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Communicable Disease Report

Shellfish-associated illness

Twenty-four incidents in England and Wales associated with the consumption of shellfish have been recorded by CDSC since October 1991. Oysters were the vehicle of infection implicated in 22 incidents, and mussels in the remaining two. In nineteen incidents, the symptoms and incubation period experienced by most cases were suggestive of viral gastroenteritis, and in three of these incidents small round structured viruses were identified in the stools of cases.

The incidents fall into three distinct time clusters. Eight occurred in October and early November 1991, seven in the latter half of December and seven in February 1992. One incident occurred in mid-January; the date of onset was not available for the remaining incident. The source of the oysters was identified in 17 incidents: in 13 of these the oysters were from Ireland (eight from Eire), and in four they were from South Wales. In at least one incident of illness, due to mussels, the shellfish were from the North West of England.

CDSC would be grateful for early details of any other incidents of illness in which shellfish have been implicated.

Laboratory-acquired meningococcal infection

On 30 January 1992, a 25 year old MLSO became ill with headache, fever and symptoms of chest infection. Blood cultures yielded a growth of Group C meningococci. The MLSO had, three days previously, been handling Group C meningococci isolated from a patient and had made a heavy suspension of the organism to inoculate an identification strip using a pipette. The isolates from the MLSO and the patient were both Group C not typable: they were shown to be the same type by restriction fragment length polymorphism, and the protein profiles on SDS-PAGE were indistinguishable. There have been no other meningococcal infections of this phenotype in the region of the reporting laboratory in the last eight months, which suggests this is a laboratory-acquired infection.

There is insufficient evidence to identify the particular procedure or laboratory preparation that caused infection in this case, although one possibility is that the method of preparing a dense suspension of meningococci, by harvesting a growth from a subcultured plate with a swab and suspending the growth in saline contained in a bijou bottle, generated sufficient aerosol for an infectious dose to be inhaled.

There have been occasional reports of laboratory-acquired meningococcal infection[1]. The hazards of any laboratory manipulation that has potential for aerosol generation cannot be over-emphasised when handling organisms spread by the respiratory route, and it is important that such manipulations are carried out in a safety cabinet.

1. Centers for Disease Control. Laboratory-acquired meningococcemia - California and Massachusetts. *MMWR* 1991; **40**: 46-55.

Travel-associated cholera

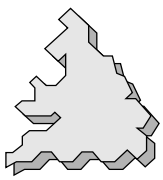
More than 20 passengers on a flight from Buenos Aires to Los Angeles via Lima on 14 February developed symptoms consistent with cholera infection. Two isolates from cases have been confirmed as *Vibrio cholerae* O1. One passenger on the flight, who is not known to have been ill, is thought to have subsequently travelled to England. No food or beverage has been implicated as the vehicle of infection.

Salmonella infections:
weeks 92/05 - 08

Gastrointestinal virus infections:
weeks 92/05 - 08

Other gastrointestinal tract infections:
weeks 92/05 - 08

Bacteraemia and bacterial meningitis:
weeks 92/05 - 08



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Salmonella infections, England and Wales: laboratory reports, weeks 92/05 – 08

Serotype	Reports to the PHLS (Salmonella dataset†) 92/05	92/06	92/07	92/08	Total reports 92/05-08
S. enteritidis (PT4)	151 (131)	113 (105)	145 (135)	154 (132)	563 (503)
S. typhimurium	77	54	51	36	218
S. virchow	18	12	11	10	51
S. newport	8	3	3	3	17
S. hadar	3	4	7	2	16
S. braenderup	1	4	2	4	11
S. infantis	3	2	3	3	11
S. bredeney	2	4	4	–	10
Other serotypes	38	25	31	24	118
Total	301	221	257	236	1015

† This dataset is described in CDR volume 1, number 51. Because of the change, the figures are not directly comparable with those for 1991 from either CDSC or the Division of Enteric Pathogens (DEP).

