

Annex C – Data reported on antimicrobial resistance in indicator *Escherichia coli* from food-producing animals and imported fresh meat

Annex to:

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C.1. Antimicrobial resistance in *Escherichia coli* from food-producing animals

Table 1: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in indicator *Escherichia coli* from fattening pigs, 27 MSs and United Kingdom (Northern Ireland), 3 non-MSs, 2021

Country	N	GEN (%)	AMK (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Austria	175	0	0.6	4.0	21.1	1.1	1.1	0	0	4.6	6.3	1.7	0	22.3	14.3	50.9	38.3	16.6	0.6	0
Belgium	170	0	1.2	15.9	30.0	0	0	0	0	3.5	4.1	1.2	0	33.5	33.5	40.0	41.8	28.8	0	0
Bulgaria	100	4.0	0	38.0	63.0	1.0	1.0	0	0	12.0	26.0	4.0	1.0	74.0	41.0	65.0	11.0	64.0	0	0
Croatia	85	1.2	0	12.9	27.1	0	0	0	0	10.6	12.9	1.2	0	34.1	24.7	50.6	37.6	29.4	0	0
Cyprus	22	4.5	0	31.8	59.1	4.5	4.5	0	0	9.1	9.1	9.1	0	63.6	59.1	77.3	9.1	59.1	0	0
Czechia	178	0	0	5.1	35.4	2.2	2.2	0	0	2.8	4.5	1.7	0.6	27.5	22.5	34.8	46.1	23.6	0.6	0
Denmark	65	0	0	4.6	38.5	1.5	1.5	0	0	0	0	4.6	0	41.5	30.8	29.2	52.3	33.9	0	0
Estonia	143	0	0	2.1	27.3	1.4	0.7	0	0.7	2.1	3.5	0	0	25.9	24.5	35.0	49.6	21.7	0	0
Finland	170	0	0	0	8.2	0	0	0	0	0	0	0	0	12.4	12.4	14.1	77.7	8.2	0	0
France	232	0	0.4	8.6	25.4	0.9	0.9	0	0.9	2.6	2.6	1.3	0	29.3	21.1	42.2	44.0	23.7	0.9	0.4
Germany	190	2.6	0	6.3	28.9	0	0	0	0	1.1	1.6	2.6	0	29.5	23.7	32.1	49.5	22.6	0	0
Greece	73	2.7	0	53.4	65.8	0	0	0	0	6.8	11.0	8.2	0	64.4	50.7	71.2	20.6	67.1	0	0
Hungary	170	3.5	0	14.1	45.3	4.7	4.1	0	4.7	4.7	7.6	2.4	0	31.8	24.7	47.1	30.6	35.3	0.6	0
Ireland	170	3.5	0	9.4	28.2	0	0	0	0	0.6	2.4	0.6	0	37.1	36.5	51.8	38.2	32.9	0	0
Italy	170	4.7	0	39.4	57.6	0.6	0.6	0	0	8.2	17.1	0	0	48.2	38.2	65.9	22.4	55.3	0.6	0
Latvia	152	0.7	0	9.9	30.3	1.3	1.3	0	0	3.9	6.6	2.6	1.3	28.9	21.7	27.6	50.7	25.7	0	0
Lithuania	100	6.0	1.0	13.0	36.0	1.0	1.0	0	0	7.0	12.0	2.0	3.0	32.0	18.0	38.0	43.0	26.0	1.0	1.0
Luxembourg	205	0	0	6.8	25.4	0	0	0	0	2.4	4.9	0	0	22.9	22.0	37.6	50.5	21.0	0	0
Malta	126	2.4	0	20.6	29.4	0	0	0	0	4.8	11.1	0	0	45.2	39.7	59.5	27.8	38.9	0	0
Netherlands	300	0.7	0.7	9.3	22.3	0	0	0	0	0.7	2.0	1.7	0	24.0	24.3	31.0	50.7	20.3	0	0
Poland	212	0.9	0.5	17.5	47.2	1.9	1.9	0	0.5	9.0	16.5	0.9	0	35.8	30.2	47.2	34.0	39.1	1.4	0
Portugal	55	1.8	0	49.1	70.9	5.5	5.5	0	0	10.9	16.4	9.1	1.8	60.0	58.2	72.7	10.9	72.7	1.8	0
Romania	169	4.1	0	30.8	59.8	4.7	4.7	0	0	18.3	33.7	3.0	0.6	53.8	33.7	61.5	14.8	55.6	1.8	1.8
Slovakia	85	7.1	0	8.2	42.4	0	0	0	0	9.4	9.4	1.2	0	40.0	27.1	44.7	32.9	34.1	0	0
Slovenia	85	0	0	10.6	18.8	2.4	1.2	0	4.7	0	5.9	0	0	17.6	17.6	27.1	57.6	23.5	1.2	0
Spain	170	4.7	0	41.2	83.5	1.2	1.2	0	0	27.1	50.6	4.7	0	58.8	60.0	78.8	6.5	78.8	1.2	0.6
Sweden	173	0	0	7.5	24.9	0.6	0.6	0	0	1.7	1.7	1.5	0	22.5	19.7	16.8	63.6	19.6	0	0

