EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

Editor: Peter Henrik Andersen
Dept. of Epidemiology
Statens Serum Institut • 5 Artillerivej • DK 2300 Copenhagen S

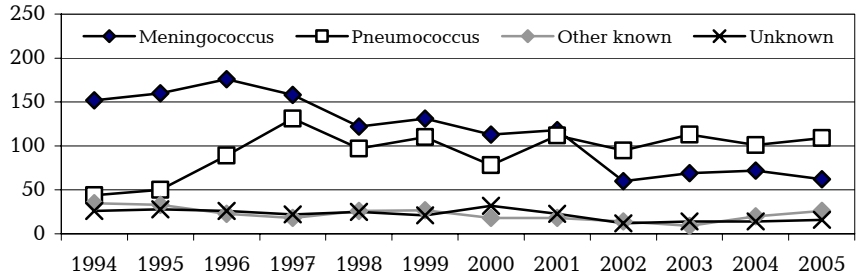
Tel.: +45 3268 3268 • Fax: +45 3268 3874
www.ssi.dk • epinews@ssi.dk • ISSN: 1396-4798

PURULENT MENINGITIS 2005

No. 39, 2006

2005 saw a total of 213 notified cases of purulent meningitis. Figure 1 and Table 1 present distribution by aetiology and age, and age-specific incidence. The occurrence of meningococcal meningitis has formerly been detailed in EPI-NEWS 12/06.

Figure 1. Notified cases of purulent meningitis by bacteriological aetiology, 1994-2005



Pneumococcal meningitis
In 2005, there were 109 notified cases of pneumococcal meningitis, 51 males and 58 females. Reminders were sent for 57 (54%) notifications. A total of 12% of the patients were children <1 year, and 64% were >40 years. For 57 (54%) patients, information concerning at least one predisposing factor was available. A total of 29 patients had otitis media or another infection in the ear-nose-throat region while 11 had pneumonia. One patient had a dural defect, one had a CNS fistula, one had previous head trauma, one had a craniofacial haemangioma, and two had meningitis following intrathecal surgery. Three patients had previously undergone splenectomy: one had been vaccinated three years previously, and in two cases, the vaccination status was unknown. From all three, serotypes covered by the 23-valent pneumococcal polysaccharide vaccine were isolated. One patient who was born spleenless underwent two episodes of meningitis with two different serotypes, two had myelomatosis, one had undergone bone grafting, and one was suspected to suffer from immunodeficiency. Five patients were alcoholics. In all, 20 (18%) patients died in association with the infection, all of whom were >30 years. Among the remaining patients, two developed complete double-sided hearing loss, four developed hearing impairment, one had both legs amputated, one suffered severe neurological damage and one developed reactive arthritis.

Haemophilus influenzae meningitis
There were five notified cases of H. influenzae meningitis, including one type b (Hib). The patient in question was aged 45 years. Two infants aged three and eleven weeks, respectively, fell ill from serotype F. The eldest infant, who was born in the 28th week of gestation, died following the infection. Two patients, aged 72 and 88 years, both had an otogenic focus.

Listeria meningitis
There were three notified cases of listeria meningitis aged 72, 79 and 87 years, respectively. No patients had sequelae.

Streptococcal meningitis
There were eleven notified cases of meningitis caused by haemolytic streptococci: five group B, four group A, one Streptococcus constellatus, and one unspecified case. Two of the streptococci group B patients were infants aged three and four weeks, respectively. None of the two presented signs of sequelae. The remaining group B patients were aged 50, 52 and 57 years, one of these died.
The four patients with group A streptococci were aged 52, 58, 78 and 93 years; one of these died in connection with the infection. A patient aged 74 years was notified with meningitis caused by Streptococcus constellatus following four weeks of aural discharge. A 49-year-old patient was notified with haemolytic streptococci with no grouping information. The patient died in connection with the infection.

Other and unknown aetiology
There were seven notified cases of other bacterial aetiology. An eleven-day-old infant and two adults had E. coli meningitis. Both of the adults died. Three adults, aged 19, 70 and 71 years, had meningitis caused by Staphylococcus aureus. The eldest patient died from the infection. A 74-year-old patient with chronic lymphocytic leukaemia had meningitis caused by Enterococcus faecalis.
There were sixteen notified cases of meningitis with unknown aetiology in patients aged 4-102 years.