Less than 10 laboratory reports of the following serotypes were recorded during weeks 92/05-08:

9: *S. montevideo.*
7: *S. saint-paul*, unnamed salmonella.
5: *S. agona, S. bareilly, S. heidelberg, S. mbandaka.*
4: *S. indiana, S. panama.*
3: *S. albany, S. blockley, S. java, S. kentucky, S. kiambu, S. manhattan, S. richmond, S. senftenberg, S. weltevreden, Salmonella sp.*
2: *S. agama, S. anatum, S. brandenburg, S. dublin, S. poona, S. stanleyville.*
1: *S. adelaide, S. altona, S. berta, S. binza, S. cerro, S. coleypark, S. corvallis, S. durham, S. ealing, S. eastbourne, S. give, S. gold-coast, S. havana, S. hull, S. kedougou, S. livingstone, S. meleagridis, S. mississippi, S. muenchen, S. ohio, S. san-diego, S. schwarzengrund, S. teko, S. thompson, S. waycross.*

Comment

S. enteritidis: about 90/136 guests at a club dinner in December had D&V 24-48 hours later (9 persons were positive). **PT 4**: 25/39 who had a turkey dinner at a pub in December had D&V 24-48 hours later (23/27 persons). **PT 8**: at least 18/200 were ill following a meal at a club (8 persons).

Food poisoning notifications from OPCS

	Number of notifications 92/05	92/06	92/07	92/08	Total notifications 92/05-08	Cumulative total 1992
Formally notified §	383	407	497	501	1788	3245
Otherwise ascertained §	190	210	236	219	855	1991

§ provisional

***Clostridium perfringens* serotype PS42/43**: 14 persons in a party of 22 had abdominal pain and diarrhoea about 14 hours after a meal at a Thai restaurant where a variety of foods was eaten (11/12 persons were positive).

***Staphylococcus aureus* enterotoxin A producing strain**: M 58y developed severe vomiting about 3 hours after eating bloater paste (1 person and bloater paste were positive).

SRSV: 20/100 persons had D&V 24-36 hours after eating oysters at a college function (4/12 persons). 20/40 guests at an oyster and champagne reception in mid-February had D&V 36-48 hours later. (See page 39 for a summary of shellfish-associated incidents reported since October 1991).

Gastrointestinal virus infections, England and Wales: laboratory reports, weeks 92/05 – 08

Laboratory reports	Number of reports received 92/05	92/06	92/07	92/08	Total reports 92/05-08	Cumulative total 1992
Adenovirus (EM faeces)	40	42	30	32	144	289
Adenovirus type 40/41	4	5	1	1	11	19
Astrovirus	14	17	6	15	52	111
Calicivirus	6	1	–	3	10	23
Rotavirus	652	964	756	1279	3651	5623
SRSV	20	22	5	18	65	171

Adenovirus (EM faeces): four regions reported more than 10% of cases: Trent (28 cases), NE Thames (21), SE Thames (16) and Wales (22).

Adenovirus 40/41: Northern region reported 5 cases.

Astrovirus: three regions reported more than 10% of cases: Yorkshire (9 cases), Oxford (12) and N Western (6).

Rotavirus: three regions reported more than 10% of cases: Yorkshire (384 cases); W Midlands (393) and N Western (371). Twenty-five outbreaks were reported: 22 family outbreaks, one in a hospital, one in a residential home and one in a day nursery.

SRSV: two regions reported more than 10% of cases: Yorkshire (12 cases) and NW Thames (17). Eight outbreaks were reported: 2 family outbreaks, 2 in hotels, one in a restaurant, one in a hostel, one in a university and one in a residential home for the elderly.

Other gastrointestinal tract infections, England and Wales: laboratory reports, weeks 92/05 – 08

Laboratory reports	Number of reports received 92/05	92/06	92/07	92/08	Total reports 92/05-08 (acquired abroad)	Cumulative total 1992
Campylobacter	580	390	244	500	1714 (170)	3369
Shigella	378	349	431	779	1937 (77)	3299
Enteropathogenic *E.coli* (children <3 years)	13	12	7	8	40 (1)	97
Aeromonas	4	4	4	9	21 (–)	41
Plesiomonas	2	1	–	1	4 (2)	8
Vibrio	1	1	–	–	2 (2)	5
Clostridium difficile	19	33	12	10	74 (–)	154
C. difficile toxin	29	32	17	55	133 (–)	250
Yersinia	6	6	7	6	25 (–)	42

Comment

Campylobacter: 19 outbreaks were reported: 18 family outbreaks and one in a day nursery.

