

Table 5A. Distribution of MICs and Occurrence of Resistance for Top Serotypes Tested from Chickens, 2010¹

Antimicrobial	Serotype (# of Isolates)	%I ²	%R ³	95% CI ⁴	Distribution (%) of MICs (µg/ml) ⁵														
					0.015	0.03	0.06	0.125	0.25	0.50	1	2	4	8	16	32	64	128	256
Aminoglycosides																			
Amikacin	Kentucky (243)	0.0	0.0	0.0-1.9							8.2	78.6	12.8	0.4					
	Enteritidis (152)	0.0	0.0	0.0-3.1							19.1	73.7	7.2						
	Typhimurium var. 5- (29)	0.0	0.0	0.0-14.6							41.4	51.7	6.9						
	Typhimurium (25)	0.0	0.0	0.0-16.6							8.0	76.0	12.0	4.0					
	Heidelberg (25)	0.0	0.0	0.0-16.6							28.0	60.0	12.0						
	I 4,5,12:i:- (11)	0.0	0.0	0.0-32.1							9.1	81.8	9.1						
Gentamicin	Kentucky (243)	0.0	1.6	0.5-4.4						79.0	19.3					0.8	0.8		
	Enteritidis (152)	0.0	0.7	0-4.2						94.7	3.9		0.7			0.7			
	Typhimurium var. 5- (29)	0.0	6.9	1.2-24.2						86.2	6.9					6.9			
	Typhimurium (25)	4.0	28.0	12.9-49.6						64.0	4.0			4.0		24.0	4.0		
	Heidelberg (25)	4.0	4.0	0.2-22.3						76.0	12.0		4.0	4.0		4.0	4.0		
	I 4,5,12:i:- (11)	0.0	27.3	7.3-60.7						27.3	45.5					27.3			
Kanamycin	Kentucky (243)	0.0	0.0	0.0-1.9											100.0				
	Enteritidis (152)	0.0	0.7	0-4.2											99.3			0.7	
	Typhimurium var. 5- (29)	0.0	10.3	2.7-28.4											89.7			10.3	
	Typhimurium (25)	0.0	32.0	15.7-53.6											68.0		20.0	12.0	
	Heidelberg (25)	0.0	24.0	10.2-45.5											76.0		4.0	20.0	
	I 4,5,12:i:- (11)	0.0	18.2	3.2-52.3											81.8			18.2	
Streptomycin	Kentucky (243)	0.0	67.9	61.6-73.6												32.1	58.4	9.5	
	Enteritidis (152)	0.0	1.3	0.2-5.1												98.7	0.7	0.7	
	Typhimurium var. 5- (29)	0.0	17.2	6.5-36.4												82.8	10.3	6.9	
	Typhimurium (25)	0.0	44.0	25.0-64.7												56.0	20.0	24.0	
	Heidelberg (25)	0.0	12.0	3.2-32.3												88.0		12.0	
	I 4,5,12:i:- (11)	0.0	9.1	0.5-42.9												90.9		9.1	

¹ Data is only presented for serotypes with at least 10 or more isolates

² Percent of isolates with intermediate susceptibility

³ Percent of isolates that were resistant

⁴ 95% confidence intervals for percent resistant (%R) were calculated using the Wilson interval with continuity correction method

⁵ The unshaded areas indicate the range of dilutions tested for each antimicrobial. Single vertical bars indicate the breakpoints for susceptibility, while double vertical bars indicate the breakpoints for resistance. Numbers in the shaded area indicate the percentages of isolates with MICs greater than the highest tested concentrations. Numbers listed for the lowest tested concentrations represent the percentages of isolates with MICs equal to or less than the lowest tested concentration. CLSI breakpoints were used when available. There are no CLSI breakpoints for streptomycin; breakpoints were established by NARMS.

Table 5A (continued). Distribution of MICs and Occurrence of Resistance for Top Serotypes Tested from Chickens, 2010¹

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					0.015	0.03	0.06	0.125	0.25	0.50	1	2	4	8	16	32	64	128	256	512	1024											
β-Lactam/β-Lactamase Inhibitor Combinations																																
Amoxicillin-Clavulanic Acid	Kentucky (243)	0.0	15.2	11.1-20.5																												
	Enteritidis (152)	0.7	0.0	0.0-3.1																												
	Typhimurium var. 5- (29)	3.4	34.5	18.6-54.4																												
	Typhimurium (25)	4.0	32.0	15.7-53.6																												
	Heidelberg (25)	0.0	24.0	10.2-45.5																												
	I 4,5,12:i:- (11)	9.1	0.0	0.0-32.1																												
Cephems																																
Cefoxitin	Kentucky (243)	0.4	14.8	10.7-20.0																												
	Enteritidis (152)	0.0	0.0	0.0-3.1																												
	Typhimurium var. 5- (29)	3.4	31.0	15.9-50.9																												
	Typhimurium (25)	0.0	32.0	15.7-53.6																												
	Heidelberg (25)	0.0	24.0	10.2-45.5																												
	I 4,5,12:i:- (11)	0.0	0.0	0.0-32.1																												
Ceftiofur	Kentucky (243)	0.4	15.2	11.1-20.5																												
	Enteritidis (152)	0.0	1.3	0.2-5.1																												
	Typhimurium var. 5- (29)	0.0	34.5	18.6-54.4																												
	Typhimurium (25)	4.0	32.0	15.7-53.6																												
	Heidelberg (25)	0.0	24.0	10.2-45.5																												
	I 4,5,12:i:- (11)	0.0	0.0	0.0-32.1																												
Ceftriaxone	Kentucky (243)	0.0	15.2	11.1-20.5																												
	Enteritidis (152)	0.0	0.7	0-4.2																												
	Typhimurium var. 5- (29)	0.0	34.5	18.6-54.4																												
	Typhimurium (25)	4.0	32.0	15.7-53.6																												
	Heidelberg (25)	4.0	24.0	10.2-45.5																												
	I 4,5,12:i:- (11)	0.0	0.0	0.0-32.1																												

