



## LEGIONELLA PNEUMONIA 2003

No. 20, 2004

### Notified cases

In 2003, there were a total of 90 notified cases of Legionella pneumonia, 64 males and 26 females. The median age was 61 years, range 31-93. In 65 cases, the diagnosis was verified, [table 1](#). A predisposing factor was stated for 42 patients. Eleven patients died. A total of 42 (47%) of the notifications were received after a reminder letter had been sent.

**Table 1. No. of notified cases of Legionella pneumonia, 2003**

Category	To- tal	Veri- fied	Disp. fact.	Deaths
Travel-assoc.	26	23	12	1
Nosocomial	15	11	13	4
Others, DK	49	31	17	6
<b>Total</b>	<b>90</b>	<b>65</b>	<b>42</b>	<b>11</b>

The distribution by county of verified cases acquired in Denmark is shown in [table 2](#).

**Table 2. No. and incidence per 10<sup>6</sup> of notified verified cases of Legionella pneumonia acquired in Denmark, 2003 (2002)**

County	Incidence		
	2003	(2002)	per 10 <sup>6</sup>
Cph. Mcp.	5	3	10.0
Frb. Mcp.	1	1	10.9
Cph. County	7	9	11.3
Frederiksborg	6	4	16.1
Roskilde	2	1	8.5
West Zealand	2	1	6.7
Storstrøm	1	0	3.8
Bornholm	0	0	0.0
Funen	1	1	2.1
South Jutland	0	2	0.0
Ribe	1	2	4.5
Vejle	4	5	11.3
Ringkøbing	1	2	3.6
Aarhus	4	6	6.2
Viborg	0	2	0.0
North Jutland	7	2	14.1
Not stated	0	1	0.0
<b>Total</b>	<b>42</b>	<b>(42)</b>	<b>7.8</b>

### Travel-associated /imported cases

A total of 26 cases were travel-associated. Of these, 19 notifications were made to the European Working Group for Legionella Infections (EWGLI). For the remaining seven patients, travel information was so unclear that it could not be reported to EWGLI, or the patients had worked or lived privately abroad. Turkey, Italy, Greece and Spain

were the most frequently registered travel destinations, with a total of 14 (54%) of the travel-associated cases, [table 3](#). One case was related to a stay at a hotel in Denmark.

**Table 3. No. of travel-associated cases of Legionella pneumonia, by country of infection, 2003**

Country of infection	No. of cases
Turkey	5
Italy	3
Greece	3
Spain incl. the Canaries	3
France	2
Germany	2
The Netherlands	1
Denmark	1
Poland	1
Bulgaria	1
Azerbaijan	1
Macedonia	1
Iraq	1
Thailand	1
<b>Total</b>	<b>26</b>

### Suspected nosocomial cases

There were 15 notified cases of nosocomial Legionella pneumonia. Diagnosis was verified for 11 of the 15 cases, including 9 cases by culture of *L. pneumophila*. Four of the notified nosocomial cases died. In addition, there were two unnotified cases, of whom one patient died. For seven patients, distributed among three hospitals, the same type was detected in both the patient and water samples from the hospital.

### Laboratory- diagnosed cases

SSI has knowledge of 89 laboratory-diagnosed cases of Legionella pneumonia in 2003 (verified cases and cases positive by Legionella PCR). The cases were detected at SSI or local clinical microbiological departments. For 12 of these cases, notification was not received. Legionella spp. were isolated from 48 patients. The isolates were distributed into 25 Legionella pneumophila serogroup 1 (17 Pontiac and 8 non-Pontiac), ten sg 3, three sg 4, one sg 6, one sg 12, one sg 14, two sg 15, two *L. long-beachae*, two *L. bozemanii* and one *L. dumoffii*. On the basis of typing of patient isolates and isolates from water, the likely source of infection was in two cases identified as the water supply in the patient's own home, one case to the shower at a work-

place and one case to the water supply at a hotel. Two of the culture-positive cases were not notified.

### Comments

The total number of notified cases and the number of diagnosed cases was a little lower in 2003 compared with 2002. The decrease may be explained by a decline in the number of travel-associated cases. In 2003 the number of culture-verified cases was the highest ever.

### Legionella antibody test (LAT)

At the SSI, a traditional indirect immunofluorescence test is performed to detect antibodies to Legionella. A titre value of 1:256 and above for *L. pneumophila* serogroup 1, 3 and 6 is considered to be a positive result and is interpreted as a sign of recent or previous Legionella infection. Antibodies towards Legionella can persist for months to years after an infection. Furthermore, the infection may be very mild or asymptomatic. Legionella is generally widespread in water installations, and it must be assumed that everybody is regularly exposed to Legionella; thus, there are many who have demonstrable antibodies to Legionella. A titre or 1:256 is thus not diagnostic for Legionnaire's disease, and there is no indication to treat unless the patient simultaneously has pneumonia. Only a significant change (at least a four-fold increase) in the antibody titre to at least 1:128 is a diagnostic of current or recent Legionella infection. (A. Gervelmeyer, K. Mølbak, Department of Epidemiology, S. A. Uldum, Department of Bacteriology, Mycology and Parasitology).

### SARS IN CHINA - UPDATE

The Chinese authorities and WHO state that the diagnosis of SARS has been confirmed for all nine patients who have been under investigation, EPI-NEWS 18/04. The first patients are still thought to have been infected during a stay at the Chinese National Institute for Virology. This is the first outbreak of SARS with person-to-person transmission since the epidemic in 2003. Infection has taken place in three generations, including two researchers, hospital staff, other patients and family members. There are no restrictions on travel to China. (K. Mølbak, Department of Epidemiology)

## Patients with laboratory-diagnosed gonorrhoea, by county and gender

1st quarter of 2004 compared with the corresponding period in 2003

County	1st quarter 2004			1st quarter 2003		
	M	F	Total	M	F	Total
Cph. & Frb. Municipalities	39	5	44	22	5	27
Copenhagen County	7	2	9	5	1	6
Frederiksborg	1	-	1	4	-	4
Roskilde	4	-	4	3	-	3
West Zealand	-	-	-	3	1	4
Storstrøm	1	-	1	1	-	1
Bornholm	-	-	-	-	-	-
Funen	4	2	6	5	1	6
South Jutland	-	-	-	2	-	2
Ribe	2	1	3	1	-	1
Vejle	2	-	2	1	-	1
Ringkøbing	1	1	2	3	-	3
Aarhus	6	-	6	7	1	8
Viborg	-	-	-	-	-	-
North Jutland	3	1	4	1	-	1
Total	70	12	82	58	9	67

(DBMP)