

OUTBREAK OF VTEC O157

Since September 2003, 21 cases of illness caused by verocytotoxin-producing *E. coli* (VTEC) O157 with the same unique DNA fingerprint have been registered. This suggests that the patients have been infected from the same source, presumably a food-stuff. A total of 15 children and six adults have been registered; six males and 15 females.

The outbreak seems to be localised to the greater Copenhagen area. As diagnostics for VTEC O157 are not performed routinely and the indication for investigation varies between laboratories, the geographic demarcation of the outbreak is uncertain. Symptoms among the sick have been dominated by abdominal cramps and diarrhoea. There have been no cases with renal failure (see below). Danish Zoonosis Centre, the Danish Food Directorate and the SSI are trying to localize the source of infection, and have initiated a case-control study.

Request of stool cultures

In the current situation, all cultures for enteropathogenic bacteria, particularly from patients with abdominal cramps and diarrhoea, whether bloody or not, should also include examination for VTEC O157. As this is not done routinely, it should be noted on the specimen request form that investigation for VTEC O157 is desired.

Infections caused by VTEC

VTEC is a group of diarrhoeagenic *E. coli* characterised by their production of verocytotoxin, which exhibits its toxic effect particularly in the intestines and the kidneys. VTEC O157 is the most common type and the one that most often causes outbreaks. Numerous large outbreaks have been observed abroad, while the current outbreak is the first general one in Denmark.

The symptoms are typically diarrhoea, abdominal cramps and possibly mild fever. The diarrhoea often becomes bloody after a few days, and the infection may provoke acute renal failure, haemolytic uraemic syndrome (HUS), a complication that occurs in 5-10% of infected children.

The bacterium is transmitted through contaminated foodstuffs (particularly beef meat, unpasteurised milk and juice, fresh vegetables and fruit), drinking and recreational water or direct person-to-person contact. VTEC infections and HUS are individually notifiable diseases in Denmark.

Restrictions apply to carriers of VTEC employed in sensitive occupations: in hospitals with patient contact, in nursing homes, in child-care institutions or in the food industry.

For a detailed description of VTEC and preventive measures, see EPI-NEWS 20-21/03 and 50/03. (P. Gerner-Smidt, Dept. of Bacteriology, Mycology and Parasitology, K. Mølbak, Dept. of Epidemiology)

INDIVIDUAL NOTIFICATIONS

The notification system for infectious diseases is a vital source of current knowledge about occurrence and spread of infectious diseases in the population and is of decisive significance for the prevention and control of these. Any GP who receives a patient with a notifiable disease for treatment has a duty to report the case, both to the local Medical Office of Health and to the Department of Epidemiology.

However, GPs notify to varying degrees. For diseases where a laboratory investigation is important to the diagnosis and where the SSI has a reference function, a reminder for a notification may be sent. Unfortunately, it is necessary to send reminders for 40-70% of the written notifications for a number of diseases, [table 1](#).

For diseases where a reminder cannot be issued, there is presumably a significant under-reporting.

The Department of Epidemiology encourages GPs to be more attentive to reporting more rapidly for improved surveillance and prevention. Written notifications should be reported on form 1515. Gonorrhoea and syphilis are notified anonymously on form 1510, and HIV on form 4001-5.

Details of which diseases are notifiable and criteria for notification are stated on the back of form 1515. (G. H. Kock-Hansen, S. Samuelsson, Department of Epidemiology)

DENGUE FEVER IN INDONESIA

A significant increase in the incidence of dengue fever has been reported from Indonesia. In the period 1 January to 5 March, 23,857 patients were admitted to hospital, and 367 died. The patients come from most parts of the country, including Java, Bali and Borneo. There are currently no restrictions on travel to Indonesia.

Dengue fever is a virus infection transmitted by mosquitoes that bite during the day. Travellers should

Table 1. Selected individually notifiable diseases. Total no. of cases notified and percentage of no. received after reminder, 2000-2003

Disease	Year	Notified cases, total no.	Received after reminder
Meningococcal disease	2000	161	62%
	2001	165	60%
	2002	100	63%
	2003	102	59%
Pneumococcal meningitis	2000	78	50%
	2001	112	40%
	2002	95	43%
Tuberculosis	2000	550	22%
	2001	509	21%
	2002	419	16%
Legionella pneumonia	2000	92	54%
	2001	103	67%
	2002	97	60%
Whooping cough	2000	166	40%
	2001	196	34%
	2002	329	40%
Measles	2000	10	80%
	2001	11	100%
	2002	32	69%
Mumps	2000	35	66%
	2001	4	50%
	2002	2	50%
Typhoid/paratyphoid fever	2000	31	65%
	2001	34	74%
	2002	24	83%
Shigella	2000	154	43%
	2001	149	45%
	2002	130	46%
VTEC/HUS	2000	47	74%
	2001	95	83%
	2002	130	76%
	2003	120	71%

thus protect themselves against mosquito bites. Further information may be obtained from: www.ssi.dk, www.who.int/csr/en/ and EPI-NEWS 5/98.

