



Health Protection Report

weekly report

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Salmonella Agona PT 39: increase in new salmonella strain in UK and Ireland

An increasing number of *Salmonella* Agona isolates showing the same undesignated phage type (PT) pattern have been received by the Health Protection Agency (HPA) Laboratory of Gastroenteric Pathogens (LGP) since February 2008. The pattern remains distinct from any currently recognised patterns in the *S. Agona* phage typing scheme and has been designated PT 39. It has been defined by Pulse Field Gel Electrophoresis (PFGE) profile as SAGOXB.0066. To date, LGP has confirmed 60 human cases of *S. Agona* PT 39 infection in residents of England, Wales and Northern Ireland. All isolates have been characterised as fully sensitive to antibiotics tested.

Cases ranged in age from one to 79 years (median 27.5 years) with 58% of cases male. Cases followed up to date have a national distribution, occurring in all Regions across England, Wales and Northern Ireland.

The HPA Centre for Infections is currently following up cases in England and Wales to determine the source of these infections. The investigation team will continue to conduct patient follow-ups.

Concurrently, Health Protection Scotland and the Health Protection Surveillance Centre of the Irish Republic have detected indigenous cases and are collaborating on a 5 Nations investigation of the source of these infections.

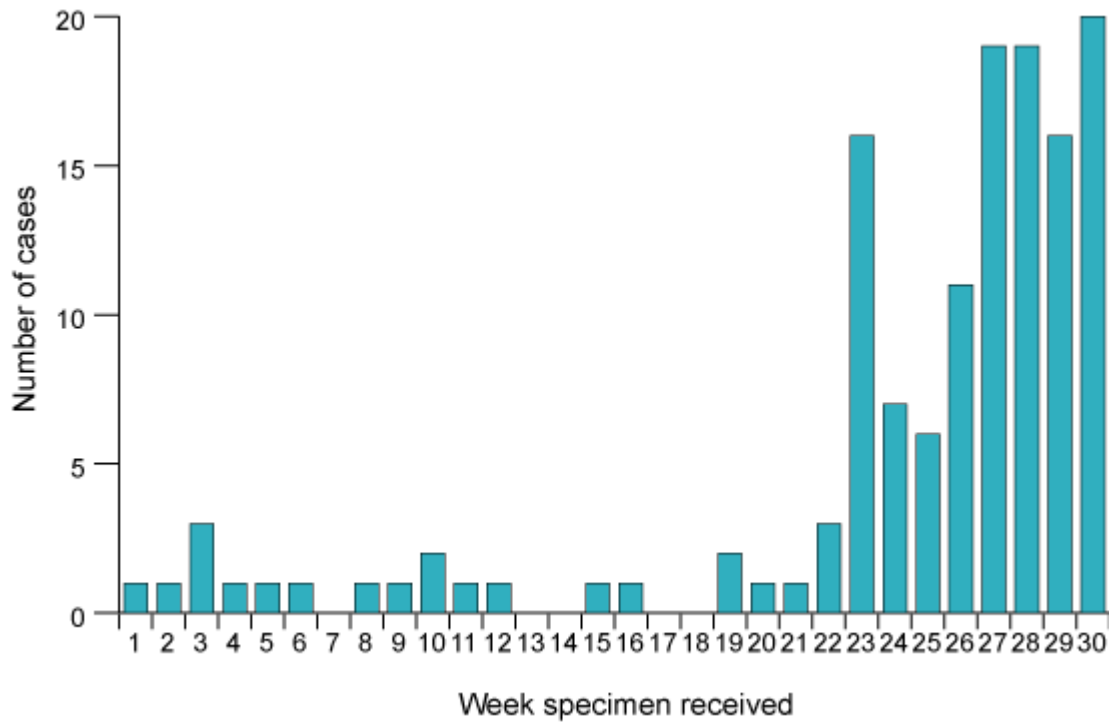
Suspected outbreak of *Salmonella* Enteritidis phage type 12 infections in England and Wales

The Laboratory of Gastrointestinal Pathogens (LGP) has identified an increase in *Salmonella* Enteritidis PT 12 isolates, from all regions in England and Wales, above the seasonally expected value.

