



LEGIONELLA PNEUMONIA 2001

No. 47, 2002

Notified cases

In 2001, there were 103 notified cases of Legionella pneumonia, 63 males and 40 females. The median age was 59 years (range 15-93). The diagnosis was laboratory confirmed in 73 cases, [table 1](#).

Table 1. No. of notified cases of Legionella pneumonia, 2001

Category	Total	Veri- fied	Disp. fact.	Deaths
Travel-assoc.	31	25	8	1
Nosocomial	16	12	10	5
Others, DK	56	36	13	6
Total	103	73	31	12

Legionella pneumonia is confirmed when a case of clinical pneumonia has a positive result of one of the following laboratory investigations: 1) culture, 2) Legionella urine antigen test (LUT) or 3) Legionella antibody test (LAT) (significant rise in antibody titres to L. pneumophila serogroup (SG) 1, 3, or 6. Combinations of other laboratory investigations may also confirm the diagnosis. In 30 cases, the laboratory results supported the diagnosis without being confirmatory. A predisposing factor was stated in 31 (30%) cases while 13 (13%) were previously healthy. Twelve (12%) patients died, of whom at least eight had a predisposing factor identified. Distribution by county of confirmed cases of Legionella pneumonia acquired in Denmark is shown in [table 2](#). A total of 34 (33%) notifications were received following a reminder.

Table 2. Number and incidence per 10⁶ of notified, confirmed cases of Legionella pneumonia acquired in Denmark, 2001 (2000)

County	2001	Incidence (2000)	per 10 ⁶
Cph. Municip.	1	(9)	2.0
Frb. Municip.	0	(3)	0.0
Cph. County	9	(6)	14.6
Frederiksborg	4	(4)	10.9
Roskilde	5	(4)	21.4
West Zealand	1	(2)	3.4
Storstrøm	0	(0)	0.0
Bornholm	2	(0)	45.3
Funen	4	(8)	8.5
South Jutland	0	(2)	0.0
Ribe	4	(0)	17.8
Vejle	3	(4)	8.6
Ringkøbing	3	(4)	11.0
Aarhus	9	(6)	14.0
Viborg	0	(1)	0.0
North Jutland	2	(1)	4.0
Other	1	(1)	-
Total	48	(55)	9.0

Travel-associated cases

In 2001, 34 travel-associated cases (31 notified cases) of Legionella pneumonia, the highest number to date, were registered, [table 1](#). Twelve Danes were involved in eight outbreaks. Eleven patients had been travelling in Turkey, six in Italy, three each in Greece and Spain, and the remaining 11 in Germany, France, the Czech Republic, India, Tunisia, Thailand, Ukraine and Chile/Argentina. EWGLINET, the European Working Group for Legionella Infections Network, became an official surveillance network within the EU in 2001. Guidelines, valid from 1 July 2002 for reporting, handling and prevention of travel-associated legionella pneumonia are accepted by all EU countries, as well as a number of other countries. If an outbreak is associated with a hotel or other place of overnight accommodation, this is published on the EWGLI website, if documentation is not provided within a given period that the necessary investigations and precautions have been implemented. The guidelines are accessible on www.ewgli.org.

Nosocomial cases

All 16 registered cases of nosocomial Legionella pneumonia were notified, [table 1](#). A case is regarded as 'definitely nosocomial' if the onset of illness is within 10 or more days of admission, or within two days upon discharge, and as 'possibly nosocomial' if the onset of illness is two to nine days of admission. Uncertainty about source of infection may however, arise due to patient transfers and re-admissions. This occurred with several cases in 2001, [table 3](#).

Table 3. Nosocomial cases of Legionella pneumonia, by hospital, 2001

Hospital	Definite	Possible	Total
Glostrup	0	1	1
Herlev	1	0	1
Herning	5	2	7
Hvidovre	0	1	1
Køge	1	0	1
Odense	0	1	1
Roskilde	1	0	1
Aalborg	1	0	1
Total	9	7	16

In three patients, the same strain of Legionella was cultured from both patient and hospital water samples. In five of the six 'definitely nosocomial' cases, the diagnosis was confirmed, and in one case, the diagnosis was probable Legionella pneumonia. The diagnosis was confirmed in seven of

the 10 'possibly nosocomial' cases; in the remaining three, the diagnosis was probable. At least 10 patients suffered from another underlying disease or had recently undergone operation. Five patients (31%) died.

