Still new chronic Q fever cases diagnosed more than five years after a large Q fever outbreak

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Background: Q fever is caused by the intracellular bacterium *Coxiella burnetii*. After acute infection, 1-5% of patients develop a chronic Q fever infection. Following the 2007-2010 Dutch Q fever outbreak, data from chronic Q fever patients are systematically collected in the Dutch National Chronic Q Fever Database with the previous update dating from 2016. Now, two years later, the long-term outcome of chronic Q fever patients was re-evaluated.

Materials/methods: Patients from 45 participating hospitals with a phase I IgG ≥1:1,024 and/or positive serum PCR were included. Patients were classified as having proven, probable or possible chronic Q fever based on the criteria formulated by the Dutch chronic Q fever consensus group. Chronic Q fever-related complications and mortality were assessed by two authors based on predefined criteria.

Results: From 2009 onwards, 519 chronic Q fever patients were identified with a mean age of 69 years (SD 13) and 75% were male. Of these, 313 (60%) had proven, 81 (16%) probable and 125 possible chronic Q fever. In 2018, 61 (12%) new chronic Q fever patients had been diagnosed since the last update in 2016 (Figure 1). New cases were more often diagnosed with proven than probable or possible chronic Q fever (75% vs. 12% and 13%). The largest observed interval between acute infection and diagnosis of chronic Q fever was 9.2 years. Chronic Q fever-related complications occurred in 213 (68%) patients. In 146 (69%), a complication was present at time of diagnosis. In total, 163 (31%) patients died of whom 86 (17%) definitely or probably related to chronic Q fever. Mortality rate was highest in proven chronic Q fever patients: 83 (27%) died of chronic Q fever-related causes with median time to death of 9 months (IQR, 1-24 months).

Conclusions: New chronic Q fever patients were still diagnosed more than five years after the largest Q fever outbreak ever reported. New cases are more often diagnosed with proven chronic Q fever. The largest observed interval between acute infection and diagnosis of chronic Q fever was 9.2 years.
Chronic Q fever diagnosis

- proven chronic Q fever
- probable chronic Q fever
- possible chronic Q fever

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