

An outbreak of legionnaires' disease in Lyon, France, April-May 2005: preliminary results

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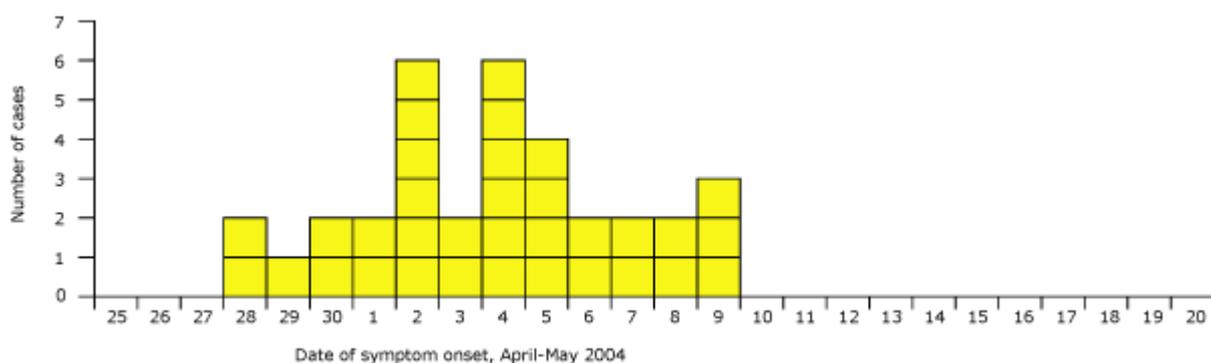
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In May 2005, an outbreak of 34 cases of legionnaires' disease was detected in a suburb of Lyon, in eastern France. All patients presented with symptoms of acute lower respiratory disease, and all tested positive for urinary antigen, indicating a *Legionella pneumophila* Lp1 infection. Patient ages ranged from 39 to 86 years (median age 65 years) and 70% were men. Twenty seven patients were admitted to hospital. No deaths have been reported. The dates of symptom onset ranged from 28 April to 9 May 2005 (Figure). Clinical isolates were obtained from two patients and are currently being tested by the National Reference Laboratory for Legionella.

Figure. Epidemic curve of the legionnaire's disease outbreak, northeast suburbs of Lyon, France, April-May 2005



The epidemiological investigation carried out by the local and national health institutions was based on a standardised questionnaire. Patients were asked about their living and working conditions as well as where they had been during the ten days preceding the onset of symptoms (incubation period for legionnaires' disease is 2-10 days). The environmental investigations were carried out in the same area by the local environmental authorities. All devices that can spread aerosols were tested, including cooling towers, car wash stations and agricultural watering systems. Control measures implemented included the disinfection and shutdown of these systems until further verification.

Preliminary findings showed that 32 patients (94%) lived in, or passed through the two adjacent communes of Caluire-et-Cuire and Rilleux-la-Pape, a residential area located in a northeastern suburb of Lyon. This suggests a common source of infection such as a cooling tower. No additional case was detected during the ten days after the onset of the last cases on 9 May, suggesting that the source may have been interrupted.