Clusters

In 2001, there has been the first documented Danish cluster of legionellosis caused by L. micdadei. This was related to a spa bath in a summer home. The cause was attributed to insufficient use of bactericidal agents. Four persons were affected: three had Pontiac fever and in one, pulmonary infiltration was demonstrated. Water samples from the spa bath showed high bacterial plate counts of both L. micdadei and L. pneumophila. All four patients seroconverted to the isolated L. micdadei.

Laboratory-diagnosis

In 2001, 96 cases of Legionella pneumonia were confirmed at SSI, according to the criteria described in EPI-NEWS 21/95 and 24/96 (confirmed cases plus cases diagnosed by Legionella PCR). Fifteen cases were not notified. A further five cases were confirmed according to the same criteria at local clinical microbiological laboratories, and of these, two cases were not notified. Legionella was isolated by culture from specimens from the lower airways of 35 patients. The distribution of Legionella isolates was as follows: 22 L. pneumophila SG 1 (11 Pontiac and 11 non-Pontiac), four SG 3, two SG 5, two SG 6, four L. micdadei and one L. bozemanii. Four of the culture-positive cases were not notified. (M. Søborg Nielsen, Dept. of Epidemiology, S. Uldum, Dept. of Respiratory Infections, Meningitis & STIs, E. T. Jensen, National Centre for Hospital Hygiene)

HIV/AIDS, 1ST HALF-YEAR 2002

The enclosed HIV/AIDS report reveals that the annual AIDS incidence and mortality are still low. The number of newly detected HIV infections in 2001 was the highest recorded since 1993. This is primarily due to an increase in the number of infected Danish-born men who have sex with men and IV drug abusers, and heterosexually infected immigrants. The number of newly detected HIV infections in the first half of 2002 is at the same level as reported since 1999. (E. Smith, Dept. of Epidemiology)

Patients with laboratory-diagnosed pertussis

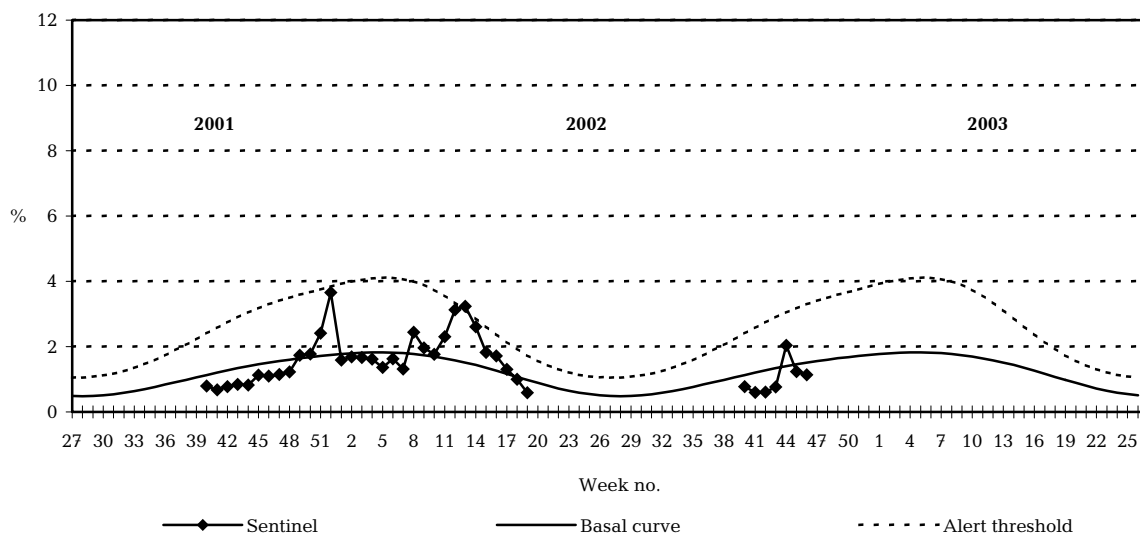
3rd quarter of 2002

	July	August	September	Total
< 2 years	30	43	27	100
2-17 years	113	105	138	356
≥ 18 years	31	33	29	93
Total	174	181	194	549

(Dept. of Respiratory Infections, Meningitis and STIs)

Sentinel surveillance of influenza activity

Weekly percentage of consultations, 2001/2002/2003



Sentinel: Influenza consultations as percentage of total consultations

Basal curve: Expected frequency of influenza consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic

(Dept. of Epidemiology)