



Infection report

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Zoonoses

Common animal associated infections quarterly report (England and Wales) – third quarter 2016

This quarterly report, produced by the Emerging Infections and Zoonoses Section at Public Health England Centre for Infectious Disease Surveillance and Control, and the Health Protection Division of Public Health Wales, summarises confirmed cases of zoonoses reported in England and Wales between July and September 2016 (third quarter; weeks 27-39).

Animal associated infections in England and Wales: laboratory reports to SGSS[†] (unless otherwise specified) by specimen date, Q3 (weeks 27-39/16)

Disease (Organism)	Reports for weeks 01-13		Reports for weeks 14-26		Reports for weeks 27-39		Total for weeks 01-39	
	2016*	2015	2016*	2015	2016*	2015	2016*	2015
Anthrax (<i>Bacillus anthracis</i>)	–	–	–	–	–	–	–	–
Brucellosis (<i>Brucella spp.</i>)	2	1	7	5	4	2	13	8
Hepatitis E	245	235	287	239	196	230	727	704
Hydatid (<i>Echinococcus granulosus</i>)	10	5	6	2	16	3	32	10
Leptospirosis (<i>Leptospira spp.</i>)	3	8	17	6	32	21	52	35
Lyme borreliosis (<i>Borrelia burgdorferi</i>)								
All cases	110	100	174	146	561	494	845	740
Acute infections	61	36	129	75	469	409	659	520
Pasteurellosis (<i>Pasteurella spp.</i>)	110	139	166	147	169	181	445	467
Psittacosis (<i>Chlamydophila psittaci</i>)	4	4	6	11	4	6	14	21
Q-fever (<i>Coxiella burnetii</i>)	6	5	11	3	11	7	28	15
Toxoplasmosis# (<i>Toxoplasma gondii</i>)	63	88	96	86	84	82	243	256

[†]Second Generation Surveillance System has now replaced LabBase

* Provisional data

Based on date specimen received N/A=Not Available

Anthrax

There were no cases reported in the third quarter of 2016.

Brucellosis (data from the Brucella Reference Laboratories)

Four cases of brucellosis were reported in the third quarter of 2016, compared with two in the third quarter of 2015. Three of the cases were female and one was male, with ages ranging from 47 to 66 years. All were typed as *Brucella melitensis* by APHA, and all of the infections are reported to have been acquired overseas.

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

Please note that earlier this year we undertook a five-year look-back and data-cleaning exercise to ensure that all reference laboratory confirmed cases, including any late-reported cases, are included in the final dataset. The data presented here may therefore not match previous HPR reports.

There were 196 cases of hepatitis E in the third quarter of 2016 compared to 230 in the same quarter of 2015. One hundred and twenty-six cases (64%) were male (aged 13-94 years, median 60) and 64 (33%) were female (aged 21-84 years, median 61). The genders of the remaining six cases were not reported. The total number of cases (n=727) for weeks 01-39 is consistent with the on-going increase observed since 2010¹.

Laboratory confirmed cases of Hepatitis E infection (weeks 27-39, 2016)

Age Group	Male	Female	Unknown	Total
0-14	1	–	–	1
15-24	3	4	1	8
25-44	19	11	3	33
45-64	54	20	1	75
>64	49	29	1	79
Total	126	64	6	196

The persisting observation of the predominance of older men (see table above) remains unexplained.

The majority of cases (n=167; 85%) had no apparent travel history. Non-travel cases were reported from all regions: 40 cases from North of England, 51 cases from Midlands and the East of England, 55 cases from the South of England, eight cases from London and 10 cases from Wales (for three cases the region was unknown).

There is a consistent increasing trend in the number of reference laboratory reported hepatitis E cases with a year-on-year increase since 2010. Additional testing is conducted in local laboratories, but those cases are not reflected in this dataset.

Hydatid disease (data from the Parasitology Reference Laboratory)

Sixteen cases of cystic hydatid disease were reported in the third quarter of 2016, compared with three in the third quarter of 2015. Eight of the cases were males, seven were female, and gender was not stated for one case. The cases had ages ranging from 19 to 81 years. Six cases were reported with hepatic cysts, including one which was a calcified cyst, one patient from Iraq with an abdominal cyst, one patient had a ruptured cyst, and one patient with seizures had polycystic lesions (brain, heart and kidney).

An increase in hydatid disease is being observed in 2016, mostly due to infections imported from the Middle East and Eastern Europe.

Leptospirosis (data from the Leptospira Reference Unit)

There were 32 cases of confirmed leptospirosis reported in the third quarter of 2016, compared with 21 during the third quarter of 2015. Twenty-six of the cases were male (aged 13-84 years, median=30) and nine were female (aged 22-81 years, median=24). The regions reporting the highest number of cases were the South East and the East Midlands (7 cases each).

No cases reported exposure to rats in this quarter, although one was employed as a pest controller. Ten cases reported exposure to water and one reported occupational exposure to sewage. Nineteen cases had travelled abroad, to Thailand (n=4), Cape Verde (n=1), Croatia (n=1), France (n=1), Kenya (n=1), Mexico (n=1), Turkey (n=1), and Ukraine (n=1). One case did not specify a travel country, and seven visited more than one country.

