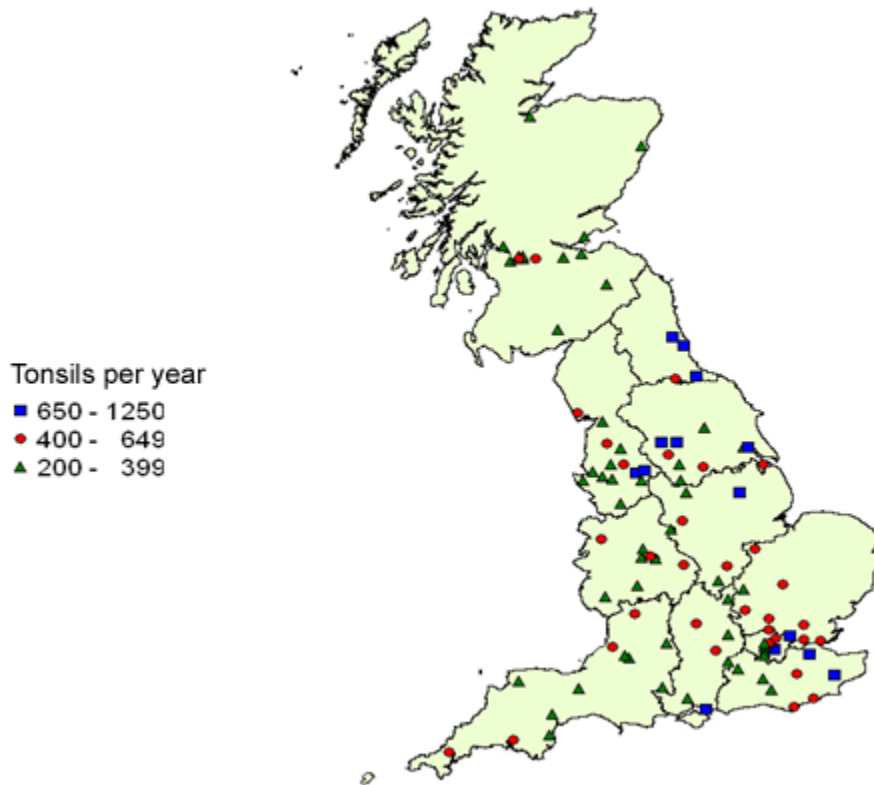
Out of the 100 NHS Hospital Trusts that perform over 200 tonsillectomies per year in England, 91 have been recruited and are currently sending tonsil pairs to NATA on a regular basis. There are 120 hospital sites within these trusts taking part in NATA. At present, approximately 50,000 tonsillectomies are performed annually in England. Figure 2 shows the number of tonsil pairs received from each Strategic Health Authority.

Fig 2. Tonsils collected by Strategic Health Authority, January 2005 to October 2008



Just over 5,000 tonsillectomies are performed in Scotland each year. The project in Scotland, where there are 14 hospitals that each carry out more than 200 tonsillectomies per year, is being coordinated by Health Protection Scotland. All fourteen of these hospitals have been recruited and are collecting tonsils for NATA. The tonsil tissue is being transported to the Health Protection Agency in Colindale for inclusion in the archive. Figure 3 shows all hospitals in England and Scotland currently recruited in the study.

Figure 3: NHS Trusts and Scottish Hospitals currently collecting and sending tonsil tissue to the archive October 2008



Testing of homogenates of the tonsil tissue from the archive began at the end of January 2007. Two enzyme immunoassays (EIAs) are being used for the initial screening of the homogenates for the presence of abnormal prion protein. These EIAs allow the identification of any tonsils that need to be investigated further by the more specific tests of Western blotting (WB) and immunohistochemistry (IHC) [4].

References

1. The National Creutzfeldt-Jakob Disease Surveillance Unit, The University of Edinburgh. CJD statistics. CJD figures. Edinburgh: NCJDSU, 3 May 2005. Available at <http://www.cjd.ed.ac.uk/figures.htm>.
2. The National Creutzfeldt-Jakob Disease Surveillance Unit, The University of Edinburgh. Incidence of variant Creutzfeldt-Jakob Disease Onsets and Deaths in the UK January 1994 – March 2005. Edinburgh: NCJDSU, 14 April 2005. Available at <http://www.cjd.ed.ac.uk/vcjdqdec06.htm>.
3. HPA CJD Incidents Panel [online]. London: HPA. Available at <http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1204031511121>
4. Spongiform Encephalopathy Advisory Committee. Combining evidence from tissue surveys to estimate the prevalence of subclinical vCJD. SEAC, 2008. Available at <http://www.seac.gov.uk/papers/paper100-2.pdf>

Diary

British Paediatric Surveillance Unit conference: *Celebrating Recent Achievements*, 3 March 2009, London

A conference to celebrate the achievements of the British Paediatric Surveillance Unit of the Royal College of Paediatrics and Child Health on the completion of 22 years of surveillance of rare childhood diseases. The meeting will review the contribution the BPSU has made to the understanding and control of uncommon childhood conditions and will consider the Unit's impact on public health policy and how it has developed partnerships.

Venue:

Jarvis Auditorium
Royal Institute of British Architects
66 Portland Place
London W1B 1AD
(www.ribavenues.com).

Contact for further information or enquiries:

Helen Friend, Research Facilitator
British Paediatric Surveillance Unit, RCPCH
5 Theobalds Road
London WC1 8SH
Telephone: 020 7092 6173 Fax: 020 7092 6001
Email: helen.friend@rcpch.ac.uk.