



## Infection report

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### Zoonoses

## Common animal associated infections quarterly report (England and Wales): second 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 April and June 2016 (second quarter; weeks 14-26).

**Animal associated infections in England and Wales: laboratory reports to SGSS<sup>†</sup> (unless otherwise specified) by specimen date, Q2 (weeks 14-26/16)**

| Disease (Organism)                                  | Reports for weeks 01-13 |      | Reports for weeks 14-26 |      | Total for weeks 01-26 |      |
|---|-------------------------|------|-------------------------|------|-----------------------|------|
|   | 2016*                   | 2015 | 2016*                   | 2015 | 2016*                 | 2015 |
| Anthrax ( <i>Bacillus anthracis</i> )               | –                       | –    | –                       | –    | –                     | –    |
| Brucellosis ( <i>Brucella spp.</i> )                | 2                       | 1    | 5                       | 5    | 7                     | 6    |
| Hepatitis E   | 245                     | 235  | 275                     | 237  | 520                   | 472  |
| Hydatid ( <i>Echinococcus granulosus</i> )          | 10                      | 5    | 6                       | 2    | 16                    | 7    |
| Leptospirosis ( <i>Leptospira spp.</i> )            | 3                       | 8    | 16                      | 6    | 19                    | 14   |
| Lyme borreliosis<br>( <i>Borrelia burgdorferi</i> ) |                         |      |                         |      |                       |      |
| All cases   | 111                     | 98   | 159                     | 146  | 270                   | 244  |
| Acute infections                                    | 61                      | 37   | 117                     | 75   | 178                   | 112  |
| Pasteurellosis ( <i>Pasteurella spp.</i> )          | 110                     | 139  | 166                     | 147  | 276                   | 286  |
| Psittacosis ( <i>Chlamydophila psittaci</i> )       | 4                       | 4    | 6                       | 11   | 10                    | 15   |
| Q-fever ( <i>Coxiella burnetii</i> )                | 6                       | 5    | 11                      | 3    | 17                    | 8    |
| Toxoplasmosis #<br>( <i>Toxoplasma gondii</i> )     | 63                      | 88   | 96                      | 86   | 159                   | 174  |

† 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 second quarter of 2016.

## Brucellosis (data from the Brucella Reference Laboratories)

There were five cases of *Brucella* infection reported in the second quarter of 2016, the same number as in the second quarter of 2015. All were identified by the Reference Laboratory as *Brucella melitensis*; one initially typed as *Brucella suis* has been reported out as an atypical *B. melitensis*.

The cases occurred in two females and three males ranging in age from 21 to 68 years. All are reported to have acquired their infections overseas; one female who was admitted to hospital with fever and rigors on return to the UK had travelled to join family in Iraq. She reported consumption of unpasteurised milk whilst in Kubala where there is a current outbreak of brucellosis.

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

Please note that we have recently undertaken 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 in this report may therefore not match previous HPR reports.

There were 275 cases of hepatitis E in the second quarter of 2016 compared to 237 in the same quarter of 2015. One hundred and eighty-three cases (66%) were male (aged 18-88 years, median 59) and 83 (30%) were female (aged 24-90 years, median 57). The genders of the remaining nine cases were not reported.

### Laboratory confirmed cases of Hepatitis E infection (weeks 14-26, 2016)

| Age Group    | Male       | Female    | Unknown  | Total      |
|--------------|------------|-----------|----------|------------|
| 0-14         | –          | –         | –        | –          |
| 15-24        | 8          | 1         | 1        | 10         |
| 25-44        | 35         | 21        | 5        | 61         |
| 45-64        | 72         | 37        | 3        | 112        |
| >64          | 68         | 23        | –        | 91         |
| Unknown      | –          | 1         | –        | 1          |
| <b>Total</b> | <b>183</b> | <b>83</b> | <b>9</b> | <b>275</b> |

The persisting observation of the predominance of older men remains unexplained. Cases were reported from all regions. The majority of cases (n=202 (73%)) had no apparent travel history.

