



## RASPBERRIES TO CAUSE MORE NOROVIRUS OUTBREAKS

A further two outbreaks of food-borne infection with norovirus have been recorded in August. One outbreak occurred in relation with a private party at a restaurant in Tisvildeleje; the other in Gentofte, in two nursing homes with a shared kitchen. Both outbreaks were caused by crushed frozen raspberries which had been used without prior heat treatment in the preparation of desserts. The raspberries were imported from Poland and derived from the same large consignment which gave rise to outbreaks of norovirus infection earlier this summer, [table 1](#) and EPI-NEWS 24/05.

The importer withdraw the raspberries immediately after the outbreak in Aalborg Hospital, however, the companies' withdrawal has turned out to be inadequate. The Danish Veterinary and Food Administration has thus issued a press release warning against contaminated raspberries and reminded industrial kitchens and institutions using raspberries in cooking to investigate whether they have packs of the relevant consignment in store. It is unclear how the berries became contaminated with virus. Outbreaks of norovirus infection from frozen raspberries have previously been described abroad. Virus may derive from contaminated irrigation water or arise in association with handling on picking, freezing or packing. It is known that more than 1,000 people have been infected from the consignment in question, making this outbreak the largest outbreak of food-borne disease in Denmark for many years. Norovirus infection, also known in Denmark as "Roskilde disease", is generally of short duration and is characterised by diarrhoea and vomiting of sudden onset. Patients who have norovirus infection, or who have recently been ill, may transmit the infection. It is thus very important to practise good hygiene. Frequent thorough hand-washing is especially important in order to avoid further infection in the affected homes and institutions, EPI-NEWS 15/03. In several of the current outbreaks, cases of secondary infection have been seen.

### Comments

Physicians should now have a raised awareness of norovirus as a cause of gastroenteritis, especially in connec-

**Table 1. Outbreaks of norovirus infection caused by contaminated frozen raspberries. Denmark, 2005**

Place	Date	Extent
Aalborg Hospital	21 May	188 patients, 263 employees
Nursing home, Holte	30 May	About 70 residents & employees
Meals-on-wheels, Zealand	2 June	About 400 persons
Restaurant, Tisvildeleje	7 August	About 40 guests
Nursing home, Gentofte	16 august	About 50 residents & employees

tion with outbreaks among persons who have received food from industrial kitchens, etc. Faeces samples from the patients should be submitted for investigation for norovirus, and suspected cases of food-borne infection should be notified as soon as possible (by telephone) to the Medical Office of Health and to Statens Serum Institut. At the same time, the importance of good hygiene should be emphasised in order to reduce the risk of further spread. Further information about the implicated lot of frozen raspberries: [www.foedevarestyrelsen.dk](http://www.foedevarestyrelsen.dk). (G. Falkenhorst, K. Mølbak, Department of Epidemiology, B. Böttiger, Department of Virology)

### BLOOD DONOR SCREENING 2004

In 2004, a total of 391,910 blood units were screened. The number of positive donors is presented in [table 2](#).

**Table 2. Donors positive for HIV, HBsAg, HCV and HTLV I/II, 2004. First-time donors in ( )**

Number of donors:		
pos for HIV	3	(1)
pos for HBsAg	9	(8)
pos for HCV	7	(5)
pos for HTLV I/II	0	

On screening, three donors were found positive for HIV, one female and two males aged 26 to 55. One donor was a first-time donor with unknown mode of transmission. Two donors were multiple donors, probably infected via sexual contact, one via contact with a prostitute and one via homo/bisexual contact. On subsequent look-back, no recipients were found infected with HIV in the case of one of the multiple donors. For the other, it has not been possible to obtain information. A total of nine persons were tested positive for HBsAg, six females and three males. The median age was 27 years (19-39). Eight persons were first-time donors, all born in countries with endemic hepatitis B.

One multiple donor was probably infected through repeated body piercing or tattooing. On subsequent look-back, no recipients were found to have been infected with hepatitis B.

A total of seven donors were tested positive for anti-HCV, three females and four males. The median age was 42 (19-48). Five were first-time donors, one had donated blood before HCV screening was introduced in 1991, and one was a multiple donor. On subsequent look-back, no recipients were found to be infected with hepatitis C.

