



Abstract

The data on antimicrobial resistance in zoonotic and indicator bacteria in 2017, submitted by 28 EU Member States (MSs), were jointly analysed by EFSA and ECDC. Resistance in zoonotic *Salmonella* and *Campylobacter* from humans, animals and food, and resistance in indicator *Escherichia coli* as well as methicillin-resistant *Staphylococcus aureus* in animals and food were addressed, and temporal trends assessed. ‘Microbiological’ resistance was assessed using epidemiological cut-off (ECOFF) values; for some countries, qualitative data on human isolates were interpreted in a way which corresponds closely to the ECOFF-defined ‘microbiological’ resistance. In *Salmonella* from humans, as well as in *Salmonella* and *E. coli* isolates from fattening pigs and calves of less than 1 year of age, high proportions of isolates were resistant to ampicillin, sulfonamides and tetracyclines, whereas resistance to third-generation cephalosporins was uncommon. Varying occurrence/prevalence rates of presumptive extended-spectrum beta-lactamase (ESBL)/AmpC producers in *Salmonella* and *E. coli* monitored in meat (pork and beef), fattening pigs and calves, and *Salmonella* monitored in humans, were observed between countries. Carbapenemase-producing *E. coli* were detected in one single sample from fattening pigs in one MS. Resistance to colistin was observed at low levels in *Salmonella* and *E. coli* from fattening pigs and calves and meat thereof and in *Salmonella* from humans. In *Campylobacter* from humans, high to extremely high proportions of isolates were resistant to ciprofloxacin and tetracyclines, particularly in *Campylobacter coli*. In five countries, high to very high proportions of *C. coli* from humans were resistant also to erythromycin, leaving few options for treatment of severe *Campylobacter* infections. High resistance to ciprofloxacin and tetracyclines was observed in *C. coli* isolates from fattening pigs, whereas much lower levels were recorded for erythromycin. Combined resistance to critically important antimicrobials in both human and animal isolates was generally uncommon but very high to extremely high multidrug resistance levels were observed in *S. Typhimurium* and its monophasic variant in both humans and animals. *S. Kentucky* from humans exhibited high-level resistance to ciprofloxacin, in addition to a high prevalence of ESBL.

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