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
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NOROVIRUS OUTBREAK

On the weekend of 21-22 May, 101 patients and 76 employees at Aalborg Hospital South and North were reported sick with diarrhoea and vomiting. In the following four days, a further 43 patients and 52 employees, as well as four relatives, were reported sick. Because of simultaneous outbreaks in the physically separate hospitals, a food-borne source of infection was suspected. Cohort isolation of the sick patients was implemented, and a number of admissions and a total of 43 operations were cancelled. Sick employees were requested not to return back to work until they had been well for at least 24 hours (48 hours for kitchen staff). In order to reduce the risk of infection, kitchen areas were disinfected and cleaning staff were instructed in disinfection of toilet areas. Infection control nurses and the Regional Food Inspectorate provided guidelines for the disinfection, for which a disinfectant active against norovirus was used.

Case-control studies were conducted among 120 employees and inpatients at the hospitals. The studies showed that the sick employees had all been at work on Thursday and that the ingestion of a quark-based dessert containing raspberries in the canteen that day was associated with an increased disease risk. Among the patients, ingestion of quark-based dessert with raspberries was also associated with illness. Norovirus was confirmed in faeces specimens.

Outbreaks on Zealand

From 3 June, several cases of gastrointestinal infection were also registered among the elderly in several areas in Zealand and the Greater Copenhagen area. The patients received food from one particular food-delivery service. On the basis of experience from Aalborg, it was soon suspected that the source of infection was a raspberry dessert which had been served to at least 1,100 citizens from Wednesday 1 June. The dessert included frozen raspberries imported from abroad, from the same batch which had been implicated in the outbreak in Aalborg Hospital. According to the Danish Veterinary and Food Administration, the Danish importer has withdrawn the raspberries from the market. The berries have not been carried by ordinary retail outlets.

Comments

The extent of the outbreaks is still unknown, however, further investigations are being carried out.

Thanks to a rapid response from the Medical Office of Health, the Regional Food Inspectorate and the Department of Infection Control Aalborg Hospital, the source of infection was identified without delay. Unfortunately, the immediate withdrawal of the frozen raspberries from the market was not fully implemented, resulting in another outbreak in Zealand. This outbreak has afflicted at least 289 persons.

Raspberries have previously been associated with outbreaks of norovirus, most recently in March 2005, when a French school was affected. However, the same producer was not involved as in the Danish outbreaks.

Attention is drawn to the fact that norovirus is very infectious from person to person, EPI-NEWS 15/03. Frequent and thorough hand washing/disinfection is important to avoid further infection. In order to gain an overview over the extent of the outbreaks, it is important that treating physicians continue to report suspected cases to the Medical Office of Health and to Statens Serum Institut.

(B. Korsager, Dept. of Clin. Microbiology Aalborg, S. Hede, RFI North Jutland, H. Bøggild, MOH North Jutland, K. Mølbak, Dept. of Epidemiology, B.E. Böttiger, Dept. of Virology)

INFLUENZA SEASON 2004/2005

The sentinel surveillance of influenza commenced in week 40/2004. On average, 120 general practitioners have reported every week, representing the same high level as in the last two seasons. We would like to take the opportunity to thank the participators for their efforts.

In Europe, the influenza activity started relatively late, and in Denmark, it remained low up to week 7/2005. After this, activity rose, reaching a possible nationwide epidemic in weeks 11 and 12. Subsequently, the incidence declined rapidly again to under baseline level. Notifications continued up to and including week 20. In the same period, the SSI Influenza Laboratory examined secretion specimens for influenza virus. Of these, 294 were submitted for spot checks. Positive findings on typing of virus strain are shown in table 1.

In the season 2004/2005, influenza A H1N1 was found from week 51.

Table 1. Detected influenza virus by source of submission and virus strain, season 2004/2005

	Virus strain		
	A (H1N1)	A (H3N2)	B
Sentinel	16	48	16
Other	16	25	4
Total	32	73	20

Three weeks later, influenza A H3N2 was detected, and from week 6/2005, influenza B was also detected. These three viruses circulated simultaneously up to week 17.

The H1N1 viruses found were closely related to A/New Caledonia/20/99(H1N1), while the H3N2 strains found were closely related to the Fujian virus of recent years and to A/California/7/2004(H3N2).

Influenza vaccine 2005/2006

On the basis of the circulating strains in the season 2004/2005, in February 2005, WHO decided to change the vaccine composition for the next season (2005/2006) to the following:

- A/New Caledonia/20/99(H1N1)-like virus
- A/California/7/2004(H3N2)-like virus
- B/Shanghai/361/2002-like virus.

