

## Communicable Disease Report

### Poultry-associated outbreaks of food poisoning

During the last five years, 128 outbreaks (affecting over 3500 people) of food poisoning associated with eating poultry meat were reported to CDSC. This amounts to 14% of all general (ie, non-domestic) outbreaks recorded in this period. Sixty-five per cent of these outbreaks were due to salmonella infection, mostly *S. enteritidis* and *S. typhimurium*. A further 28% of outbreaks were due to *Clostridium perfringens*. Restaurants and hotels were the most commonly recorded locations for reported outbreaks where chicken or turkey were implicated as vehicles of infection.

Chicken was the most commonly reported type of poultry meat (62%) associated with human illness. A peak in reported outbreaks in June and July was largely due to chicken meat and one-third of all chicken-associated outbreaks occurred in this period (Figure). The higher ambient temperature in the summer months increases the likelihood of outbreaks arising from contaminated meat.

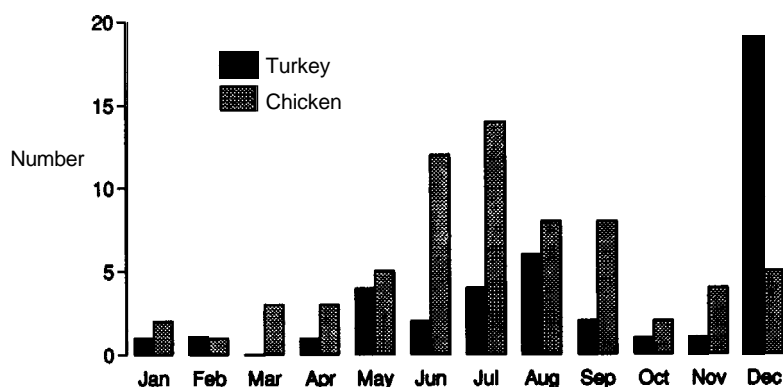
**Salmonella infections:**  
weeks 91/48 - 51

**Other gastrointestinal tract infections:**  
weeks 91/48 - 51

**Gastrointestinal virus infections:**  
weeks 91/48 - 51

**Bacteraemia and bacterial meningitis:**  
weeks 91/48 - 51

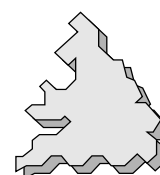
Figure Poultry-associated outbreaks in England and Wales: 1987-1991



Turkey meat accounted for 36% of outbreaks but showed a major peak in December. Forty-one per cent of outbreaks were recorded in this month. This is in keeping with increased consumption of turkey during the Christmas season and the dangers of inadequate defrosting or cooking of large birds.

### Consumption of casually harvested shellfish

Reports have been received by CDSC that molluscan shellfish have been harvested and sold by itinerant salesmen in a number of East Coast towns. Local environmental health officers have received information indicating that bivalve molluscs retrieved close to sewage outfalls have been presented for sale to the public. In one district, tests have revealed unacceptably high coliform counts in mussels taken from one of these foreshores. There is a potential risk to human health if shellfish from such sources are eaten and, particularly, if they are consumed without adequate cooking. CDSC would be interested to hear of episodes of human infection which may relate to the consumption of casually harvested shellfish.



## Salmonella infections, England and Wales: laboratory reports, weeks 91/48 – 51

Serotype	Reports to CDSC					Reports from DEP
	91/48	91/49	91/50	91/51	Total	Total
<i>S. enteritidis</i> (PT4)	377 (284) *	314 (259) *	218 (161) *	173 (146) *	1082 (850) *	959 (813) *
<i>S. typhimurium</i>	95	71	70	59	295	325
<i>S. virchow</i>	24	11	12	3	50	38
<i>S. hadar</i>	7	11	2	6	26	17
<i>S. newport</i>	7	4	4	3	18	20
<i>S. infantis</i>	4	7	3	3	17	27
<i>S. agona</i>	5	4	5	2	16	18
<i>S. bredeney</i>	2	8	4	1	15	14
<i>S. heidelberg</i>	3	5	3	1	12	8
<i>S. montevideo</i>	1	8	2	–	11	14
<i>S. corvallis</i>	2	2	2	4	10	17
Other serotypes	53	34	29	19	135	223
Total	580	479	354	274	1687	1680

\* *S. enteritidis* PT4

Less than 10 laboratory reports of the following serotypes were received by CDSC during this period:

- 9: *S. braenderup*.  
 7: *S. senftenberg*, *S. thompson*.  
 6: *S. oranienburg*, *S. panama*, *S. stanley*.  
 5: *S. blockley*, *S. brandenburg*, *S. mbandaka*.  
 4: *S. bovis-morbificans*, *S. derby*, *S. kedougou*, *S. ohio*, *S. saint-paul*.  
 3: *S. anatum*, *S. berta*, *S. cerro*, *S. emek*, *S. manhattan*, *S. new brunswick*.  
 2: *S. arizonae*, *S. bareilly*, *S. java*, *S. javiana*, *S. livingstone*, *S. weltevreden*.  
 1: *S. aberdeen*, *S. bessi*, *S. chester*, *S. coleypark*, *S. duisburg*, *S. euston*, *S. gaminara*, *S. give*, *S. hartford*, *S. havana*, *S. hull*, *S. indiana*, *S. kiambu*, *S. krefeld*, *S. lagsos*, *S. london*, *S. marina*, *S. meleagridis*, *S. mikawasima*, *S. poona*, *S. reading*, *S. singapore*, *S. sofia*, *S. takoradi*, *S. taksony*, *S. tel-el-kebir*, *S. washington*, *S. worthington*, *S. zanzibar*.

### Comment

***S. anatum***: 3 farm workers were ill after drinking unpasteurised milk from a herd in which 20 cows were affected (3/15 persons, unpasteurised milk and cows were positive).

***S. enteritidis* PT4**: a number of persons had diarrhoea following a restaurant meal in October (4/10 persons were positive). Three members of two families had D&V, 12-30 hours after eating a common meal from a Chinese takeaway restaurant (3/3 persons were positive). Three persons, in a party of 30 staying at a single hotel in the Isle of Wight, were ill in late October (3 persons were positive).

**PT 6**: 2 persons were ill after eating food from a Chinese takeaway restaurant.

***S. typhimurium* DT 104**: 4 persons had diarrhoea following a meal at an Asian restaurant (4/4 persons and work surfaces in restaurant kitchen were positive).

***Clostridium perfringens***: 16/16 patients in a nursing home had diarrhoea about 12 hours after a meal of minced beef; the mince was reported to have been cooked in 1 kg (2 lb) amounts for 30 minutes, then for a further 1.5 hours in an oven at 150°C (15/16 persons had organisms and toxin in faeces; 7.5 x 10<sup>6</sup> cfu/g isolated from cooked minced beef). **Serotype 24/25/31/68**: 20/20 persons had diarrhoea and abdominal pain 12 hours after a restaurant meal including lamb which was cooked the day before and then stored warm for 18 hours (14/14 persons were positive).

## Food poisoning notifications from OPCS

	Number of notifications				Total notifications 91/48-50	Cumulative total 1991
	91/48	91/49	91/50	91/51		
Formally notified §	694	637	561	NA	1892	34481
Otherwise ascertained §	347	325	309	NA	981	18183

§ provisional

NA not available

## Typhoid and paratyphoid, England and Wales: laboratory reports, weeks 91/48 – 51

***S. typhi***: 12 cases aged 5-80 years were reported; 9 from the Indian subcontinent, 1 from Africa. Two cases apparently acquired their infection in the UK: one from a family member who is an excreter (F 71y) and one from a family member who is a carrier (F 1y). Three excreters were reported (F 4y, M 6y, M 10y).

***S. paratyphi* A**: 6 cases aged 9-54 years, all from the Indian subcontinent.

***S. paratyphi* B**: three excreters were reported.

Notifications: 7 cases of typhoid and 1 case of paratyphoid fever were statutorily notified (weeks 91/48-50).

## Other gastrointestinal tract infections, England and Wales: laboratory reports, weeks 91/48 – 51

Laboratory reports	Number of reports received				Total reports 91/48-51 (acquired abroad)	Cumulative total 1991
	91/48	91/49	91/50	91/51		
<i>Campylobacter</i>	625	461	548	416	2050 (190)	32285
<i>Shigella</i>	472	421	414	239	1546 (80)	10416
Enteropathogenic <i>E.coli</i> (children <3 years)	31	14	19	10	74 (2)	857
<i>Aeromonas</i>	4	10	5	3	22 (6)	313
<i>Plesiomonas</i>	4	–	2	–	6 (3)	53
<i>Vibrio</i>	4	2	1	1	8 (8)	83
<i>Clostridium difficile</i>	27	5	11	5	48 (–)	806
<i>Yersinia</i>	8	12	6	1	27 (4)	441

### Comment

**Campylobacter:** two regions reported more than 10% cases: Trent (227 cases) and W Midlands (256). Thirty-one family outbreaks were reported.