Shigella: *S. boydii* 6 (2 abroad); *S. dysenteriae* 7 (3 abroad); *S. flexneri* 74 (29 abroad); *S. sonnei* 1850 (43 abroad). *S. flexneri*, five family outbreaks were reported. *S. sonnei*, continuing community outbreaks in Northern, Yorkshire, W Midlands and N Western regions, and a new community outbreak in Trent region, were reported. There were 2 school outbreaks and one at a reception.

Notifications of dysentery for weeks 92 / 05-08 were 401, 446, 520 and 524, respectively; the cumulative total for 1992 is 3147.

Aeromonas: *A. caviae* 5; *A. hydrophila* 12; *A sobria* 4. One family outbreak of *A. hydrophila* was reported.

Plesiomonas shigelloides 4 (2 abroad).

Vibrio: *V. cholerae* O1 El Tor Inaba was isolated from a male who had recently returned from India. *V. cholerae* non O1, 1 (abroad).

Clostridium difficile: six regions reported more than 10% of cases: Yorkshire (11 cases), Trent (9), SE Thames (2), Wessex (14), W Midlands (12) and Wales (9). Four hospital outbreaks were reported.

Yersinia: *Y. enterocolitica* 23; *Y. frederiksenii* 1; *Yersinia sp* 1.

Laboratory reports	Number of reports received 92/05	92/06	92/07	92/08	Total reports 92/05-08 (acquired abroad)	Cumulative total 1992
Cryptosporidium	67	51	48	50	216 (15)	506
Entamoeba histolytica	17	45	6	9	77 (45)	158
Giardia	176	112	61	115	464 (93)	949
Blastocystis hominis	5	10	4	12	31 (7)	44
Dientamoeba fragilis	1	5	–	–	6 (3)	10

Cryptosporidium: three regions reported more than 10% of cases: Yorkshire (39 cases), S Western (28) and N Western (35). Three family outbreaks were reported.

Entamoeba histolytica: one family outbreak was reported.

Giardia: three regions reported more than 10% of cases: Yorkshire (47 cases), SW Thames (63) and S Western (48). Seventeen outbreaks were reported: 16 family outbreaks and one in a day nursery.

Taenia 4: *T. saginata* 2 (North Africa 1); *Taenia sp* 2 (Nigeria 1).

Trichostrongylus 2.

Trichuris 37 (Bangladesh 2, Bhutan, E Africa, Ethiopia, India, Nepal, Sierra Leone, Uganda, Vietnam, Zaire, one each).

Typhoid and paratyphoid, England and Wales: laboratory reports, weeks 92/05 – 08

S. typhi: 20 cases aged 3-68 years were reported: 10 from the Indian subcontinent, 3 from Africa, 3 from the Far East, one from Asia and one from Europe. One excreter was reported (M 41y). Three home-acquired infections were reported: 2 cases and one excreter (M 74y), who were part of an outbreak reported previously (see *CDR* 1992; **2**: 21).

***S. paratyphi* A**: 8 cases aged 3-54 years were reported: 6 from the Indian subcontinent. Two home-acquired infections were reported, one of which was part of a known family outbreak; the source of the other infection is unknown.

Notifications: 13 cases of typhoid and 5 of paratyphoid fever were statutorily notified (weeks 92 / 05-08).

Bacteraemia and bacterial meningitis, England and Wales: laboratory reports, weeks 92/05 – 08

Laboratory reports	No. of reports received: Blood only	No. of reports received: CSF only or CSF & blood	Age: <1m	Age: ≥65y	Total received 92/05-08	Cumulative total 1992
Citrobacter sp	18	–	–	8	18	37
Enterobacter sp	72	–	3	32	72	152
Escherichia coli	619	3	11	396	622	1293
Klebsiella sp	110	1	–	62	111	250
Proteus sp	98	–	–	65	98	230
Salmonella sp	21	–	1	12	21	45

Bacteraemia

Citrobacter sp: *C. freundii* 6; *C. koseri* 6; *Citrobacter sp* 6. *C. freundii*, F 44y on haemodialysis. *C. koseri*, M 3m with intussusception (enterococcus also isolated). Also reported: *C. freundii*, M 7y (peritoneal dialysate).

