



Health Protection Report

weekly report

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MMR catch-up programme announced

The Chief Medical Officer has announced an urgent vaccination programme to reduce the risk of a measles epidemic in the United Kingdom (UK)[1]. The need for the programme, announced this week, has been underpinned by research and modelling, conducted by the HPA and based on data supplied to the COVER programme [2], that after many years of sub-optimal vaccination coverage, around 1.9 million school children and 300,000 pre-school children were incompletely vaccinated against measles in England. This suggests that, in many areas of the country, the number of susceptible children has now reached a level where measles transmission could be sustained. The potential therefore exists for an outbreak of between 30,000 and 100,000 cases of measles, with school age children in London being most affected [3].

Cases of measles have also increased this year, with a total of 656 cases confirmed so far in England and Wales with onset dates to the end of June 2008 (figure 1). A total of 450 (69%) cases are in London, but with significant numbers also confirmed in South East (27), East of England (37), North West (49), Yorkshire and Humberside (41), and South West (26) regions. Major outbreaks have been associated with communities with historically low vaccine coverage but large numbers of cases are also now being reported from schools in London. Most cases (494/656, 75%) are in children aged between one and 18 years, with around 95% in those without documented vaccination (figure 2). Cases are mainly associated with an identical genotype D4.measles strain that has now been circulating in the UK for over a year (MVs/Enfield.GBR/14.07).

In response to the predicted epidemic and the increase in measles cases, the CMO recommends that Primary Care Trusts take action to undertake catch-up programmes to immunise children who have not received a full course of vaccination.

Based on the current epidemiology, the first priority is to offer MMR to those aged 13 months to 18 years who have not received MMR vaccine. This group should be called for vaccination before the end of October this year.

Subsequently, primary school children who have received a single dose of MMR vaccine should be called, followed by those of secondary school age. Young adults over 18 years who are leaving school to go to higher education should then be targeted. The Department of Health is supporting PCTs by providing additional funding, supplies of MMR and information materials.

Figure 1. Confirmed cases of measles by month of onset, England and Wales: January 2007 up to 30 June 2008

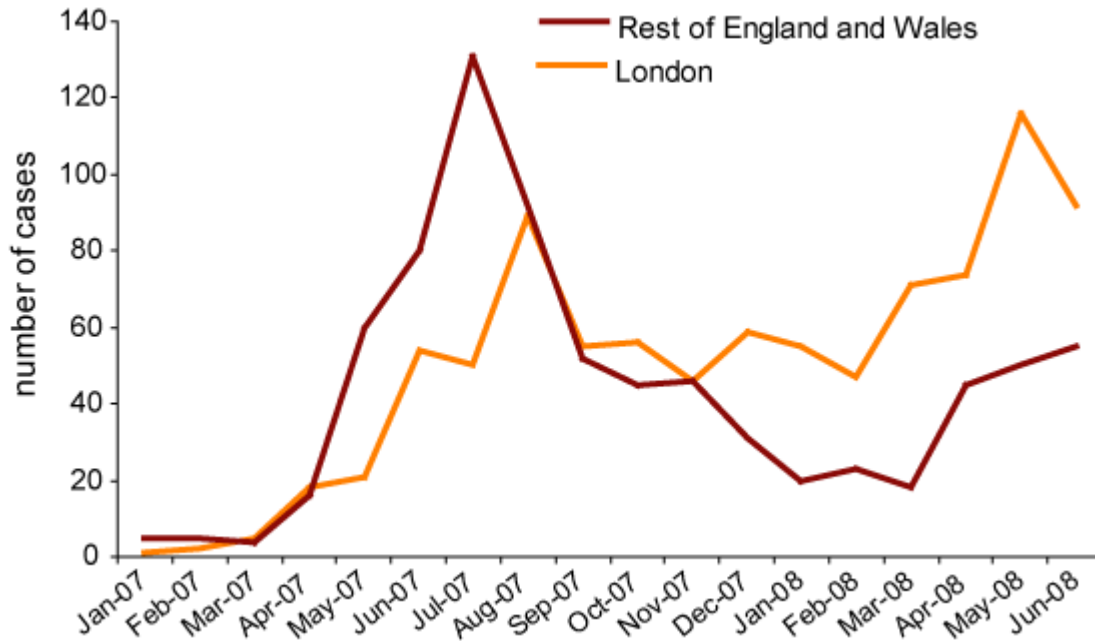
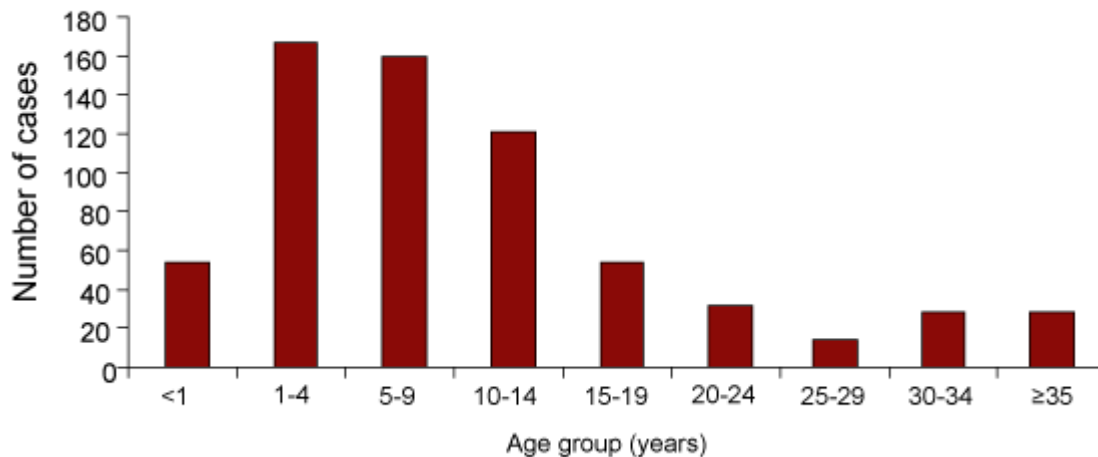