Between 2000 and 2007, an average of 106 (24-190) cases of *S. Enteritidis* PT 12 were reported to LGP annually. Between weeks one and 29, the number of reports averaged 43 (6-73) during this period. Eighty eight per cent of isolates were fully sensitive to the panel of antimicrobials tested, with 9.6% resistant to nalidixic acid and with reduced susceptibility to ciprofloxacin (NxCpL).

Between weeks 1 and 30, 2008, LGP has reported on 114 cases of non-travel-related, fully sensitive *S. Enteritidis* PT 12. This figure represents a significant increase on the expected number of reports for the time of year and is suggestive of an on-going outbreak (figure 1).

Figure 1. Reports of non-travel-related, fully sensitive *S. Enteritidis* PT 12 from England and Wales, 2008 (by LGP reception date)



Cases in 2008 have ranged in age from eight months to 94 years (median 26 years) with 54% of cases male. Cases reported to date have a national distribution, occurring in all Regions across England and Wales (see table).

Table. Regional distribution of *S. Enteritidis* PT 12 reports (1 January to 29 July 2008)

Region	All reports	All reports (rate/M*)	Follow-up cases
East Midlands	10	2.29	3
East	10	1.78	5
London	9	1.19	1
North East	3	1.17	–
North West	12	1.75	4
South East	21	2.55	4
South West	3	0.58	3
West Midlands	16	2.98	8
Yorkshire and Humberside	22	4.28	8
England Subtotal	106	2.25	36
Wales	8	2.70	2
Northern Ireland	–	–	–
Total	114		38

* Per million population

The HPA Centre for Infections is currently following up cases reported by LGP on or after 21 July 2008. The investigation team will continue to conduct patient follow-ups and conduct trawling questionnaires.

Infection reports

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Respiratory

► **Laboratory reports of respiratory infections made to Cfl from HPA and NHS laboratories in England and Wales: weeks 27-30/2008**

Laboratory reports of respiratory infections made to Cfl from HPA and NHS laboratories in England and Wales: weeks 27-30/2008

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

Table 1 Reports of influenza infection made to Cfl, by week of report: weeks 27-30/2008

Week	Week 27	Week 28	Week 29	Week 30	Total
Week ending	06/07/08	13/07/08	20/07/08	27/07/08	
Influenza A	2	1	–	5	8
Isolation	–	–	–	–	–
*DIF	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–
PCR	–	–	–	1	1
†Other	2	1	–	4	7
Influenza B	2	2	–	2	6
Isolation	–	–	–	–	–
*DIF	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–
PCR	1	–	–	–	1
†Other	1	2	–	2	5
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'.

Note: During week 30 a backlog of detections were reported from one region. This may have affected the figures for this particular week.

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 27-30/2008

Week	Week 27	Week 28	Week 29	Week 30	Total
Week ending	06/07/08	13/07/08	20/07/08	27/07/08	
Adenovirus*	8	9	14	49	80
Coronavirus	1	1	-	-	2
Parainfluenza†	26	21	23	32	102
Rhinovirus	11	26	20	23	80
Respiratory Syncytial Virus (RSV)	5	4	9	17	35

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

Table 3 Respiratory viral detections by age group: weeks 27-30/2008

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Unknown	Total
Adenovirus*	13	23	10	25	6	3	-	80
Coronavirus	-	-	-	2	-	-	-	2
Influenza A	-	-	-	6	1	1	-	8
Influenza B	-	-	-	3	1	2	-	6
Parainfluenza†	41	22	7	12	17	2	1	102
Rhinovirus	27	17	12	13	9	2	-	80
Respiratory syncytial virus (RSV)	18	5	2	3	3	3	1	35

*Respiratory samples only.
†includes parainfluenza types 1, 2, 3, 4, and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 27-30/2008

Week	Week 27	Week 28	Week 29	Week 30	Total
Week ending	06/07/08	13/07/08	20/07/08	27/07/08	
<i>Coxiella burnetii</i>	2	-	1	-	3
Respiratory <i>Chlamydia</i> sp.*	1	-	4	4	9
<i>Mycoplasma pneumoniae</i>	8	4	7	4	23
Legionella sp.	6	9	8	14	37

