

SURVEILLANCE OF INFECTIOUS DISEASES 2003

No. 2, 2004

SARS

SARS, severe acute respiratory syndrome, was the first new major infectious disease of the 21st century. In Denmark, a SARS contingency plan was established in collaboration between the relevant authorities and institutions. Like most other European countries, Denmark was spared from cases of SARS, but the experiences gained will be of benefit in the management of similar disease outbreaks. A recent case of SARS in China demonstrates that there is still need for a contingency plan.

In October 2003, the WHO published a consensus document (www.who.int/csr/sars/en/WHOconsensus.pdf), about current knowledge and questions on SARS.

The main conclusions include:

- SARS is not an airborne disease; it spreads primarily by droplets or direct contact.
- Risk of infection is greatest around day 10 after onset of symptoms. Accordingly, it was the late isolated or the sickest patients who gave rise to most secondary cases.
- SARS patients are not infective 10 days after cessation of fever.
- Health staff was particularly affected, constituting 21% of all cases. There is a particular risk of infection associated with procedures that create aerosols.
- Children seldom catch SARS. However, it is not yet established to what extent children are subject to asymptomatic or mild infection.
- One single event, the outbreak at hotel M in Hong Kong, was the cause of the international spread. The full implications of this outbreak have not been finally explained.
- Infection with SARS in five international flights has been documented. There are no reports of infection on flights after the recommendation of exit screening and limitation of travel to or from affected areas.

In southern China, a virus closely related to SARS corona virus has been found in certain animal species, thought to be the natural reservoir for the virus. This means that there is a risk of new outbreaks. Future surveillance of SARS will be dependent on confirmatory laboratory investigations, and standardisation and quality control are crucial. There is no overview of laboratories that have SARS virus, or with which security precautions virus is stored. Since the end of the outbreaks, there have been two further cases of SARS acquired as laboratory infections.

The best treatment of SARS patients has not been clarified. For continued surveillance and to understand the above-mentioned questions, there is a continued need for a coordinating role of the WHO.

HIV and AIDS

Since the cause of AIDS was discovered in 1983, about 40 million people are now HIV-positive. Of these, the vast majority – four out of five – were infected by sexual contact, mostly by heterosexual contact. Most infected persons live in Sub-Saharan Africa. In Denmark, HIV-positive persons are treated with effective drugs, which delays the development of AIDS and death. This means that HIV-positive persons now live longer, and it is estimated that there are approximately 5,000 HIV-positive persons in Denmark. Most are infected sexually. HIV-positive persons in Denmark mainly belong to the following groups:

- men who have sex with men
 - persons who were born and/or grew up in countries where HIV infection is highly endemic
 - intravenous drug users
 - persons travelling/stationed abroad who have been in countries where HIV is widespread.
- It is important to maintain the preventive efforts in the area of HIV, including combating stigmatisation and discrimination – one of the great obstacles to efficient HIV prevention and care.

The childhood vaccination programme

Vaccination is the most effective way to prevent infectious diseases. In 2003, the Danish childhood vaccination programme was extended to also include a booster against diphtheria-tetanus-pertussis at the age of 5 years, and the conversion of the polio programme to a pure injection programme was accomplished. Coverage of the child vaccination programme in Denmark is generally good, and the most important childhood diseases now appear only rarely. Thus, there were no notified cases of measles in Denmark in 2003. Seventeen months have now passed since the most recently verified case: the longest measles-free period ever. However, the absence of cases of measles does not mean that MMR vaccination coverage has reached the desired level. Coverage has varied since the introduction of the programme in 1987, and a significant

number of susceptible persons has accumulated in the Danish population. To reduce the risk of outbreak, it is still important that all children in Denmark receive two MMR vaccinations. The WHO has set a goal that Europe becomes measles-free by 2010.

Food safety

In 2003, the WHO published a report in which the Danish ban of the use of antimicrobial growth promoters in food animal production was evaluated. The WHO recommends that growth promoters can and should be removed from agriculture in countries with production systems resembling those of Denmark. The ban reduces the risk of transfer of resistance through the food chain.

