

TUBERCULOSIS 2003, PART II

No. 48, 2004

Outbreaks

Among notified cases of tuberculosis (TB) in 2003, three outbreaks were recorded, involving at least four patients, all of whom were Danes.

In Storstrøm County, a total of seven patients were part of an outbreak. Two patients were associated with an earlier outbreak of TB among hookah smokers, EPI-NEWS 46/99. Of the seven, three were hookah smokers, one patient was a close contact and three patients had familial connections; two children aged two and five years, respectively, and a father. Another outbreak in Copenhagen County involved five patients; a regular guest at a restaurant, who was also a user of a drop-in centre, had infected an employee at the restaurant and three other users of the centre. A third outbreak involved four patients: two brothers, the five-year old son of one of them, and an acquaintance. The father and his acquaintances were regular hookah smokers. On DNA subtyping, it was confirmed that the persons in the individual outbreaks were part of the same cluster. It has not been clarified whether hookah smoking in itself can be a mode of transmission. (C. Kjelsø, P. H. Andersen, Department of Epidemiology)

Microbiological diagnostics

The diagnosis of TB was verified on culture in 298 of 391 notified cases (76%), which is at the same level as 2001-2002 (75-77%), EPI-NEWS 49/02 and 47/03, but a reduction relative to 1996-2000 (average: 82%). Culture verification among Danes and immigrants was 80% and 74%, respectively. Of 286 notified cases with pulmonary TB (\pm other localisation), 224 (78%) were verified by culture; 112 Danes and 112 immigrants, respectively. Among 112 Danes with culture verified pulmonary TB, 79 (71%) had positive microscopy in at least one respiratory specimen and were thus considered infectious. Among 112 immigrants with culture verified pulmonary TB, 70 (63%) had positive microscopy on at least one respiratory specimen. The corresponding proportions in 2002 were 61% and 43% in Danes and immigrants, respectively. *Mycobacterium bovis* was detected in two patients, both in lymph node biopsies; an elderly Danish man and a younger man of foreign origin.

Resistance

Resistance had been determined for all 296 patients (100%) in whom *M. tuberculosis* was detected on culture; 125 Danes and 171 immigrants. Drug susceptibility testing was performed in 2003 for rifampicin (R), isoniazid (H), ethambutol (E), pyrazinamide (Z) and streptomycin (S). A total of 29 (10%) patients; seven (6%) Danes and 22 (13%) immigrants were found to have TB resistant to at least one of the above-mentioned antituberculous agents. Cases of multi-drug resistant TB (MDR TB) were not detected. The following resistance patterns were detected in 2003: 10 HS, 6 H, 1 HES, 1 HE, 2 E and 9 S. The proportion with streptomycin resistance may be underestimated, as the patients who were notified as sick in 2003, but who did not have drug susceptibility testing performed until 2004, may have undetected streptomycin resistance, since this investigation is no longer performed routinely. (Z. Kamper-Jørgensen, V. Ø. Thomsen, Mycobacteriological Laboratory)

Comments to parts I and II

The declining incidence of TB is primarily due to a declining number of cases among immigrants, while the incidence among Danes is not declining with certainty. HIV co-infection is still very limited in Denmark. As an expression of recent transmission, TB is still seen among children of immigrant families and socially deprived Danish families. In 2003, there were more patients, both in relative and absolute terms, with infectious pulmonary TB, as an expression of the fact that the diagnosis is made later in the course of the disease. Late diagnosis of pulmonary TB is thought to be a significant problem for the control of TB in Denmark. Late diagnosis involves a prolonged infectious period, increased risk of development of resistance and relapse of the disease. For this reason, efforts should be focused on contact tracing and monitoring of treatment. Each infectious pulmonary TB patient is thought to infect 10-15 other persons per year. For monitoring of treatment, monthly culture of sputum is recommended until there is one negative culture. If the patient does not expectorate, gastric lavage may be applied as judged appropriate in the individual

case. For the individual patient with infectious pulmonary TB, investigation of sputum after two months' treatment is an important prognostic factor. Treatment should be applied for a minimum of six months (in the case of sensitive bacteria and good compliance) and should probably continue for three months after the first negative culture. A pulmonary TB patient is designated cured when there is two negative sputum cultures, with an interval of at least four weeks since the last positive sputum culture, EPI-NEWS 48/03. One of these should be from the last or second last month of treatment. It must still be emphasised that patients with pulmonary symptoms consistent with TB are referred for further investigation in the event of failure to respond to conventional treatment. In addition, appropriate contact tracing should be performed in the event of cases of infectious pulmonary TB.

(P. H. Andersen, Department of Epidemiology, V. Ø. Thomsen, Mycobacteriology Laboratory)

ORNITHOSIS 2003

Ornithosis (*psittacosis*) is caused by infection with *Chlamydia psittaci* (*C. psittaci*). In 2003, there were 14 notified cases of *psittacosis*; eight males and six females. The patients were aged between 16 and 63 years, median age 40 years. Six patients were admitted in connection with the infection. In one case, the notification was not received until after a reminder was sent. In four cases, the diagnosis was confirmed by PCR on detection of *C. psittaci* DNA in respiratory secretions. In seven cases, the diagnosis was made likely on the basis of serological investigations. In three cases, the diagnosis could not be excluded, but was not particularly likely. Possible source of infection was stated for ten patients: one worked in a petshop, three worked in the same poultry factory, five had private flocks of chickens or birds, and one had other contact with birds.

