

Table 8a. Distribution of MICs and Occurrence of Resistance by Top Serotypes Tested from Swine, 2005

Antimicrobial	Isolate Source (# of Isolates)	%I ¹	%R ²	95% CI ³	Distribution (%) of MICs (µg/ml) ⁴																
					0.015	0.03	0.06	0.125	0.25	0.50	1	2	4	8	16	32	64	128	256	512	1024
Aminoglycosides	Amikacin																				
	Derby (85)	0.0	0.0	0.0-5.4							1.2	65.9	30.6	2.4							
	Typhimurium var. 5- (36)	0.0	0.0	0.0-12.0							2.8	75.0	16.7	5.6							
	Infantis (27)	0.0	0.0	0.0-15.5							40.7	48.1	7.4	3.7							
	Anatum (16)	0.0	0.0	0.0-24.1							43.8	56.2									
	Johannesburg (15)	0.0	0.0	0.0-25.3							6.7	86.7	6.7								
	Saintpaul (11)	0.0	0.0	0.0-32.1							9.1	90.9									
	Reading (11)	0.0	0.0	0.0-32.1							36.4	45.5	18.2								
	London (11)	0.0	0.0	0.0-32.1							18.2	81.8									
	Adelaide (10)	0.0	0.0	0.0-34.5							40.0	50.0	10.0								
Heidelberg (8)	0.0	0.0	0.0-40.2							62.5	37.5										
Gentamicin	Derby (85)	0.0	2.4	0.4-9.1						43.5	49.4	4.7									
	Typhimurium var. 5- (36)	0.0	5.6	1.0-20.1						66.7	27.8										
	Infantis (27)	0.0	3.7	0.2-20.9						77.8	11.1	3.7	3.7								
	Anatum (16)	0.0	0.0	0.0-24.1						81.2	12.5	6.2									
	Johannesburg (15)	0.0	0.0	0.0-25.3						86.7	13.3										
	Saintpaul (11)	0.0	0.0	0.0-32.1						90.9	9.1										
	Reading (11)	0.0	18.2	3.2-52.3						72.7	9.1										
	London (11)	0.0	0.0	0.0-32.1						100.0											
	Adelaide (10)	0.0	0.0	0.0-34.5						100.0											
	Heidelberg (8)	0.0	0.0	0.0-40.2						50.0	50.0										
Kanamycin	Derby (85)	0.0	0.0	0.0-5.4											100.0						
	Typhimurium var. 5- (36)	0.0	2.8	0.1-16.2											97.2						
	Infantis (27)	0.0	0.0	0.0-15.5											100.0						
	Anatum (16)	0.0	0.0	0.0-24.1											100.0						
	Johannesburg (15)	0.0	0.0	0.0-25.3											100.0						
	Saintpaul (11)	0.0	0.0	0.0-32.1											100.0						
	Reading (11)	0.0	0.0	0.0-32.1											100.0						
	London (11)	0.0	0.0	0.0-32.1											100.0						
	Adelaide (10)	0.0	0.0	0.0-34.5											100.0						
	Heidelberg (8)	0.0	75.0	35.6-95.5											25.0						
Streptomycin	Derby (85)	0.0	61.2	50.0-71.4												38.8	1.2	60.0			
	Typhimurium var. 5- (36)	0.0	66.7	49.0-80.9												33.3	47.2	19.4			
	Infantis (27)	0.0	11.1	2.9-30.3												88.9	11.1				
	Anatum (16)	0.0	12.5	2.2-39.6												87.5	6.2	6.2			
	Johannesburg (15)	0.0	0.0	0.0-25.3												100.0					
	Saintpaul (11)	0.0	0.0	0.0-32.1												100.0					
	Reading (11)	0.0	18.2	3.2-52.3												81.8		18.2			
	London (11)	0.0	0.0	0.0-32.1												100.0					
	Adelaide (10)	0.0	0.0	0.0-34.5												100.0					
	Heidelberg (8)	0.0	87.5	46.7-99.3												12.5	75.0	12.5			

¹ Percent of isolates with intermediate susceptibility

² Percent of isolates that were resistant

³ 95% confidence intervals for percent resistant (%R) were calculated using the Clopper-Pearson exact method

⁴ 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.

