DANMAP 2013

WEB Annex

Statens Serum Institut
National Veterinary Institute, Technical University of Denmark
National Food Institute, Technical University of Denmark

Web annex tables

Table A4.1. Consumption of antimicrobial agents[a] for systemic use in pigs given as defined animal daily doses (DADDs), Denmark

DANMAP 2013

ATCvet code	QJ01AA	QJ01BA	QJ01CE	QJ01CA QJ01CR	QJ01DC QJ01DD	QJ01E	QJ01FA	QJ01FF	QA07AA	QA07AA10	QJ01MA	QJ01RA	QJ01XX	
Therapeutic group	Tetracyclines	Amphenicols	Penicillin's, β–lactamase sensitive	Aminopenicillins[b]	Cephalosporins[c]	Sulfonamides and trimethoprim	Macrolides	Lincosamides / spectinomycin[d]	Aminoglycosides (local GI)	Colistin (local GI)	Fluoroquinolones	Penicillin-streptomycin combinations	Pleuromutilins	**Total**
Year	**breeding animals/piglets (1000's DADD for 200 kg)**													
2004	1202	18	2256	1105	113	1270	745	576	214	35	3	669	898	**9102**
2005	1129	20	2344	1080	132	1367	744	563	166	35	4	661	727	**8972**
2006	1222	18	2371	1079	149	1435	802	538	151	35	7	647	828	**9281**
2007	1639	20	2589	1209	244	1571	1322	611	99	47	6	662	1138	**11158**
2008	1582	20	2647	1219	300	1638	1240	554	37	57	0	631	1689	**11614**
2009	1664	52	2858	1430	219	2040	1350	528	47	85	0	685	1558	**12517**
2010	1489	73	2788	1487	114	2101	1309	442	53	102	0	693	1142	**11796**
2011	1054	101	2400	1247	3	1760	1027	316	52	84	7	603	516	**9170**
2012	1135	89	2407	1196	1	1672	1187	287	67	86	9	601	497	**9234**
2013	1257	142	2601	1177	5	1808	1395	295	66	89	15	569	667	**10086**
Year	**Weaner pigs (1000's DADD for 19 kg)**													
2004	35158	223	3271	11046	207	4357	39291	16697	16790	3572	6	2428	18083	**151130**
2005	38984	151	3362	9616	211	4894	37489	14369	15485	3148	4	2833	19605	**150150**
2006	45657	76	3197	7941	230	3713	36439	12488	15350	3320	9	2773	18628	**149822**
2007	59265	106	3531	7857	321	3327	42812	12733	8341	4178	0	2715	16446	**161632**
2008	62276	220	3271	7717	316	3612	40782	13029	2235	5307	0	2720	23051	**164535**
2009	72028	135	3635	9416	282	3694	46723	14008	2328	5415	0	2983	29439	**190086**
2010	66630	144	3750	8900	143	3079	44421	12994	1702	6361	0	3158	30555	**181837**
2011	56380	136	3556	7573	4	2392	34773	10645	1788	5152	0	2898	21674	**146971**
2012	64882	131	3517	7985	19	2797	40458	12499	1665	5604	5	2950	22171	**164683**
2013	66094	166	3789	9119	27	4660	40655	12324	2274	5386	0	2951	25362	**172806**
Year	**Finisher pigs (1000's DADD for 70 kg)**													
2004	10459	62	4644	2035	43	169	8287	3172	88	15	3	272	6714	**35964**
2005	11062	50	5348	1918	44	177	8318	3013	169	14	1	263	8034	**38412**
2006	11933	47	5501	1633	35	114	7242	2514	152	20	1	212	7162	**36565**
2007	13323	28	5655	1543	38	123	7402	2276	78	15	0	162	5782	**36424**
2008	12596	24	5388	1108	38	109	7141	1879	4	31	0	113	8796	**37228**
2009	13257	22	5873	1189	27	88	8452	1952	9	21	0	94	10328	**41312**
2010	12890	15	6454	1230	16	85	8524	1945	29	20	0	156	11196	**42560**
2011	10751	59	5785	884	2	100	6202	1759	5	11	0	163	8509	**34229**
2012	11193	7	5494	990	1	130	6797	1686	3	13	0	192	8422	**34928**
2013	11955	14	5682	1012	1	227	6139	1540	4	7	0	143	10021	**36746**
Year	**Age group not given (1000's DADD for 50 kg)**													
2004	724	10	398	209	6	110	797	297	121	21	2	50	635	**3379**
2005	657	6	402	199	7	131	534	230	60	23	0	61	478	**2787**
2006	832	2	364	227	8	127	530	199	103	25	0	49	480	**2946**
2007	451	1	182	73	8	60	263	132	34	19	0	19	260	**1502**
2008	273	1	105	68	7	40	167	64	6	25	0	6	193	**955**
2009	161	0	78	56	7	30	146	47	1	17	0	7	124	**676**
2010	61	1	25	25	2	9	80	25	2	5	0	7	56	**298**
2011	5	0	0	2	0	2	7	1	0	0	0	0	5	**22**
2012	5	0	0	2	0	2	6	1	0	0	0	0	2	**19**
2013	3	0	3	3	0	1	0	0	0	0	0	0	0	**10**

Note: DADD for pigs is defined as the standard dose necessary for treating a pig of average weight in the age group i.e. breeding animals = 200 kg, weaners = 19 kg and finishers =70 kg. Where the age group was not specified a weight of 50 kg was assumed

a) Data includes sales from pharmacies and feed mills. Consumption in veterinary practice comprises less than 1% of the total consumption in pigs and are not included before 2012, except for the use of fluoroquinolones. Local intrauterine and intramammary use is not included, and comprised less than 0.1‰ of the tonnage used in sows. Topical treatment is not included

b) Includes a small proportion (< 1‰) of combinations with aminopenicillin and clavulanic acid

c) 3rd and 4th generation cephalosporins

d) Lincomycin and lincomycin/spectinomycin combinations

Table A5.1. Consumption of antimicrobial agents for systemic use in humans (kg active substance), Denmark

DANMAP 2013

ATC group[a]	Therapeutic group	Year									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
J01AA	Tetracyclines	1636	1748	1835	1855	1884	2039	2161	2193	2217	2253
J01CA	Penicillins with extended spectrum	5346	5561	5722	6188	6061	6076	6317	6205	6010	6001
J01CE	Beta-lactamase sensitive penicillins	22230	22520	22760	24003	22466	21744	22301	22671	20318	20223
J01CF	Beta-lactamase resistant penicillins	4377	4565	4842	5037	5183	5250	5418	5290	5687	6126
J01CR	Comb. of penicillins, including beta-lactamase inhibitors	480	534	724	1012	1348	1836	2597	3274	5410	6322
J01D	Cephalosporins and related substances[b]	894	1582	1778	2285	2530	2740	2696	2374	1983	2328
J01EA	Trimethoprim and derivatives	334	359	382	402	402	399	417	416	435	442
J01EB	Short-acting sulfonamides	3067	2987	2865	2565	2273	2200	2158	1998	1861	1838
J01EE	Comb. of sulfonamides and trimethoprim, including derivatives	185	208	208	148	183	193	252	326	362	357
J01FA	Macrolides	3743	3775	3542	3434	3164	2966	3038	2942	2129	2446
J01FF	Lincosamides[b]	53	52	66	78	94	113	124	138	145	239
J01G	Aminoglycosides	31	31	27	27	25	23	24	24	31	30
J01MA	Fluoroquinolones[b]	722	866	979	1162	1351	1371	1457	1458	1414	1238
J01XA	Glycopeptides	46	51	56	61	64	86	89	102	108	111
J01XC	Steroid antibacterials (fusidic acid)	52	62	65	67	64	62	65	56	48	41
J01XD	Imidazoles	195	206	198	202	241	255	258	261	269	270
J01XE	Nitrofuran derivatives (nitrofurantoin)	171	180	185	190	192	201	208	209	205	202
J01XX05	Methenamine[b]	1473	1107	1076	1060	1087	1047	1078	1057	1040	993
J01XX08+09	Linezolid, daptomycin	5	10	14	12	14	14	13	18	19	20
J01	Antibacterial agents for systemic use (total)[c]	45040	46404	47324	49788	48629	48614	50673	51012	49671	51482

Note: Includes data from both primary health care and hospital care and has been recalculated from original data expressed as DDDs. For monitoring in human primary health care and hospital care, the recommended way of expressing consumption is DDDs per 1000 inhabitant-days and DDDs per 100 occupied bed-days / DDDs per 100 admissions (see Tables 5.3, 5.5 and 5.6)

a) From the 2013 edition of the ATC classification system

b) Since 2005, the kg active substance was estimated taking into account the DDD for each route of administration, e.g. cefuroxime parenteral DDD=3 g and cefuroxime oral DDD=0.5 g. From 2001 to 2004, it was estimated with a DDD corresponding to an average for the various routes, e.g. for cefuroxime: 1.75 g

c) Does not include polymyxins

Table A5.2. Consumption of antimicrobial agents for systemic use in primary health care (No. treated patients/1000 inhabitants/year), Denmark