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

Table 5a Reports of legionnaires' disease cases in England and Wales, by week of report: weeks 27-30/2008

Week	Week 27	Week 28	Week 29	Week 30	Total
Week ending	06/07/08	13/07/08	20/07/08	27/07/08	
Nosocomial	–	–	1	–	1
Community	4	2	3	10	19
Travel Abroad	2	6	4	2	14
Travel UK	0	1	0	2	3
Total	6	9	8	14	37
Male	5	6	8	10	29
Female	1	3	0	4	8

Thirty seven cases were reported with pneumonia; 29 males aged 42-78yrs and eight females aged 46-78yrs. Nineteen cases had community acquired infection and one acquired infection in hospital. Three deaths were reported in two males aged 59 and 61yrs and a female aged 70yrs.

Seventeen cases were travel-associated: Antigua/United Kingdom (1), France (2), Greece (2), Italy (3), Spain (1), Spain /United Kingdom (1), Thailand (1), Turkey (2), United Kingdom (3) and United States of America (1).

There is now evidence of the usual seasonal rise in reported cases of community-acquired legionnaires' disease and it will be important, given the need for early and appropriate antibiotic therapy, to ensure legionnaires disease is considered in the differential diagnosis of anyone with pneumonia or a pneumonic type illness.

Table 5b Reports of legionnaires' disease cases by region of report in England and Wales: weeks 27-30/2008

Region/Country	Nosocomial	Community	Travel Abroad	Travel UK	Total
North East	–	–	2	–	2
Yorkshire & Humber	–	2	1	–	3
East Midlands	–	1	1	1	3
East of England	–	4	–	–	4
London	–	4	1	–	5
South East	–	2	4	–	6
South West	1	3	2	1	7
West Midlands	–	2	–	–	2
North West	–	1	2	–	3
Wales	–	–	–	1	1
Unknown	–	–	1	–	1
Total	1	19	14	3	37

HIV-STIs

▶ HTLV infection in England and Wales: 2002-2007

HTLV infection in England and Wales: 2002-2007

Analyses of six years of surveillance of human T cell lymphotropic virus (HTLV) infections in England and Wales by the Health Protection Agency's Centre for Infections have shown that infections remain rare in the UK, although relatively higher risk is borne by Caribbean and African ethnic groups. The overall level of infection remains below the peak of 102 cases reported in 2003, when testing of blood donations was introduced (see figure 1).

Surveillance of incidence of HTLV, a retroviral infection, began (in England and Wales) in the late 1980s and was enhanced in 2002 by the routine follow-up of all laboratory reports through clinicians [1]. In August 2002 the National Blood Service (NBS) began testing all blood donations in England and Wales for HTLV, with reports of any infections identified being passed to the routine surveillance scheme.

This update presents surveillance findings for new HTLV diagnoses made in England and Wales between 2002 and 2007, including reports received up to the end of June 2007.

HTLV types I and II are transmissible through breast feeding, sexual contact and blood transfusion, with HTLV-II particularly associated with injecting drug use in Europe. HTLV-I is endemic in the Caribbean, Japan, South America and parts of Africa, with HTLV-II found among some native American groups. An infected individual's lifetime risk of developing disease is low (less than 5%) but the spectrum of clinical illness associated with infection is not fully understood. HTLV-I infection may cause adult T cell lymphoma (ATLL), HTLV-I associated myelopathy/tropical spastic paraparesis (HAM/TSP) and other inflammatory conditions [2]. There is some evidence that HTLV-II infection is also associated with neurological and lymphoproliferative disorders [3].

2002 to 2007 data

A total of 527 new diagnoses of HTLV infection were made over the six-year period (figure 1) of which two-thirds (344/523) were in women. Additional information was available on up to 358 cases.

Of the 358 cases for which ethnicity was reported, 207 (62%) were black Caribbean, 78 (23%) were white, 26 black-African, 14 other/mixed, five black-other and five Indian/Pakistani/Bangladeshi.

