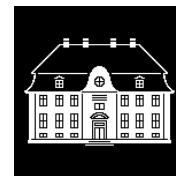


Editor: Tove Rønne

Statens Serum Institut - 5 Artillerivej - 2300 Copenhagen S - Denmark

Tel.: +45 3268 3268 - Fax: +45 3268 3868 - E-mail: serum@ssi.dk - Website: www.ssi.dk

ISSN: 1396-4798



## LEGIONELLA INFECTIONS 1998

No. 2, 2000

## Notified cases

93 cases of Legionella pneumonia were notified in 1998, comprising 33 women and 60 men aged from 21 to 85 years (mean 60.4 years). The diagnosis was confirmed in 84 of the notified cases. Laboratory results supported the diagnosis in the remaining nine cases without being conclusive. Fifteen cases were related to foreign travel, to Mediterranean countries in nine instances. One case is thought to have been part of a larger outbreak in Paris in June-July. Eleven cases were definitely or probably nosocomial and nine were possibly nosocomial, which represents a doubling in relation to 1996/1997, though similar to the level for 1994/95, EPI-NEWS 24/96 and 43/98. The rise is partly attributable to the fact that two hospital outbreaks occurred in 1998 with a total of six notified cases. One of these outbreaks also accounted for two cases in 1999. A predisposing factor was recognized in 50 of the notified cases, while 15 had previously been healthy. At least 17 patients died in connection with the infection; 10 of these were already debilitated, two were previously well, and no predisposing factors were stated for the remaining five cases. The county distribution of the 69 confirmed cases infected in Denmark is shown in Table 1. For the country as a whole there was a fall in the number of notified cases from 1997, while the incidence remained similar to the average for the

**Table 1. Laboratory-confirmed cases of Legionella pneumonia acquired in Denmark 1998, by county. In ( ) nos. for 1997**

County	No. of cases	Incidence per mio.
Cph. Municip.	11 (6)	22.5
Frb. Municip.	0 (1)	0
Cph. County	5 (7)	8.2
Frederiksborg	5 (6)	13.9
Roskilde	2 (6)	8.8
West Zealand	6 (3)	20.5
Storstroem	3 (3)	11.6
Bornholm	0 (0)	0
Funen	8 (13)	17.0
South Jutland	5 (1)	19.7
Ribe	1 (2)	4.5
Vejle	0 (4)	0
Ringkoebing	1 (0)	3.7
Aarhus	12 (19)	19.0
Viborg	1 (2)	4.3
North Jutland	8 (9)	16.2
Other	1 (1)	-
Total	69 (83)	13.0

five preceding years, EPI-NEWS 43/98. In comparison with 1997 more cases were notified from Copenhagen Municipality and West Zealand and South Jutland counties.

## Laboratory-diagnosed infections

Laboratory-diagnosed Legionella infections for 1998 are listed according to the criteria previously described, EPI-NEWS 21-95 and 24/96.

Table 2 only includes patients from whom specimens or strains were received by Statens Serum Institut, including cases that were not notified.

**Table 2. No. of patients with laboratory-diagnosed Legionella infections, 1993-1998**

Year	Cult.	LUT	LAT	PCR	Total*
1993	6	18	26	-	46
1994	16	60	37	-	77
1995	30	59	52	31	94
1996	22	43	29	31	68
1997	43	78	48	64	123
1998	35	61	28	45	85

\* The same patient may be positive in more than one test

## Tracing of infection 1998/99

In 1998/99 it has been possible to use molecular biology-based typing methods to investigate or confirm the source of infection for a total of eight cases of culture-confirmed Legionnaires' disease. Six of the cases were nosocomial, spread over four hospitals. Two were isolated cases in which the source of infection was the domestic water supply.

## Duty to notify

Legionella pneumonia is an individually notifiable disease. In 66 of the 84 laboratory-confirmed cases (79%), notification was only received after a reminder had been sent. This gives rise to concern, particularly as a growing proportion of Legionella diagnosis is being carried out locally and the possibility of sending out notification reminders is thus diminished. To maintain a valid surveillance of Legionella pneumonia it is vital for the treating physician to notify cases without delay.

(Søren Uldum, ALMOS, Solvejg Bang, Dept. of Epidemiol.)