Country	N	GEN (%)	AMK (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
United Kingdom (Northern Ireland)	68	0	1.5	17.6	41.2	0	0	0	0	4.4	4.4	1.5	0	64.7	45.6	66.2	17.6	47.1	0	0
Total (28 MSs)	4013	1.7	0.2	15.1	36.3	1.1	1.1	0	0.4	5.6	9.7	1.8	0.2	34.9	28.7	44.0	39.7	33.1	0.4	0.1
Median (MSs)	-	1.1	0	11.8	32.8	0.9	0.9	0	0	4.5	6.4	1.6	0	33.8	25.9	45.9	38.3	31.2	0	0
Iceland	85	0	0	9.4	25.9	1.2	1.2	0	1.2	0	0	0	0	32.9	23.5	38.8	44.7	28.2	0	0
Norway	318	0	0	0.3	6.6	0	0	0	0	0.9	0.9	0	0	7.5	6.3	6.0	85.8	3.5	0	0
Switzerland	170	1.2	0	2.9	16.5	0	0	0	0.6	3.5	4.1	0	0	29.4	14.7	30.0	51.8	14.7	0	0
Total (28 MSs and 3 non-MSs)	4586	1.5	0.2	13.5	33.3	1.0	0.9	0	0.4	5.1	8.7	1.5	0.2	32.8	26.5	40.8	43.4	30.3	0.4	0.1
Median (MSs and non-MSs)	-	0.9	0	9.9	30.0	0.9	0.7	0	0	3.9	5.9	1.3	0	32.9	24.7	42.2	41.8	28.8	0	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

Table 2: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in *Escherichia coli* from calves under one year of age, 11 MSs and 2 non-MSs, 2021

