



## Infection report

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### Zoonoses

## Common animal associated infections quarterly report (England and Wales) – fourth quarter 2015

This quarterly report, produced by the Emerging Infections and Zoonoses Section at Public Health England, and the Health Protection Division of Public Health Wales, summarises confirmed cases of zoonoses reported in England and Wales between October and December 2015 (fourth quarter; weeks 40-53).

Animal associated infections in England and Wales: laboratory reports to SGSS<sup>†</sup> (unless otherwise specified) by specimen date, Q4 (weeks 40-53/15)

Disease (Organism)	Reports for weeks 01-13		Reports for weeks 14-26		Reports for weeks 27-39		Reports for weeks 40-53		Total for weeks 01-53	
	2015*	2014	2015*	2014	2015*	2014	2015*	2014	2015*	2014
Anthrax ( <i>Bacillus anthracis</i> )	0	0	0	0	0	0	0	0	0	0
Brucellosis ( <i>Brucella spp.</i> )	1	2	5	2	2	4	3	2	11	10
Hepatitis E	206	217	214	250	210	234	218	185	848	886
Hydatid ( <i>Echinococcus granulosus</i> )	9	6	8	2	3	1	3	9	23	18
Leptospirosis ( <i>Leptospira spp.</i> )	10	7	10	9	24	30	27	30	71	76
Lyme borreliosis: ( <i>Borrelia burgdorferi</i> )										
All cases	83	142	102	153	421	300	266	135	872	730
Acute infections	32	60	57	72	340	180	189	74	618	386
Pasteurellosis ( <i>Pasteurella spp.</i> )	139	126	147	163	181	173	174	140	641	602
Psittacosis ( <i>Chlamydophila psittaci</i> )	4	6	11	4	6	6	1	9	22	25
Q-fever ( <i>Coxiella burnetii</i> )	5	10	3	18	7	16	4	11	19	55
Toxoplasmosis# ( <i>Toxoplasma gondii</i> )	88	76	86	96	82	94	81	78	337	344

<sup>†</sup>Second Generation Surveillance System has now replaced LabBase

\* Provisional data

# Based on date specimen received.

## Anthrax

There were no cases reported in the fourth quarter of 2015.

## Brucellosis (data from the Brucella Reference Laboratories)

There were three cases of Brucella reported in the fourth quarter of 2015, compared with two in the fourth quarter of 2014.

Two of the cases were males aged 12 and 29 years and the third was female aged 47 years. One report was confirmed as *Brucella melitensis* biovar 1, one as *B. abortus* biovar 1 and one as *Brucella* spp. All three cases are believed to have been acquired overseas.

## Hepatitis E (data from Public Health Laboratory Birmingham, and Blood Borne Virus Unit Colindale)

There were 218 cases of hepatitis E in the fourth quarter of 2015 compared to 185 in the same quarter of 2014.

One hundred and thirty-six cases (62%) were male (aged 14-87 years, median 60) and 82 (38%) were female (aged 19-87 years, median 59). The persisting observation of the predominance of older men (see table below) remains unexplained. Cases were reported from all regions. The majority of cases (83%, n=180) had no apparent travel history.

There was a total of 848 confirmed cases reported in 2015 compared to 886 in 2014. The number of cases is consistent with the on-going increase observed since 2010<sup>1</sup>.

### Laboratory confirmed cases of Hepatitis E infection (week 40-53, 2015)

Age group	Male	Female	Total
0-14	1	–	1
15-24	1	2	3
25-44	23	17	40
45-64	59	31	90
>64	52	32	84
<b>Total</b>	<b>136</b>	<b>82</b>	<b>218</b>

## Hydatid disease (data from the Parasitology Reference Laboratory)

Three cases of Hydatid disease were reported during the fourth quarter of 2015, compared to nine during the fourth quarter of 2014. One of the cases was a male aged 56 years, one was a male whose age was not recorded and one was a female aged 13 years, with eosinophilia and deranged LFTs. Further clinical and epidemiological details are awaited.

## Leptospirosis (data from the Leptospira Reference Unit)

There were 27 cases of leptospirosis reported in the fourth quarter of 2015, compared with 30 in the fourth quarter of 2014.

