



**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 Campylobacter Report Apr-Jun 2005/2

Summary.

Data on campylobacteriosis were supplied by twelve of the Enter-net participating countries. In total there were 6,982 cases of *Campylobacter* infection reported to Enter-net during the second quarter of 2005. Rates of infection varied from 0.2 to 18.2 per 100,000 of the population. The average across the countries reporting was 6.4. However, the surveillance systems which monitor *Campylobacter* infection vary considerably. In some countries campylobacteriosis is a notifiable disease, whilst in others, surveillance is carried out on a voluntary basis, and some countries are only just introducing national reference facilities.

Species Differentiation.

Species differentiation among all or a sub-set of *Campylobacter* isolates was undertaken by six of the countries that submitted data (50.0%). *Campylobacter jejuni* was the predominant species identified (14.4% of the total, 93.1% of those with a species identified), *C. coli* was 0.9% of the total, 5.6% of those speciated and other types represented 0.6% of the total and 1.3% of those speciated (Table 1).

Table 1 Number and proportion of isolates by species.

Species	Number	% of total	% of those speciated
<i>C. jejuni</i>	1,006	14.4	93.1
<i>C. coli</i>	61	0.9	5.6
Other	14	0.2	1.3
Not identified	5,901	84.5	
Total	6,982	100.0	100.0

Age and gender.

Just over 60% of all cases were between 15 and 64 years of age (Table 2). There were more males than females overall, and in each age group.

Age group	Males (%)	Females (%)	Unknown (%)	Total (%)
<1 year	158 (2.3)	117 (1.7)	1 (0.0)	276 (4.0)
1-5 years	580 (8.2)	431 (6.2)	4 (0.1)	1,015 (14.5)
6-14 years	474 (6.8)	264 (3.8)	5 (0.0)	743 (10.6)
15-64 years	2,176 (31.2)	2,022 (29.0)	14 (0.1)	4,212 (60.3)
>65 years	335 (4.8)	304 (4.4)	3 (0.0)	642 (9.2)
Unknown	13 (0.2)	9 (0.1)	72 (1.1)	94 (1.4)
Total	3,736 (53.5)	3,147 (45.1)	99 (1.4)	6,982 (100.0)

Table 2 Age and gender breakdown of all *Campylobacter* isolates reported during the second quarter of 2005

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Travel associated cases.

Travel data are available for 1,058 cases. The top five destinations were Turkey (135 cases, 12.8%), Spain (131, 12.4%), Thailand (56, 5.3%), India (56, 5.3%), and Tunisia (55, 5.2%).

Antimicrobial resistance.

Antimicrobial susceptibility testing of *Campylobacter* isolates was undertaken by five of the countries that submitted data (41.7%). The most common antimicrobials tested against were Erythromycin, Tetracyclines and Ciprofloxacin. The proportion of resistant isolates varied by species (Table 3).

Antimicrobial agent	Number tested	Proportion of isolates resistant (%)				
		<i>C. jejuni</i>	<i>C. coli</i>	Other	NT	All
Gentamicin	84	0.0	0.0	100.0	0.0	1.2
Ampicillin	79	18.3	50.0	0.0	100.0	25.3
Amoxicillin/Clavulanic acid	48	0.0	0.0	0.0	0.0	0.0
Erythromycin	864	1.1	0.0	9.1	0.0	1.0
Tetracyclines	636	17.7	26.1	28.6	30.4	19.3
Nalidixic acid	170	39.6	100.0	0.0	50.0	40.6
Ciprofloxacin	965	36.5	48.0	66.7	42.1	37.8

Table 3 Antimicrobial susceptibility testing results showing the proportion (%) of isolates resistant to the testing panel of antimicrobials by species.

Multi-drug resistance was seen in 15.8% per cent of *Campylobacter* isolates tested (Table 4).

Number MDR (≥ 4) by species			
Species	No. MDR (≥ 4)	Total tested	%
<i>Jejuni</i>	10	71	14.1
<i>Coli</i>	1	2	50.0
Others	0	0	0.0
Total	12	76	15.8

Table 4 Multi-drug resistance results showing the proportion (%) of isolates by species that were found to be resistant to four or more different classes of antimicrobials.

This report was prepared by Ian Fisher on behalf of the Enter-net participants. Report prepared July 2006.