Possible mode of transmission was stated for three donors: two had received blood transfusion and, in addition, all three had had body piercing, tattooing or acupuncture performed.

All candidates for first-time donors and former donors returning to the donor pool are screened for HTLV I/II. A total of 35,762 blood units were screened for HTLV I/II, and none were found positive.

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

### ORNITHOSIS 2004

Ornithosis (psittacosis, parrot fever) is caused by *Chlamydia psittaci*. 2004 saw eight notified cases, six males and two females. The patients were aged between 29 and 76. Five patients were admitted to hospital in connection with the infection. For five patients, the diagnosis was confirmed by PCR on detecting *C. psittaci* DNA in respiratory secretion. For two patients, the diagnosis was made probable on the basis of serological investigations, and for one, the diagnosis could not be excluded but was not particularly possible.

Possible source of infection was stated for six patients, all of whom had private flocks of birds including parrots, pigeons or other birds. (A. H. Christiansen, S. Cowan, Department of Epidemiology)

## Individually notifiable diseases

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

Table 1	Week 34 2005	Cum. 2005 <sup>1)</sup>	Cum. 2004 <sup>1)</sup>
AIDS	0	37	33
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	1
Creutzfeldt-Jakob	0	2	7
Diphtheria	0	0	0
Food-borne diseases	10	313	389
of these, infected abroad	3	72	59
Gonorrhoea	11	341	229
Haemorrhagic fever	0	0	0
Hepatitis A	2	44	143
of these, infected abroad	0	10	35
Hepatitis B (acute)	2	25	29
Hepatitis B (chronic)	7	96	92
Hepatitis C (acute)	0	1	2
Hepatitis C (chronic)	9	215	214
HIV	4	193	194
Legionella pneumonia	2	67	56
of these, infected abroad	0	21	15
Leprosy	0	0	0
Leptospirosis	0	9	1
Measles	0	2	0
Meningococcal disease	0	63	69
of these, group B	0	33	40
of these, group C	0	14	10
of these, unspec. + other	0	16	19
Mumps	1	6	1
Neuroborreliosis	7	44	71
Ornithosis	1	13	4
Pertussis (children < 2 years)	7	108	122
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	3
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	1	77	74
Other aethiology	0	12	6
Unknown aethiology	0	11	12
Under registration	2	19	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	2	70	49
of these, infected abroad	2	59	39
Syphilis	2	82	101
Tetanus	0	2	0
Tuberculosis	12	291	291
Typhoid/paratyphoid fever	3	25	11
of these, infected abroad	3	22	9
Typhus exanthematicus	0	0	0
VTEC/HUS	5	101	93
of these, infected abroad	1	37	16

<sup>1)</sup> 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 34 2005	Cum. 2005 <sup>2)</sup>	Cum. 2004 <sup>2)</sup>
Bordetella pertussis (all ages)	10	354	552
Gonococci	4	294	241
of these, females	0	30	32
of these, males	4	264	209
Listeria monocytogenes	0	18	26
Mycoplasma pneumoniae			
Resp. specimens <sup>3)</sup>	7	655	105
Serum specimens <sup>4)</sup>	12	548	243
Streptococci <sup>5)</sup>			
Group A streptococci	3	83	89
Group B streptococci	1	52	55
Group C streptococci	2	17	14
Group G streptococci	5	81	70
S. pneumoniae	12	786	870
Table 3	Week 32 2005	Cum. 2005 <sup>2)</sup>	Cum. 2004 <sup>2)</sup>
Pathogenic int. bacteria <sup>6)</sup>			
Campylobacter	126	2,134	2,050
S. Enteritidis	33	368	298
S. Typhimurium	25	312	256
Other zoon. salmonella	15	326	281
Yersinia enterocolitica	5	147	126

<sup>2)</sup> Cumulative number 2005 and in corresponding period 2004

<sup>3)</sup> Resp. specimens with positive PCR

<sup>4)</sup> Serum specimens with pos. complement fixation test

<sup>5)</sup> Isolated in blood or spinal fluid

<sup>6)</sup> See also [www.germ.dk](http://www.germ.dk)

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