Country	N	GEN (%)	AMK (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Belgium	173	5.8	1.2	26.0	49.7	1.7	1.2	0	5.2	8.1	19.1	4.6	1.2	42.8	41.0	54.9	36.4	49.1	1.2	0
Croatia	85	0	0	12.9	16.5	0	0	0	0	4.7	4.7	0	0	32.9	8.2	43.5	54.1	18.8	0	0
Denmark	109	0	0	6.4	8.3	0	0	0	0	0	0.9	0	0	12.8	0.9	15.6	83.5	7.3	0	0
France	181	2.8	0	24.3	46.4	1.1	1.1	0	0.6	5.0	5.0	9.4	0	48.1	32.6	61.3	35.9	44.8	0	0
Germany	203	3.4	0	10.8	38.9	3.4	2.5	0	0.5	7.4	11.3	2.5	0.5	29.6	26.1	39.9	52.7	33.0	1.0	0
Italy	170	11.2	0	35.3	60.6	4.1	3.5	0	1.8	17.6	35.9	0	0	65.3	56.5	74.7	20.6	62.9	2.9	0.6
Netherlands	306	2.3	0.7	16.0	24.5	0.7	0.3	0	0.3	2.3	4.9	1.6	0	23.5	20.9	44.4	52.3	25.2	0	0
Portugal	53	0	0	7.5	9.4	1.9	1.9	0	3.8	5.7	3.8	1.9	0	11.3	3.8	18.9	77.4	9.4	1.9	1.9
Romania	129	1.6	0	4.7	9.3	0.8	0.8	0	0	3.1	5.4	0.8	0	10.9	6.2	16.3	79.8	9.3	0.8	0
Spain	170	2.9	0	15.3	12.9	0	0	0	0	2.4	2.4	0	0	25.3	7.6	31.8	65.9	18.8	0	0
Sweden	20	0	0	0	5.0	0	0	0	0	0	0	0	0	0	0	5.0	95.0	0	0	0
Total (11 MSs)	1599	3.4	0.3	17.1	30.6	1.4	1.1	0	1.1	5.6	9.9	2.3	0.2	31.8	23.4	43.2	52.7	30.6	0.7	0.1
Median (MSs)	-	2.3	0	12.9	16.5	0.8	0.8	0	0.3	4.7	4.9	0.8	0	25.3	8.2	39.9	54.1	18.8	0	0
Norway	288	0	0	0.3	2.4	2.1	2.1	0	0	0	0	0	0	2.4	0.3	1.0	95.5	0.7	0	0
Switzerland	180	6.7	0	7.2	26.1	1.1	1.1	0	3.3	0.6	0.6	1.1	0	27.2	12.2	28.3	62.8	21.7	0	0
Total (11 MSs and 2 non-MSs)	2067	3.2	0.2	13.9	26.3	1.5	1.3	0	1.1	4.4	7.7	1.9	0.1	27.3	19.2	36.0	59.5	25.7	0.5	0.1
Median (MSs and 2 non-MSs)	-	2.3	0	10.8	16.5	1.1	1.1	0	0.3	3.1	4.7	0.8	0	25.3	8.2	31.8	62.8	18.8	0	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

Table 3: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in *Escherichia coli* from broilers, 27 MSs and 5 non-MSs, 2020