DANMAP 2013

ATC group[a]	Therapeutic group	Year									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
J01AA	Tetracyclines	11.6	12	12.3	12.5	12.7	13	13.4	13.7	13.5	13.9
J01CA	Penicillins with extended spectrum	70.6	73	75.8	82.1	81.3	81.1	85.1	84.2	77.3	76.11
J01CE	Beta-lactamase sensitive penicillins	171.2	170.2	171.3	177.1	164.4	158.8	162.9	164.4	145.5	142.2
J01CF	Beta-lactamase resistant penicillins	27.1	27.8	29.4	29.7	29.9	29.9	30	30.4	28.5	29.1
J01CR	Combinations of penicillins, including beta-lactamase inhibitors	1.3	1.5	2.3	3.6	5	8	11.7	15	17.3	19.7
J01D	Cephalosporins and related substances	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
J01EA	Trimethoprim and derivatives	5	5.4	5.6	5.9	5.9	5.8	6	6.2	6.6	6.9
J01EB	Short-acting sulfonamides	33.3	32.7	33	29.7	26.3	25.4	25	23.2	21.6	21.1
J01EE	Combinations of sulfonamides and trimethoprim, including derivatives	0	0	0	0	0	0	0	0	0	0
J01FA	Macrolides	65.9	70.7	67	71.4	66.9	64.5	72.7	78.8	64.7	56.2
J01FF	Lincosamides	0.4	0.4	0.5	0.6	0.8	1	1.3	1.4	1.4	1.5
J01GB	Aminoglycosides	0	0	0	0	0	0	0	0	0	0
J01MA	Fluoroquinolones	10.8	12.2	13.1	15.2	17.1	16.9	18.5	18.1	17.3	16.1
J01XA	Glycopeptides	0	0	0	0	0	0	0	0	0	0
J01XB	Polymyxins	0	0	0	0	0	0	0	0.1	0.1	0.1
J01XC	Steroid antibacterials (fusidic acid)	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2
J01XE	Nitrofuran derivatives (nitrofurantoin)	6.4	6.7	7	6.5	6.8	7	6.9	7.1	7	7
J01XX05	Methenamine	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
J01XX08	Linezolid	0	0	0	0	0	0	0	0	0	0
J01[b]	Antibacterial agents for systemic use (total)	302.6	308	310.3	320.4	308.2	303.1	315.5	321.8	293.1	286.3

a) From the 2013 edition of the Anatomical Therapeutic Chemical (ATC) classification system

b) Total no. of patients treated with an antibiotic is lower than the sum of all antibiotic classes. This is because the Danish Medicines Agency only counts the first treatment for each patient, each year

Table A5.3. Number of DDDs and packages per treated patient in primary health care, Denmark

DANMAP 2013

ATC group[(a)]	Therapeutic group	Indicator	Year									
			2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
J01AA	Tetracyclines	DDDs / patient	36.9	39	40.9	43	44.4	45.2	45.9	44	47.6	51.6
		DDDs / package	19	19.6	21	22	22.7	22.7	22.7	22.6	23.1	25.2
		Packages / patient	1.9	2	1.9	2	2	2	2	1.9	2.1	2.1
J01CA	Penicillins with extended spectrum	DDDs / patient	13.6	13.9	14.2	14.4	14.7	14.8	14.9	14.8	16.1	16.7
		DDDs / package	8.4	8.5	8.9	9	9.2	9.2	9	9.2	9.7	10
		Packages / patient	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7
J01CE	Beta-lactamase sensitive penicillins	DDDs / patient	11.1	11.3	11.5	11.7	11.8	11.8	11.8	11.8	11.8	12
		DDDs / package	7.5	7.7	8	8.2	8.2	8.4	8.4	8.4	8.4	8.5
		Packages / patient	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
J01CF	Beta-lactamase resistant penicillins	DDDs / patient	12.4	12.7	13	13.4	13.7	13.9	14.2	13.8	15.5	16.4
		DDDs / package	7.8	8	8.6	8.7	9	9.1	9.3	9.6	9.7	9.4
		Packages / patient	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.6	1.7
J01CR	Combinations of penicillins, incl. beta-lactamase inhibitors	DDDs / patient	17.2	16.8	19.3	19.1	19.9	20.4	21.1	21.9	22.3	22.6
		DDDs / package	9.1	9.3	10.7	11.7	12.4	13.3	13.7	14.1	14.3	14.3
		Packages / patient	2	2	1.8	1.6	1.6	1.5	1.5	1.6	1.6	1.6
J01D	Cephalosporins and related substances	DDDs / patient	18.6	21.7	20.7	21.9	23.8	22.7	24.7	21.6	25.4	24
		DDDs / package	6.1	6.2	5.8	6.1	5.8	5.7	5.8	5.8	7	6.7
		Packages / patient	3	3.5	3.5	3.6	4.1	4	4.3	3.7	3.6	3.6
J01EA	Trimethoprim and derivatives	DDDs / patient	29.9	30.2	30.6	30.5	30.2	30.7	30.7	29.9	29	28.1
		DDDs / package	14.8	15.3	15.9	15.7	14.5	16.1	16.4	16.1	15.9	15.6
		Packages / patient	2	2	1.9	1.9	2.1	1.9	1.9	1.9	1.8	1.8
J01EB	Short-acting sulfonamides	DDDs / patient	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.8
		DDDs / package	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7
		Packages / patient	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
J01FA	Macrolides	DDDs / patient	12.4	12.4	12.6	12.4	12.5	12.5	12.2	11.5	12.4	12.6
		DDDs / package	7.9	8	8.3	8.1	8.1	8.1	8.1	7.9	8	8
		Packages / patient	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6
J01FF	Lincosamides	DDDs / patient	13.9	13.4	13.8	13.3	12.8	12.6	11.4	11.5	11.5	12.2
		DDDs / package	7.6	4.9	4.8	4.9	5	5	5.2	5.3	5.4	5.5
		Packages / patient	1.8	2.8	2.9	2.7	2.5	2.5	2.2	2.2	2.1	2.2
J01GB	Aminoglycosides	DDDs / patient	156.5	172.2	135.6	128	152.7	157.6	151.5	113.2	197.8	157.6
		DDDs / package	47	51.7	27.1	26	32.2	37.8	43.4	38.7	28.6	33
		Packages / patient	3.3	3.3	5	4.9	4.9	4.2	3.5	2.9	6.9	4.8
J01MA	Fluoroquinolones	DDDs / patient	9.5	9.6	10.3	10.6	11	11.2	11.2	11.5	11.7	11.8
		DDDs / package	6.4	6.5	6.9	7	7.5	7.6	7.6	7.7	7.8	7.8
		Packages / patient	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
J01XB	Polymyxins	DDDs / patient	192.3	196.7	205.6	219.3	202.8	202.8	199.4	175.1	171.3	173
		DDDs / package	3.7	3.9	5.5	10	10	10	10	10	10	10
		Packages / patient	52.5	50	37.5	21.9	20.3	20.3	19.9	17.5	17.1	17.3
J01XC	Steroid antibacterials (fusidic acid)	DDDs / patient	14.4	16	15.1	17.1	18.5	18.7	18.8	18.3	16.8	17.3
		DDDs / package	7.2	7.6	7.6	8	7.3	6.8	7.7	8	7.4	8.1
		Packages / patient	2	2.1	2	2.1	2.5	2.8	2.4	2.3	2.3	2.1
J01XE	Nitrofuran derivatives (nitrofurantoin)	DDDs / patient	24.3	24.3	24.1	26.3	25.4	25.4	26.8	25.9	26	25.5
		DDDs / package	13.3	13.3	13.5	14.4	14.2	14.1	15	13.8	14.6	14.5
		Packages / patient	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8
J01XX05	Methenamine	DDDs / patient	221.6	222.9	233.1	237.5	239.9	227.2	234.1	242.4	242.6	239.9
		DDDs / package	45.2	44.6	49	50.1	50	50	50	50	48.9	49.5
		Packages / patient	4.9	5	4.8	4.7	4.8	4.5	4.7	4.8	5	4.8
J01	Antibacterial agents for systemic use (total)	DDDs / patient	17	17.5	17.9	17.3	18.9	19.2	19.6	19.4	20.6	21.3
		DDDs / package	8.1	8.3	8.7	8.9	9.1	9.3	9.3	9.3	9.7	9.9
		Packages / patient	2.1	2.1	2	1.9	2.1	2.1	2.1	2.1	2.1	2.1

a) From the 2013 edition of the Anatomical Therapeutic Chemical (ATC) classification system

Table A5.4. Activity in somatic hospitals, Denmark

DANMAP 2013

Region	No. bed-days somatic hospitals[a]	No. admissions somatic hospitals[a]
The Capital Region of Denmark	1,556,399	466,344
The Sealand Region	619,242	221,144
Region of Southern Denmark	843,957	258,027
Central Denmark Region	864,394	280,091
North Denmark Region	436,845	118,306
Denmark[b]	4,410,768	1,318,569

Source: The National Board of Health (www.sst.dk)

a) Excluding private hospitals, psychiatric hospitals, specialized clinics, rehabilitation centres and hospices

b) Compared to 2012 no. bed-days have increased by 2.7% and no. admissions have increased by 0.2%

Table A5.5. Consumption of antimicrobial agents for systemic use in hospital care (DDD/1000 inhabitant-days), Denmark