Figure 2. Confirmed cases of measles by age, England and Wales: January to June 2008



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2. COVER (Cover of Vaccination Evaluated Rapidly): a programme for evaluating childhood immunisation. See: <http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1204031507699?p=1204031507699>

3. Choi YH, Gay N, Fraser, Ramsay M. The potential for measles transmission in England. *BMC-Public Health* 2008 (in press).

Salmonella Enteritidis PT12 in England, Wales and N. Ireland: an update

The identification of a suspected outbreak in *Salmonella* Enteritidis PT 12 infections in all regions in England and Wales has been reported previously[1], including a summation of case reports up to 30 July 2008. The decision was taken on 21 July to carry out follow-up investigations and a descriptive epidemiological summary on case reports between 30 July and 7 August is given below.

Between 21 July (when the investigation began) and 7 August, 78 cases of fully-sensitive *S. Enteritidis* PT 12 were identified and reported to the HPA Laboratory of Gastrointestinal Pathogens (LGP).

Cases have a median age of 30 years (range: three months to 91 years) and are distributed across all age groups. Most cases were in the age ranges 10-29 years and 50-59 years (figure 1). Forty three (55%) were female and 35 (45%) male. Over the period, three (4%) cases had a positive travel history, 10 (13%) cases were hospitalised, and there were no deaths.

Figure 1. *S. Enteritidis* cases (21 July to 07 August 2008), age and gender distribution (n=78)

