

CLUSTERS OF TRAVEL ASSOCIATED LEGIONNAIRES' DISEASE IN FRANCE, 2001-2010

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The European Surveillance Scheme for Travel Associated Legionnaires' disease (TALD) was established with Ewglinet in 1987 to identify cases of LD in returning travellers and clusters/outbreaks of LD. Since 2001, France has applied the European guideline procedure. A cluster of TALD is defined as two or more cases who stayed at or visited a tourist accommodation site between two and 10 days before onset of illness and whose onset is within the same two year period.

From 2001 to 2010, 1767 French sites were notified by Ewgli-Eldsnet to the French surveillance network. Among them, 163 (9.2%) sites were considered as clusters of TALD including 41 sites that were notified more than once. These clusters occurred in 116 hotels, 34 campsites and 13 others tourist accommodation sites. The median delay between the date of onset of the first clustered case and the date of Ewgli-Eldsnet notification was 19 days [3 – 206 days]. These clusters implicated 410 cases [2 - 6 cases per site]. The median length of patients stay was 3 days (1- 62 days). French citizens were involved in 83% of the clusters whereas 47% involved only French. Among the 410 cases, clinical isolates were available for 45 cases (11%) of which 7 (16%) were foreigners and were notified by their respective countries.

Environmental investigations were performed for all sites. Water samples were collected in 159 (98%). *Legionella* was found in 91 sites (57%) and among these, the level was found higher than 10³cfu/litre in 68 (73%). Control measures were implemented or reinforced in all of the sites. Fourteen sites were closed for improvements. Twenty sites were closed for the season period and verified before reopening. Fifteen sites were published on the Ewgli-Eldsnet public website.

Among the 43 sites where clinical isolates were available, 35 (81%) had positive environmental samples. For 26 sites, comparison of clinical and environmental isolates was possible and identical genomic profiles were found in 24. For 6 of the 24 sites, the sample result was under 10³cfu/litre. In the remaining 9 sites comparison was impossible because environmental isolates were not sent to the NRC.

The same study from 2001 to 2005 showed globally similar results but the number of sites where *Legionella* was detected was higher (53/78=68%) in the previous study.

A new regulation introduced in February 2010 recommends an annual sampling for LD in all tourist accommodation sites.

Even if cluster sites represent less than 10% of sites and fewer sites have tested positive for *Legionella* in recent years, the reinforcement of preventive measures in tourist accommodation sites is necessary.