Country	N	GEN (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Austria	170	3.5	2.9	34.7	0	0	0	0	46.5	47.6	0.6	0	37.1	25.9	26.5	32.4	32.9	0	0
Belgium	165	6.1	18.2	82.4	6.7	6.7	0	0	45.5	49.7	6.1	0	69.1	64.8	56.4	6.1	70.3	5.4	0
Bulgaria	100	16.0	25.0	60.0	1.0	0	0	0	74.0	77.0	6.0	6.0	81.0	40.0	52.0	2.0	72.0	1.0	1.0
Croatia	85	8.2	8.2	50.6	0	0	0	0	56.5	62.4	0	0	42.4	28.2	45.9	24.7	45.9	0	0
Cyprus	99	7.1	24.2	81.8	7.1	7.1	0	0	72.7	87.9	3.0	10.1	67.7	56.6	73.7	5.0	79.8	7.1	5.0
Czechia	195	1.0	3.1	36.4	0	0	0	0	66.2	71.8	0	0	21.5	14.4	19.0	15.9	23.1	0	0
Denmark	172	2.3	0	20.3	0	0	0	0	14.5	16.3	0.6	0	19.8	10.5	9.3	58.1	12.8	0	0
Estonia	82	0	4.9	39.0	0	0	0	0	48.8	51.2	0	0	19.5	15.9	13.4	37.8	24.4	0	0
Finland	170	0.6	0	4.1	0	0	0	0	4.7	4.7	0	0	3.5	1.8	9.4	82.9	2.4	0	0
France	222	2.7	3.6	37.4	0.5	0.5	0	0	29.7	30.6	0.5	0.9	36.9	31.5	41.9	30.6	38.3	0.4	0
Germany	214	9.3	5.1	64.0	2.3	2.3	0	0	52.3	60.7	2.8	8.9	50.9	38.8	31.8	15.4	49.5	1.4	0
Greece	170	17.6	29.4	72.9	0.6	0.6	0	0	68.2	72.9	5.9	0.6	58.8	53.5	61.8	9.4	68.8	0.6	0.6
Hungary	170	8.8	14.7	51.2	1.2	1.2	0	0	82.4	88.8	0.6	0	34.7	20.6	37.6	6.5	45.3	1.2	0.6
Ireland	170	0	5.3	50.0	0	0	0	0	15.9	17.1	0.6	0	32.4	27.1	31.2	31.8	28.2	0	0
Italy	170	2.9	21.2	55.9	1.2	1.2	0	0	48.2	54.1	1.2	0	46.5	37.1	47.6	24.1	52.4	0.6	0.6
Latvia	150	0	2.7	41.3	0.7	0.7	0	0	57.3	60.7	0	0	28.0	30.7	26.7	22.0	37.3	0.7	0.7
Lithuania	100	12.0	33.0	86.0	5.0	5.0	0	0	75.0	92.0	5.0	0	76.0	63.0	62.0	1.0	85.2	5.0	1.0
Luxembourg ^(a)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	0	0	0
Malta ^(a)	3	0	33.3	33.3	33.3	33.3	0	0	33.3	33.3	0	0	33.3	33.3	33.3	66.7	33.3	33.3	33.3
Netherlands	305	3.0	3.6	43.6	0.3	0	0	0	29.2	34.4	0	0	41.0	30.8	30.2	31.8	38.0	0.3	0
Poland	175	9.1	24.0	77.7	2.3	1.7	0	0	70.3	85.1	1.7	1.7	57.1	53.1	52.0	7.4	71.4	1.7	0.6
Portugal	156	9.6	21.8	64.1	3.2	3.2	0	0	69.2	74.4	5.8	0	46.2	34.0	50.6	10.3	54.5	3.2	1.9
Romania	168	17.3	25.6	63.1	3.6	3.0	0	0	82.1	87.5	11.3	4.2	57.1	42.3	56.5	6.0	71.4	3.6	3.6
Slovakia	84	10.7	14.3	82.1	0	0	0	0	88.1	96.4	1.2	0	50.0	39.3	59.5	2.4	64.3	0	0
Slovenia	85	0	2.4	56.5	1.2	1.2	0	0	51.8	63.5	0	0	25.9	24.7	34.1	17.6	34.1	0	0
Spain	170	12.4	8.8	32.9	1.8	1.8	0	0	60.6	65.9	6.5	0	26.5	18.8	30.0	19.4	31.2	1.2	1.2
Sweden	172	0.6	0	12.8	0	0	0	0	10.5	12.2	0	0	15.1	9.3	7.0	71.5	10.5	0	0
Total (27 MSs)	3924	6.1	11.1	49.8	1.5	1.4	0	0	49.7	55.1	2.3	1.2	40.5	31.7	36.9	24.6	43.8	1.2	0.6
Median (MSs)	-	3.5	8.2	50.6	0.7	0.6	0	0	52.3	60.7	0.6	0	37.1	30.8	34.1	19.4	38.3	0.6	0
Iceland	85	1.2	0	7.1	0	0	0	0	7.1	7.1	0	0	4.7	10.6	3.5	78.8	3.5	0	0
Norway	247	0	0.4	2.0	0	0	0	0	12.1	12.6	0	0	0.4	2.8	3.6	79.8	0.4	0	0