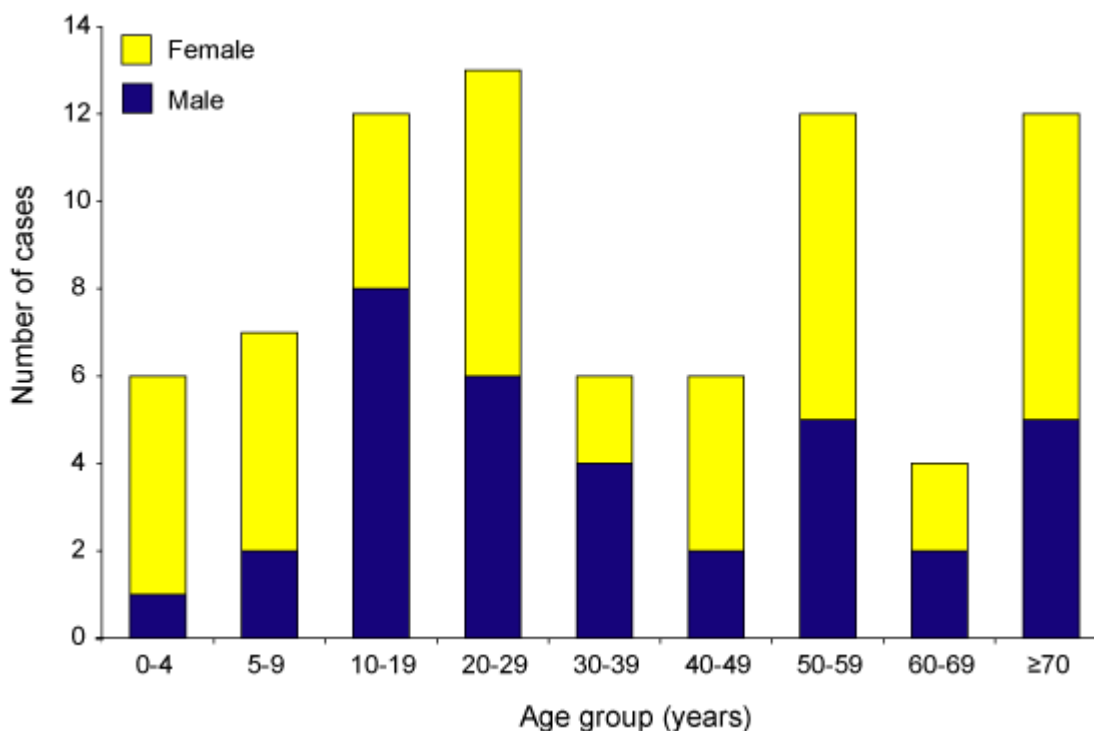


Table 1 *S. Enteritidis* cases (21 July to 07 August 2008), regional distribution

Country/Region	Number of cases
East Midlands	8
East	6
London	3
North East	2
North West	8
South East	9
South West	7
West Midlands	14
Yorkshire and Humberside	16
England subtotal	73
Wales	4
Northern Ireland	1
Total	78

References

1. HPA. Suspected outbreak of *Salmonella* Enteritidis phage type 12 infections in England and Wales, *Health Protection Report* [serial online] 2008;2(31):news. Available at <http://www.hpa.org.uk/hpr/archives/2008/hpr3108.pdf>

Infection reports

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Enteric

- ▶ **General outbreaks of foodborne illness in humans, England and Wales: weeks 27-31/08**
- ▶ **Salmonella infections (faecal specimens), England and Wales: reports to the HPA (Salmonella data set), June 2008**
- ▶ **Common gastrointestinal infections, England and Wales: laboratory reports: weeks 27-31/08**
- ▶ **Typhoid and paratyphoid, England and Wales: laboratory reports, April to June 2008**
- ▶ **General Outbreaks of Infectious Intestinal Disease in England and Wales: 2007**

General outbreaks of foodborne illness in humans, England and Wales: weeks 27-31/08

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
Wales	Campylobacter	Function	July	3	3	–	–
South Yorkshire	<i>Clostridium perfringens</i>	Function	June	4	4	–	–
Northumberland, Tyne & Wear	<i>S. Typhimurium</i> DT104	Restaurant	June	4	4	–	–

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

Details of serotypes of 825 Salmonella infections recorded in June 2008 are given in the table below. In July 2008, 747 Salmonella infections were recorded.

Organism	Cases June 2008
S. Enteritidis PT4	84
S. Enteritidis (other PTs)	315
S. Typhimurium	134
S. Virchow	14
Others (typed)	278
Total Salmonella (provisional data)	825

Common gastrointestinal infections, England and Wales: laboratory reports: weeks 27-31/2008

Laboratory reports	Number of reports received					Total reports	Cumulative total	
	27/08	28/08	29/08	30/08	31/08		27-31/08	01-31/08
<i>Campylobacter</i>	1284	1251	1025	553	83	4196	25504	29411
<i>Escherichia coli</i> O157 *	38	26	15	26	18	113	450	441
<i>Salmonella</i> †	244	207	177	99	92	819	4691	6254
<i>Shigella sonnei</i>	11	13	8	4	2	38	314	596
Rotavirus	75	60	48	21	6	210	12687	12113
Norovirus	29	42	47	16	–	134	3919	3426
<i>Cryptosporidium</i>	46	54	37	34	10	181	1263	1314
<i>Giardia</i>	53	63	49	38	4	207	1598	1580

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

† Data from Health Protection Agency's LGP.

Typhoid and paratyphoid, England and Wales: laboratory reports, April to June 2008

Organism and phage type	Infection acquired abroad				Excreters and carriers
	Number of cases	Yes	No	Not reported	
S. Typhi					
A	5	1	–	4	–
B1	1	–	–	1	–
B2	1	–	–	1	–
C	1	–	–	1	–
D2	4	1	–	3	–
E1	20	9	–	11	–
E12	1	1	–	–	–
E9 variant	21	13	–	8	–
O	1	1	–	–	–
Degraded Vi-Strain	2	2	–	–	–
Degr. Vi-Strain 18	1	1	–	–	–
Vi-Negative	2	2	–	–	–
Untypable Vi-Strain	5	2	–	3	–
Untyp. Vi-Strain 1	4	–	–	4	–
Untyp. Vi-Strain 2	3	–	–	3	–
Untyp. Vi-Strain 7	3	1	–	2	–
Total	76*	34*	–	41*	–
S. Paratyphi A					
1	16	10	–	6	–
1A	4	3	–	1	–
2	11	5	–	6	–
3	4	3	–	1	–
4	10	4	–	6	–
6A	5	3	–	2	–
13	25	14	–	11	–
Untypable	1	1	–	–	–
Total	76*	43*	–	33*	–
S. Paratyphi B					
Dundee	2	1	–	1	–
Total	2	1	–	1	–

* Corrected 12 August 2008

Seventy-five cases of *Salmonella* Typhi infection were reported in the second quarter of 2008. Thirty-four cases were infected abroad (Indian subcontinent 29, Brazil 1, Egypt 1, Philippines 1, abroad country not specified 2). In 41 cases the country of infection was not stated.