DANMAP 2013

ATC group[(a)]	Therapeutic group	Year									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
J01AA	Tetracyclines	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.02	0.04	0.03
J01CA	Penicillins with extended spectrum	0.32	0.35	0.35	0.35	0.35	0.35	0.32	0.29	0.33	0.32
J01CE	Beta-lactamase sensitive penicillins	0.33	0.33	0.29	0.28	0.25	0.23	0.21	0.19	0.22	0.22
J01CF	Beta-lactamase resistant penicillins	0.19	0.18	0.18	0.18	0.17	0.17	0.17	0.15	0.19	0.2
J01CR	Combinations of penicillins, incl. beta-lactamase inhibitors	0.02	0.03	0.05	0.08	0.1	0.13	0.15	0.17	0.25	0.29
J01DB	First-generation cephalosporins	0	0	0	0	0	0	0	0	0	0
J01DC	Second-generation cephalosporins	0.19	0.22	0.23	0.31	0.33	0.37	0.35	0.33	0.3	0.27
J01DD	Third-generation cephalosporins	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
J01DF	Monobactams	0	0	0	0	0	0	0	0	0	0
J01DH	Carbapenems	0.02	0.03	0.03	0.05	0.07	0.07	0.08	0.09	0.08	0.09
J01EA	Trimethoprim and derivatives	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
J01EB	Short-acting sulfonamides	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0	0
J01EE	Combinations of sulfonamides and trimethoprim, incl. derivatives	0.05	0.05	0.05	0.04	0.05	0.05	0.06	0.08	0.07	0.09
J01FA	Macrolides	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07
J01FF	Lincosamides	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
J01GB	Aminoglycosides	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.05
J01MA	Fluoroquinolones	0.13	0.16	0.18	0.21	0.24	0.24	0.22	0.19	0.21	0.21
J01XA	Glycopeptides	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03
J01XB	Polymyxins	0	0	0	0	0	0	0	0	0	0
J01XC	Steroid antibacterials (fusidic acid)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01
J01XD	Imidazol derivatives	0.07	0.07	0.07	0.07	0.06	0.05	0.08	0.08	0.09	0.09
J01XE	Nitrofuran derivatives (nitrofurantoin)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
J01XX	Other antibacterials	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
J01	Antibacterial agents for systemic use (total)	1.56	1.67	1.7	1.81	1.87	1.91	1.91	1.83	2.01	2.03

a) From the 2013 edition of the Anatomical Therapeutic Chemical (ATC) classification system

Table A6.1. Distribution of MICs and resistance (%) in *Salmonella* Spp. from pigs (n=512), Denmark

DANMAP 2013

Antimicrobial agent	% Resistant	95% Confidence interval	Distribution (%) of MICs																	
			0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
Tetracycline	47.5	[43.1-51.9]								51.6	1.0			2.0	45.5						
Chloramphenicol	3.9	[2.4-6.0]								0.8	11.5	80.1	3.7		0.4	3.5					
Florfenicol	2.7	[1.5-4.5]								2.3	66.0	26.8	2.1	1.2		1.6					
Ampicillin	33.2	[29.1-37.5]							50.6	14.5	1.8				33.2						
Cefotaxime	0.2	[0-1.1]				89.8	9.6	0.4				0.2									
Ceftiofur	0.2	[0-1.1]						50.4	47.3	2.1			0.2								
Trimethoprim	12.1	[9.4-15.3]							87.5	0.4					12.1						
Sulfonamide	38.5	[34.2-42.8]													58.8	2.5	0.2			38.5	
Streptomycin	41.2	[36.9-45.6]										27.0	31.8	4.9	2.3	3.1	30.9				
Gentamicin	2.0	[0.9-3.6]						93.6	4.1	0.4		0.4	1.2	0.4							
Neomycin	3.3	[1.9-5.3]								95.7	1.0	0.4	0.4	0.4	2.1						
Apramycin	2.0	[0.9-3.6]									94.5	3.1	0.4	0.2	1.8						
Ciprofloxacin	0.4	[0.05-1.4]	20.5	75.2	3.9	0.2	0.2														
Nalidixic acid	0.2	[0-1.1]									90.4	8.6	0.8			0.2					
Colistin	0	[0-0.7]							92.2	7.8											
Spectinomycin	12.1	[9.4-15.3]											10.9	74.4	2.5	3.1	0.8	8.2			

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.2. Distribution of MICs and resistance (%) in *Salmonella* Spp. from Danish pork (n=148), Denmark

DANMAP 2013

Antimicrobial agent	% Resistant	95% Confidence interval	Distribution (%) of MICs																
			0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	>1024
Tetracycline	43.9	[35.8-52.3]								55.4	0.7			43.9						
Chloramphenicol	2.7	[0.7-6.8]									21.6	70.9	4.7		2.7					
Florfenicol	2.0	[0.4-5.8]								1.4	67.6	28.4	0.7	0.7	1.4					
Ampicillin	29.7	[22.5-37.8]							42.6	25.7	2.0			29.7						
Amoxicillin/clavulanic acid a)	29.7	[22.5-37.8]								70.3		27.7	2.0							
Cefotaxime	0	[0-2.5]				84.5	14.9	0.7												
Ceftiofur	0	[0-2.5]						43.9	51.4	4.7										
Trimethoprim	9.5	[5.3-15.4]							90.5					9.5						
Sulfonamide	37.8	[30.0-46.2]													56.1	6.1			37.8	
Streptomycin	40.5	[32.6-48.9]										28.4	31.1	6.1	1.4	33.1				
Gentamicin	0.7	[0.02-3.7]						93.9	4.7	0.7			0.7							
Neomycin	0	[0-2.5]								99.3	0.7									
Apramycin	0.7	[0.02-3.7]									94.6	4.7		0.7						
Ciprofloxacin	0	[0-2.5]	18.9	74.3	6.8															
Nalidixic acid	0	[0-2.5]									89.2	8.8	2.0							
Colistin	0	[0-2.5]							93.2	6.8										
Spectinomycin	9.5	[5.3-15.4]											9.5	79.1	2.0	3.4	6.1			

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.3. Distribution of MICs and resistance (%) in *Salmonella* Typhimurium from pigs (n=148), Denmark

DANMAP 2013

Antimicrobial agent	% Resistant	95% Confidence interval	Distribution (%) of MICs																		
			0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
Tetracycline	70.3	[62.2-77.5]								28.4	1.4			2.7	67.6						
Chloramphenicol	6.1	[2.8-11.2]								2.0	18.9	68.9	4.1		1.4	4.7					
Florfenicol	3.4	[1.1-7.7]								5.4	75.7	14.2	1.4	0.7		2.7					
Ampicillin	60.8	[52.5-68.7]							27.0	10.1	2.0				60.8						
Amoxicillin/clavulanic acid a)	59.5	[51.1-67.4]								39.2	1.4	53.4	6.1								
Cefotaxime	0	[0-2.5]				91.2	8.8														
Ceftiofur	0	[0-2.5]						63.5	34.5	2.0											
Trimethoprim	12.8	[7.9-19.3]							87.2						12.8						
Sulfonamide	66.2	[58.0-73.8]													33.8					66.2	
Streptomycin	65.5	[57.3-73.2]										16.9	17.6	2.7	2.7	2.0	58.1				
Gentamicin	2.7	[0.7-6.8]						89.9	6.8	0.7		0.7	2.0								
Neomycin	4.1	[1.5-8.6]								95.3	0.7		0.7		3.4						
Apramycin	2.7	[0.7-6.8]									94.6	2.0	0.7	0.7	2.0						
Ciprofloxacin	0	[0-2.5]	4.7	89.2	6.1																
Nalidixic acid	0	[0-2.5]									86.5	12.2	1.4								
Colistin	0	[0-2.5]							94.6	5.4											
Spectinomycin	12.2	[7.4-18.5]											4.1	79.1	4.7	1.4		10.8			

Vertical solid lines indicate EUCAST epidemiological cut-off values except for apramycin, spectinomycin and sulfonamide. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.4. Distribution of MICs and resistance (%) in *Salmonella* Typhimurium from pork (Danish n=68; imported n=21), Denmark

DANMAP 2013

Antimicrobial agent	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs																	
				0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
Tetracycline	Danish	63.2	[50.7-74.6]								36.8				2.9	60.3						
	Imported	95.2	[76.2-99.9]								4.8				33.3	61.9						
Chloramphenicol	Danish	5.9	[1.6-14.4]									29.4	54.4	10.3		1.5	4.4					
	Imported	33.3	[14.6-57.0]									9.5	47.6	9.5			33.3					
Florfenicol	Danish	4.4	[0.9-12.4]								1.5	77.9	14.7	1.5	1.5	2.9						
	Imported	33.3	[14.6-57.0]									52.4	14.3		28.6		4.8					
Ampicillin	Danish	58.8	[46.2-70.6]							20.6	17.6	2.9				58.8						
	Imported	81.0	[58.1-94.6]							14.3	4.8					81.0						
Amoxicillin/clavulanic acid a)	Danish	58.8	[46.2-70.6]								41.2		54.4	4.4								
	Imported	81.0	[58.1-94.6]								19.0		42.9	38.1								
Cefotaxime	Danish	0	[0-5.3]				85.3	13.2	1.5													
	Imported	0	[0-16.1]				95.2	4.8														
Ceftiofur	Danish	0	[0-5.3]						51.5	41.2	7.4											
	Imported	0	[0-16.1]						66.7	33.3												
Trimethoprim	Danish	8.8	[3.3-18.2]							91.2						8.8						
	Imported	14.3	[3.0-36.3]							85.7						14.3						
Sulfonamide	Danish	72.1	[59.9-82.3]													26.5	1.5				72.1	
	Imported	81.0	[58.1-94.6]													19.0					81.0	
Streptomycin	Danish	67.6	[55.2-78.5]										22.1	10.3		2.9	4.4	60.3				
	Imported	81.0	[58.1-94.6]										14.3	4.8	4.8	23.8	9.5	42.9				
Gentamicin	Danish	1.5	[0.04-7.9]						95.6	2.9					1.5							
	Imported	0	[0-16.1]						95.2	4.8												
Neomycin	Danish	0	[0-5.3]								98.5	1.5										
	Imported	4.8	[0.1-23.8]								95.2					4.8						
Apramycin	Danish	1.5	[0.04-7.9]									95.6	2.9			1.5						
	Imported	0	[0-16.1]									95.2	4.8									
Ciprofloxacin	Danish	0	[0-5.3]	10.3	76.5	13.2																
	Imported	0	[0-16.1]	4.8	85.7	9.5																
Nalidixic acid	Danish	0	[0-5.3]									77.9	17.6	4.4								
	Imported	0	[0-16.1]									76.2	23.8									
Colistin	Danish	0	[0-5.3]							95.6	4.4											
	Imported	0	[0-16.1]							100												
Spectinomycin	Danish	11.8	[5.2-21.9]											5.9	79.4	2.9	1.5	1.5	8.8			
	Imported	42.9	[21.8-66.0]												47.6	9.5	9.5		33.3			