Twenty six of the cases were male (age 20-69, median 38.5 years) and one was female (age 25 years). There was one death, in a male aged 69 years. The region that reported the most cases was the South West of England, whilst the East Midlands and Wales reported the fewest (two each). Fourteen of the cases had travelled; six to Thailand; one each to Brazil, Jamaica, Mexico, South East Asia (unspecified), and Switzerland; and three had travelled to more than one country (Costa Rica and Panama; Guatemala and Mexico; all the countries of South America).

Four cases reported exposure to rats: two who work on a farm, one who works with rats, and one who cleaned a ditch that had rats around it. Four others reported exposure to water sources: one case was a

fisherman, one fell into a river and two had exposure to water whilst on holiday (swimming and water rafting). One further case had unspecified exposure to sewage.

**Lyme disease** (data from the Rare and Imported Pathogens Laboratory, Porton)

A total of 266 cases of laboratory confirmed Lyme disease were reported during the fourth quarter of 2015, compared with 135 during the fourth quarter of 2014. Of these cases, 189 were acute (including 30 neuroborreliosis) and 77 were longstanding infections.

Of the acute cases, 101 were male (age 4-90 years, median 48) and 83 were female (age 2-84 years, median 50). Gender was unrecorded for five cases and age was unrecorded for one case.

**Laboratory confirmed acute cases of *Lyme borreliosis* (weeks 40-53, 2015): age group by sex; region of reporting laboratory**

Age group	Male	Female	Unknown	Total
0-14	8	8	–	16
15-24	4	4	–	8
25-34	14	8	1	23
35-44	17	14	–	31
45-54	22	16	3	41
55-64	18	16	–	34
65-67	14	12	–	26
75+	4	5	–	9
Unknown	–	–	1	1
<b>Total</b>	<b>101</b>	<b>83</b>	<b>5</b>	<b>189</b>

Region	Cases
East Midlands	4
East of England	25
London	33
North East	3
North West	15
South East	39
South West	50
Wales	4
West Midlands	7
Yorkshire & Humber	9
<b>Total</b>	<b>189</b>

Eighteen (9.5%) of the acute cases reported foreign travel. The majority of cases had travelled in Europe (n=15), one had travelled in the Americas, one in Asia, and one had visited Sri Lanka and Poland. Seventy two acute cases reported an insect bite, of whom 66 specified a tick bite. Thirty two cases reported erythema migrans as a presenting symptom.

Six cases were reported in a previous HPR report<sup>2</sup> as acute Lyme disease. Subsequent testing has now indicated that these should be classified as neuroborreliosis.

In total, there were 618 acute cases of Lyme disease reported in 2015 (including neuroborreliosis), compared with 386 in 2014.

Note: Specimens sent for Lyme borreliosis referral testing should be accompanied by a completed referral form: <https://www.gov.uk/lyme-borreliosis-service>

## Pasteurellosis

There were 174 confirmed cases of pasteurellosis reported in the fourth quarter of 2015. This compares to 140 reported in the same quarter of 2014. The following species were reported: *Pasteurella multocida* (122 cases), *P. canis* (7 cases), *P. pneumotropica* (3 cases), *Pasteurella* other named (18 cases) and *Pasteurella* sp. (24 cases).

Ninety nine of the cases were female (aged 0-93 years, median=66) and 75 were male (aged 0-105 years, median=61). The South East of England reported the most cases (n=40), and Wales reported the fewest (n=4). Fifteen of the cases were associated with cats (13 with bites, one with a scratch, and one with a scratch or bite) and five with dog bites.

Two of the cases were reported to have died: one was an 80 year old female reported by the North East who had a septic illness, and the second was an 85 year old male reported by London.

The total number of pasteurella cases for 2015 was 641, compared with 602 in 2014.

### Laboratory confirmed cases of pasteurellosis (week 40-53, 2015)

Age group	Male	Female	Total
0-14	6	4	10
15-29	7	6	13
30-39	4	5	9
40-49	6	11	17
50-59	8	12	20
60-69	14	22	36
70-79	14	21	35
80+	16	18	34
<b>Total</b>	<b>75</b>	<b>99</b>	<b>174</b>

## Psittacosis

One case of psittacosis was diagnosed in the fourth quarter of 2015, compared with nine in the fourth quarter of 2014. The case was a 77 year old male reported by the South West of England.