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² Percent of isolates with intermediate susceptibility

³ Percent of isolates that were resistant

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Table 5A (continued). Distribution of MICs and Occurrence of Resistance for Top Serotypes Tested from Chickens, 2010¹

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					0.015	0.03	0.06	0.125	0.25	0.50	1	2	4	8	16	32	64	128	256	512	1024																																																										
Folate Pathway Inhibitors					<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <table border="1"> <tr><td>12.3</td><td>40.3</td><td>44.4</td><td>1.2</td><td>1.6</td></tr> <tr><td>1.3</td><td>12.5</td><td>79.6</td><td>2.6</td><td>2.0</td></tr> <tr><td>6.9</td><td></td><td></td><td></td><td>93.1</td></tr> <tr><td>16.0</td><td>40.0</td><td>8.0</td><td></td><td>36.0</td></tr> <tr><td>12.0</td><td>24.0</td><td>12.0</td><td></td><td>52.0</td></tr> <tr><td>36.4</td><td>27.3</td><td></td><td></td><td>36.4</td></tr> </table> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <table border="1"> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> <tr><td>100.0</td><td></td><td></td><td></td><td></td></tr> </table> </div> </div>															12.3	40.3	44.4	1.2	1.6	1.3	12.5	79.6	2.6	2.0	6.9				93.1	16.0	40.0	8.0		36.0	12.0	24.0	12.0		52.0	36.4	27.3			36.4	100.0					100.0					100.0					100.0					100.0					100.0				
12.3	40.3	44.4	1.2	1.6																																																																											
1.3	12.5	79.6	2.6	2.0																																																																											
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Sulfisoxazole	Kentucky (243)	N/A	1.6	0.5-4.4																																																																											
	Enteritidis (152)	N/A	2.0	0.5-6.1																																																																											
	Typhimurium var. 5- (29)	N/A	93.1	75.8-98.8																																																																											
	Typhimurium (25)	N/A	36.0	18.7-57.4																																																																											
	Heidelberg (25)	N/A	52.0	31.8-71.7																																																																											
	I 4,5,12:i:- (11)	N/A	36.4	12.4-68.4																																																																											
Trimethoprim-Sulfamethoxazole																																																																															
	Kentucky (243)	N/A	0.0	0.0-1.9																																																																											
	Enteritidis (152)	N/A	0.0	0.0-3.1																																																																											
	Typhimurium var. 5- (29)	N/A	0.0	0.0-14.6																																																																											
	Typhimurium (25)	N/A	0.0	0.0-16.6																																																																											
	Heidelberg (25)	N/A	0.0	0.0-16.6																																																																											
	I 4,5,12:i:- (11)	N/A	0.0	0.0-32.1																																																																											
Penicillins																																																																															
Ampicillin	Kentucky (243)	0.0	15.2	11.1-20.5																																																																											
	Enteritidis (152)	0.0	2.6	0.8-7.0																																																																											
	Typhimurium var. 5- (29)	0.0	41.4	24.1-60.9																																																																											
	Typhimurium (25)	4.0	40.0	21.8-61.1																																																																											
	Heidelberg (25)	0.0	28.0	12.9-49.6																																																																											
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Phenicol																																
Chloramphenicol	Kentucky (243)	0.0	1.2	0.3-3.8																												
	Enteritidis (152)	0.0	1.3	0.2-5.1																												
	Typhimurium var. 5- (29)	0.0	3.4	0.2-19.6																												
	Typhimurium (25)	0.0	20.0	7.6-41.3																												
	Heidelberg (25)	0.0	4.0	0.2-22.3																												
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Quinolones																																
Ciprofloxacin	Kentucky (243)	0.0	0.0	0.0-1.9																												
	Enteritidis (152)	0.0	0.0	0.0-3.1																												
	Typhimurium var. 5- (29)	0.0	0.0	0.0-14.6																												
	Typhimurium (25)	0.0	0.0	0.0-16.6																												
	Heidelberg (25)	0.0	0.0	0.0-16.6																												
	I 4,5,12:i:- (11)	0.0	0.0	0.0-32.1																												
Nalidixic Acid	Kentucky (243)	N/A	0.0	0.0-1.9																												
	Enteritidis (152)	N/A	0.0	0.0-3.1																												
	Typhimurium var. 5- (29)	N/A	0.0	0.0-14.6																												
	Typhimurium (25)	N/A	0.0	0.0-16.6																												
	Heidelberg (25)	N/A	0.0	0.0-16.6																												
	I 4,5,12:i:- (11)	N/A	0.0	0.0-32.1																												
Tetracyclines																																
Tetracycline	Kentucky (243)	1.2	69.5	63.2-75.1																												
	Enteritidis (152)	0.7	3.3	1.2-7.9																												
	Typhimurium var. 5- (29)	0.0	86.2	67.4-95.5																												
	Typhimurium (25)	0.0	32.0	15.7-53.6																												
	Heidelberg (25)	0.0	56.0	35.3-75.0																												
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