

### OUTBREAK OF SALMONELLA TYPHIMURIUM U302

During the summer there has been an outbreak of *Salmonella typhimurium* phage type U302 in Denmark. So far nine patients have been reported. All the isolates differ from previous ones in being resistant to ampicillin, tetracycline, chloramphenicol, sulphonamide, streptomycin, gentamicin and trimethoprim. They are fully sensitive to ciprofloxacin. In addition, all show the same PFGE-pattern (DNA-fingerprint). This bacterial strain has not hitherto been found in Denmark, neither in humans, animals or in foodstuffs. It is therefore likely that patients have been infected, either directly or indirectly, from a common source. Patients are aged 4-81 years, eight females and one male. One patient has died. Five isolates were from faeces and four from blood. Symptoms of diarrhoea or septicaemia presented in the period 2-15 July 2000. Seven of the nine patients were immunodeficient because of underlying disease or its treatment. In addition, several of the patients had been treated with antibiotics shortly before the onset of illness. The patients are from a wide geographical area. Six had been in-patients at the Copenhagen University Hospital (CUH) and a further two are relatives of these, but two patients are known with certainty to have been infected outside the hospital. The CUH, Statens Serum Institut, the Zoonosis Centre, the Danish Veterinary and Food Administration and several Regional Veterinary and Food Control Authorities have collaborated in the investigation of this outbreak. The affected patients have been interviewed whenever possible. The CUH has written to 3000 persons who were in-patients during the relevant period and has asked them to report any symptoms. Stool samples have been taken from selected patients and staff at the CUH and procedures at the hospital's central kitchen have been reviewed. The Regional Veterinary and Food Control Authorities have also investigated a number of foods. A cohort study has been set up to identify risk factors for gastroenteritis symptoms. The study is by telephone interview of persons who were in-patients at one of the CUH

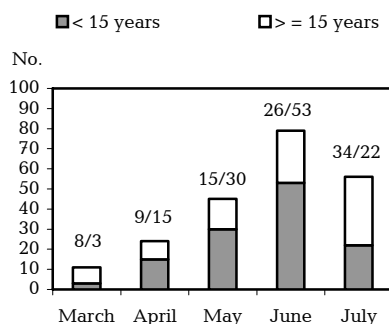
departments involved during the period 28 May to 25 June 2000. Despite these efforts, the source of infection has not yet been identified. When symptoms of intestinal infection appear in immunosuppressed patients, it is important to examine faeces for pathogenic intestinal bacteria without delay.

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### ENTEROVIRAL MENINGITIS

During March-April this year enteroviruses were detected in an unusually high number of patients with meningitis, EPI-NEWS 20/00. The incidence remains high, about five times that for the equivalent period of the previous couple of years. In May-July the Department of Virology at Statens Serum Institut and the Clinical Microbiology Department at Aarhus Municipal Hospital diagnosed 180 patients with enterovirus infection, Fig. 1. Of these, 85% were stated to have clinical meningitis.

**Fig. 1. No. of patients with confirmed enterovirus infection, by age, March-July 2000**



While the patients are from all parts of the country, half are from the counties of South Jutland, Ribe, Aarhus and Funen. Of the 35 patients diagnosed in March-April, 49% were aged 15 years or more. The proportion of adults is 42% for the last three months and is still remarkably high. As in many other enterovirus outbreaks, there is a male preponderance, twice as many males as females being affected. Typing of virus isolates has demonstrated a total of eight echovirus 30 isolates and one of echovirus 6. All patients with echovirus 30 infection had clinical symptoms of meningitis. Echovirus

30 is probably thus the most significant cause of the outbreak. Typing of positive isolates is continuing. Both the proportion of positive specimens and the absolute number of positive findings are lower for July than for June. In the best case this could indicate that the outbreak is receding. However, in recent years the high season for enterovirus infections in Denmark has first culminated in September. Procedures for specimen taking and diagnosis were discussed in EPI-NEWS 20/00.

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### ANTHRAX IN RUMANIA

The WHO has reported an outbreak of anthrax in the Tulcea region of the Danube delta, 230 km east of Bucharest. 38 cases have been reported: 17 confirmed, 12 awaiting final confirmation and nine clinical cases with negative tests. All but one of the cases have occurred in adults and two have died of the disease. In addition, there are three suspected cases in three other regions. In this outbreak the anthrax bacillus has been found in sick cattle, horses, pigs and sheep. Anthrax is a zoonosis caused by spore-forming bacilli and is transmitted from domestic animals to man by direct contact or animal products. The commonest portal of entry is the skin, typically in connection with small scratches, but the bacillus can also penetrate via the pharynx, lower airways or the gastrointestinal tract. The incubation period varies from a few hours to seven days. In the skin, an itching papule appears which changes over a few days to a depressed ulcer with a black scab at its bottom, the so-called eschar. The first symptoms after inhalation or ingestion of the bacilli are usually non-specific. Without treatment, the infection can lead to septicaemia and meningitis, and the mortality is then stated to be 5-20%. Treatment with penicillin G is effective. Direct person-to-person transmission has not been described. Travellers to the area should avoid contact with sick animals or products from sick animals, including leather and inadequately cooked foods.

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## Patients with laboratory-confirmed chlamydia and gonorrhoea, by sex and county

1st quarter 2000

County	Chlamydia, 1st quarter				Gonorrhoea, 1st quarter			
	2000			1999	2000			1999
	M	F	Total		M	F	Total	
Cph. + Frb. Municip.	161	405	567 *	653	56	5	61	24
Copenhagen	83	247	330	324	14	0	14	1
Frederiksborg	53	120	173	180	8	1	9	1
Roskilde	31	81	112	104	3	2	5	1
West Zealand	40	136	176	166	0	1	1	3
Storstrøm	34	91	125	119	1	1	2	3
Bornholm	4	15	19	31	1	0	1	1
Funen	94	222	316	340	1	1	2	5
South Jutland	31	122	153	188	0	0	0	0
Ribe	49	83	132	139	0	0	0	1
Vejle	63	140	203	202	1	0	1	4
Ringkøbing	63	127	190	176	1	0	1	1
Aarhus	207	380	587	576	6	0	6	6
Viborg	33	97	130	58	1	1	2	1
North Jutland	99	278	377	295	3	0	3	7
Whole country	1045	2544	3590	3551	96	12	108	59

\*) Sex was not stated in one case

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