There were 22 cases of psittacosis in 2015 compared with 25 in 2014.

Note: Serological tests for respiratory chlamydia infections cannot consistently distinguish psittacosis. The cases reported above have been identified by reporting laboratories as infection with *Chlamydia psittaci*.

## Q fever (data from the Rare and Imported Pathogens Laboratory, Porton, and Bristol Reference Laboratory)

There were four cases of Q fever reported in the fourth quarter of 2015, compared with 11 in the fourth quarter of 2014. Three were male (aged 47, 57 and 65 years), and one was female (aged 6 years). Two cases were reported by the East of England region, and one each by the East Midlands and London. One case had travelled to Nigeria.

There were 19 cases of Q fever in 2015, compared with 55 in 2014.

## Toxoplasma (Data from the Toxoplasma Reference Unit)

There were 81 cases of toxoplasmosis reported in the fourth quarter of 2015, compared with 78 in the fourth quarter of 2014. Four cases reported ocular symptoms. Nine cases occurred in pregnant women. There was one confirmed congenital case linked to one of the pregnant cases.

In addition, there were two unconfirmed congenital cases reported, both linked to pregnant cases in this quarter.

In total, there were 337 cases of toxoplasmosis reported in 2015, compared with 344 cases in 2014.

**Laboratory confirmed cases of toxoplasma infection (weeks 40-53, 2015): age group by sex; age group by clinical category.**

Age group	Male	Female	Unknown	Total
0	1	–	–	1
1-9	1	–	–	1
10-14	1	–	–	1
15-24	8	5	–	13
25-44	16	32	2	48
45-64	4	8	–	12
>64	2	1	–	3
<b>Total</b>	<b>33</b>	<b>46</b>	<b>2</b>	<b>81</b>

Age group	Con-genital	Pregnant	HIV	Organ donor	Organ recipient	Other (Immuno-competent)	Other (Immuno-suppressed)	Total
0	1	–	–	–	–	–	–	1
1-9	–	–	–	–	–	1	–	1
10-14	–	–	–	–	–	1	–	1
15-24	–	1	–	–	–	12	–	13
25-44	–	8	1	–	–	38	3	50
45-64	–	–	–	–	–	11	1	12
>64	–	–	–	–	1	2	–	3
<b>Total</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>–</b>	<b>1</b>	<b>65</b>	<b>4</b>	<b>81</b>

### Other zoonotic organisms

Other zoonotic infections of interest diagnosed in the fourth quarter of 2015 were as follows:

- four cases of *Capnocytophaga* were reported, two of which were bacteraemic, one was diagnosed by tissue culture and one was diagnosed by culture, sample unspecified. One case was speciated as *Capnocytophaga ochracea*. All four cases were male (aged 34-64 years, median 53). Three of the cases were reported by the South East region and one by London;
- one case of *Corynebacterium ulcerans* was reported, diagnosed by culture from a throat swab. The case was a 21 year old female reported by the East of England;
- three cases of *Erysipelothrix rhusiopathiae* were reported in two males (aged 32 and 35 years) and a female (aged 58 year). Two were bacteraemic and one was diagnosed by culture, sample unspecified. One case was reported by each of the South West, the West Midlands and Yorkshire and the Humber;
- one case of *Francisella tularensis* was reported in a 22 year old female who acquired the infection in Sweden. The case was diagnosed from a pus sample taken from a thigh abscess;
- three cases of *Mycobacterium marinum* were reported in two females (aged 25 and 94 years) and one male (aged 50 years). One had a tissue infection, one had a surgical wound, and the third was diagnosed by biopsy. One case was reported by each of the North East, the South East, and the South West;
- two cases of *Streptococcus suis* were reported in a 79 year old male and an 80 year old female from the South West. Both were diagnosed by blood culture;
- one case of *Streptococcus zooepidemicus* was reported in a bacteraemic 75 year old male. He was reported by the North East.

### References

1. <https://www.gov.uk/government/publications/hepatitis-e-symptoms-transmission-prevention-treatment/hepatitis-e-symptoms-transmission-treatment-and-prevention>
2. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/478807/hpr4115\\_z\\_oos.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478807/hpr4115_z_oos.pdf)