**Shigella:** *S. boydii* 3 (1 abroad); *S. flexneri* 54 (31 abroad); *S. sonnei* 1489 (48 abroad).

A community outbreak of *S. sonnei* in W Midlands region, and continuing community outbreaks in Northern, Yorkshire, N Western regions and Wales, were reported. Two school outbreaks were reported.

Notifications of dysentery for weeks 48-50 were: 429, 409

and 385, respectively; the cumulative total for 1991 is 9185.

**Aeromonas:** *A. caviae* 3 (2 abroad); *A. hydrophila* 14 (2 abroad); *A. sobria* 4 (2 abroad); *Aeromonas sp* 1.

**Plesiomonas shigelloides** 5 (3 abroad).

**Vibrio:** *V. cholerae* non O1, 5 (all abroad); *V. parahaemolyticus* 3 (all abroad).

**Clostridium difficile:** three regions reported more than 4 cases: Northern (15), Yorkshire (10) and Trent (5).

**Yersinia:** *Y. enterocolitica* 25 (3 abroad); *Y. frederiksenii* 1; *Yersinia sp* 1 (abroad).

Laboratory reports	Number of reports received				Total reports 91/48-51 (acquired abroad)	Cumulative total 1991
	91/48	91/49	91/50	91/51		
<i>Cryptosporidium</i>	125	56	92	96	369 (7)	5115
<i>Entamoeba histolytica</i>	7	7	106	7	127 (78)	977
<i>Giardia</i>	177	120	218	108	623 (126)	6209
<i>Blastocystis hominis</i>	3	2	35	1	41 (4)	235
<i>Dientamoeba fragilis</i>	–	–	11	–	11 (–)	63

**Cryptosporidium:** three regions reported more than 10% cases: Yorkshire (41 cases), Trent (62) and N Western (56).

Five family outbreaks were reported.

**Entamoeba histolytica:** three family outbreaks were reported.

**Giardia:** one region reported more than 10% cases: NE Thames (117 cases). Twenty-one outbreaks were reported: 20 family

outbreaks and one in a school.

**Taenia** 7: *T. saginata* 6 (Ethiopia 2, Columbia, France, 1 each); *Taenia sp* 1.

**Trichostrongylus** 1.

**Trichuris** 44 (Pakistan 2, Somalia 2, Equador, Kenya, Nepal, Solomon Islands, Spain, Zambia, Africa, 1 each).

## Gastrointestinal virus infections, England and Wales: laboratory reports, weeks 91/48 – 51

Laboratory reports	Number of reports received				Total reports 91/48-51	Cumulative total 1991
	91/48	91/49	91/50	91/51		
Adenovirus (EM faeces)	64	31	47	40	182	1412
Adenovirus type 40/41	3	1	–	2	6	87
Astrovirus	7	4	8	4	23	254
Calicivirus	8	3	5	1	17	107
Rotavirus	165	182	245	277	869	13066
SRSV	26	21	22	11	80	711

**Adenovirus (EM faeces):** three regions reported more than 10% cases: Trent (27 cases), NE Thames (27) and N Western (21). Three outbreaks were reported: 2 family outbreaks and one in an old people's home.

**Adenovirus 40/41:** one family outbreak of adenovirus 40 was

reported.

**Astrovirus:** four regions reported more than 2 cases: Yorkshire (6), NE Thames (3), Oxford (4) and S Western (4). One outbreak in a hospital was reported.

**Calicivirus:** N Western region reported 13 cases.

**Rotavirus:** three regions reported more than 10% cases: Yorkshire (162 cases), W Midlands (121) and N Western (99). Five family outbreaks were reported.

**SRSV:** three regions reported more than 10% cases: Yorkshire

(13 cases), S Western (16) and N Western (21).

Seven outbreaks were reported: 2 in residential homes, 2 in day care centres, 2 in hotels and one in a hospital.