Seventy-six cases of *S. Paratyphi* A infection were reported. Forty-three cases were infected abroad (Indian subcontinent 38, Sierra Leone 1, abroad country unspecified 4). In 33 cases the country of infection was not stated.

Two cases of *S. Paratyphi* B infection was reported. One case was infected abroad (Indian subcontinent 1) and in one case the country of infection was not stated.

General outbreaks of infectious intestinal disease in England and Wales: 2007

A total of 619 general outbreaks of infectious intestinal disease in England and Wales were provisionally reported to the Health Protection Agency Centre for Infections during 2007. A minimum dataset was captured for 563 outbreaks (91% response rate).

In total, 11,192 people were affected (mean 20 people), 151 (1.4%) were admitted to hospital and 35 people were reported to have died. Deaths occurred most commonly in outbreaks attributed to Norovirus (9) or *Salmonella* (4).

Norovirus was the most commonly implicated pathogen (table 1) and a viral aetiology was most commonly suspected in those outbreaks of unknown aetiology (141/234; 60%). These outbreaks occurred most frequently in residential institutional settings (eg care or nursing homes), schools and hospitals where person-to-person transmission predominated (table 2).

Salmonella spp. accounted for half of the food-related outbreaks (table 1). Within this group *S. Enteritidis* (20 outbreaks; 44%) was the most commonly reported serotype, with outbreaks due to phage types (PTs) 8 and 14b occurring most frequently. Food-related outbreaks occurred most commonly in commercial catering premises: most often in hotels and restaurants. The seven food-related outbreaks linked to shop retailers were mainly bakeries and sandwich shops.

Table 1. Outbreaks of infectious intestinal disease by pathogen and mode, England and Wales: 2007

Organism	Person to person	Foodborne origin*	Other/ unknown	Total
Norovirus	175	3	20	198
<i>Salmonella</i> spp.	1	22	5	28
Rotavirus	13	–	–	13
VTEC O157 †	6	3	1	10
<i>Clostridium difficile</i>	4	–	1	5
<i>Campylobacter</i> spp.	–	4	–	4
Cryptosporidium	–	–	4	4
Scombrototoxin	–	4	–	4
<i>Clostridium perfringens</i>	–	2	1	3
<i>Giardia lamblia</i>	–	–	2	2
<i>Shigella</i> spp.	–	1	–	1
Mixed aetiology	4	–	–	4
Unknown	234	6	47	287
Total	437	45	81	563

*Foodborne or Foodborne followed by person to person transmission;

† Vero cytotoxin-producing *Escherichia coli* O157

Table 2. Outbreaks of infectious intestinal disease by venue and mode, England and Wales: 2007

Place	Person To person	Foodborne origin*	Other/ unknown	Total
Residential institutions	286	4	30	320
School	67	1	27	95
Hospital	51	2	7	60
Commercial catering premises	16	25	5	46
Club/Centre/Hall	7	2	2	11
Shop Retailer	–	7	–	7
Community	–	2	3	5
Farm	1	–	3	4
Swimming Pool	1	–	2	3
Holiday Camp	2	–	–	2
Armed Services	–	–	1	1
Other	6	2	1	9
Total	437	45	81	563

*Foodborne or Foodborne followed by person to person transmission.

Zoonoses

- ▶ **Common animal associated infections, England and Wales: laboratory reports, weeks 14-26/08**
- ▶ ***Toxoplasma gondii* infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 14 to 26**

Common animal associated infections, England and Wales: laboratory reports, weeks 14-26/08