Country	N	GEN (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Republic of North Macedonia ^(a)	2	0	0	50.0	0	0	0	0	50.0	50.0	0	0	0	0	50.0	50.0	50.0	0	0
Switzerland	208	1.4	0.5	19.7	0	0	0	0	40.4	41.3	0.5	0	16.8	12.0	13.0	44.2	16.8	0	0
United Kingdom	250	4.0	3.2	40.4	0.4	0.4	0	0	10.0	10.4	0.4	0	31.2	24.0	22.0	42.4	27.2	0	0
Total (27 MSs and 5 non-MSs)	4716	5.4	9.5	44.7	1.2	1.1	0	0	44.5	49.0	2.0	1.0	36.2	28.5	32.7	30.3	38.7	1.0	0.5
Median (MSs and non-MSs)	-	2.9	5.0	46.8	0.4	0.2	0	0	49.4	52.7	0.5	0	34.0	27.6	32.6	24.4	37.7	0.2	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

(a): The occurrence of resistance is assessed on less than 10 isolates and should only be considered as part of the total of MSs data and/or the total of MSs and non-MSs.

Table 4: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in *Escherichia coli* from fattening turkeys, 11 MSs and 2 non-MS, 2020

Country	N	GEN (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Austria	170	1.2	2.9	40.6	0	0	0	0	13.5	21.8	0	0.6	11.8	11.8	30.6	44.1	15.9	0	0
Belgium	95	6.3	26.3	69.5	6.3	7.4	0	0	24.2	34.7	1.1	0	40.0	31.6	67.4	17.9	49.5	2.1	0
France	171	0.6	10.5	54.4	0.6	0.6	0	0	9.9	15.2	0.6	2.9	32.2	31.0	52.6	31.6	38.6	0	0
Germany	213	2.8	11.3	54.5	1.4	0.9	0	0	20.2	32.4	0	7.5	25.4	12.7	39.0	27.7	33.3	0.5	0
Hungary	170	2.9	24.7	54.7	0	0	0	0	38.8	58.2	2.9	1.8	38.2	22.4	68.2	18.2	50.6	0	0
Italy	170	2.4	15.9	52.4	1.8	1.8	0	0	22.9	33.5	1.2	0	44.1	45.3	47.1	31.2	47.6	0.6	0
Poland	182	8.8	25.3	74.2	2.2	1.6	0	0	45.1	73.6	1.1	12.1	45.6	39.6	67.6	13.2	64.8	1.6	1.1
Portugal	142	3.5	31.7	69.7	3.5	3.5	0	0.7	64.8	72.5	7.0	23.9	51.4	37.3	71.8	14.1	69.0	3.5	2.1
Romania	31	41.9	74.2	93.5	0	0	0	0	64.5	87.1	22.6	3.2	80.6	54.8	90.3	3.2	90.3	0	0
Spain	170	2.4	21.8	60.0	3.5	3.5	0	0	36.5	56.5	1.8	0	37.6	30.0	59.4	18.2	53.5	3.5	1.2
Sweden	44	0	2.3	9.1	0	0	0	0	4.5	4.5	0	0	9.1	2.3	9.1	79.6	4.6	0	0
Total (11 MSs)	1558	4.0	18.8	57.4	1.8	1.7	0	0.1	30.1	43.8	2.0	5.3	35.7	28.2	54.1	25.7	45.9	1.2	0.4
Median (MSs)	-	2.8	21.8	54.7	1.4	0.9	0	0	24.2	34.7	1.1	1.8	38.2	31.0	59.4	18.2	49.5	0.5	0
Norway	120	0.8	1.7	18.3	1.7	1.7	0	0	1.7	2.5	0	0	5.8	6.7	8.3	75.0	5.0	0	0
United Kingdom	197	1.5	4.1	59.9	1.0	1.0	0	0	6.6	14.2	1.0	0	16.8	14.7	55.3	28.9	24.4	0.5	0.5
Total (11 MSs and 2 non-MSs)	1875	3.5	16.2	55.2	1.7	1.7	0	0.1	25.8	38.1	1.8	4.4	31.8	25.4	51.3	29.2	41.0	1.0	0.4
Median (MSs and non-MSs)	-	2.4	15.9	54.7	1.4	1.0	0	0	22.9	33.5	1.1	0.6	37.6	30.0	55.3	27.7	47.6	0.5	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

