



Whooping cough is notifiable in the event of infection in children < 2 years of age, when the case is laboratory confirmed.

2004 saw a total of 228 notified cases of children with whooping cough: 117 boys and 111 girls. Reminders were sent out for 55% of the notifications. The annual incidence for children < 2 years was 176 per 10⁵ in 2004. At county level, the incidence per 10⁵ varied from 0 in the County of Bornholm to 336 in Frederiksborg County, [table 1](#).

Table 1. Notified cases of whooping cough and incidence per 10⁵ in children < 2 years, by county, 2004

County	No.	Incidence per 10 ⁵
Cph. Municipality	28	192
Frb. Municipality	4	151
Copenhagen	17	115
Frederiksborg	30	336
Roskilde	15	258
West Zealand	16	237
Storstrøm	11	218
Bornholm	0	0
Funen	11	105
South Jutland	14	246
Ribe	9	171
Vejle	3	34
Ringkøbing	17	249
Aarhus	18	109
Viborg	12	215
North Jutland	22	198
Other	1	-
Total	228	176

Most notifications took place in the period July-October, where 49% of the cases were diagnosed.

By age distribution, 78 (34%) were < 3 months, 58 (25%) were 3-4 months, 59 (26%) were 5-11 months and 33 (15%) were 12-24 months. Most of the notified cases were confirmed by PCR alone. Since the method was introduced as a routine diagnostic method in 1998, the proportion of notified cases confirmed by this method has increased from 32% in 1998 to 83% in 2004.

Source of infection

The source of infection was unknown for 54% of the notified cases among children. Siblings made up 29%, other family members 8%, infection in child-care institutions < 1%, other known persons 6% and whooping cough in the environment 3%.

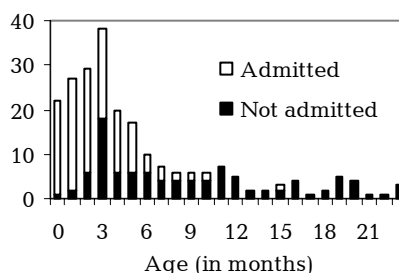
Admission and sequelae

The proportion of children < 6 months

WHOOPING COUGH 2004

admitted due to whooping cough was 75%, compared with 84% in 2002-2003. With the exception of one child of 15 months, all admitted children were < 11 months of age, [figure 1](#). No sequelae were reported after infection with whooping cough.

Fig. 1. Notified cases of whooping cough in children < 2 years, by age and hospital admission, 2004



Vaccination status

Vaccination was shown to protect against hospital admission, [table 2](#). This effect was also present in a supplementary analysis, in which adjustment for the effect of age was made.

Table 2. Notified cases of whooping cough in children < 2 years, by vaccination status and admission, 2004

Vaccination status	Total No.	Admitted	
		No.	%
0 times	103	85	83
1 time	54	28	52
2 times	39	10	26
3 times	23	0	0
Unknown	9	5	56
Total	228	128	56

Comments

The incidence of whooping cough in children < 2 years of age in 2004 was at the same level as the average in the preceding two years, EPI-NEWS 34/04.

Confirmation by the PCR method constitutes the bulk of the diagnostic methods used. The method is more sensitive than culture, and is thought to have contributed to an increased number of confirmed cases of whooping cough in recent years. (A.H. Christiansen, P.H. Andersen, Department of Epidemiology)

POLIO OUTBREAKS IN YEMEN AND INDONESIA

WHO has reported outbreaks of polio virus type 1 in Yemen and Indonesia. Both countries have seen no cases of polio since 1996 and 1995, respectively.

On 20 April 2005, four cases of polio were confirmed in Hudeida in the south-eastern part of Yemen. Up to 29 May, a total of 179 cases were confirmed in 11 provinces, including the capital, Sana'a.

On 21 April 2005, a polio case was confirmed in the district of Sukabuma in West Java, Indonesia. Up to 30 May, a total of 16 cases were confirmed, most from the district of Sukabuma, but also three cases from two other districts, Lebak and Bogor. Genetic analysis of poliovirus in Indonesia suggests origin in West Africa, where the spread occurred in 2003/04. Virus may have been brought to Indonesia via Sudan, and is closely related to the type 1 virus which was detected in Yemen.