Comments
The number of notified cases of meningitis equalled the 2004 level, but fewer meningococcal cases and more streptococcal cases were found. The increase in the number cases caused by haemolytic streptococci may be explained by the 2005 introduction of a new reminder procedure in connection with the notification of the said bacteria when found in cerebrospinal fluid.
(M. Howitz, K. Mølbak, Department of Epidemiology)

27 September 2006

Table 1. Cases of purulent meningitis 2005 (2004) by aetiology, age and age-specific incidence per 10^5

Age (yrs)	Meningo-coccus	Pneumo-coccus	H. influenzae	Listeria	Strepto-coccus	Other	Unknown	Total	Incidence
0	12	13	2	0	2	1	0	30	46.3
1-5	15	9	0	0	0	0	1	25	7.6
6-10	6	4	0	0	0	0	2	12	3.4
11-15	10	2	0	0	0	0	2	14	4.1
16-20	6	1	0	0	0	1	1	9	3.0
21-30	2	2	0	0	0	0	0	4	0.6
31-40	3	7	0	0	0	0	5	15	1.9
41-50	3	9	1	0	2	0	0	15	2.0
51-60	2	17	0	0	4	1	0	24	3.2
61-70	2	26	0	0	0	1	2	31	5.9
71+	1	19	2	3	3	3	3	34	6.4
Total 2005	62	109	5	3	11	7	16	213	3.9
Total 2004	72	101	4	4	4	8	14	207	3.8

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2006 figures are preliminary)

Table 1	Week 38 2006	Cum. 2006 [1]	Cum. 2005 [1]
AIDS	1	32	47
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	1	18	2
Diphtheria	0	0	0
Foodborne diseases	12	396	396
of these, infected abroad	3	96	97
Gonorrhoea	7	325	381
Haemorrhagic fever	0	0	0
Hepatitis A	3	27	48
of these, infected abroad	3	15	16
Hepatitis B (acute)	0	14	29
Hepatitis B (chronic)	3	247	103
Hepatitis C (acute)	0	6	1
Hepatitis C (chronic)	6	375	242
HIV	4	166	201
Legionella pneumonia	4	90	77
of these, infected abroad	1	25	28
Leprosy	0	0	0
Leptospirosis	0	7	10
Measles	1	28	2
Meningococcal disease	0	51	76
of these, group B	0	24	37
of these, group C	0	10	19
of these, unspec. + other	0	17	19
Mumps	0	12	7
Neuroborreliosis	8	52	59
Ornithosis	0	8	17
Pertussis (children < 2 years)	0	35	121
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	1
Listeria monocytogenes	0	6	1
Streptococcus pneumoniae	0	64	88
Other aethiology	0	6	13
Unknown aethiology	0	16	13
Under registration	5	23	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	3	45	81
of these, infected abroad	2	39	64
Syphilis	0	53	97
Tetanus	0	2	2
Tuberculosis	7	291	322
Typhoid/paratyphoid fever	2	24	29
of these, infected abroad	1	21	27
Typhus exanthematicus	0	0	0
VTEC/HUS	3	103	124
of these, infected abroad	1	34	43

[1] *Cumulative number 2006 and in corresponding period 2005*

Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received in SSI laboratories

Table 2	Week 38 2006	Cum. 2006 [2]	Cum. 2005 [2]
Bordetella pertussis			
(all ages)	5	148	392
Gonococci	7	321	332
of these, females	2	57	34
of these, males	5	264	298
Listeria monocytogenes	0	35	28
Mycoplasma pneumoniae			
Resp. specimens [3]	6	299	704
Serum specimens [4]	5	268	585
Streptococci [5]			
Group A streptococci	4	115	87
Group B streptococci	1	71	56
Group C streptococci	1	17	19
Group G streptococci	1	108	92
S. pneumoniae	10	729	837
Table 3	**Week 36 2006**	**Cum. 2006 [2]**	**Cum. 2005 [2]**
Pathogenic int. bacteria [6]			
Campylobacter	103	2195	2577
S. Enteritidis	17	426	448
S. Typhimurium	9	278	389
Other zoon. salmonella	25	475	416
Yersinia enterocolitica	4	125	162
Verocytotoxin-producing E. coli	5	105	113
Enteropathogenic E. coli	7	198	194
Enterotoxigenic E. coli	5	180	268

[2] *Cumulative number 2006 and in corresponding period 2005*

[3] *Resp. specimens with positive PCR*

[4] *Serum specimens with pos. complement fixation test*

[5] *Isolated in blood or spinal fluid*

[6] *See also www.germ.dk*

27 September 2006