Vertical solid lines indicate EUCAST epidemiological cut-off values except for apramycin, spectinomycin and sulfonamide. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.5. Distribution of MICs and resistance (%) in *Salmonella* Typhimurium from human cases reported as domestic sporadic (n=106), domestic outbreak related (n=69), associated with travel abroad (n=51) and of unknown origin (n=93), Denmark

DANMAP 2013

Antimicrobial agent	Origin	% Resistant	95% Confidence	Distribution (%) of MICs															
				0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	>1024
Tetracycline	Domestic sporadic	52.8	[42.9-62.6]								44.3	2.8			52.8						
	Domestic outbreak	23.2	[13.9-34.9]								76.8				23.2						
	Travel abroad reported	56.9	[42.2-70.7]								37.3	5.9			56.9						
	Unknown origin	61.3	[50.6-71.2]								37.6	1.1			61.3						
Chloramphenicol	Domestic sporadic	7.5	[3.3-14.3]									10.4	75.5	6.6	0.9	6.6					
	Domestic outbreak	0	[0-5.2]									2.9	89.9	7.2							
	Travel abroad reported	19.6	[9.8-33.1]									2.0	76.5	2.0	2.0	17.6					
	Unknown origin	15.1	[8.5-24.0]									7.5	66.7	10.8	1.1	14.0					
Florfenicol	Domestic sporadic	5.7	[2.1-11.9]								2.8	41.5	48.1	1.9	1.9	3.8					
	Domestic outbreak	0	[0-5.2]									71.0	24.6	4.3							
	Travel abroad reported	15.7	[7.0-28.6]									37.3	45.1	2.0	3.9	11.8					
	Unknown origin	10.8	[5.3-18.9]								1.1	48.4	34.4	5.4	6.5	4.3					
Ampicillin	Domestic sporadic	55.7	[45.7-65.3]							16.0	27.4	0.9			55.7						
	Domestic outbreak	30.4	[19.9-42.7]							23.2	46.4				30.4						
	Travel abroad reported	54.9	[40.3-68.9]							13.7	31.4				54.9						
	Unknown origin	63.4	[52.8-73.2]							12.9	22.6	1.1			63.4						
Cefotaxime	Domestic sporadic	0.9	[0.02-5.1]				91.5	7.5				0.9									
	Domestic outbreak	0	[0-5.2]				95.7	4.3													
	Travel abroad reported	3.9	[0.5-13.5]				86.3	9.8		2.0		2.0									
	Unknown origin	2.2	[0.3-7.6]				89.2	5.4	3.2			2.2									
Ceftiofur	Domestic sporadic	0.9	[0.02-5.1]						42.5	54.7	1.9		0.9								
	Domestic outbreak	0	[0-5.2]						63.8	30.4	5.8										
	Travel abroad reported	2.0	[0.05-10.4]						37.3	58.8	2.0		2.0								
	Unknown origin	2.2	[0.3-7.6]						45.2	50.5	2.2		2.2								
Trimethoprim	Domestic sporadic	7.5	[3.3-14.3]							91.5	0.9				7.5						
	Domestic outbreak	7.2	[2.4-16.1]							92.8					7.2						
	Travel abroad reported	7.8	[2.2-18.9]							92.2					7.8						
	Unknown origin	7.5	[3.1-14.9]							92.5					7.5						
Sulfonamide	Domestic sporadic	53.8	[43.8-63.5]													43.4	2.8			53.8	
	Domestic outbreak	36.2	[25.0-48.7]													60.9	2.9			36.2	
	Travel abroad reported	58.8	[44.2-72.4]													39.2	2.0			58.8	
	Unknown origin	65.6	[55.0-75.1]													31.2	3.2			65.6	
Streptomycin	Domestic sporadic	55.7	[45.7-65.3]										27.4	17.0	1.9	0.9	52.8				
	Domestic outbreak	36.2	[25.0-48.7]										46.4	17.4	2.9		33.3				
	Travel abroad reported	60.8	[46.1-74.2]										29.4	9.8	3.9	2.0	54.9				
	Unknown origin	57.0	[46.3-67.2]										21.5	21.5	1.1	5.4	50.5				
Gentamicin	Domestic sporadic	1.9	[0.2-6.6]						59.4	35.8	2.8			1.9							
	Domestic outbreak	0	[0-5.2]						84.1	14.5	1.4										
	Travel abroad reported	5.9	[1.2-16.2]						68.6	23.5	2.0			5.9							
	Unknown origin	2.2	[0.3-7.6]						63.4	33.3	1.1			2.2							
Neomycin	Domestic sporadic	0.9	[0.02-5.1]								90.6	8.5			0.9						
	Domestic outbreak	0	[0-5.2]								92.8	7.2									
	Travel abroad reported	3.9	[0.5-13.5]								84.3	11.8			3.9						
	Unknown origin	3.2	[0.7-9.1]								88.2	8.6			3.2						
Apramycin	Domestic sporadic	0.9	[0.02-5.1]									93.4	4.7	0.9	0.9						
	Domestic outbreak	0	[0-5.2]									97.1	2.9								
	Travel abroad reported	2.0	[0.05-10.4]									90.2	7.8		2.0						
	Unknown origin	1.1	[0.03-5.8]									91.4	7.5		1.1						
Ciprofloxacin	Domestic sporadic	2.8	[0.6-8.0]	0.9	86.8	9.4		0.9	0.9	0.9											
	Domestic outbreak	1.4	[0.04-7.8]		87.0	11.6	1.4														
	Travel abroad reported	19.6	[9.8-33.1]		78.4	2.0	2.0	7.8	7.8	2.0											
	Unknown origin	7.5	[3.1-14.9]		82.8	9.7	2.2	3.2	1.1		1.1										
Nalidixic acid	Domestic sporadic	0.9	[0.02-5.1]									72.6	23.6	2.8		0.9					
	Domestic outbreak	0	[0-5.2]									75.4	17.4	7.2							
	Travel abroad reported	9.8	[3.3-21.4]									60.8	21.6	7.8		9.8					
	Unknown origin	5.4	[1.8-12.1]									76.3	17.2	1.1	1.1	4.3					
Colistin	Domestic sporadic	6.6	[2.7-13.1]							3.8	89.6	6.6									
	Domestic outbreak	5.8	[1.6-14.2]							2.9	91.3	4.3		1.4							
	Travel abroad reported	0	[0-7.0]							7.8	92.2										
	Unknown origin	5.4	[1.8-12.1]							7.5	87.1	5.4									
Spectinomycin	Domestic sporadic	10.4	[5.3-17.8]											1.9	78.3	9.4	2.8	7.5			
	Domestic outbreak	4.3	[0.9-12.2]											10.1	78.3	7.2		4.3			
	Travel abroad reported	15.7	[7.0-28.6]											5.9	72.5	5.9		15.7			
	Unknown origin	18.3	[11.0-27.6]											2.2	71.0	8.6	1.1	17.2			

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.6. Distribution of MICs and resistance (%) in *Campylobacter jejuni* from broilers (n=54) and cattle (n=86), Denmark

DANMAP 2013

Antimicrobial agent	Food type	% Resistant	95% Confidence interval	Distribution (%) of MICs												
				0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	>128
Tetracycline	Broilers	20.4	[10.6-33.5]			74.1	5.6						20.4			
	Cattle	3.5	[0.7-9.9]			66.3	30.2						3.5			
Chloramphenicol	Broilers	0	[0-6.6]						18.5	72.2	7.4	1.9				
	Cattle	0	[0-4.2]						17.4	81.4	1.2					
Erythromycin	Broilers	1.9	[0.05-9.9]				7.4	35.2	51.9	3.7				1.9		
	Cattle	0	[0-4.2]				8.1	37.2	46.5	8.1						
Streptomycin	Broilers	3.7	[0.5-12.7]					85.2	11.1				3.7			
	Cattle	0	[0-4.2]					94.2	5.8							
Gentamicin	Broilers	0	[0-6.6]		25.9	68.5	5.6									
	Cattle	0	[0-4.2]		30.2	67.4	2.3									
Ciprofloxacin	Broilers	25.9	[15.0-39.7]	11.1	53.7	7.4	1.9				25.9					
	Cattle	20.9	[12.9-31.0]	17.4	59.3	2.3					20.9					
Nalidixic acid	Broilers	25.9	[15.0-39.7]						1.9	61.1	7.4	3.7		1.9	24.1	
	Cattle	22.1	[13.9-32.3]						4.7	53.5	19.8		1.2		20.9	

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.7. Distribution of MICs and resistance (%) in *Campylobacter jejuni* from broiler meat (Danish n=70; imported n=30), Denmark