Organism	Total reports for week 14 - 26		Cumulative totals for weeks 01 - 26	
	2008*	2007	2008*	2007
<i>Borrelia burgdorferi</i> *,#	88	117	170	208
<i>Leptospira hardjo</i> †,##	1	–	1	–
<i>Leptospira icterohaemorrhagiae</i> †,##	6	6	7	14
<i>Leptospira</i> other †,##	6	3	10	5
<i>Pasteurella haemolytica</i>	1	1	1	1
<i>Pasteurella multocida</i>	79	70	160	145
<i>Pasteurella pneumotropica</i>	2	2	3	5
<i>Pasteurella</i> other/ spp	24	16	52	41
<i>Toxocara canis</i>	–	–	–	1
<i>Toxocara</i> other/ spp	–	–	–	–
<i>Toxoplasma gondii</i>	12	11	19	26
<i>Toxoplasma</i> other/ spp§	12	16	17	27
<i>Coxiella burnetii</i>	16	13	23	19
<i>Chlamydia (Chlamydophila) psittaci</i>	13	14	25	19
<i>Capnocytophaga</i> spp	4	4	14	8
<i>Mycobacterium marinum</i>	5	7	5	10
Orf virus	1	–	2	–
<i>Echinococcus granulosus</i>	9	2	13	7

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

Lyme borreliosis (*Borrelia burgdorferi*): (88)

Reports were received from all regions in England and Wales. Fifty-eight per cent 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 characteristically observed in reports of Lyme borreliosis has been maintained.

Eight patients reported overseas travel. The low number of reports in the first six months of 2008 is compared with the same period in 2007 is likely to be due to the recent cold weather resulting in lower levels of tick activity and reduced levels of human outdoor exposure.

One occupational case was reported in a forestry worker and one patient reported frequent occurrences of deer in the garden.

Country visited	Number of cases
Slovenia	1
Germany	2
Italy	1
Poland	1
USA (Eastern seaboard)	1

Leptospirosis: (13)

Indigenous cases (9):

Age group	Males	Females	Total
<10	–	–	–
10-14	–	–	–
15-24	–	–	–
25-44	6	–	6
45-64	3	–	3
≥65	–	–	–
Not stated	–	–	–
Total	9	–	9

Infections were reported from regions throughout England and Wales.
Reported serovars were: Icterohaemorrhagiae (4), Hardjo (1), not determined (4).

Imported cases (4):

Age group	Males	Females	Total
<10	–	–	–
10-14	1	–	1
15-24	–	–	–
25-44	–	–	–
45-64	3	–	3
≥65	–	–	–
Not stated	–	–	–
Total	4	–	4

Countries visited include the Dominican Republic, Nigeria and South East Asia.

Pasteurella: (106)
Pasteurella haemolytica: (1)
Pasteurella multocida: (79)
Pasteurella pneumotropica: (2)
Pasteurella aerogenes: (-)
Pasteurella spp: (24)

Age group	Males	Females	Total
<10	4	1	5
10-14	1	1	2
15-24	1	2	3
25-44	9	7	16
45-64	19	25	44
≥65	18	18	36
Not stated	-	-	-
Total	52	54	106

Twelve patients reported dog bites and six patients reported cat bites and/or scratches; a further two patients reported unspecified animal contact.

Toxocara: (nil report)

Toxoplasmosis: (12)
Toxoplasma gondii: (12)
Toxoplasma spp: (12)

Age group	Males	Females	Total
<1	-	-	-
15-24	4	2	6
25-44	2	12	14
45-64	1	2	3
65-79	-	1	1
Unknown	-	-	-
Total	7	17	24

NB. LabBase reports only, see also Toxoplasma Reference Unit report

Coxiella burnetii: (16)

Age group	Males	Females	Total
15-24	-	-	-
25-44	5	-	5
45-64	7	4	11
≥65	-	-	-
Unknown	-	-	-
Total	12	4	16

Two patients reported atypical pneumonia and one presented with influenza-like illness. Half of all reports were from laboratories in the South West health region of England.

Chlamydia (Chlamydophila) psittaci: (13)

Age group	Males	Females	Unknown	Total
05-09	–	–	–	1
15-24	–	–	–	–
25-44	4	1	1	6
45-64	2	1	–	3
65-79	3	1	–	4
≥80	–	–	–	–
Total	9	3	1	13

One patient, a sheep farmer involved in lambing, presented with fever, lethargy and sweats; one patient had recently worked on a poultry farm. Two patients presented with persistent cough and one with fever and myalgia.

***Capnocytophaga spp:* (4)**

Age group	Males	Females	Unknown	Total
5-9	–	–	1	1
15-24	–	–	–	–
25-44	–	–	–	–
45-64	–	–	–	–
65-79	2	–	1	3
≥80y	–	–	2	–
Total	2	–	2	4

No clinical or epidemiological details were available for these patients.

***Mycobacterium marinum:* (5)**

Age group	Males	Females	Total
25-44	1	1	2
45-64	1	–	1
65-79	1	–	1
NK	–	1	1
Total	3	2	5

No clinical or epidemiological details were available for these patients.