There is a consistent increasing trend in the number of reference laboratory reported hepatitis E cases with a year-on-year increase since 2010 [1].

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

There were six cases of hydatid disease reported in the second quarter of 2016, compared with two cases in the second quarter of 2015. Three of the cases were female and 3 were male, with ages ranging from 25 to 81 years. All the infections are reported to have been acquired overseas with one case previously resident in Slovakia. Four cases were reported with hydatid liver cysts. One case had been first diagnosed 22 years previously.

## Leptospirosis (data from the Leptospira Reference Unit)

There were 16 cases of confirmed leptospirosis reported in the second quarter of 2016, compared with six in the same quarter of 2015. Fifteen of the cases were male (aged 9-71 years, median=34), and one adult female was reported. The region reporting the highest number of cases was the South East (n=7).

Two cases reported exposure to rats (including one with a rat bite), and five reported exposure to water. Ten cases had travelled abroad, to Thailand (n=3), Columbia (n=2), Belgium (n=1), Ecuador (n=1), France (n=1), Jamaica (n=1), and Thailand/Cambodia/Vietnam (n=1).

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

A total of 159 cases of laboratory confirmed Lyme disease was reported during the second quarter of 2016, compared with 146 during the second quarter of 2015. Of these cases, 117 were acute (including 17 with neuroborreliosis) and 42 were longstanding.

Of the acute cases, 59 were male (aged 2-77 years, median 43.5) and 56 were female (aged 4-78 years, median 45) (the remaining four cases had no gender specified).

Fourteen (12.1%) of the acute cases reported foreign travel: 12 to Europe, one to the Middle East, and one case had an unspecified travel history. Forty four cases reported an insect bite, of whom 37 (84.1%) specified a tick bite. Fifteen cases reported erythema migrans as a presenting symptom. One case was a possible reinfection.

### Laboratory confirmed cases of Lyme disease (weeks 14-26, 2016): age group by sex; region

| Age Group    | Male      | Female    | Unknown  | Total      |
|--------------|-----------|-----------|----------|------------|
| 0-14         | 11        | 8         | 1        | 20         |
| 15-24        | 4         | 3         | 1        | 8          |
| 25-34        | 5         | 12        | –        | 17         |
| 35-44        | 9         | 4         | –        | 13         |
| 45-54        | 8         | 8         | –        | 16         |
| 55-64        | 7         | 11        | 2        | 20         |
| 65-74        | 9         | 7         | –        | 16         |
| 75+          | 5         | 2         | –        | 7          |
| <b>Total</b> | <b>58</b> | <b>55</b> | <b>4</b> | <b>117</b> |

| Region             | Cases      |
|--------------------|------------|
| East Midlands      | 6          |
| East of England    | 10         |
| London             | 26         |
| North East         | 1          |
| North West         | 9          |
| South East         | 35         |
| South West         | 13         |
| Wales              | 7          |
| West Midlands      | 8          |
| Yorkshire & Humber | 2          |
| <b>Total</b>       | <b>117</b> |

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 166 confirmed cases of pasteurellosis reported in the second quarter of 2016. This compares with 147 reported in the same quarter of 2015. The following species were reported: *Pasteurella multocida* (118 cases), *P. canis* (10 cases), *P. pneumotropica* (3 cases), *Pasteurella* other named (6 cases) and *Pasteurella* sp. (29 cases).

One hundred and one (60.8%) of the cases were female (aged 3-94 years, median 65) and 65 were male (aged 18-93 years, median 55). The South West of England reported the most cases (n=35). Six of the cases were associated with dog bites, 16 with cat bites and two with cat scratches.

A 51 year old woman from London and an 80 year old woman from the South West were reported to have died.