DANMAP 2013

Antimicrobial agent	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs												
				0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	>128
Tetracycline	Danish	10.0	[4.1-19.5]			81.4	8.6						10.0			
	Imported	80.0	[61.4-92.3]			13.3	3.3	3.3					80.0			
Chloramphenicol	Danish	0	[0-5.1]						10.0	90.0						
	Imported	0	[0-11.6]						10.0	66.7	20.0	3.3				
Erythromycin	Danish	0	[0-5.1]				2.9	34.3	61.4	1.4						
	Imported	0	[0-11.6]				20.0	63.3	16.7							
Streptomycin	Danish	2.9	[0.3-9.9]					91.4	5.7				2.9			
	Imported	0	[0-11.6]					96.7	3.3							
Gentamicin	Danish	0	[0-5.1]		17.1	74.3	8.6									
	Imported	0	[0-11.6]		60.0	36.7	3.3									
Ciprofloxacin	Danish	20.0	[11.4-31.3]	14.3	52.9	11.4	1.4				20.0					
	Imported	53.3	[34.3-71.7]	6.7	26.7	10.0	3.3			3.3	50.0					
Nalidixic acid	Danish	20.0	[11.4-31.3]						8.6	57.1	11.4	2.9			20.0	
	Imported	56.7	[37.4-74.5]							30.0	10.0	3.3	3.3		53.3	

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.8.. Distribution of MICs and resistance (%) in *Campylobacter jejuni* from human cases Domestically acquired (n=42); associated with travel abroad (n=24), Denmark

DANMAP 2013

Antimicrobial agent	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs												
				0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	>128
Tetracycline	Domestically acquired	19.0	[8.6-34.1]			69.0	11.9					2.4	16.7			
	Travel abroad reported	54.2	[32.8-74.4]			33.3	8.3	4.2					54.2			
Chloramphenicol	Domestically acquired	0	[0-8.4]						73.8	23.8	2.4					
	Travel abroad reported	0	[0-14.2]						54.2	33.3	12.5					
Erythromycin	Domestically acquired	0	[0-8.4]				61.9	33.3	4.8							
	Travel abroad reported	0	[0-14.2]				45.8	45.8	8.3							
Streptomycin	Domestically acquired	0	[0-8.4]					95.2	4.8							
	Travel abroad reported	4.2	[0.1-21.1]					95.8					4.2			
Gentamicin	Domestically acquired	0	[0-8.4]		73.8	26.2										
	Travel abroad reported	0	[0-14.2]		83.3	16.7										
Ciprofloxacin	Domestically acquired	23.8	[12.1-39.5]	16.7	47.6	9.5	2.4				23.8					
	Travel abroad reported	91.7	[73.0-99.0]		8.3			4.2		4.2	83.3					
Nalidixic acid	Domestically acquired	23.8	[12.1-39.5]						16.7	47.6	9.5	2.4			23.8	
	Travel abroad reported	91.7	[73.0-99.0]							8.3					91.7	

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A6.9. Distribution of MICs and resistance (%) in *Campylobacter coli* from broiler meat (Danish n=22; imported n=19), Denmark

DANMAP 2013

Antimicrobial agent	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs												
				0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	>128
Tetracycline	Danish	36.4	[17.2-59.3]			54.5	9.1						36.4			
	Imported	68.4	[43.4-87.4]			26.3	5.3						68.4			
Chloramphenicol	Danish	0	[0-15.4]						27.3	59.1	13.6					
	Imported	0	[0-17.6]						21.1	63.2	15.8					
Erythromycin	Danish	0	[0-15.4]				9.1	18.2	68.2	4.5						
	Imported	5.3	[0.1-26.0]				15.8	47.4	15.8	15.8				5.3		
Streptomycin	Danish	0	[0-15.4]					86.4	13.6							
	Imported	5.3	[0.1-26.0]					89.5	5.3				5.3			
Gentamicin	Danish	0	[0-15.4]		31.8	63.6	4.5									
	Imported	0	[0-17.6]		5.3	78.9	15.8									
Ciprofloxacin	Danish	36.4	[17.2-59.3]	13.6	40.9	9.1					36.4					
	Imported	68.4	[43.4-87.4]	21.1		10.5				5.3	63.2					
Nalidixic acid	Danish	36.4	[17.2-59.3]						9.1	50.0		4.5		4.5	31.8	
	Imported	68.4	[43.4-87.4]							21.1	10.5			10.5	57.9	

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A7.1. Distribution of MICs and resistance (%) in *Enterococcus faecalis* from broilers (n=114) and pigs (n=109), Denmark

DANMAP 2013

Antimicrobial agent	Animal species	% Resistant	95% Confidence interval	Distribution (%) of MICs																		
				0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	4096	>4096
Tetracycline	Broilers	37.7	[28.8-47.3]							62.3					6.1	31.6							
	Pigs	90.8	[83.8-95.5]							9.2				1.8	7.3	81.7							
Tigecycline	Broilers	0	[0-3.2]		2.6	62.3	28.1	7.0															
	Pigs	0	[0-3.3]			15.6	82.6	1.8															
Chloramphenicol	Broilers	0.9	[0.02-4.8]									7.0	92.1			0.9							
	Pigs	17.4	[10.8-25.9]										75.2	7.3		5.5	11.9						
Ampicillin	Broilers	0	[0-3.2]								100												
	Pigs	0	[0-3.3]								100												
Penicillin	Broilers	0	[0-3.2]								10.5	87.7	1.8										
	Pigs	0	[0-3.3]								3.7	94.5	1.8										
Erythromycin	Broilers	20.2	[13.2-28.7]						46.5	14.9	17.5	0.9		6.1	3.5	10.5							
	Pigs	45.0	[35.4-54.8]						44.0	2.8	8.3					45.0							
Quinupristin/dalfopristin	Broilers	100	[96.8-100.0]										56.1	43.9									
	Pigs	98.2	[93.5-99.8]								0.9	0.9	63.3	33.0	1.8								
Streptomycin	Broilers	0.9	[0.02-4.8]													52.6	46.5				0.9		
	Pigs	33.9	[25.1-43.6]													6.4	58.7	0.9			0.9	33.0	
Gentamicin	Broilers	0	[0-3.2]											100									
	Pigs	15.6	[9.4-23.8]											81.7	2.8			0.9	0.9	5.5	8.3		
Kanamycin	Broilers	0.9	[0.02-4.8]														98.2		0.9			0.9	
	Pigs	27.5	[19.4-36.9]														72.5					27.5	
Ciprofloxacin	Broilers	0	[0-3.2]						51.8	44.7	3.5												
	Pigs	0.9	[0.02-5.0]						8.3	76.1	14.7				0.9								
Vancomycin	Broilers	0	[0-3.2]							12.3	64.0	23.7											
	Pigs	0	[0-3.3]							18.3	67.9	13.8											
Teicoplanin	Broilers	0	[0-3.2]					83.3	16.7														
	Pigs	0	[0-3.3]					89.0	11.0														
Linezolid	Broilers	0	[0-3.2]						1.8	12.3	86.0												
	Pigs	0	[0-3.3]							0.9	97.2	1.8											
Salinomycin	Broilers	5.3	[2.0-11.1]								80.7	14.0	5.3										
	Pigs	0	[0-3.3]								100												

Vertical solid lines indicate EUCAST epidemiological cut-off values except for ciprofloxacin, kanamycin and salinomycin. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A7.2. Distribution of MICs and resistance (%) in *Enterococcus faecalis* from broiler meat (Danish n=62; imported n=93), beef (Danish n=24; imported n=51), pork (Danish n=150; imported n=140), Denmark