Interventions

In Yemen, a national vaccination campaign is planned, with a newly developed monovalent oral polio vaccine (mOPV1).

In Indonesia, vaccination campaigns are planned in the beginning and end of June, with vaccination of 6.4 million children < 5 years of age. No restrictions on travel to Yemen or Indonesia have been introduced, but it is recommended that travellers be fully vaccinated against polio, EPI-NEWS 26-33/03 and 21/05.

Comments

The global effort to eradicate polio suffered a temporary setback in 2003/04, when religiously based distrust to vaccination arose in Nigeria. This led to the spread of polio virus to six formerly polio-free countries in West and Central Africa: Burkina Faso, The Central African Republic, Chad, Ivory Coast, Mali and Sudan. 2004 saw a total of 1,267 recorded cases of polio, including 789 in Nigeria alone. This should be considered in the context of about 350,000 cases worldwide in 1988, when WHO launched the plan to eradicate polio. Polio currently occurs endemically in six countries: Nigeria, Niger, Sudan, Afghanistan, India and Pakistan. In 2005, wild polio virus has been imported to a further four countries: Cameroun, Ethiopia, Yemen and Indonesia.

Further information can be found on www.polioeradication.org. (P.H. Andersen, Department of Epidemiology)

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2005 figures are preliminary)

Table 1	Week 21 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	0	30	13
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	4
Diphtheria	0	0	0
Food-borne diseases	12	129	180
of these, infected abroad	7	30	23
Gonorrhoea	14	227	113
Haemorrhagic fever	0	0	0
Hepatitis A	0	36	60
of these, infected abroad	0	9	9
Hepatitis B (acute)	1	21	15
Hepatitis B (chronic)	2	55	69
Hepatitis C (acute)	0	1	1
Hepatitis C (chronic)	13	128	146
HIV	16	143	122
Legionella pneumonia	2	32	29
of these, infected abroad	0	5	4
Leprosy	0	0	0
Leptospirosis	0	9	1
Measles	0	1	0
Meningococcal disease	0	39	43
of these, group B	0	25	26
of these, group C	0	5	5
of these, unspec. + other	0	9	12
Mumps	1	4	1
Neuroborreliosis	0	17	51
Ornithosis	1	8	2
Pertussis (children < 2 years)	4	80	72
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	1
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	0	54	54
Other aethiology	0	4	3
Unknown aethiology	0	7	9
Under registration	3	26	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	0	37	30
of these, infected abroad	0	33	24
Syphilis	3	45	67
Tetanus	0	2	0
Tuberculosis	5	173	155
Typhoid/paratyphoid fever	0	11	8
of these, infected abroad	0	10	6
VTEC/HUS	4	62	51
of these, infected abroad	0	24	8

¹⁾ Cumulative number 2005 and in corresponding period 2004

Selected laboratory diagnosed infections

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

Table 2	Week 21 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	8	266	296
Gonococci	6	172	130
of these, females	1	25	16
of these, males	5	147	114
Listeria monocytogenes	1	12	21
Mycoplasma pneumoniae			
Resp. specimens ³⁾	2	571	66
Serum specimens ⁴⁾	10	474	175
Streptococci ⁵⁾			
Group A streptococci	3	67	62
Group B streptococci	1	24	31
Group C streptococci	0	8	8
Group G streptococci	6	58	43
S. pneumoniae	25	636	694
Table 3	Week 19 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria ⁶⁾			
Campylobacter	40	708	810
S. Enteritidis	6	129	120
S. Typhimurium	10	120	118
Other zoon. salmonella	13	175	154
Yersinia enterocolitica	6	80	56

²⁾ Cumulative number 2005 and in corresponding period 2004

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

Patients with laboratory diagnosed RSV and rotavirus infections

1st quarter 2005 compared with 1st quarter 2004

	RSV		Rota	
	2005	2004	2005	2004
January	369	72	67	7
February	266	112	116	47
March	111	190	152	64
Total	746	374	335	118

Reported from Departments of Clinical Microbiology at:

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