ECDC SURVEILLANCE REPORT

Food- and Waterborne Diseases and Zoonoses Surveillance Network

Quarterly Campylobacter Report Q1 2008, January–March 2008

Overview

This report provides detailed information on the number of confirmed campylobacteriosis cases identified by national surveillance centres in EU Member States and EEA/EFTA countries in the first quarter of 2008.

Seventeen countries submitted case-based data for the first quarter in 2008 and of these, 13 countries also submitted data for Q1 2007. One country submitted aggregated data for 2008; however, it was not possible to include these data as cases were reported without a timestamp, e.g. the month of occurrence. All tables use 'notification' data, except for those on antimicrobial susceptibility, which use more comprehensive laboratory data.

Campylobacter species isolated from cases are listed in Table 1. Table 2 provides an age and gender breakdown, followed by information on travel-related cases. Tables 3 and 4 provide details on antimicrobial resistance testing and multi-drug-resistant isolates by species.

Note: This report was prepared by the ECDC FWD team on behalf of the participating countries.

Quarterly data trends

For the first quarter of 2008, a total of 15,678 confirmed cases were reported by 17 countries. 15,440 cases reported by 13 countries were included in the analysis[1]. A total of 15,741 cases had been reported for the corresponding quarter in 2007 by these 13 countries. The total number of confirmed cases decreased in Q1 2008 when compared with the same quarter a year ago.

Species differentiation

Species differentiation was undertaken for a subset of isolates in 11 of the 13 countries. *Campylobacter jejuni* was the most common species identified.

[1] Only countries that reported data for the same quarter over two subsequent years (2007/2008) were included in the analysis.
In some tables, totals do not add up to the total number of cases reported for each quarter due to missing values.

Table 1. Number and proportion of isolates by species, Q1 of 2008 and Q1 2007

Species	2008		2007		% change 2007/2008
	Freq	%	Freq	%	
C. jejuni	1,917	12.4	2,314	16.0	−17.2
C. coli	176	1.1	205	1.4	−14.1
C. lari	22	0.1	24	0.2	−8.3
C. upsaliensis	2	0.0	0	0.0	–
Other	40	0.3	51	0.4	−21.6
Not speciated	13,283	86.0	11,911	82.1	11.5
Total	**15,440**	**100.0**	**14,505**	**100.0**	**6.4**

Age and gender

Table 2. Age and gender breakdown of all *Campylobacter* isolates for Q1 of 2008

Age group	Male		Female		Unknown		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
0-4 years	1,053	55.7	813	43.0	24	1.3	1,890	12.3
5-14 years	608	59.1	413	40.2	7	0.7	1,028	6.7
15-24 years	889	47.8	955	51.4	15	0.8	1,859	12.1
25-44 years	2,195	50.7	2,104	48.6	31	0.7	4,330	28.1
45-64 years	2,195	52.8	1,950	46.9	16	0.4	4,161	27.0
>=65 years	1,065	50.4	1,039	49.1	11	0.5	2,115	13.7
Total	**8,005**	**52.0**	**7,274**	**47.3**	**104**	**0.7**	**15,383**	**100.0**

Travel-associated cases

Data on travel activities (variable name 'Imported') were available for 6,480 cases. Forty-one percent (2,641) of these cases were linked to travel. The top ten destinations were Thailand (895 cases, 38.7%), India (469, 20.3%), Spain (98, 4.2%), Morocco (81, 3.5%), Egypt (74, 3.2%), Venezuela (46, 2.0%), Tunisia (29, 1.2%), Tanzania (28, 1.2%), France (26, 1.1%) and Vietnam (26, 1.1%). The remaining cases were from 89 other countries.

Antimicrobial resistance

Antimicrobial susceptibility testing of *Campylobacter* isolates was reported by four countries. The proportion of resistant isolates varied somewhat between species.

Table 3a-d. Antimicrobial susceptibility testing results by species with proportion (%) of isolates resistant to the testing panel of antimicrobials, Q1 of 2008

3a. *C. jejuni*

Antimicrobial agent	Resistant		Intermediate		Sensitive		Total
	Freq	%	Freq	%		%	Freq
Amoxicillin/clavulanic acid	2	3.1	1	1.5	62	95.4	65
Ampicillin	19	29.2	12	18.5	34	52.3	65
Ciprofloxacin	60	89.6	0	0.0	7	10.4	67
Erythromicin	3	4.5	0	0.0	64	95.5	67
Gentamicin	3	4.6	4	6.2	58	89.2	65
Naladixic acid	2	100.0	0	0.0	0	0.0	2
Tetracycline	44	67.7	9	13.8	12	18.5	65

3b. *C. coli*							
Antimicrobial agent	**Resistant**		**Intermediate**		**Sensitive**		**Total**
	Freq	**%**	**Freq**	**%**		**%**	**Freq**
Amoxicillin/clavulanic acid	0	0.0	0	0.0	8	100.0	8
Ampicillin	2	25.0	0	0.0	6	75.0	8
Ciprofloxacin	8	100.0	0	0.0	0	0.0	8
Erythromicin	1	12.5	0	0.0	7	87.5	8
Gentamicin	0	0.0	1	12.5	7	87.5	8
Naladixic acid	0	-	0	-	0	-	0
Tetracycline	6	75.0	0	0.0	2	25.0	8

3c. *C.* other	No isolates typed.

3d. *C. spp* (not typed)							
Antimicrobial agent	**Resistant**		**Intermediate**		**Sensitive**		**Total**
	Freq	**%**	**Freq**	**%**		**%**	**Freq**
Amoxicillin/clavulanic acid	2	8.3	0	0.0	22	91.7	24
Ampicillin	9	28.1	0	0.0	23	71.9	32
Ciprofloxacin	22	21.4	0	0.0	81	78.6	103
Erythromicin	2	1.8	0	0.0	108	98.2	110
Gentamicin	2	3.3	0	0.0	58	96.7	60
Naladixic acid	19	21.3	0	0.0	70	78.7	89
Tetracycline	13	21.7	0	0.0	47	78.3	60

Multi-resistant isolates (resistant to four or more different classes of antimicrobials) were uncommon and represented only 3.0% and 1.8%, respectively, of the *C. jejuni* isolates and isolates that were not speciated (Table 4).

Table 4. Antimicrobial susceptibility testing results by species with proportion (%) of multi-drug resistant isolates (resistant to four or more antimicrobials), Q1 of 2008

Species	**Freq MDR (≥4)**	**%**	**Total tested**
C. jejuni	2	3.0	67
C. coli	0	0.0	8
C. lari	0	-	0
C. upsaliensis	0	-	0
Other	0	-	0
Not speciated	2	1.8	111
Total	**4**	**2.2**	**186**