DANMAP 2013

Antimicrobial agent	Animal species	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs																		
					0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	4096	>4096
Tetracycline	Broiler meat	Danish	46.8	[34.0-59.9]							53.2					14.5	32.3							
		Imported	65.6	[55.0-75.1]							33.3	1.1			1.1	19.4	45.2							
	Beef	Danish	29.2	[12.6-51.1]							70.8					4.2	25.0							
		Imported	25.5	[14.3-39.6]							74.5					2.0	23.5							
	Pork	Danish	11.3	[6.7-17.5]							88.7						11.3							
		Imported	40.0	[31.8-48.6]							60.0				0.7	0.7	38.6							
Tigecycline	Broiler meat	Danish	0	[0-5.8]		6.5	50.0	40.3	3.2															
		Imported	0	[0-3.9]		8.6	44.1	40.9	6.5															
	Beef	Danish	0	[0-14.2]		8.3	66.7	20.8	4.2															
		Imported	0	[0-7.0]	3.9	5.9	58.8	29.4	2.0															
	Pork	Danish	0	[0-2.4]	2.0	10.0	60.7	22.7	4.7															
		Imported	0	[0-2.6]		12.1	52.9	32.1	2.9															
Chloramphenicol	Broiler meat	Danish	1.6	[0.04-8.7]										98.4			1.6							
		Imported	3.2	[0.7-9.1]									4.3	89.2	2.2	1.1	1.1	2.2						
	Beef	Danish	8.3	[1.0-27.0]										91.7			4.2	4.2						
		Imported	2.0	[0.05-10.4]									2.0	96.1			2.0							
	Pork	Danish	3.3	[1.1-7.6]									5.3	91.3			2.0	1.3						
		Imported	0.7	[0.02-3.9]									5.0	94.3			0.7							
Ampicillin	Broiler meat	Danish	0	[0-5.8]								100												
		Imported	0	[0-3.9]								100												
	Beef	Danish	0	[0-14.2]								100												
		Imported	0	[0-7.0]								100												
	Pork	Danish	0	[0-2.4]								100												
		Imported	0	[0-2.6]								100												
Penicillin	Broiler meat	Danish	0	[0-5.8]								17.7	82.3											
		Imported	0	[0-3.9]								26.9	71.0	2.2										
	Beef	Danish	0	[0-14.2]								16.7	79.2	4.2										
		Imported	0	[0-7.0]								27.5	72.5											
	Pork	Danish	0	[0-2.4]								33.3	66.0	0.7										
		Imported	0	[0-2.6]								43.6	55.7	0.7										
Erythromycin	Broiler meat	Danish	22.6	[12.9-35.0]						43.5	16.1	17.7		1.6	1.6	1.6	17.7							
		Imported	63.4	[52.8-73.2]						19.4	11.8	5.4			2.2		61.3							
	Beef	Danish	12.5	[2.7-32.4]						75.0		12.5					12.5							
		Imported	0	[0-7.0]						68.6	13.7	17.6												
	Pork	Danish	5.3	[2.3-10.2]						51.3	21.3	22.0					5.3							
		Imported	2.9	[0.8-7.2]						55.7	27.1	14.3					2.9							
Quinupristin/ dalfopristin	Broiler meat	Danish	100	[94.2-100.0]										77.4	22.6									
		Imported	98.9	[94.2-100.0]							1.1			49.5	39.8	9.7								
	Beef	Danish	95.8	[78.9-99.9]									4.2	29.2	62.5	4.2								
		Imported	94.1	[83.8-98.8]							2.0	2.0	2.0	60.8	33.3									
	Pork	Danish	93.3	[88.1-96.8]							6.0	0.7		72.0	21.3									
		Imported	95.7	[90.9-98.4]						0.7	3.6			69.3	26.4									
Streptomycin	Broiler meat	Danish	9.7	[3.6-19.9]													46.8	43.5				8.1	1.6	
		Imported	39.8	[29.8-50.5]													34.4	25.8				1.1	38.7	
	Beef	Danish	12.5	[2.7-32.4]													41.7	45.8					12.5	
		Imported	5.9	[1.2-16.2]													54.9	39.2					5.9	
	Pork	Danish	4.0	[1.5-8.5]													66.0	29.3	0.7			0.7	3.3	
		Imported	1.4	[0.2-5.1]													70.7	27.9				0.7	0.7	
Gentamicin	Broiler meat	Danish	0	[0-5.8]											100									
		Imported	0	[0-3.9]											98.9	1.1								
	Beef	Danish	0	[0-14.2]											100									
		Imported	0	[0-7.0]											100									
	Pork	Danish	2.7	[0.7-6.7]											97.3		0.7				0.7	1.3		
		Imported	1.4	[0.2-5.1]											98.6						0.7	0.7		
Kanamycin	Broiler meat	Danish	0	[0-5.8]														100						
		Imported	33.3	[23.9-43.9]														65.6	1.1				33.3	
	Beef	Danish	8.3	[1.0-27.0]														91.7					8.3	
		Imported	0	[0-7.0]														98.0			2.0			
	Pork	Danish	4.0	[1.5-8.5]														96.0					4.0	
		Imported	1.4	[0.2-5.1]														98.6					1.4	
Ciprofloxacin	Broiler meat	Danish	0	[0-5.8]						16.1	79.0	4.8												
		Imported	6.5	[2.4-13.5]						9.7	74.2	8.6	1.1			5.4	1.1							
	Beef	Danish	4.2	[0.1-21.1]						8.3	62.5	25.0			4.2									
		Imported	0	[0-7.0]						21.6	70.6	7.8												
	Pork	Danish	0.7	[0.02-3.7]						14.7	78.7	6.0				0.7								
		Imported	0	[0-2.6]						20.7	76.4	2.9												
Vancomycin	Broiler meat	Danish	0	[0-5.8]							17.7	64.5	17.7											
		Imported	0	[0-3.9]							18.3	67.7	14.0											
	Beef	Danish	0	[0-14.2]							16.7	45.8	37.5											
		Imported	0	[0-7.0]							17.6	58.8	23.5											
	Pork	Danish	0	[0-2.4]							22.7	57.3	20.0											
		Imported	0	[0-2.6]							17.9	62.1	20.0											
Teicoplanin	Broiler meat	Danish	0	[0-5.8]					96.8	3.2														
		Imported	0	[0-3.9]					94.6	5.4														
	Beef	Danish	0	[0-14.2]					75.0	25.0														
		Imported	0	[0-7.0]					90.2	9.8														
	Pork	Danish	0	[0-2.4]					94.0	5.3	0.7													
		Imported	0	[0-2.6]					89.3	10.7														
Linezolid	Broiler meat	Danish	0	[0-5.8]								100												
		Imported	0	[0-3.9]						1.1	18.3	79.6	1.1											
	Beef	Danish	0	[0-14.2]								100												
		Imported	0	[0-7.0]							2.0	98.0												
	Pork	Danish	0	[0-2.4]							2.7	97.3												
		Imported	0	[0-2.6]							3.6	96.4												
Salinomycin	Broiler meat	Danish	8.1	[2.7-17.8]								82.3	9.7	8.1										
		Imported	1.1	[0.03-5.8]								80.6	18.3	1.1										
	Beef	Danish	0	[0-14.2]								100												
		Imported	0	[0-7.0]								100												
	Pork	Danish	0	[0-2.4]								99.3	0.7											
		Imported	0	[0-2.6]								99.3	0.7											

Vertical solid lines indicate EUCAST epidemiological cut-off values except for ciprofloxacin, kanamycin and salinomycin. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A7.3. Distribution of MICs and resistance (%) in *Enterococcus faecium* from broiler meat (Danish n=66; imported n=64), pork (Danish n=22; imported n=31), Denmark

DANMAP 2013

Antimicrobial agent	Food type	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs																		
					0.015	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	4096	>4096
Tetracycline	Broiler meat	Danish	9.1	[3.4-18.7]							90.9						9.1							
		Imported	42.2	[29.9-55.2]							56.3	1.6				6.3	35.9							
	Pork	Danish	0	[0-15.4]							100													
		Imported	19.4	[7.5-37.5]							80.6						19.4							
Tigecycline	Broiler meat	Danish	0	[0-5.4]		47.0	37.9	15.2																
		Imported	0	[0-5.6]		34.4	39.1	25.0	1.6															
	Pork	Danish	0	[0-15.4]		77.3	22.7																	
		Imported	0	[0-11.2]		41.9	51.6		6.5															
Chloramphenicol	Broiler meat	Danish	0	[0-5.4]								4.5	24.2	66.7	1.5	3.0								
		Imported	0	[0-5.6]									15.6	62.5	12.5	9.4								
	Pork	Danish	0	[0-15.4]									45.5	54.5										
		Imported	0	[0-11.2]									25.8	74.2										
Ampicillin	Broiler meat	Danish	1.5	[0.04-8.2]								93.9	4.5				1.5							
		Imported	21.9	[12.5-34.0]								68.8	9.4	7.8			14.1							
	Pork	Danish	0	[0-15.4]								100												
		Imported	0	[0-11.2]								96.8	3.2											
Penicillin	Broiler meat	Danish	1.5	[0.04-8.2]								62.1	24.2	4.5	7.6		1.5							
		Imported	21.9	[12.5-34.0]								26.6	32.8	7.8	10.9	6.3	15.6							
	Pork	Danish	0	[0-15.4]								36.4	63.6											
		Imported	0	[0-11.2]								32.3	48.4	16.1	3.2									
Erythromycin	Broiler meat	Danish	7.6	[2.5-16.8]						19.7	24.2	39.4	9.1	3.0			4.5							
		Imported	53.1	[40.2-65.7]						17.2	9.4	10.9	9.4	1.6	3.1	1.6	46.9							
	Pork	Danish	0	[0-15.4]						4.5	22.7	22.7	50.0											
		Imported	3.2	[0.08-16.7]						3.2	12.9	25.8	54.8	3.2										
Quinupristin/dalfopristin	Broiler meat	Danish	3.0	[0.4-10.5]						7.6	37.9	21.2	30.3	1.5	1.5									
		Imported	10.9	[4.5-21.2]						9.4	23.4	6.3	50.0	10.9										
	Pork	Danish	0	[0-15.4]						4.5	22.7	31.8	40.9											
		Imported	0	[0-11.2]						3.2	9.7	22.6	64.5											
Streptomycin	Broiler meat	Danish	3.0	[0.4-10.5]													97.0						3.0	
		Imported	31.2	[20.2-44.1]													68.8		1.6		6.3	3.1	20.3	
	Pork	Danish	0	[0-15.4]													100							
		Imported	0	[0-11.2]													100							
Gentamicin	Broiler meat	Danish	0	[0-5.4]											95.5	4.5								
		Imported	1.6	[0.04-8.4]											98.4							1.6		
	Pork	Danish	0	[0-15.4]											100									
		Imported	0	[0-11.2]											100									
Kanamycin	Broiler meat	Danish	0	[0-5.4]														60.6	30.3	9.1				
		Imported	17.2	[8.9-28.7]														45.3	26.6	10.9			17.2	
	Pork	Danish	0	[0-15.4]														36.4	50.0	9.1	4.5			
		Imported	0	[0-11.2]														93.5	6.5					
Ciprofloxacin	Broiler meat	Danish	0	[0-5.4]						3.0	42.4	33.3	16.7	4.5										
		Imported	1.6	[0.04-8.4]						12.5	14.1	25.0	43.8	3.1		1.6								
	Pork	Danish	0	[0-15.4]						50.0	40.9	4.5	4.5											
		Imported	0	[0-11.2]						22.6	71.0	3.2	3.2											
Vancomycin	Broiler meat	Danish	0	[0-5.4]							53.0	16.7	30.3											
		Imported	0	[0-5.6]							71.9	12.5	15.6											
	Pork	Danish	0	[0-15.4]							86.4	9.1	4.5											
		Imported	0	[0-11.2]							90.3	6.5	3.2											
Teicoplanin	Broiler meat	Danish	0	[0-5.4]					54.5	45.5														
		Imported	0	[0-5.6]					37.5	62.5														
	Pork	Danish	0	[0-15.4]					4.5	59.1	36.4													
		Imported	0	[0-11.2]					16.1	77.4	6.5													
Linezolid	Broiler meat	Danish	0	[0-5.4]							4.5	92.4	3.0											
		Imported	1.6	[0.04-8.4]							3.1	84.4	10.9	1.6										
	Pork	Danish	0	[0-15.4]								86.4	13.6											
		Imported	0	[0-11.2]								96.8	3.2											
Salinomycin	Broiler meat	Danish	63.6	[50.9-75.1]								15.2	21.2	63.6										
		Imported	35.9	[24.3-48.9]								37.5	26.6	35.9										
	Pork	Danish	4.5	[0.1-22.8]								95.5		4.5										
		Imported	0	[0-11.2]								100												