For a review of transmission, diagnosis, specimen-taking, clinical findings and treatment, please see EPI-NEWS 6/99.

(A. H. Christiansen, S. Cowan, Department of Epidemiology)

Individually notifiable diseases

No. of notifications received in the Department of Epidemiology, SSI. Figures for 2004 are preliminary.

Table 1	Week 47 2004	Cum. 2004 ¹⁾	Cum. 2003 ¹⁾
AIDS	2	41	33
Cholera	0	1	0
Creutzfeldt-Jakob	1	8	7
Food-borne diseases	12	566	504
of these, infected abroad	2	98	112
Gonorrhoea	14	315	147
Hepatitis A	4	213	71
of these, infected abroad	0	63	37
Hepatitis B (acute)	0	37	39
Hepatitis B (chronic)	3	134	188
Hepatitis C (acute)	1	2	7
Hepatitis C (chronic)	13	242	326
HIV	7	288	233
Legionella pneumonia	4	95	79
of these, infected abroad	1	27	25
Leptospirosis	2	10	3
Meningococcal disease	0	75	92
of these, group B	0	42	48
of these, group C	0	11	20
of these, unspec. + other	0	22	24
Mumps	0	2	3
Neuroborreliosis	3	93	68
Ornithosis	0	6	13
Pertussis (children < 2 years)	7	211	107
Purulent meningitis			
Haemophilus influenzae	0	3	4
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	0	78	97
Other aethiology	0	6	4
Unknown aethiology	0	12	13
Under registration	4	24	-
Shigellosis	5	83	91
of these, infected abroad	3	68	74
Syphilis	1	114	63
Tuberculosis	5	401	373
Typhoid/paratyphoid fever	0	21	28
of these, infected abroad	0	19	22
VTEC/HUS	3	136	110
of these, infected abroad	1	27	28

Selected laboratory-diagnosed infections

Number of specimens, isolates, and/or notifications received at Statens Serum Institut.

Tabel 2.	Week 47 2004	Cum. 2004 ²⁾	Cum. 2003 ²⁾
Bordetella pertussis (all ages)	27	928	468
Gonococci	6	371	227
of these, females	0	45	27
of these, males	6	326	200
Listeria monocytogenes	2	36	25
Mycoplasma pneumoniae			
Resp. specimens 3)	69	459	177
Serum specimens 4)	38	445	466
Pathogenic int. bacteria 5)			
Campylobacter	51	3460	3239
S. Enteritidis	14	504	698
S. Typhimurium	6	421	417
Other zoon. salmonella	8	474	453
Yersinia enterocolitica	7	211	220
Streptococci 6)			
Group A streptococci	1	107	131
Group C streptococci	1	21	20
Group G streptococci	0	94	110
S. pneumoniae	25	1083	1048

Table 1, notes

In 2004, none of the following cases were reported: Anthrax, botulism, diphtheria, haemorrhagic fever, leprosy, measles, plague, typhus, polio, rabies, rubella, tetanus.

1) Cumulative no. in 2004 + in the corresponding period, 2003

Table 2, notes

2) Cumulative no. in 2004 + in the corresponding period, 2003

3) Respiratory specimens with positive PCR

4) Serum specimens with pos. complement fixation test, MPT

5) See also www.germ.dk

6) Isolated in blood or spinal fluid

Patients with laboratory diagnosed RSV and rotavirus infections

3rd Quarter 2004 compared with 3rd Quarter 2003

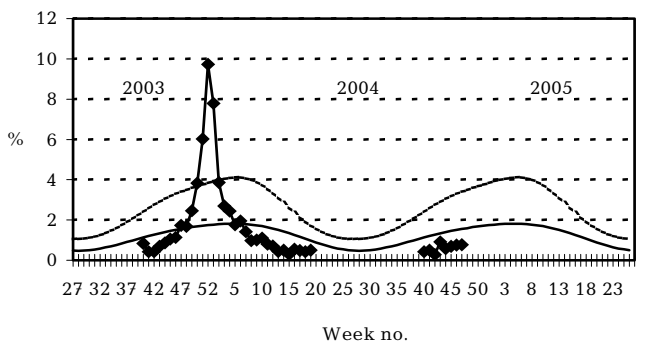
	RSV		Rotavirus	
	2004	2003	2004	2003
July	5	0	20	31
August	1	0	12	16
September	3	1	7	31
Total	9	1	39	78

Reported from Departments of Clinical Microbiology at:

Herning Hospital, Hvidovre Hospital, Slagelse Hospital, Viborg Hospital, Aalborg Hospital, Aarhus Hospital, and the Department of Virology, SSI

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2003/2004/2005



◆ Sentinel — Basal curve - - - Alert threshold

Sentinel: Influenza consultations (as percentage of total consultations)

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

Alert threshold: Possible incipient epidemic