## PONTIAC FEVER 1999

In the summer of 1999, two small outbreaks of Pontiac fever occurred in connection with the use of spa-baths in rented summer-house accommodation. In the first outbreak

eight persons fell ill and two were admitted to hospital, one with Legionella pneumonia. In the second outbreak five developed Pontiac fever after bathing in a spa-bath in which a high colony count of *L. pneumophila* was demonstrated. All five patients were admitted to hospital for observation. Of the total of 13 people affected, five were children, who generally had a milder course of illness than the adults. Both outbreaks were caused by lack of maintenance of the spa-baths with bactericidal agents. As a negative Legionella urine test (LUT) does not exclude Legionella infection, the Legionella antibody test (LAT) is the best method of confirming the diagnosis of Pontiac fever.

(Søren Uldum, ALMOS)

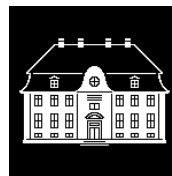
## OUTBREAK OF LEGIONNAIRES' DISEASE IN HOLLAND AND BELGIUM 1999

1999 saw two large outbreaks of Legionnaires' disease in connection with spa-baths displays in Holland, EPI-NEWS 15/99, and Belgium. 242 persons were affected by the Dutch outbreak, of whom 28 died. A similar outbreak occurred in Belgium, where an exhibition (29 Oct. to 7 Nov.) received over 60,000 visitors. At present, 80 persons have been reported with clinical features of Legionnaires' disease, the diagnosis having been confirmed in 13 patients, four of whom have died. No Danish cases have been notified in relation to these two outbreaks.

(Solvejg Bang, Dept. of Epidemiol.)

## INFLUENZA

Sentinel surveillance is indicating an incidence of influenza at about the same level as last week (see overleaf). Reports are not suggestive of a current nationwide epidemic, but there is still the possibility of an incipient epidemic. Up to week 1 inclusive, a total of 69 specimens have been received via the sentinel system. Thirteen influenza A isolates have been found, 10 of which have been subtyped as influenza A/Moscow/10/99 -A/Sydney /5/97- (H3N2)-like. The vaccine for 1999/2000 also provides immunity against this influenza strain. (Steffen Glismann, Dept. of Epidem., Per C. Grauballe, Dept. of Virol.)



## Streptococci isolated from blood and CSF from infected patients

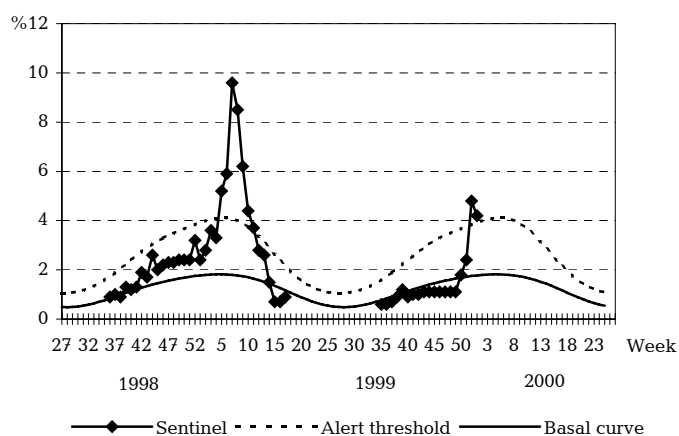
4th quarter 1999 compared with the same period of the two previous years

		1999				1998	1997
		< 2 yrs	2-59 yrs	60 yrs +	Total		
October	S. pneumoniae	5	14	35	54	58	92
	Group A strep.	-	4	1	5	8	8
	Group C strep.	-	-	-	-	1	2
	Group G strep.	-	-	5	5	5	11
November	S. pneumoniae	9	23	51	83	84	82
	Group A strep.	-	3	1	4	4	3
	Group C strep.	-	-	-	-	1	1
	Group G strep.	-	5	6	11	6	4
December	S. pneumoniae	2	24	54	80	125	131
	Group A strep.	1	3	5	9	12	11
	Group C strep.	-	3	-	3	3	-
	Group G strep.	-	-	4	4	6	8
4th quarter	S. pneumoniae	16	61	140	217	267	305
	Group A strep.	1	10	7	18	24	22
	Group C strep.	-	3	-	3	5	3
	Group G strep.	-	5	15	20	17	23

(Streptococcus Unit)

## Influenza activity in sentinel surveillance

Weekly percentage of consultations, 1998/1999/2000



- Sentinel:** Influenza consultations as % of total consultations
- Basal curve:** Expected frequency of influenza consultations under non-epidemic conditions
- Alert threshold:** Possible incipient epidemic

(Dept. of Epidemiology)