Vertical solid lines indicate EUCAST epidemiological cut-off values. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table. A7.4. Distribution of MICs and resistance (%) in *Escherichia coli* from broilers (n=125), cattle (n=103) and pigs (n=146), Denmark

DANMAP 2013

Antimicrobial agent	Animal species	% Resistant	95% Confidence interval	Distribution (%) of MICs																	
				0,015	0,03	0,06	0,125	0,25	0,5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
Tetracycline	Broilers	15,2	[9,4-22,7]								84.8				0.8	14.4						
	Cattle	11,7	[6,2-19,5]								88.3				1.0	10.7						
	Pigs	34,9	[27,2-43,3]								63.7	1.4		0.7	0.7	33.6						
Chloramphenicol	Broilers	0	[0-2,9]								0.8	34.4	63.2	1.6								
	Cattle	1,9	[0,2-6,8]									32.0	66.0			1.0	1.0					
	Pigs	5,5	[2,4-10,5]								2.7	37.0	54.1	0.7	1.4	0.7	3.4					
Florfenicol	Broilers	0	[0-2,9]								4.8	50.4	44.0	0.8								
	Cattle	1,9	[0,2-6,8]								1.0	46.6	49.5	1.0			1.9					
	Pigs	1,4	[0,2-4,9]								8.2	51.4	38.4	0.7			1.4					
Ampicillin	Broilers	25,6	[18,2-34,2]							1.6	40.8	29.6	2.4			25.6						
	Cattle	3,9	[1,1-9,6]								28.2	64.1	3.9			3.9						
	Pigs	29,5	[22,2-37,6]							3.4	34.9	30.1	2.1		0.7	28.8						
Amoxicillin/clavulanic acid a)	Broilers	4,8	[1,8-10,2]								22.4	52.0	20.8	4.0		0.8						
	Cattle	1,0	[0,02-5,3]								13.6	77.7	7.8	1.0								
	Pigs	4,1	[1,5-8,7]								26.0	41.8	28.1	3.4	0.7							
Cefotaxime	Broilers	1,6	[0,2-5,7]										0.8		99.2							
	Cattle	1,9	[0,2-6,8]										1.0									
	Pigs	1,4	[0,2-4,9]										0.7									
Ceftiofur	Broilers	1,6	[0,2-5,7]							0.8		0.8	0.8									
	Cattle	0	[0-3,5]										100									
	Pigs	0	[0-2,5]							0.7			99.3									
Trimethoprim	Broilers	19,2	[12,7-27,2]							80.8						19.2						
	Cattle	1,0	[0,02-5,3]							99.0						1.0						
	Pigs	28,1	[21,0-36,1]							71.9					0.7	27.4						
Sulfonamide	Broilers	26,4	[18,9-35,0]													73.6					26.4	
	Cattle	7,8	[3,4-14,7]													92.2					7.8	
	Pigs	37,0	[29,2-45,4]													63.0					37.0	
Streptomycin	Broilers	8,0	[3,9-14,2]										74.4	17.6		0.8	3.2	4.0				
	Cattle	7,8	[3,4-14,7]										88.3	3.9		1.0	3.9	2.9				
	Pigs	41,8	[33,7-50,2]										45.2	13.0	4.8	6.2	10.3	20.5				
Gentamicin	Broilers	0	[0-2,9]							33.6	4.8							61.6				
	Cattle	0	[0-3,5]							10.7	1.0											
	Pigs	2,1	[0,4-5,9]							15.1	4.8		0.7	0.7	0.7							
Neomycin	Broilers	0,8	[0,02-4,4]								97.6	1.6				0.8						
	Cattle	0	[0-3,5]								100											
	Pigs	2,1	[0,4-5,9]								97.3	0.7				2.1						
Apramycin	Broilers	0	[0-2,9]									47.2	50.4	2.4								
	Cattle	0	[0-3,5]									79.6	20.4									
	Pigs	1,4	[0,2-4,9]									69.2	29.5			1.4						
Ciprofloxacin	Broilers	6,4	[2,8-12,2]													2.4						
	Cattle	7,8	[3,4-14,7]													16.5						
	Pigs	5,5	[2,4-10,5]													1.4						
Nalidixic acid	Broilers	3,2	[0,9-8,0]									94.4	2.4				3.2					
	Cattle	0	[0-3,5]									98.1	1.9									
	Pigs	1,4	[0,2-4,9]									97.3	1.4				1.4					
Colistin	Broilers	0,8	[0,02-4,4]							98.4	0.8		0.8									
	Cattle	0	[0-3,5]							100												
	Pigs	0,7	[0,02-3,8]							97.9	1.4	0.7										
Spectinomycin	Broilers	2,4	[0,5-6,9]											82.4	14.4	0.8	0.8	0.8	0.8			
	Cattle	1,0	[0,02-5,3]											95.1	3.9		1.0					
	Pigs	19,2	[13,1-26,5]											59.6	17.1	4.1	4.8	8.9	5.5			

Vertical solid lines indicate EUCAST epidemiological cut-off values except for apramycin. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A7.5. Distribution of MICs and resistance (%) in *Escherichia coli* from broiler meat (Danish n=116; imported n=136), beef (Danish n=24; imported n=35), pork (Danish n=93; imported n=50), Denmark