### Laboratory confirmed cases of pasteurellosis (weeks 14-26, 2016)

| Age group    | Male      | Female     |
|--------------|-----------|------------|
| 0-14         | 0         | 2          |
| 15-29        | 3         | 3          |
| 30-39        | 8         | 7          |
| 40-49        | 16        | 14         |
| 50-59        | 10        | 15         |
| 60-69        | 11        | 22         |
| 70-79        | 11        | 24         |
| 80+          | 6         | 14         |
| <b>Total</b> | <b>65</b> | <b>101</b> |

## Psittacosis

Six cases of psittacosis were diagnosed in the second quarter of 2016, compared with 11 in the second quarter of 2015. Three cases were female (ages 47, 62 and 63 years), and three were male (ages 13, 56 and 57 years). Four cases were reported by the South West of England, and two by the West Midlands.

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 11 cases of Q fever recorded in the second quarter of 2016, compared with three cases reported in the second quarter of 2015. Seven were male (aged 41-80 years, median 51) and four were female (aged 63-84 years, median 77). Five were reported by the South West of England, two by the South East, and one each by the East Midlands, London, the North East and the North West.

One death was reported in a 76 year old male.

## Toxoplasma (Data from the Toxoplasma Reference Unit)

There were 96 cases of toxoplasmosis reported in the second quarter of 2016, compared with 86 cases in the second quarter of 2015. Eleven cases reported ocular symptoms. Sixteen 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 14-26, 2016): age group by sex; age group by clinical category**

| Age Group    | Male      | Female    | Unknown  | Total     |
|--------------|-----------|-----------|----------|-----------|
| <0           | 1         | —         | —        | 1         |
| 0            | 2         | 1         | 1        | 4         |
| 1-9          | —         | —         | —        | 0         |
| 10-14        | 1         | —         | —        | 1         |
| 15-24        | 8         | 5         | —        | 13        |
| 25-44        | 21        | 34        | 1        | 56        |
| 45-64        | 8         | 4         | —        | 12        |
| >64          | 5         | 4         | —        | 9         |
| <b>Total</b> | <b>46</b> | <b>48</b> | <b>2</b> | <b>96</b> |

| Age Group    | Cong-<br>enital | Pregnant  | HIV      | Transplant<br>donor | Transplant<br>recipient | Other<br>(immuno-<br>competent) | Other<br>(immune-<br>suppressed) | Total      |
|--------------|-----------------|-----------|----------|---------------------|-------------------------|---------------------------------|----------------------------------|------------|
| <0           | 1               | —         | —        | —                   | —                       | —                               | —                                | 1          |
| 0            | 2               | —         | —        | —                   | —                       | 2                               | —                                | 4          |
| 1-9          | —               | —         | —        | —                   | —                       | —                               | —                                | 0          |
| 10-14        | —               | —         | —        | —                   | —                       | 1                               | —                                | 1          |
| 15-24        | —               | 3         | 1        | —                   | —                       | 9                               | —                                | 13         |
| 25-44        | —               | 12        | 2        | —                   | 1                       | 40                              | 1                                | 56         |
| 45-64        | —               | —         | 2        | —                   | 2                       | 7                               | 1                                | 12         |
| >64          | —               | —         | 1        | —                   | —                       | 7                               | —                                | 8          |
| <b>Total</b> | <b>3</b>        | <b>15</b> | <b>6</b> | <b>0</b>            | <b>3</b>                | <b>66</b>                       | <b>2</b>                         | <b>95*</b> |

\*One case was both pregnant and a transplant recipient and is not included in the totals shown in this table.

### Other zoonotic organisms

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

- Five cases of *Capnocytophaga* were reported. All of the cases were bacteraemic. Four of the cases were female (median age 68.5 years) and one was male (age 65 years). Two of the cases were reported each by the South East of England and North West of England, and one case was reported by London.
- One case of toxigenic *Corynebacterium ulcerans* was reported in a 67 year old female from the South East of England. The same organism was identified in a pet dog.
- Two cases of *Erysipelothrix rhusiopathiae* were reported in males (aged 52 and 78 years) from London and the South East of England. Both were bacteraemic.
- Two cases of *Mycobacterium marinum* in one female from the East of England (aged 11 years) and one male from the East Midlands (aged 66 years). Both were diagnosed by culture of tissue samples.

### Reference

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