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

A total of 561 cases of laboratory confirmed Lyme disease was reported during the third quarter of 2016, compared with 494 during the third quarter of 2015. Of these cases, 469 were acute (including 27 with neuroborreliosis) and 92 were longstanding.

Of the acute cases, 258 were male (aged 1-82 years, median 45) and 209 were female (aged 2-86 years, median 48) (the remaining two cases had no gender specified).

Forty (8.5%) of the acute cases reported foreign travel: 27 to Europe, five to North America, three to Asia, two to the Middle East, and three had an unspecified travel history. Two hundred and ten cases reported an insect bite, of whom 189 (90%) specified a tick bite. Seventy nine cases reported erythema migrans as a presenting symptom.

Age group	Male	Female	Unknown	Total
0-14	28	20	–	48
15-24	22	20	–	42
25-34	34	30	–	64
35-44	40	22	1	63
45-54	41	36	–	77
55-64	52	38	1	91
65-74	33	32	–	65
75+	7	10	–	17
Unknown	1	1	–	2
Total	258	209	2	469

Region	Cases
East Midlands	11
East of England	31
London	82
North East	14
North West	16
South East	136
South West	119
Wales	13
West Midlands	32
Yorkshire & Humber	15
Total	469

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 169 confirmed cases of pasteurellosis reported in the third quarter of 2016. This compares with 181 reported in the same quarter of 2015. The following species were reported: *Pasteurella multocida* (122 cases), *P. canis* (13 cases), *P. pneumotropica* (3 cases), *Pasteurella* other named (9 cases) and *Pasteurella* sp. (22 cases).

Ninety-six (56.8%) of the cases were female (aged 1-89 years, median 61) and 73 were male (aged 6-90 years, median 57). The South East of England reported the most cases (n=37). Ten of the cases were associated with cat bites, ten with dog bites, and two with unspecified wounds from a cat.

No deaths from pasteurellosis were reported in this quarter.

Laboratory confirmed cases of pasteurellosis (weeks 27-39, 2016)

Age group	Male	Female
0-14	2	2
15-29	2	5
30-39	6	7
40-49	17	15
50-59	13	16
60-69	12	20
70-79	14	15
80+	7	16
Total	73	96

Psittacosis

Four cases of psittacosis were diagnosed in the third quarter of 2016, compared with six in the third quarter of 2015. Three of the cases were female (aged 49, 67 and 69 years), and one was male (aged 48 years). Three of the cases were reported by the East of England, and one by the South West.

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 eleven cases of Q fever reported in the third quarter of 2016, compared with seven in the third quarter of 2015. Six were male (aged 31-77 years, median 54.5) and five were female (aged 28-68 years, median 34). The region reporting the highest number of cases was the South West (n=5).

Toxoplasma (Data from the Toxoplasma Reference Unit)

There were 84 cases of toxoplasmosis reported in the third quarter of 2016, compared with 82 in the third quarter of 2015. Two cases reported ocular symptoms. Eleven cases occurred in pregnant women.

In addition, there were six unconfirmed congenital cases reported, all linked to pregnant cases in this quarter. There was one unconfirmed pregnant case linked to a congenital case reported in this quarter. (The unconfirmed case numbers are not included in figures presented in this report.)

Laboratory confirmed cases of toxoplasma infection (weeks 27-39, 2016): age group by sex; age group by clinical category

Age Group	Male	Female	Unknown	Total
<0	–	–	–	0
0	1	–	–	1
1-9	1	–	–	1
10-14	–	1	–	1
15-24	11	8	–	19
25-44	17	31	2	50
45-64	5	4	–	9
>64	1	2	–	3
Total	36	46	2	84

Age Group	Cong-enital	Pregnant	HIV	Transplant donor	Transplant recipient	Other (immuno-competent)	Other (immune-suppressed)	Total
<0	–	–	–	–	–	–	–	0
0	1	–	–	–	–	–	–	1
1-9	–	–	–	–	–	1	–	1
10-14	–	2	–	–	1	15	1	19
15-24	–	–	–	–	–	1	–	1
25-44	–	8	1	1	–	36	3	49
45-64	–	–	–	–	–	9	–	9
>64	–	–	–	–	1	1	1	3
Total	1	10	1	1	2	63	5	83*

*One case was both pregnant and had HIV, and is not included in the totals shown in this table

Other zoonotic organisms

Other zoonotic infections of interest diagnosed in the third quarter of 2016 were as follows:

- Eight cases of *Capnocytophaga* were reported. All of the cases were bacteraemic. Five of the cases were male (median 76 years) and three were female (median 61 years). Four of the cases were reported by the South East of England, two by the East Midlands, and one each by London and the South West.
- Three cases of *Erysipelothrix rhusiopathiae* and one case of *Erysipelothrix* sp. were reported. Three cases were bacteraemic and one had a cystic lesion. Three of the cases were female (median 62 years) and one was male (74 years). One case was reported in each of: the East of England, the North East, the South East and the West Midlands.
- Three cases of *Mycobacterium marinum* were reported. All were diagnosed by culture of tissue samples. Two of the cases were male (aged 36 and 62 years), and one was female (aged 47 years). One case was reported from each of the East Midlands, London and Yorkshire and Humber.

Reference

1. <https://www.gov.uk/government/publications/hepatitis-e-symptoms-transmission-prevention-treatment/hepatitis-e-symptoms-transmission-treatment-and-prevention>