



**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 Jan-Mar 2005/1

Summary.

This report gives details of the number of isolates identified by the national reference laboratories in the 1st quarter of 2005 and incorporated in the Enter-net VTEC database. Six countries have supplied information.

Quarterly data - major trends.

Serogroup	2005		2004	
	Freq	%	Freq	%
O157	46	22.3	49	19.9
O91	24	11.7	25	10.2
O103	19	9.2	15	6.1
O26	15	7.3	15	6.1
O146	10	4.9	7	2.8
O145	9	4.4	8	3.3
O113	6	2.9	4	1.6
O117	5	2.4	4	1.6
O128	4	1.9	5	2.0
O55	3	1.5	0	0.0
Untyped/untypable	36	17.5	65	26.4
Other	32	15.5	49	19.9
Total	206		246	

Table 1

Details below refer to the five countries that have supplied comparable data electronically for 2005 and 2004. The total number of reports in the database shows a decrease over the same period of 2005 from 246 to 206 down 16.3% in 2004.

E. coli O157 was the most commonly identified serogroup (table 1). Where phage typing is performed phage type 21/28 was the predominant strain as it was in 2004 (table 2).

O157 Phage type	2005		2004	
	Freq	%	Freq	%
21/28	11	23.9	12	24.5
8	9	19.6	4	8.2
88	9	19.6	0	0.0
2	5	10.9	4	8.2
34	2	4.3	0	0.0
4	1	2.2	0	0.0
32	1	2.2	0	0.0
Untyped/untypable	8	17.4	27	55.1
Other	0	0.0	2	4.1
Total	46		49	

Table 2

All data are provisional, September, 2005

Antimicrobial susceptibility testing results.

Antimicrobial susceptibility test results were available for 151 records. The majority of these are tested against the panel of 11 antimicrobials recommended by Enter-net, although not all strains are 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
	Freq	%	Freq	%	Freq	%	
Streptomycin	16	10.6	7	4.6	128	84.8	151
Gentamicin	0	0.0	19	12.6	132	87.4	151
Kanamycin	2	1.3	8	5.3	141	93.4	151
Ampicillin	10	6.6	120	79.5	21	13.9	151
Cefotaxime	0	0.0	0	0.0	151	100.0	151
Sulphonamides	132	87.4	6	4.0	13	8.6	151
Trimethoprim	11	7.3	6	4.0	134	88.7	151
Chloramphenicol	9	6.0	0	0.0	142	94.0	151
Tetracyclines	12	7.9	78	51.7	61	40.4	151
Nalidixic Acid	1	0.7	0	0.0	150	99.3	151
Ciprofloxacin	0	0.0	0	0.0	151	100.0	151

Table 3

Multi-drug resistance; Table four shows the total number of strains with multiple-resistance (to four or more antimicrobials) and the percent of the total for that serotype with an associated antibiogram.

Serogroup	No MDR (>3)	Total	%
Untyped/untypable	4	27	14.8
O91	2	24	8.3
O14	1	1	100.0
O86	1	1	100.0
O103	1	18	5.6
O158	1	1	100.0
Total	10	72	13.9

Table 4

Age and gender.

The age and gender breakdown is detailed in table 5. Cases of *E. coli* O157 are split evenly between male and female, but there are more cases of non-O157 *E. coli* in females than males (ratio 1:1.2).

Ageband	O157							non-O157						
	Male		Female		Not known		Total	Male		Female		Not known		Total
	Freq	%	Freq	%	Freq	%		Freq	%	Freq	%	Freq	%	
0-11m	2	4.3	1	2.2			3	2	1.6	2	1.6		0.0	4
1-5y	13	28.3	8	17.4			21	26	21.0	30	24.2	1	0.8	57
6-14y	3	6.5	4	8.7			7	4	3.2	1	0.8	1	0.8	6
16-64y	5	10.9	9	19.6			14	19	15.3	25	20.2	1	0.8	45
65y+	1	2.2		0.0			1	2	1.6	7	5.6		0.0	9
Not known		0.0		0.0			0	1	0.8	2	1.6		0.0	3
	24		22		0		46	54		67		3		124

Table 5

Clinical manifestation.

The clinical manifestation is detailed for 43 of the cases in the database. HUS is more common in O157 than non-O157 infections (table 6).

	O157		non-O157	
Diarrhoea	7	58.3	28	90.3
Bloody diarrhoea	1	8.3	2	6.5
HUS	4	33.3	1	3.2
Asymptomatic	0	0.0	0	0.0
	12		31	

Table 6