

MENINGOCOCCAL DISEASE 1998

No. 6, 2000

In 1998 a total of 165 cases of meningococcal disease (MD) were notified. This is considerably lower than the incidence in 1997 and below the average for the last 10 years, Fig. 1. Age and sex distributions are shown in Table 1. The incidence was highest in 0-2-year-olds, while that in 14-17-year-olds did not differ appreciably from that in 3-13-year-olds. Of the 165 notified patients, 43 had meningitis, 43 septicaemia and 79 both meningitis and septicaemia as clinical manifestations. A total of 10 patients died, corresponding to a mortality of 6%. Nine of these had septicaemia, with or without meningitis. At least two patients developed unilateral deafness and one suffered bilateral hearing loss as a result of MD. In addition, at least six patients developed widespread skin necroses and one had bilateral below-knee amputations. At least two patients developed reactive arthritis. In 38% of cases it proved necessary to send a reminder that written notification was due, EPI-NEWS 5/00.

Table 1. Patients with MD in 1998 by age and sex, incidence per 100,000 and no. of deaths

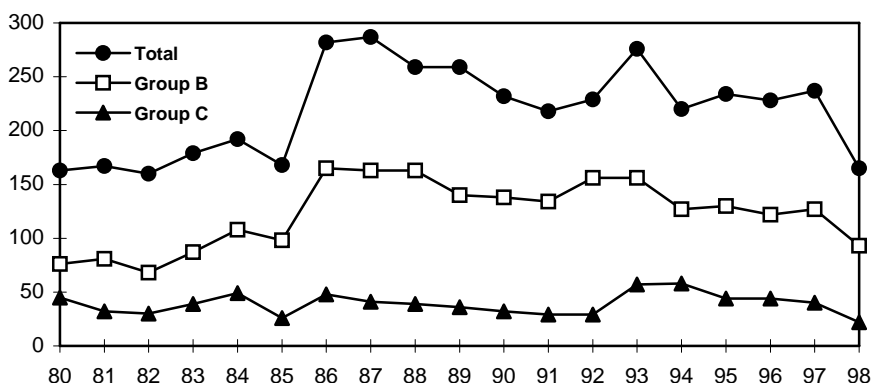
Age (yrs)	M/F		Incidence	Deaths
	Total	ratio		
< 1	11	0.8	16.3	0
1-2	31	2.4	22.3	3
3-6	25	0.7	9.1	2
7-13	30	1.3	7.2	1
14-17	21	1.3	9.4	0
18-29	19	1.7	2.2	1
30-39	7	1.3	0.9	0
40+	21	0.6	0.8	3
<b>Total</b>	<b>165</b>	<b>1.2</b>	<b>3.2</b>	<b>10</b>

Diagnosis

Meningococci were demonstrated by culture in 120 cases (73%). Of the remaining 45 cases the diagnosis was confirmed in 29 (18%) by a positive meningococcal antibody titre (MAT), in five (3%) by counter-immunoelectrophoresis, in two (1%) by microscopy, while nine (5%) were diagnosed on clinical grounds. Serogrouping was performed by the Neisseria Department for 118 of the 120 culture-confirmed cases and showed the following distribution:

Serogroup A:	0	-
Serogroup B:	93	(79%)
Serogroup C:	22	(19%)

Fig. 1. Notified cases of meningococcal disease in Denmark, 1980-1998



Serogroup W135: 0 -  
 Non-groupable (NG): 3 (2%)

County distribution

The county distribution and incidence per 100,000 is shown in Table 2. The incidence was highest in Viborg County, where there were two case clusters, each comprising two patients.