Table 8b. Distribution of MICs and Occurrence of Resistance by Top Serotypes Tested from Swine, 2005

Antimicrobial	Isolate Source (# of Isolates)	%I ¹	%R ²	[95% CI] ³	Distribution (%) of MICs (µg/ml) ⁴													
					0.015	0.03	0.06	0.125	0.25	0.50	1	2	4	8	16	32	64	128
Aminopenicillins																		
Ampicillin	Derby (85)	0.0	1.2	0.1-7.3							82.4	16.5						1.2
	Typhimurium var. 5- (36)	0.0	66.7	49.0-80.9							16.7	16.7						66.7
	Infantis (27)	0.0	0.0	0.0-15.5							81.5	18.5						
	Anatum (16)	0.0	0.0	0.0-24.1							75.0	25.0						
	Johannesburg (15)	0.0	6.7	0.4-34.0							86.7	6.7						6.7
	Saintpaul (11)	0.0	0.0	0.0-32.1							81.8	18.2						
	Reading (11)	0.0	27.3	7.3-60.7							63.6	9.1						27.3
	London (11)	0.0	0.0	0.0-32.1							81.8	18.2						
	Adelaide (10)	0.0	0.0	0.0-34.5							100.0							
Heidelberg (8)	0.0	12.5	0.7-53.3							62.5	25.0						12.5	
β-Lactam/β-Lactamase Inhibitor Combinations																		
Amoxicillin-Clavulanic Acid	Derby (85)	1.2	0.0	0.0-5.4							96.5	2.4		1.2				
	Typhimurium var. 5- (36)	50.0	11.1	3.6-27.0							25.0	8.3	5.6	50.0	2.8			8.3
	Infantis (27)	0.0	0.0	0.0-15.5							100.0							
	Anatum (16)	0.0	0.0	0.0-24.1							100.0							
	Johannesburg (15)	0.0	6.7	0.4-34.0							93.3							6.7
	Saintpaul (11)	0.0	0.0	0.0-32.1							100.0							
	Reading (11)	0.0	27.3	7.3-60.7							63.6	9.1						27.3
	London (11)	0.0	0.0	0.0-32.1							90.9	9.1						
	Adelaide (10)	0.0	0.0	0.0-34.5							100.0							
Heidelberg (8)	0.0	0.0	0.0-40.2							87.5		12.5						
Cephalosporins																		
Ceftiofur	Derby (85)	0.0	0.0	0.0-5.4						55.3	44.7							
	Typhimurium var. 5- (36)	0.0	5.6	1.0-20.1						61.1	33.3				5.6			
	Infantis (27)	0.0	0.0	0.0-15.5						29.6	70.4							
	Anatum (16)	0.0	0.0	0.0-24.1						50.0	50.0							
	Johannesburg (15)	0.0	6.7	0.4-34.0						86.7	6.7						6.7	
	Saintpaul (11)	0.0	0.0	0.0-32.1						90.9	9.1							
	Reading (11)	0.0	27.3	7.3-60.7						63.6	9.1						27.3	
	London (11)	0.0	0.0	0.0-32.1				9.1		63.6	27.3							
	Adelaide (10)	0.0	0.0	0.0-34.5						70.0	30.0							
Heidelberg (8)	0.0	0.0	0.0-40.2						87.5	12.5								
Ceftriaxone	Derby (85)	0.0	0.0	0.0-5.4					100.0									
	Typhimurium var. 5- (36)	2.8	0.0	0.0-12.0					94.4			2.8	2.8					
	Infantis (27)	0.0	0.0	0.0-15.5					100.0									
	Anatum (16)	0.0	0.0	0.0-24.1					100.0									
	Johannesburg (15)	6.7	0.0	0.0-25.3					93.3						6.7			
	Saintpaul (11)	0.0	0.0	0.0-32.1					100.0									
	Reading (11)	18.2	0.0	0.0-32.1					72.7			9.1	18.2					
	London (11)	0.0	0.0	0.0-32.1					100.0									
	Adelaide (10)	0.0	0.0	0.0-34.5					100.0									
Heidelberg (8)	0.0	0.0	0.0-40.2					100.0										

¹ Percent of isolates with intermediate susceptibility

² Percent of isolates that were resistant

³ 95% confidence intervals for percent resistant (%R) were calculated using the Clopper-Pearson exact method

⁴ 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.