Vaccination coverage

A summary from the Ministry of the Interior and Health shows that scarcely 52% of persons over the age of 65 received the offer of free influenza vaccination in the autumn of 2004. By comparison, a total of 47% received the vaccination offer in the autumn of 2003.

There was great variation between the counties. Coverage was highest in the County of Aarhus (66%), in the City of Copenhagen and the County of Ribe (60%), and lowest in Frederiksborg County (23%). The arrangement will also operate in autumn 2005.

(S. Glismann, A.H. Christiansen, Department of Epidemiology, L.P. Nielsen, Influenza Laboratory)

SUMMER HOLIDAYS

Unless special circumstances arise, EPI-NEWS will not appear in the weeks 25-31, 2005.

The staff at the Department of Epidemiology wishes readers a good summer.

15 June 2005

Individually notifiable diseases

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

Table 1	Week 23 2005	Cum. 2005 [1]	Cum. 2004 [1]
AIDS	2	32	18
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	4
Diphtheria	0	0	0
Food-borne diseases	11	151	206
of these, infected abroad	2	33	26
Gonorrhoea	8	249	140
Haemorrhagic fever	0	0	0
Hepatitis A	0	37	66
of these, infected abroad	0	9	11
Hepatitis B (acute)	0	21	16
Hepatitis B (chronic)	6	63	74
Hepatitis C (acute)	0	1	1
Hepatitis C (chronic)	16	150	161
HIV	5	157	133
Legionella pneumonia	1	35	31
of these, infected abroad	0	6	5
Leprosy	0	0	0
Leptospirosis	0	9	1
Measles	1	2	0
Meningococcal disease	0	42	46
of these, group B	0	26	29
of these, group C	0	5	5
of these, unspec. + other	0	11	12
Mumps	0	4	1
Neuroborreliosis	1	18	53
Ornithosis	0	9	2
Pertussis (children < 2 years)	1	82	76
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	2
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	1	59	59
Other aethiology	1	6	3
Unknown aethiology	0	9	10
Under registration	5	34	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	39	34
of these, infected abroad	1	36	28
Syphilis	2	50	73
Tetanus	0	2	0
Tuberculosis	7	185	175
Typhoid/paratyphoid fever	0	13	9
of these, infected abroad	0	11	7
VTEC/HUS	2	67	65
of these, infected abroad	0	26	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 23 2005	Cum. 2005 [2]	Cum. 2004 [2]
Bordetella pertussis (all ages)	7	279	330
Gonococci	9	197	154
of these, females	0	25	18
of these, males	9	172	136
Listeria monocytogenes	1	14	17
Mycoplasma pneumoniae			
Resp. specimens [3]	3	582	73
Serum specimens [4]	10	491	187
Streptococci [5]			
Group A streptococci	0	69	65
Group B streptococci	0	24	34
Group C streptococci	0	10	9
Group G streptococci	0	60	48
S. pneumoniae	18	675	736
Table 3	**Week 21 2005**	**Cum. 2005 [2]**	**Cum. 2004 [2]**
Pathogenic int. bacteria [6]			
Campylobacter	48	856	887
S. Enteritidis	9	146	131
S. Typhimurium	13	151	129
Other zoon. salmonella	15	194	169
Yersinia enterocolitica	4	96	72

[2] *Cumulative number 2005 and in corresponding period 2004*

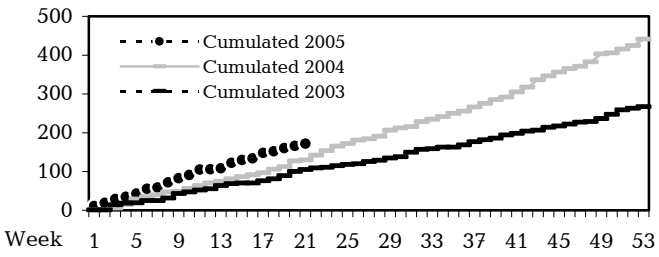
[3] *Resp. specimens with positive PCR*

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

[5] *Isolated in blood or spinal fluid*

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

Cumulated no. of streptococcus isolates submitted to SSI, 2003-2005



The Neisseria and Streptococcus Reference Laboratory receive all gonococcus isolates from the country's departments of clinical microbiology on an ongoing basis, with view to overall national surveillance. The figure presents the cumulative number of isolates received weekly for 2003, 2004 and the expired part of 2005. From about week 17 and especially week 21, 2004, the growth rate increased, so that the total number of isolates in 2004 was 441, as against only 267 in 2003. In 2005, a total of 172 isolates had been received by 12 June (as compared with 130 for the same period in 2004 and 105 in 2003). The annual number of gonorrhoea cases is somewhat lower than the number of isolates, as some patients are examined several times during the course of the same disease period. It is not possible to correct for this in the weekly statistics.

15 June 2005