C.2. Antimicrobial resistance in *Escherichia coli* from fresh meat sampled at Border Control Posts

Table 5: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in *Escherichia coli* from imported fresh pig meat sampled at Border Control Posts, 4 MSs, 2021

Country	N	GEN (%)	AMK (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Ireland ^(a)	3	0	0	0	0	0	0	0	0	0	0	0	0	33.3	33.3	33.3	66.7	33.3	0	0
Italy ^(a)	3	0	0	0	100.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands ^(a)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60.0	40.0	0	0	0
Sweden ^(a)	2	0	0	50.0	50.0	0	0	0	0	0	50.0	0	0	50.0	0	50.0	50.0	50.0	0	0
Total (4 MSs)	13	0	0	7.7	30.8	0	0	0	0	0	7.7	0	0	15.4	7.7	38.5	38.5	15.4	0	0
Median (MSs)	-	0	0	0	25.0	0	0	0	0	0	0	0	0	16.7	0	41.7	45.0	16.7	0	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*.

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

(a): The occurrence of resistance is assessed on less than 10 isolates and should only be considered as part of the total of MSs data and/or the total of MSs and non-MSs.

Table 6: Occurrence of resistance (%) to selected antimicrobials, using harmonised ECOFFs, complete susceptibility and multiresistance to all antimicrobials tested and co-resistance to (fluoro)quinolones and third-generation cephalosporins, in *Escherichia coli* from imported fresh bovine meat sampled at Border Control Posts, 4 MSs, 2021

Country	N.x	GEN (%)	AMK (%)	CHL (%)	AMP (%)	CTX (%)	CAZ (%)	MEM (%)	TGC (%)	NAL (%)	CIP (%)	AZM (%)	COL (%)	SMX (%)	TMP (%)	TET (%)	CS	MDR	Resistance to both CIP/CTX, applying ECOFFs	Resistance to both CIP/CTX, applying CBPs
Finland ^(a)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	0	0	0
Germany ^(a)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	0	0	0
Italy	21	0	0	0	4.8	0	0	0	0	4.8	4.8	0	0	0	0	4.8	90.5	0	0	0
Netherlands	79	1.3	0	3.8	5.1	1.3	1.3	0	1.3	1.3	1.3	1.3	0	7.6	3.8	11.4	84.8	5.1	1.3	1.3
Spain ^(a)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	0	0	0
Sweden ^(a)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	0	0	0
Total (6 MSs)	110	0.9	0	2.7	4.6	0.9	0.9	0	0.9	1.8	1.8	0.9	0	5.4	2.7	10.9	85.4	3.6	0.9	0.9
Median (MSs)	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	95.2	0	0	0

N: total number of isolates tested; %: percentage of isolates with this phenotype from the total tested; GEN: gentamicin; CHL: chloramphenicol; AMP: ampicillin; CTX: cefotaxime; CAZ: Ceftazidime; MEM: meropenem; TGC: tigecycline, NAL: nalidixic acid; CIP: ciprofloxacin; AZM: azithromycin; COL: colistin; SMX: sulfamethoxazole; TMP: trimethoprim; TET: tetracycline.

CS: percentage of isolates showing complete susceptibility to all antimicrobial classes of the harmonised set for *E. coli*; MDR: percentage of isolates showing resistance to at least 3 antimicrobial classes of the harmonised set for *Escherichia coli*.

MSs: Member States; ECOFFs: epidemiological cut-off values; CBPs: clinical breakpoints

(a): The occurrence of resistance is assessed on less than 10 isolates and should only be considered as part of the total of MSs data and/or the total of MSs and non-MSs.