Orf: (1) Female aged between 65 and 79 years

***Echinococcus granulosus* : (9)**

Age group	Males	Females	Unknown	Total
15-24	–	–	–	–
25-44	1	1	–	2
45-64	1	1	–	2
≥65	1	1	–	2
NK	–	–	3	3
Total	3	3	3	9

Toxoplasma gondii infections diagnosed by the Toxoplasma Reference Unit, England and Wales: weeks 14 to 26

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 second quarter of 2008 (weeks 14-26). Further data will continue to be reported quarterly in subsequent issues of *Health Protection Report*.

Reporting of data on a number of HIV-positive individuals is delayed this quarter as the TRU is currently experiencing difficulties in obtaining the ISAGA testing kits required for confirmation of toxoplasmosis in immunocompromised patients. Once current supply problems are resolved the cases from this quarter will be retested and results will be reported in *Health Protection Report*.

Table 1 *Toxoplasma gondii* diagnoses by age group and status, Toxoplasma Reference Unit: weeks 14-26/2008

Age group	Status				Total: wks 14-26/08	Cumulative total: wks 1-26/08
	Acute	Congenital	HIV	Organ recipient/donor		
<0	–	3	–	–	3	3
<1	–	1	–	–	1	2
1-9	3	–	–	–	3	5
10-14	1	–	–	–	1	3
15-24	13	–	2	–	15	28
25-44	45	–	13	1	59	105
45-64	22	–	6	–	28	44
65-79	1	–	–	–	1	3
≥80	1	–	–	–	1	1
Not known	1	–	–	–	1	1
Total	87	4	21	1	113	195

Table 1 describes the age distribution of cases of *T. gondii* infection diagnosed during the second quarter of 2008, by case status. A total of 113 *T. gondii* infections were confirmed by the TRU during weeks 14 to 26 of 2008 (31 March to 29 June). Cases are classified by the TRU using specific laboratory and clinical diagnostic criteria [2, 3].

Of the 117 cases diagnosed, 87 were classed as acute cases of toxoplasmosis in immunocompetent individuals, four were cases of congenital toxoplasmosis (one hydrocephalus in an infant and three congenitally infected fetuses, confirmed post mortem), 21 were in patients with HIV infection, and one was in an organ recipient.

During the same period a total of 24 cases (provisional data) were reported by NHS laboratories to the HPA national surveillance system, compared with 27 for the same period during 2007 [4], and 26 in 2006 [5].

Table 2 *T. gondii* diagnoses by region, Toxoplasma Reference Unit, England and Wales: weeks 14-26/2008

HPA Region	Total: weeks 14-26/2008	Cumulative total: weeks 1-26/2008
East Midlands	2	3
East of England	11	17
London	46	84
North East	3	8
North West	8	12
South East	19	23
South West	8	13
Wales	1	1
West Midlands	7	13
Yorkshire and Humber	8	13
Not known	–	8
Total	113	195

The majority of cases diagnosed by the TRU in the second quarter of 2008 were referred by laboratories in the London (41%) and South East regions (17%) regions.

Table 3. *T. gondii* diagnoses by age and sex, Toxoplasma Reference Unit: weeks 14-26/2008

Age group	Female	Male	Unknown	Total: weeks 14-26/2008	Cumulative total: weeks 01-26/2008
<0	–	–	3	3	3
<1	1	–	–	1	2
1-9	2	1	–	3	5
10-14	1	–	–	1	3
15-24	7	6	2	15	28
25-44	33	24	2	59	105
45-64	18	8	2	28	44
65-79	1	–	–	1	3
>80	–	1	–	1	1
Not known	1	–	–	1	1
Total	64	40	9	113	195

As shown in Table 3, the majority of *T. gondii* infections diagnosed during weeks 14-26 of 2008 were in females (57%), of which the majority were aged 25-44 (52%).

Table 4: Reported symptoms associated with toxoplasma infection, Toxoplasma Reference Unit weeks 14-26/2008

Symptoms	Status				Total: wks 14-26/08	Cumulative total: wks 01-26/08
	Acute	Cong- enital	HIV	Organ recip't/donor		
Lymphadenopathy	56	–	–	–	56	91
Ocular	4	–	–	–	4	7
Probable ocular **	1	–	–	–	1	1
Pyrexia	2	–	–	–	2	4
Tiredness	1	–	–	–	1	2
Hepatitis	1	–	–	–	1	1
Malaise	1	–	–	–	1	1
Asymptomatic	1	–	–	–	1	2
Abnormal LFT's	1	–	–	–	1	1
Organ recipient	–	–	–	1*	1	3
Organ donor	–	–	–	–	–	2
Congenital foetus	–	3	–	–	3	3
Congenital infant	–	–	–	–	–	1
Hydrocephalus	–	1	–	–	1	1
Mother of congenital foetus	2	–	–	–	2	2
Mother of congenital infant	1	–	–	–	1	2
Pregnant	3	–	–	–	3	13
Toxoplasmic encephalitis	–	–	–	–	–	2
Alveolar shadowing	–	–	1	–	1	1
Ring enhancing brain lesions	–	–	1	–	1	1
Neutropenia	–	–	–	–	–	1
Post-viral illness	–	–	–	–	–	1
Renal and respiratory failure	–	–	–	–	–	1
Not given	13	–	19	–	32	51
Total	87	4	21	1	113	195

