



**International surveillance network for
the enteric infections -
Salmonella, VTEC O157 and Campylobacter**

Funded by the European Commission – DG SANCO

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Enter-net Quarterly VTEC Report 2006/2

Summary.

This report gives details of the number of isolates identified by the national reference laboratories in the 2nd quarter of 2006 and incorporated in the Enter-net VTEC database. Sixteen countries have supplied the relevant data electronically (or reported a nil return). Three hundred and fifty-three cases have been reported. The most common serogroups identified are detailed in table 1; the remaining 48 cases (13.6%) consisted of 33 other serogroups.

Serogroup	2006		2005	
	Freq	%	Freq	%
O157	147	41.6	148	35.6
O26	33	9.3	44	10.6
O91	22	6.2	18	4.3
O103	16	4.5	33	7.9
O146	8	2.3	7	1.7
O145	7	2.0	12	2.9
O55	4	1.1	8	1.9
O87	3	0.8	1	0.2
O111	3	0.8	12	2.9
O113	3	0.8	2	0.5
NT	59	16.7	65	15.6
Other	48	13.6	66	15.9
Total	353		416	

Table 1

Quarterly data – major trends.

Details in tables 1 & 2 refer to the thirteen countries that have supplied data electronically for 2006 and 2005. Tables 3-7 show the results from all cases that are in the database for this year.

The total number of reports in the database shows a decrease of 15.1% over the same period last year with 353 cases as compared to 416 in 2005.

E. coli O157 was the most commonly identified serogroup (table 1).

O157 Phage type	2006		2005	
	Freq	%	Freq	%
21/28	36	24.5	33	22.3
88	11	7.5	5	3.4
8	11	7.5	15	10.1
32	10	6.8	4	2.7
14	4	2.7	1	0.7
1	1	0.7	1	0.7
2	1	0.7	8	5.4
NT	73	49.7	73	49.3
Other	0	0.0	8	5.4
Total	147		148	

Table 2

Where phage typing is performed phage type 21/28 was the predominant strain the same as in 2005 (table 2). The breakdown of serogroups by country is given in table 7. The phrase 'NT' is used throughout this report and stands for untyped or untypable or not definitively typed for whatever reason.

All data are **provisional**; the month of report is based on the date of receipt in the reference laboratory. Updated 17 August, 2006.

Antimicrobial susceptibility testing results.

Antimicrobial susceptibility test results were available for 179 records. The majority of these are tested against the panel of 11 antimicrobials recommended by Enter-net, although not all strains are necessarily tested against each one. The frequency and percent in the categories resistant, intermediate and sensitive (as defined by each reference laboratory) are given in table 3.

	AST results by each Antimicrobial						
	Resistant		Intermediate		Sensitive		Tested
Streptomycin	35	19.6	12	6.7	132	73.7	179
Gentamicin	0	0.0	8	4.5	169	95.5	177
Kanamycin	4	2.2	12	6.7	163	91.1	179
Ampicillin	22	12.3	108	60.3	49	27.4	179
Cefotaxime	2	1.1	1	0.6	176	98.3	179
Sulphonamides	92	51.4	46	25.7	41	22.9	179
Trimethoprim	19	10.6	1	0.6	159	88.8	179
Chloramphenicol	8	4.5	0	0.0	171	95.5	179
Tetracyclines	24	13.4	75	41.9	80	44.7	179
Nalidixic Acid	7	3.9	0	0.0	172	96.1	179
Ciprofloxacin	1	0.6	0	0.0	178	99.4	179

Table 3

Multi-drug resistance.

Table 4 shows the total number of strains with multi-resistance (to four or more antimicrobials) and the percent of the total for that serogroup with an associated antibiogram.

Serogroup	No MDR (≥4)	Total	%
untyped/untypable	3	34	8.8
O26	5	17	29.4
O55	2	4	50.0
O117	2	2	100.0
O157	1	26	3.8
Other*	6	95	6.3
Total	19	178	10.7

Table 4

* Six different serogroups.

Age and gender.

The age and gender breakdown is detailed in table 5.

Ageband	O157								non-O157							
	Male		Female		NK		Total		Male		Female		NK		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
0-11m	5	3.4	2	1.4		0.0	7	4.8	5	3.3	4	2.7		0.0	9	6.0
1-5y	33	22.4	19	12.9		0.0	52	35.4	25	16.7	29	19.3	2	1.3	56	37.3
6-14y	9	6.1	8	5.4		0.0	17	11.6	5	3.3	10	6.7		0.0	15	10.0
16-64y	25	17.0	32	21.8		0.0	57	38.8	24	16.0	33	22.0		0.0	57	38.0
65y+	2	1.4	9	6.1		0.0	11	7.5	6	4.0	5	3.3		0.0	11	7.3
NK	2	1.4	1	0.7		0.0	3	2.0		0.0	1	0.7	1	0.7	2	1.3
Total	76	51.7	71	48.3	0	0.0	147	100	65	43.3	82	54.7	3	2.0	150	100

Table 5

Clinical manifestation.

The clinical manifestation is detailed for 140 of the cases in the database. Bloody diarrhoea and HUS is more common in cases with O157 infections compared to non-O157 infections (table 6).

Clinical Manifestation	O157		non-O157		Serogroup not known	
	Freq	%	Freq	%	Freq	%
Diarrhoea	18	30.5	44	81.5	20	74.1
Bloody diarrhoea	21	35.6	4	7.4	1	3.7
HUS	14	23.7	5	9.3	1	3.7
Asymptomatic	6	10.2	1	1.9	5	18.5
Total	59		54		27	

Table 6