

P1735 Antimicrobial susceptibility of *Campylobacter jejuni* and *Campylobacter coli* from healthy cattle, pigs and chickens at processing in 10 EU countries (2013-2014): European Antimicrobial Susceptibility Surveillance in Animals (EASSA)

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Background: Human *Campylobacter* infection is recognized as leading cause of bacterial intestinal disease in the EU. Although typically acute and self-limiting, it may require antibiotic treatment in severe or long-lasting cases. In the EU, macrolides such as azithromycin or erythromycin are the antibiotics of first choice. In the EASSA project, susceptibility to human-use antibiotics was investigated among *Campylobacter* from food-producing animals. Results of *C. jejuni* and *C. coli* are presented here.

Materials/methods: Non-repetitive sampling of intestinal content was randomly conducted at 4-12 abattoirs per country (5-6 countries/animal species). *Campylobacter* were identified biochemically or by MALDI-ToF. MICs for six antibiotics were determined to CLSI standards in a central laboratory. Clinical resistance was assessed according to CLSI breakpoints (M45-A2; M100-S26), and decreased susceptibility using epidemiological cut-off values (EFSA).

Results: Overall, 665 *C.jejuni* isolates (cattle=201; pigs=27; chicken=437) and 876 *C. coli* isolates (cattle=7; pigs=558; chicken=311) were recovered. Generally, resistance was less common in cattle than in pigs or chickens. Resistance for *C.jejuni* (cattle and chicken, respectively) was: azithromycin 0.5, 0.9%; erythromycin 0.5, 0.9%; ciprofloxacin 36.3, 70.7%; nalidixic acid 38.3, 70.7%; gentamicin 0.0, 0.0%; tetracycline 19.4, 55.8%. Ciprofloxacin resistance varied widely: from 4.7% (UK) to 60.0% (Poland) in cattle and from 30.6% (UK) to 89.9% (Hungary) in chicken. Decreased susceptibility to erythromycin, ciprofloxacin and gentamicin was 0-2.0% and for tetracycline \leq 5.5%. Multi-resistance (\geq 3 antibiotics of different classes) and co-resistance of ciprofloxacin and erythromycin was very low.

For *C. coli*, much less prevalent in humans, resistance in pigs and chickens was: azithromycin 22.6, 7.4%; erythromycin 22.8, 7.4%; ciprofloxacin 34.1, 83.6%; nalidixic acid 39.2, 85.2%; gentamicin 1.8, 0.6%; tetracycline 65.9, 67.2%. Macrolide resistance was variable with the highest levels seen in pig isolates from Spain (59%). Ciprofloxacin resistance varied greatly among countries, but chicken isolates were generally more resistant than isolates from pigs. Multi-resistance and co-resistance of ciprofloxacin and erythromycin amounted to 13.3-13.8% for pigs and 6.1-6.8% for chickens.

Conclusions: This pan-EU survey shows that antimicrobial resistance among *C. jejuni* and *C. coli* varies by animal species, antibiotics and countries. In *C. jejuni*, the species most relevant to humans, resistance to macrolides was very low.