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Common animal associated infections quarterly report (England and Wales): first quarter 2018

Health Protection Report

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Common animal associated infections (England and Wales): first quarter 2018

This quarterly report, produced by the PHE National Infection Service's emerging infections and zoonoses section and the health protection division of Public Health Wales, summarises confirmed cases of zoonoses reported in England and Wales between January and March 2018 (first quarter; weeks 01-13). This report includes additional information on the quarterly trends for hepatitis E, leptospirosis, and Lyme disease. Table 1 shows the overall case numbers (rolling four-quarters of data) for zoonoses covered in this report.

Table 1. Animal associated infections in England and Wales: rolling four-quarter laboratory reports by specimen date, Q2 2017 – Q1 2018 (weeks 14-52/2017; 1-13/2018) compared to the previous year

Disease (Organism)	Number of Reports								Total for weeks 14(2017)-13(2018)	
	weeks 14-26		weeks 27-39		weeks 40-52		weeks 01-13		2017/8*	2016/7
	2017	2016	2017	2016	2017	2016	2018*	2017		
Anthrax (<i>Bacillus anthracis</i>)	0	0	0	0	0	0	0	0	0	0
Brucellosis (<i>Brucella spp.</i>)	3	7	0	4	0	4	0	2	3	17
Hepatitis E	241	368	229	307	206	221	251	227	927	1123
Hydatid (<i>Echinococcus granulosus</i>)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Leptospirosis (<i>Leptospira spp.</i>)	14	17	32	35	31	17	7	10	84	79
Lyme disease (<i>Borrelia burgdorferi</i>)										
All cases	293	170	724	584	362	267	133	200	1512	1221
Acute infections	209	126	621	483	246	213	64	138	1140	960
Pasteurellosis (<i>Pasteurella spp.</i>)	193	166	209	169	164	161	178 ^o	177	744	673
Psittacosis (<i>Chlamydia psittaci</i>)	N/A	6	N/A	4	N/A	3	N/A	N/A	N/A	N/A
Q-fever (<i>Coxiella burnetii</i>)	2	10	6	10	7	4	3	3	18	27
Toxoplasmosis [†] (<i>Toxoplasma gondii</i>)	63	96	60	84	55	92	79	84	257	356

* Provisional data. [†] Based on date specimen received. ^o *P. Dagmatis* and *P. Stomatis* added into the query from 2018 onwards (accounted for three cases in Q1 2018).

Hydatid data not available due to inconsistencies in surveillance data provided to PHE; these are currently being addressed. Psittacosis data for 2017/18 not available due to an ongoing laboratory reporting issue that is being investigated.

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

The hepatitis E surveillance reports reference laboratory data together with additional cases reported by local laboratories through the Second Generation Surveillance System (SGSS)[1]. The combined datasets provide a more accurate reflection of the number of HEV infected cases reported in England and Wales.

There were 251 cases of hepatitis E in the first quarter of 2018 compared to 227 in the same quarter of 2017. One hundred and fifty-eight (63%) were male (aged 20-93 years, median 56) and 89 (35%) were female (aged 1-88 years, median 53). The age was not known for one female case and gender was not known for four cases (see table 2). The persisting observation of the predominance of older men remains unexplained.

Table 2. Reference and local laboratory confirmed cases of hepatitis E infection (Q1 weeks 1-13, 2018)

Age Group	Male	Female	Unknown	Total
<15	0	3	0	3
15-24	5	3	1	9
25-44	37	22	1	60
45-64	65	35	0	100
>64	51	25	2	78
Unknown	0	1	0	1
Total	158	89	4	251

The total number of newly diagnoses cases of hepatitis E in the rolling year from Q2 2017 to Q1 2018 (n=927) compares to 1123 cases in the same period in the year before (Q2 2016 – Q1 2017) and continues the downward trend observed in the last two years. Previously, between 2010 and 2016 [2], there was an increasing trend in the number of cases of hepatitis E reported by local and reference laboratories.

Leptospirosis (data from the National Leptospirosis Service)

There were seven confirmed cases of leptospirosis reported in the first quarter of 2018, compared to the number of cases (n=10) reported during the first quarter of 2017.

All the cases were male (aged 15-49 years, median 35 years). Cases were reported from the following regions: East Midlands (2 cases), London (2 cases), South East (1 case) and South West (2 cases).

Six cases reported travelling abroad. Three cases visited South East Asia, one case reported travel to the Middle East, one case travelled to Central America and one case visited the Caribbean. Water exposure outside the UK was reported by three cases; two of which had been swimming, and one was exposed to sewage and water pipes.

The pilot enhanced surveillance system for leptospirosis ended in December 2017.

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

A total of 133 cases of laboratory confirmed Lyme disease were reported during the first quarter of 2018, compared with 200 cases reported in the same quarter of 2017. Of the 2018 cases, 64 were acute (including 10 with neuroborreliosis) and 69 were longstanding. Table 3 depicts the reported age group and gender distribution, and Table 4 shows the distribution by region.

Of the acute cases, 25 were male (aged 4-82 years, median 51), 38 were female (aged 5-75 years, median 45). Gender was not reported for one case.

Five (8%) of the acute cases reported foreign travel: two to Africa, one to North America, one to Northern Europe, and one case had an unspecified travel history.

Table 3. Laboratory confirmed acute cases of Lyme disease, by age and sex (Q1 weeks 1-13, 2018)

Age Group	Male	Female	Unknown	Total
0-14	1	3	0	4
15-24	1	4	0	5
25-34	2	7	1	10
35-44	5	4	0	9
45-54	8	6	0	14
55-64	5	7	0	12
65-74	2	6	0	8
75+	1	1	0	2
N/K	0	0	0	0
Total	25	38	1	64

Table 4. Laboratory confirmed acute cases of Lyme disease, by region (Q1 weeks 1-13, 2018)

PHE Centre	Cases
East Midlands	1
East of England	9
London	16
North East	1
North West	3
South East	14
South West	16
Wales	1
West Midlands	2
Yorkshire and Humber	1
Total	64

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

Other zoonotic organisms

Other zoonotic infections of interest diagnosed in the first quarter of 2018 were as follows:

- 12 cases of *Capnocytophaga* spp. were reported, of which five cases (all bacteraemias) were speciated to *C. canimorsus*. Eight cases were male and four cases were female. The cases were reported from the East of England (3), South West (3), London (2), North East (1), East Midlands (1), West Midlands (1) and South East (1).
- Six cases of *Mycobacterium marinum* were reported with an age range of 45-78 years old. Five of the cases were male, and one was female. The cases had a wide geographic distribution in England.
- Two cases of *Erysipelothrix rhusiopathiae* were reported from one female and one male case.
- One case of toxigenic *C. ulcerans* was reported in a female from the North West.

References

1. Oeser *et al* (2017). Using data linkage to improve surveillance methods for acute hepatitis E infections in England and Wales 2010-2016. *Epidemiol Infect* **45**(14): 2886-2889.
2. <https://www.gov.uk/government/publications/hepatitis-e-symptoms-transmission-prevention-treatment/hepatitis-e-symptoms-transmission-treatment-and-prevention>.

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Health Protection Report is a national public health bulletin for England and Wales, published by Public Health England. It is PHE's principal channel for the dissemination of laboratory data relating to pathogens and infections/communicable diseases of public health significance and of reports on outbreaks, incidents and ongoing investigations.

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