Table 2. No. of patients with MD in 1998 by county, with incidence per 100,000. 1997 incidence in ( )

County	Cases	Incidence
Cph. Municip.	11	2.3 (3.9)
Frb. Municip.	0	- (2.2)
Cph. County	15	2.5 (5.1)
Frederiksborg	13	3.6 (3.6)
Roskilde	10	4.4 (4.8)
West Zealand	9	3.1 (3.8)
Storstrøm	3	1.2 (1.2)
Bornholm	0	-
Funen	18	3.8 (5.3)
South Jutland	5	2.0 (2.8)
Ribe	8	3.6 (5.4)
Vejle	14	4.1 (2.9)
Ringkøbing	9	3.3 (8.5)
Aarhus	21	3.3 (4.9)
Viborg	12	5.1 (6.9)
North Jutland	17	3.4 (3.9)
<b>Total</b>	<b>165</b>	<b>3.1 (4.5)</b>

Case clusters

Five probable secondary cases were notified and four cases were geographically related to a cluster of MD cases that began in 1997:  
 - Two children who lived in the same street were taken ill at an interval of one month, both with group B MD.  
 - Two children from the same kindergarten were taken ill within two days of each other. One was group B

MD, while the other had the diagnosis confirmed by a positive MAT.

- Two pupils at the same grammar school were taken ill at an interval of one month. Both were group B MD.  
 - Two pupils at the same continuation school became ill at an interval of three days. One case was group C MD, while the other was diagnosed clinically.

- Two pupils from the same school were taken ill at an interval of six weeks, the diagnosis being confirmed by a positive MAT in both cases.

- A cluster of cases of group B MD comprising six cases in Middelfart at the end of 1997 and beginning of 1998, EPI-NEWS 39/99, continued with a further two cases in 1998. A 16-year-old girl developed MD, confirmed by a positive MAT, 3½ months after the sixth case. A 17-year-old boy, who had been boyfriend of a girl friend of the 16-year-old girl, developed group B MD after a further 4½ months.

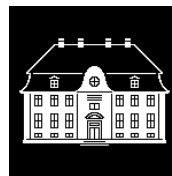
Comments

The reason for the fall in incidence of MD during 1998 is unknown, but is not due to changes in the observance of notification procedures. The incidence during 1999 has continued at the same low level.

(Solvejg Bang, Susanne Samuelsson, Department of Epidemiology)

NEW STAFF

Peter Andersen has been appointed Registrar at the Department of Epidemiology from 1 February 2000.



## Patients with laboratory-confirmed pertussis

4th quarter of 1999 compared with the same quarter of 1998

	October	November	December	4th quarter 1999		4th quarter 1998
< 2 years	19	30	(28)	(77)	(41)	(29)
2-17 years	98	103	(83)	(284)	(157)	(59)
≥ 18 years	7	9	(12)	(28)	(16)	(18)
<b>Total</b>	<b>124</b>	<b>142</b>	<b>(123)</b>	<b>(389)</b>	<b>(214)</b>	<b>(106)</b>

From 01.01.1999 figures comprise all pertussis cases demonstrated by culture or PCR.

Up to and including 1998 figures comprised culture-confirmed cases only.

Culture-confirmed cases are shown in ( ).

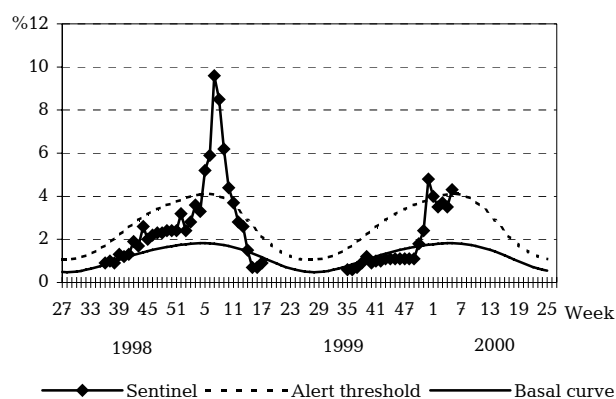
(Dept. of Respiratory Infections, Meningitis and STIs)

## Influenza

Sentinel surveillance is indicating an increase in influenza activity in comparison with previous weeks. The figures apply to the whole country and it is impossible to assess any differences in incidence between counties. The incidence in Denmark is comparable to that of other west European countries.

## 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

## Sentinel specimen-taking 1999/2000

Week	35-01	2	3	4	5
Sentinel specimens received	69	26	17	15	10
Influenza A, untyped			1	2	3
Influenza A - H3N2	16	5	4	3	0

(Dept. of Epidemiology)