## Bacteraemia and bacterial meningitis, England and Wales: laboratory reports, weeks 91/48 – 51

Laboratory reports	No. of reports received		Age		Total received	Cumulative total 1991
	Blood only	CSF only or CSF & blood	<1m	≥65y		
<i>Citrobacter sp</i>	12	–	–	8	12	204
<i>Enterobacter sp</i>	74	1	6	30	75	937
<i>Escherichia coli</i>	569	3	7	360	572	7600
<i>Klebsiella sp</i>	139	–	4	80	139	1641
<i>Proteus sp</i>	110	–	–	73	110	1331
<i>Salmonella sp</i>	21	–	–	8	21	304

### Bacteraemia

***Citrobacter sp:*** *C. freundii* 10; *C. koseri* 1; *Citrobacter sp* 1.

***Enterobacter sp:*** *E. aerogenes* 9; *E. agglomerans* 13; *E. cloacae* 42; *Enterobacter sp* 11. *E. aerogenes*, M 70y on haemodialysis. *E. agglomerans*, M 57y had endocarditis. *E. cloacae*, M 12y had osteomyelitis (blood isolate; *Staphylococcus aureus* also isolated); M 80y with joint prosthesis (blood isolate; *Pseudomonas sp* also isolated); M 65y and M 79y on haemodialysis.

***Escherichia coli:*** M 13y with burns (blood isolate); M 27y had infected haemo-arthrosis (blood isolate); HIV-1 antibody positive M 41y had bacteraemia; M 80y had joint prosthesis (blood isolate); F 61y on haemodialysis; F 71y had endocarditis; F 73y had septic arthritis (blood and urine isolates).

***Klebsiella sp:*** *K. aerogenes* 29; *K. oxytoca* 26; *K. ozaenae* 2; *K. pneumoniae* 61; *Klebsiella sp* 21. *K. oxytoca*, M 65y on haemodialysis (blood isolate; *Enterobacter cloacae* also isolated). *K. pneumoniae*, M 79y on haemodialysis; female, age not stated, had bacteraemia following clipping of cerebral aneurysm.

***Proteus sp:*** *P. mirabilis* 75; *P. morgani* 13; *P. vulgaris* 6; *Proteus sp* 16.

***Salmonella sp:*** *S. bredeney*, F 29y had pyrexia and neurological symptoms (blood isolate only). *S. enteritidis* 15 (PT 4, 11): 9 patients aged 27-84 years had gastrointestinal symptoms (blood and faecal isolates), including 2 immunosuppressed patients; male, age not stated, on CAPD had gastrointestinal symptoms (blood, peritoneal dialysate and faecal isolates); male, age not stated, had leaking abdominal aneurysm (aneurysm wall and

rectal swab isolates); M 77y with mycotic aneurysm had gastrointestinal symptoms (blood isolate only); F 51y with myeloma had gastrointestinal symptoms and female, age not stated, with lymphoma had urinary symptoms (both blood isolate only); HIV-1 antibody positive M 34y had pyrexia (blood isolate only); HIV-1 antibody positive F 22y who had pneumonia died (blood and endo-tracheal tube aspirate). *S. kedougou*, male, age not stated, had gastrointestinal symptoms (blood and faecal isolates). *S. typhimurium* 3: M 60y had pyrexia and abdominal pain (blood and faecal isolates); M 63y had bacteraemia, no gastrointestinal symptoms (blood, faecal and urine isolates); M 70y with myelodysplasia had gastrointestinal symptoms (blood, sputum and faecal isolates). *S. virchow*, F 8m had neurological symptoms (blood and faecal isolates).

Also reported: *S. agona* 2: F 2y had gastrointestinal symptoms (faecal and urine isolates); F 26y with urinary symptoms (urine isolate only). *S. enteritidis*, female, age not stated, had septic arthritis (knee aspirate isolate). *S. heidelberg*, M 44y had osteomyelitis (bone isolate). *S. stanley*, F 61y (gall bladder isolate).

### Meningitis

***Enterobacter cloacae:*** M 3m with CSF shunt (CSF isolate).

***Escherichia coli*** 3: premature F 10d (blood and CSF isolates); F 17d (CSF isolate); M 19y following skull fracture (CSF isolate).

Laboratory reports	Total bacteraemia	UTI/GU surgery (pregnant)	Biliary tract disease (ERCP)	Intravascular lines	Leukaemia/bone marrow suppression (with IV-lines)
<i>Citrobacter sp</i>	12	3 (–)	2 (–)	1	1 (–)
<i>Enterobacter sp</i>	74	12 (–)	5 (–)	10	11 (3)
<i>Escherichia coli</i>	569	202 (4)	62 (1)	7	42 (4)
<i>Klebsiella sp</i>	139	35 (1)	17 (2)	4	18 (3)
<i>Proteus sp</i>	110	53 (–)	2 (–)	5	4 (–)

From week 91/01, data in CDR is from England and Wales only, unless otherwise stated.

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