Enterobacter sp: *E. aerogenes* 12; *E. agglomerans* 9; *E. amnigenus* 1; *E. cloacae* 43; *E. sakazakii* 1; *Enterobacter sp* 6. *E. cloacae*, M 57y had endocarditis; immunosuppressed F 59y had liver abscess (also isolated from pus with *Citrobacter freundii* and enterococcus). *Enterobacter sp*, M 57y with prosthetic heart valve had endocarditis.

Escherichia coli: HTLV-1 antibody positive F 47y with adult T-cell leukaemia / lymphoma. Immunosuppressed F 68y with recurrent urinary tract infection had epidural abscess (blood and pus isolates). M 63y and F 60y had osteomyelitis. M 72y, and F 57y with systemic lupus erythematosus and prosthetic joints (blood, joint and urine isolates), both had septic arthritis. Two women had post partum infection and F 36y had septic abortion. Also reported: M 38y, and M 71y with *Streptococcus faecium* also (both peritoneal dialysate isolates). ***E. coli* O 157**: three children aged 2-7 years had haemolytic uraemic syndrome (all serology).

Klebsiella sp: *K. aerogenes* 23; *K. oxytoca* 23; *K. ozaenae* 2; *K. pneumoniae* 53; *Klebsiella sp* 9. *K. aerogenes*, F 60y with leukaemia (blood and joint isolates, *Pseudomonas maltophilia* also isolated). Also reported: F 53y (peritoneal dialysate isolate).

Proteus sp: *P. mirabilis* 67; *P. morganii* 13; *P. vulgaris* 4; *Proteus sp* 14. *P. mirabilis*, M 83y and F 79y with joint prostheses. Also reported: *Proteus sp*, F 39y had bilateral renal Staghorn calculi (pus and calculus isolates).

Salmonella sp: *S. berta*, M 71y had gastrointestinal and urinary symptoms (urine isolate also). *S. dublin*, M 78y had gastrointestinal symptoms (urine isolate also). *S. durham*, M 81y. *S. enteritidis* 12 (PT 4, 11): M 49y and female, age not stated, had gastrointestinal symptoms (faecal isolates also); 10 patients aged 29-87 years had blood isolates only, including 7 with gastrointestinal symptoms and M 72y who had travelled to the Canary Islands. *S. panama*, F 2d had gastrointestinal symptoms (faecal isolate also). *S. typhimurium* 3: M 30y who had travelled to the Far East, female, age not stated, and M 77y (blood and faecal isolates) all had gastrointestinal symptoms. *S. virchow*, F 25y with gastrointestinal symptoms had travelled to the Canary Islands (faecal isolate also).

Also reported: *S. brandenburg*, F 23y (urine isolate). *S. enteritidis* PT 4, F 71y and female, age not stated (faecal and urine isolates), and 3 patients aged 22-44 years (urine isolates) all with gastrointestinal symptoms. Female, age not stated (faecal and sputum isolates). Immunosuppressed M 82y had osteomyelitis and F 69y had colostomy wound infection (both pus isolates). F 1y and F 70y (pus isolates, source not stated). *S. kentucky*, F 57y had osteomyelitis (pus isolate). *S. montevideo*, male, age not stated, had osteomyelitis (pus isolate). *S. newport*, F 47y (urine isolate). *S. typhimurium*, M 20y (bone isolate); M 40y had wound infection after neurosurgery (pus isolate); F 60y (gall bladder isolate); F 80y (urine isolate).

Meningitis

Escherichia coli: premature F 1d (blood and CSF isolates), M 1d and F 1m; F 1d and F 73y (both blood isolates only).

Klebsiella sp: *K. aerogenes*, F 48y had craniotomy for meningioma resection. *K. pneumoniae*, premature infant, sex not stated (blood isolate only).

Laboratory reports	Total bacteraemia	UTI/GU surgery (pregnant)	Biliary tract disease (ERCP)	Intravascular lines	Leukaemia/bone marrow suppression (with IV-lines)
Citrobacter sp	18	3 (–)	2 (–)	1	3 (1)
Enterobacter sp	72	8 (–)	4 (–)	9	13 (3)
Escherichia coli	619	251 (2)	60 (2)	9	37 (4)
Klebsiella sp	110	29 (–)	19 (1)	4	15 (4)
Proteus sp	98	56 (–)	1 (–)	1	1 (–)

Data are for England and Wales only, unless otherwise stated.

Weekly numbers are provisional and should not be used to indicate trends.