Antimicrobial agent	Animal species	Origin	% Resistant	95% Confidence interval	Distribution (%) of MICs																		
					0,015	0,03	0,06	0,125	0,25	0,5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
Tetracycline	Broiler meat	Danish	11,2	[6,1-18,4]								87.9	0.9			0.9	10.3						
		Imported	52,9	[44,2-61,6]								47.1			0.7	1.5	50.7						
	Beef	Danish	4,2	[0,1-21,1]								95.8				4.2							
		Imported	11,4	[3,2-26,7]								88.6					11.4						
	Pork	Danish	34,4	[24,9-45,0]								64.5	1.1				34.4						
		Imported	44,0	[30,0-58,7]								56.0				2.0	42.0						
Chloramphenicol	Broiler meat	Danish	0	[0-3,1]								6.0	50.0	44.0									
		Imported	14,0	[8,6-21,0]								2.2	48.5	33.8	1.5	4.4	4.4	5.1					
	Beef	Danish	4,2	[0,1-21,1]								4.2	16.7	75.0			4.2						
		Imported	5,7	[0,7-19,2]								2.9	40.0	51.4				5.7					
	Pork	Danish	6,5	[2,4-13,5]								2.2	46.2	43.0	2.2	2.2	2.2	2.2					
		Imported	4,0	[0,5-13,7]								8.0	36.0	52.0				4.0					
Florfenicol	Broiler meat	Danish	0	[0-3,1]								11.2	62.1	26.7									
		Imported	5,1	[2,1-10,3]								5.9	55.9	29.4	3.7			5.1					
	Beef	Danish	4,2	[0,1-21,1]								4.2	29.2	62.5				4.2					
		Imported	5,7	[0,7-19,2]								2.9	34.3	57.1				5.7					
	Pork	Danish	0	[0-3,9]								7.5	57.0	32.3	3.2								
		Imported	0	[0-7,1]								8.0	66.0	26.0									
Ampicillin	Broiler meat	Danish	24,1	[16,7-33,0]							10.3	41.4	23.3	0.9			24.1						
		Imported	64,0	[55,3-72,0]							2.2	16.2	17.6			0.7	63.2						
	Beef	Danish	4,2	[0,1-21,1]								37.5	58.3				4.2						
		Imported	8,6	[1,8-23,1]							2.9	40.0	42.9	5.7			8.6						
	Pork	Danish	26,9	[18,2-37,1]							5.4	22.6	40.9	4.3			26.9						
		Imported	36,0	[22,9-50,8]							4.0	30.0	28.0	2.0			36.0						
Amoxicillin/clavulanic acid a)	Broiler meat	Danish	0,9	[0,02-4,7]								32.8	43.1	23.3		0.9							
		Imported	6,6	[3,1-12,2]								8.8	32.4	52.2	2.9	1.5	2.2						
	Beef	Danish	0	[0-14,2]								4.2	91.7	4.2									
		Imported	2,9	[0,07-14,9]								17.1	68.6	11.4		2.9							
	Pork	Danish	2,2	[0,3-7,6]								11.8	60.2	25.8	2.2								
		Imported	6,0	[1,3-16,5]								16.0	44.0	34.0	6.0								
Cefotaxime	Broiler meat	Danish	0	[0-3,1]										1.7	1.7								
		Imported	0	[0-2,7]								0.7	0.7	7.4									
	Beef	Danish	0	[0-14,2]										100									
		Imported	0	[0-10,0]										2.9									
	Pork	Danish	0	[0-3,9]								1.1		98.9									
		Imported	0	[0-7,1]								100											
Ceftiofur	Broiler meat	Danish	1,7	[0,2-6,1]								98.3		0.9	0.9								
		Imported	8,8	[4,6-14,9]							1.5	0.7	0.7	1.5	5.9								
	Beef	Danish	0	[0-14,2]											100								
		Imported	0	[0-10,0]											100								
	Pork	Danish	1,1	[0,03-5,8]							1.1	1.1			97.8								
		Imported	0	[0-7,1]								100											
Trimethoprim	Broiler meat	Danish	12,1	[6,8-19,4]							87.9						12.1						
		Imported	39,7	[31,4-48,4]							60.3						39.7						
	Beef	Danish	0	[0-14,2]							100												
		Imported	5,7	[0,7-19,2]							94.3						5.7						
	Pork	Danish	24,7	[16,4-34,8]							75.3						24.7						
		Imported	34,0	[21,2-48,8]							66.0						34.0						
Sulfonamide	Broiler meat	Danish	18,1	[11,6-26,3]													81.9					18.1	
		Imported	57,4	[48,6-65,8]													42.6				0.7	56.6	
	Beef	Danish	4,2	[0,1-21,1]													95.8					4.2	
		Imported	8,6	[1,8-23,1]													91.4					8.6	
	Pork	Danish	34,4	[24,9-45,0]													65.6					34.4	
		Imported	36,0	[22,9-50,8]													64.0					36.0	
Streptomycin	Broiler meat	Danish	9,5	[4,8-16,3]										81.9	8.6	1.7	3.4	2.6	1.7				
		Imported	47,8	[39,2-56,5]										41.2	11.0	4.4	2.9	8.8	31.6				
	Beef	Danish	4,2	[0,1-21,1]										95.8					4.2				
		Imported	8,6	[1,8-23,1]										91.4			2.9		5.7				
	Pork	Danish	44,1	[33,8-54,8]										47.3	8.6	5.4	7.5	8.6	22.6				
		Imported	44,0	[30,0-58,7]										44.0	12.0	18.0	6.0	6.0	14.0				
Gentamicin	Broiler meat	Danish	0	[0-3,1]							27.6	0.9							71.6				
		Imported	2,2	[0,5-6,3]							36.0	2.2		0.7	0.7	0.7							
	Beef	Danish	0	[0-14,2]							16.7					83.3							
		Imported	2,9	[0,07-14,9]							11.4				2.9								
	Pork	Danish	0	[0-3,9]							19.4	1.1			79.6								
		Imported	2,0	[0,05-10,6]							30.0	6.0				2.0							
Neomycin	Broiler meat	Danish	0	[0-3,1]								97.4	2.6										
		Imported	6,6	[3,1-12,2]								89.7	3.7			2.9	3.7						
	Beef	Danish	0	[0-14,2]								95.8	4.2										
		Imported	0	[0-10,0]								94.3	5.7										
	Pork	Danish	4,3	[1,2-10,6]								93.5	2.2		1.1		3.2						
		Imported	4,0	[0,5-13,7]								92.0	4.0			2.0	2.0						
Apramycin	Broiler meat	Danish	0	[0-3,1]									70.7	28.4	0.9								
		Imported	1,5	[0,2-5,2]									61.0	35.3	2.2		1.5						
	Beef	Danish	0	[0-14,2]									83.3	12.5	4.2								
		Imported	0	[0-10,0]									85.7	14.3									
	Pork	Danish	0	[0-3,9]									80.6	19.4									
		Imported	0	[0-7,1]									62.0	36.0	2.0								
Ciprofloxacin	Broiler meat	Danish	1,7	[0,2-6,1]											5.2								
		Imported	1,5	[0,2-5,2]							2.9	2.2	0.7	8.1	2.9								
	Beef	Danish	8,3	[1,0-27,0]										45.8									
		Imported	5,7	[0,7-19,2]										2.9									
	Pork	Danish	2,2	[0,3-7,6]										1.1									
		Imported	4,0	[0,5-13,7]										2.0									
Nalidixic acid	Broiler meat	Danish	5,2	[1,9-10,9]									94.8				0.9	4.3					
		Imported	34,6	[26,6-43,2]									64.7		0.7		3.7	30.9					
	Beef	Danish	0	[0-14,2]									100										
		Imported	2,9	[0,07-14,9]									97.1					2.9					
	Pork	Danish	1,1	[0,03-5,8]									95.7	3.2				1.1					
		Imported	10,0	[3,3-21,8]									90.0				2.0	8.0					
Colistin	Broiler meat	Danish	0	[0-3,1]							100												
		Imported	0,7	[0,02-4,0]							98.5	0.7	0.7										
	Beef	Danish	0	[0-14,2]							95.8	4.2											
		Imported	0	[0-10,0]							100												
	Pork	Danish	0	[0-3,9]							100												
		Imported	0	[0-7,1]							98.0	2.0											
Spectinomycin	Broiler meat	Danish	1,7	[0,2-6,1]											87.9	10.3		0.9		0.9			
		Imported	33,8	[25,9-42,4]											54.4	9.6	2.2	4.4	4.4	25.0			
	Beef	Danish	0	[0-14,2]											95.8	4.2							
		Imported	2,9	[0,07-14,9]											82.9	14.3				2.9			
	Pork	Danish	19,4	[11,9-28,9]											66.7	10.8	3.2	6.5	10.8	2.2			
		Imported	20,0	[10,0-33,7]											60.0	10.0	10.0	6.0	10.0	4.0			

Vertical solid lines indicate EUCAST epidemiological cut-off values except for apramycin. EUCAST clinical breakpoints are indicated as vertical dotted lines if different from the corresponding epidemiological cut-off values. See table 10.2 for further details

White fields represent the range of dilutions tested. MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration. MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Table A8.1 Distribution of MICs and resistance (%) in *Staphylococcus aureus* bacteraemia 2013 (n=962), Denmark

DANMAP 2013

Antimicrobial agent	% Resistant	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32
Penicillin	76	10.4	11.4	2.2	76							
Cefoxitin	1.7								98.3	1.7		
Erythromycin	7.2				22.8	68.9	1	0.1	0.8	6.3		
Clindamycin (inducible resistance included)	5.8			94.6	3.4	0.6	0.2	1.1				
Fusidic acid	15.3			11.5	55.3	15.8	2.1	1.7	2.7	2.5	6.3	2
Tetracycline	3.1					81.8	14.4	0.6	0.4	2.7		
Norfloxacin	4.9						72.2	20.7	2.2	1.1	3.7	
Rifampicin	0		99.8	0.2								
Linezolid	0						1.5	66.8	31.7			
Kanamycin	1.7										98.3	1.7
Trimethoprim/sulfametoxazole	0.7					95.8	1.8	1	0.6	0.7		
Ceftaroline	0.2			7.9	83.1	7.3	1.6	0.2				
Ceftobiprole	NA			0.3	36.7	59.3	3.2	0.5				
Daptomycin	0.5					85.6	13.9	0.4	0.1			
Gentamicin	1.7				51.5	39.7	7.2	1.1	0.5			
Moxifloxacin	1.6				97.2	0.8	0.4	0.8	0.7			
Mupirocin	0.1			6.3	77.3	15.9	0.3	0.1				
Teicoplanin	0						97.9	2.1				
Tigecycline	0		40.9	50	8.5	0.6						
Vancomycin	0					3.1	93.6	3.3				

Notes: The cut-off value for daptomycin represents reduced susceptibility. The cut-off value for mupirocin represents intermediate resistance

Table A8.2 Distribution of MICs and resistance (%) in MRSA 2013 (n=2094), Denmark

DANMAP 2013

Antimicrobial agent	% Resistant	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32
Erythromycin	36				6.3	55.7	1.8	0	0.8	35.2		
Cefoxitin	100								0	100		
Clindamycin (inducible resistance included	44			49.7	15.3	0.7	0.3	34				
Fusidic acid	13			6.8	57.2	20.3	3	0.9	1.8	4.1	5.2	0.7
Tetracycline	45					31.8	22.6	0.9	0.4	44.2		
Norfloxacin	24						57.2	16.5	1.8	0.8	23.7	
Rifampicin	1		98.1	0.5	0.2	0.2	0.1	0.8				
Linezolid	0.1						1.4	41.4	57.1	0.05	0.05	
Kanamycin	23										77	22.9
Trimethoprim/sulfametoxazole	3					64.7	16.7	8.6	7.3	2.6		
Ceftaroline	1				4.4	78.2	16.2	1.1	0	0.1		
Ceftobiprole	NA				0.1	40.8	56.2	2.7	0	0.05		
Daptomycin	1					83.8	15.4	0.6	0.1			
Gentamicin	10				34.3	46.1	9.6	0.8	9.2			
Moxifloxacin	19				77.2	1	2.5	14.3	4.9			
Mupirocin	1			2.6	57.3	38.4	0.8	0.05	0.8			
Teicoplanin	0.05						97.1	2.8	0.05			
Tigecycline	0.4		11	52	35.3	1.2	0.2	0.2				
Vancomycin	0					4.8	90.8	4.3				

Notes: The cut-off value for daptomycin represents reduced susceptibility. The cut-off value for mupirocin represents intermediate resistance