Of 253 cases for which route-of-infection information was available, a quarter (64/253) were infected heterosexually, 59 (23%) through mother-to-infant transmission and 103 (41%) through either route.

Of 203 cases for which probable country of infection was reported, 83 (41%) were infected in the UK and 95 (47%) were infected in the Caribbean.

Reports received up to the end of June 2007

Of the 74 new HTLV diagnoses made in England and Wales during 2007, 71% were female. Median age at diagnosis for men was 57 years (reduced from 60 years in 2002) and 53 years for women (51 in 2002).

Of the 69 cases for which the information was available, 60 (87%) were infected with HTLV-I. HTLV-II was the infection involved in 7% of cases while in 6% there was co-infection with both viruses.

Route-of-infection information was available for 28 of the 74 cases, of which: six were infected heterosexually, seven through mother-to-infant transmission and 13 through either route of transmission. Of the 13 infected through either route, six were infected in the Caribbean and seven in the UK.

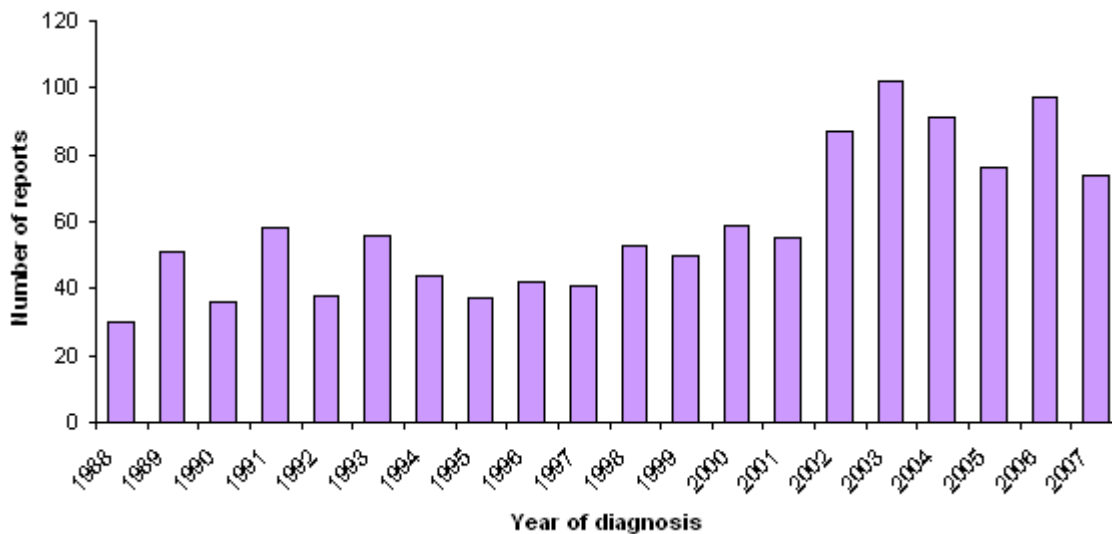
About a third (13/34) of cases tested in 2007 were detected through blood donations, another third (11/34) were symptomatic (seven had ATLL, five HAM/TSP) and the remainder displayed non-HTLV symptoms.

Rates of HTLV infection in England and Wales continue to be much higher among black Caribbeans (approximately 20/100,000 population) compared to 3 and 0.1/100,000 in persons of black-African and white ethnicity, respectively. The increase in cases since 2002 is due to anti-HTLV testing of blood donations. The rate of HTLV infection in blood donations in England and Wales is about 5 per 100,000 donations and, for repeat donors, 0.9 per 100,000 donations.

While most infections diagnosed are directly associated with travel to, or contact with those travelling to, the Caribbean, two in five diagnosed infections were probably acquired in the UK.

There are now three designated sites across England and Wales (London, Birmingham and Manchester) providing specialist investigation, therapy and contact screening services for those infected and their families. Additional prevention strategies of HTLV transmission, for example, screening of donated organs and donated breast milk, need to be considered.

Figure 1: Number of HTLV reports by year of diagnosis: 1988 to 2007



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