* bone marrow transplant

** 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 64% of acute cases. Among the cases classed as acute, three were in pregnant women (where congenital toxoplasmosis has not been confirmed in the child to date), two were in pregnant women for whom toxoplasmosis was confirmed in the foetus post mortem, and one was in the mother of an infant with 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.

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Emerging infections

Emerging Infections Update: January - June 2008

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 (Outbreak Verification List, <http://www.who.int/wer/en/>); *Eurosurveillance* (<http://www.eurosurveillance.org/index-02.asp>); the Global Public Health Intelligence Network (GPHIN) early warning system; CIDRAP online (<http://www.cidrap.umn.edu/index.html>); CDC *Morbidity and Mortality Weekly Report* (<http://www.cdc.gov/ncidod/EID/index.htm>) and the wider scientific literature.

Table 1 notable events/incidents of potential public health significance: January to June 2008

Month reported	Incident	Location / Description
January	Chikungunya	Singapore: First local transmission of the virus. Taiwan : Screening at airport finds two travel related cases.
	Community-acquired MRSA USA300	USA: Link with men who have sex with men.
	Ebola Haemorrhagic Fever	Uganda: Report on the containment of the outbreak in Bundibugyo; Modification of ebola virus to make it safer to handle in labs.
	Extensively-drug resistant TB (XDR-TB)	Botswana: First two cases identified
	Influenza	Indonesia, Vietnam, Egypt: H5N1 (human). UK: H5N1 in mute swans. Europe: Oseltamivir resistance in H1N1
	Human malaria caused by <i>P. knowlesi</i>	Malaysia: Monkey parasite shown to infect and cause disease in humans
	Merkel Cell Carcinoma (MCC)	Novel polyomavirus discovered as possible cause of MCC.
	Poliomyelitis	Worldwide: Global case count 2007
	Rabies	Netherlands ex Kenya: Fatal case of Duvenhage virus. Scotland : Results of EBLV survey in bats
	Rift Valley Fever	Sudan: Report of decline in case numbers of large outbreak.
	Undiagnosed neurological illness	USA: Cases associated with working with a compressed air device to process pig brains.
February	<i>Chlamydiae</i> species in trachoma	Evidence for involvement of <i>C. psittaci</i> and <i>C. pneumoniae</i> in cases of trachoma
	Drug-resistant tuberculosis	Worldwide: WHO report detailing MDR and XDR-TB cases.
	Ebola haemorrhagic fever	Uganda: Outbreak declared over.
	Global trends on new and emerging infections.	New research published
	Health effects of climate change	New research published
	Influenza	China , Egypt , Indonesia , Vietnam: Human cases of H5N1
	New arenavirus	Australia: New virus related to lymphocytic choriomeningitis

		viruses identified in organ recipients
	Progressive Inflammatory Neuropathy	USA: Reports of a 13 th case amongst pork processing plant workers
	Rabies	France: Three cases of rabies in dogs in France
	Ricin	USA: Suspected case of ricin poisoning
	Yellow Fever	Paraguay: First autochthonous case in 34 years.
March	Bluetongue	UK: Possible foetal viraemia reported in ruminants
	Dengue fever	Brazil: Increase in cases reported (total 43,528 cases in the state of Rio de Janeiro)
	Hepatitis E	UK: Four confirmed cases of Hepatitis E in passengers returning from a World cruise
	Influenza	Indonesia, Vietnam and Egypt: H5N1 human cases. Indonesia: Simultaneous human infection with human H3N2 and avian H5N1
	<i>Myxozoa anatum</i>	Novel species of fish parasite detected in wildfowl (USA) and shrews (Europe)
	Poliomyelitis	Somalia: Country declared free of polio
	Progressive Inflammatory Neuropathy	USA: 14th case identified
	Rabies	France: Loss of rabies free status USA: Rabid mountain lion attacks boy
	TB	Scotland: Imported XDR-TB case ex Somalia. The UK has confirmed 8 cases of XDR-TB between 1993-2008. USA: TB transmission via organ transplantation.
	Undiagnosed deaths in children	India
	White nosed syndrome, bats	USA: Die-off of bats in caves in Vermont and New York
	Yellow Fever	Argentina and Paraguay
April	Avian influenza	Indonesia and Egypt : H5N1 human cases. China and Pakistan : Possible human-to-human transmission in family clusters.
	Chapare virus	Bolivia: New arenavirus discovered
	Crimean-Congo haemorrhagic fever (CCHF)	Russia and Bulgaria
	Hepatitis E	UK: Update on cruise ship investigation
	Leptospirosis	Peru: Unique species of leptospira identified
	Progressive inflammatory neuropathy	USA: Update on investigation
	Rabies	UK: Rabies in a quarantined dog imported from Sri Lanka. France and Belgium: Rabid dog imported from Gambia
	Rift Valley Fever	Madagascar
	Scrapie	Paper reports possible transmission via milk (ewe to lamb)
May	Avian influenza	Bangladesh: 1 st human case of H5N1. USA: Avian influenza H7 mutation
	CCHF	Russia and Turkey: Increase in cases
	EBLV-2	UK: EBLV-2 in a Daubentons bat
	Global Health Strategy	UK publication
	Global wildlife disease news maps	Launch of new facility
	Hand, Foot and Mouth Disease	China and Mongolia: A large outbreak reported with 61,549 in China and 583 cases in Mongolia.
	Human lymphocytic	USA: Transmission via organ transplantation