In collaboration with the WHO, the local health authorities have intensified activities, primarily to prevent mosquitoes hatching. Also, an investigation of which virus type is causing the current outbreak is under way.

The symptoms are typically high fever, rash, headache and muscle pains. Most often, the course is benign. Treatment is symptomatic, and there is no vaccine.

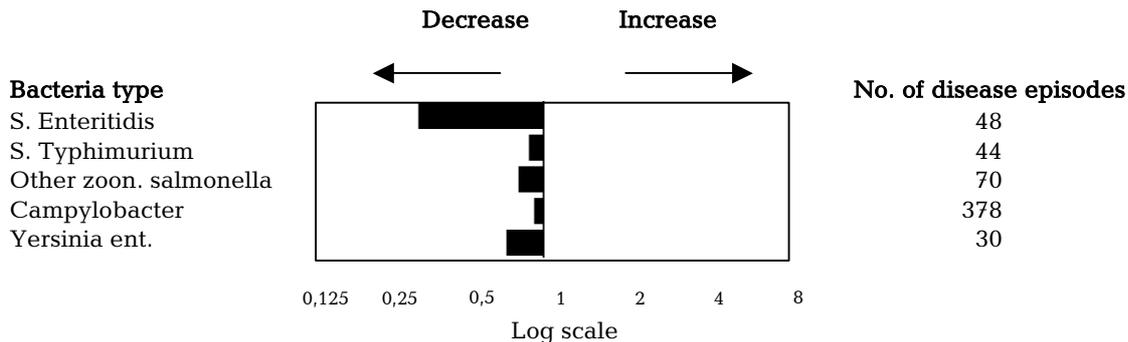
(S. Glismann, Dept. of Epidemiology)

17 March 2004

Patients with positive cultures of pathogenic intestinal bacteria, January - February 2004

County	S. Enteritidis		S. Typhimurium		Other zoon. salmonella		Campylobacter		Yersinia ent.	
	Jan	Feb	Jan	Feb	Jan	Feb	Jan	Feb	Jan	Feb
Copenhagen Munic.	5	4	6	3	7	8	25	32	-	1
Frederiksberg Munic.	-	-	1	-	-	-	3	2	1	-
Copenhagen	2	2	3	-	4	2	15	19	4	1
Frederiksborg	1	2	1	1	1	1	19	17	1	3
Roskilde	1	-	1	-	2	4	8	9	3	1
West Zealand	1	2	4	2	2	1	7	3	1	-
Storstrøm	1	-	-	1	2	4	5	6	2	1
Bornholm	-	-	-	-	-	-	1	1	-	-
Funen	1	4	1	-	7	3	9	15	3	-
South Jutland	-	1	1	1	3	-	12	11	-	-
Ribe	-	1	1	1	1	2	18	9	1	-
Vejle	4	1	2	2	1	2	11	6	2	-
Ringkøbing	1	2	1	-	3	3	6	9	-	1
Aarhus	3	5	4	-	-	5	21	23	-	2
Viborg	-	3	1	3	-	1	12	9	-	-
North Jutland	1	-	1	2	-	1	20	15	1	1
DK, Jan/Feb 2004	21	27	28	16	33	37	192	186	19	11
DK, Jan /feb 2004	27	43	14	16	40	27	168	175	27	12

Barometer for pathogenic intestinal bacteria, January - February 2004

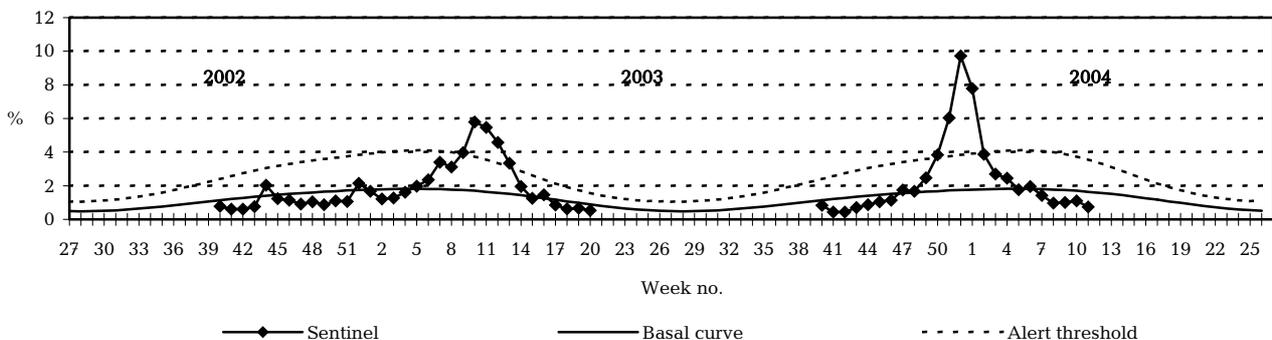


The barometer shows number of disease episodes in the two relevant months compared with the average of 15 two-month periods in the last five years. Further surveillance data may be obtained from www.germ.dk.

(DBMP)

Sentinel surveillance of the 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)