A continued decline in the number of cases of infection with Salmonella was recorded, and for the first time, there was also a decline in the number of cases of Campylobacter infection. It will be interesting to see whether this trend continues in 2004.

Department of Epidemiology

In 2003, the department commenced preliminary work to establish on-line notification of infectious diseases. This project, which has the working title of E-MIS, also includes a further integration between national laboratory data and the individual clinical notifications. The department is participating in the European training programmes in intervention epidemiology, EPIET, and has employed two EPIET fellows, who can assist in the investigation of outbreaks of infectious diseases. The Department of Epidemiology participated in the investigation of a major outbreak of hepatitis A in Ringkøbing County. Both analytical epidemiology and further laboratory analyses were carried out in this investigation. (K. Mølbak, Department of Epidemiology)

SARS IN SOUTHERN CHINA

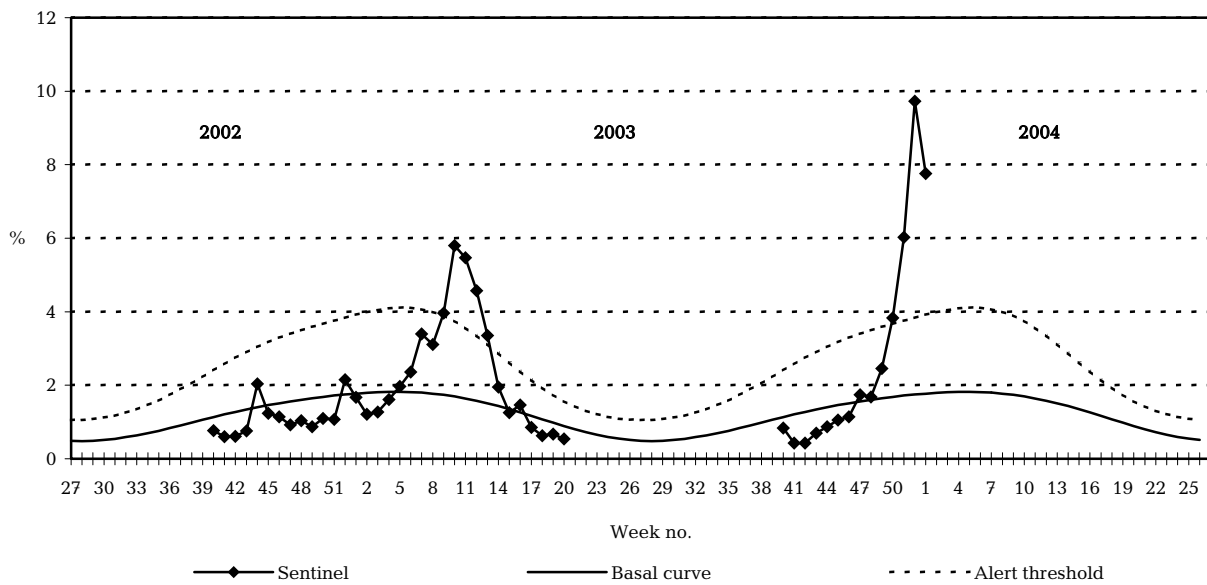
The WHO announces that a 32-year-old man from southern China has SARS. This is the first case of SARS from China since the outbreak in the summer of 2003. The source of infection is not yet known with certainty. The WHO emphasises that there is no sign of spread of SARS from this patient. There is at present no recommendation to postpone trip to China.

(Department of Epidemiology)

7 January 2004

Sentinel surveillance of influenza activity

Weekly percentage of consultations, 2002/2003/2004



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

(Dept. of Epidemiology)

Secretion specimens received from the sentinel surveillance

Week no.	2003										2004																			
	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
No. received	0	5	6	12	9	10	23	28	15	10																				
Influenza A						1	2	10	3	3																				
A/H3				3	1	5	5	1																						
A/H1																														
Influenza B																														

(Depts. of Epidemiology & Virology)