	choriomeningitis virus	
	Poliomyelitis	Benin: First case in four years
	Poxviruses	DRC: Monkeypox outbreak, 220 cases. Uganda: Possible novel poxvirus identified
	Psittacosis	UK: Five confirmed and three suspected cases in poultry workers.
	Trichinellosis	Italy ex Romania: Associated with eating raw meat
June	Avian influenza H7N7	UK: Publication of report on June 2008 outbreak
	CCHF	Turkey and Russia: Update on ongoing outbreak. Greece: First fatal case of CCHF recorded in the country
	Hepatitis E	Transmission via organ transplantation and development of chronic infection
	Measles	UK: Measles once again endemic
	MRSA ST398	Scotland: 3 human cases of the community acquired MRSA ST398, normally associated with pigs
	Poliomyelitis	Nigeria: A large outbreak (287 cases) of WPV1 with international spread to Benin and West Niger
	Secure diagnostics for high containment level pathogens	UK: House of Commons report
	Toxoplasmosis	Paper on toxoplasmosis in marine mammals
	Tuberculosis	Namibia: First XDR-TB cases; WHO guidelines for air travel
	Tularemia	USA: Human case reported in Brooklyn , New York
	Undiagnosed fatal illness in children	North Korea
	Vector borne diseases	Europe: Report on epidemiology of tick-borne encephalitis
	Suspected viral haemorrhagic fever	DR Congo: Four fatal cases

Progressive Inflammatory Neuropathy (PIN)

Investigations have continued into the cluster of cases of neurological illness reported in workers at a pork processing plant in Minnesota in early January 2008. A survey of swine slaughterhouses in the US found that only three use the compressed air technique to harvest brain tissue, and following intense investigations cases of PIN have now been identified at all three plants. A total of 24 cases of PIN have now been confirmed, including 18 among workers at the plant in Minnesota, five in Indiana, and one at a plant in Nebraska . The working hypothesis remains that the workers were exposed to a fine mist of brain tissue, leading to the development of an autoimmune response which caused nerve damage.

The compressed air technique is not used for removal of livestock brains at meat processing plants in the UK and no similar cases have been identified here to date.

See: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm57e131a1.htm>

Rabies

Imported rabid dog from Gambia to Belgium and France

Rabies was identified in a dog imported from the Gambia into France and Belgium. The dog was found injured in the Gambia by a Belgian woman, where it was treated by a vet and given a first dose of rabies vaccine. The woman adopted the dog and brought it back to Belgium on 7 April, and then to Var region in SE France on 13 April. The dog developed rabies symptoms on 16 April and died on 21 April.

See: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18856>

Chapare virus

A recent paper describes a newly identified arenavirus, named Chapare virus, which was isolated from the serum of a 22 year old man who died of haemorrhagic fever in Bolivia in January 2004. The patient was part of a small cluster of haemorrhagic fever cases which occurred near Cochabamba, Bolivia, between December 2003 and January 2004. Details of the cluster were sparse and samples were only available from one of the cases, who worked as a tailor and a farmer. The man reported no history of travel and no contact with any case with compatible illness for at least four weeks prior to his disease onset. Clinical

signs included fever, headache, arthralgia, myalgia and vomiting with subsequent deterioration and multiple haemorrhagic signs. Sequence analysis of the virus indicated that it was a unique member of the Clade B New World arenaviruses, most closely related to Sabia virus.
See: Delgado et al (2008) PLOS Pathogens, vol 4, issue 4, e1000047
