

Article

# Multicenter Surveillance of Antimicrobial Resistance among Gram-Negative Bacteria Isolated from Bloodstream Infections in Ghana

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## Supplementary Tables

**Supplementary Table S1.** Antimicrobial susceptibility of all Gram-negative blood isolates (N=334)

	<b>Resistant N (%)</b>	<b>Intermediate N (%)</b>	<b>Susceptible N (%)</b>
<b>Meropenem</b>	92 (28.0%)	12 (3.6%)	225 (68.4%)
<b>Tetracycline</b>	251 (76.1%)	4 (1.2%)	75 (22.7%)
<b>Chloramphenicol</b>	197 (59.7%)	13 (3.9%)	120 (36.4%)
<b>Gentamicin</b>	157 (53.8%)	7 (2.4%)	128 (43.8%)
<b>Cefotaxime</b>	256 (77.8%)	17 (5.2%)	56 (17.0%)
<b>Azithromycin</b>	138 (42.1%)	4 (1.2%)	186 (56.7%)
<b>Ciprofloxacin</b>	177 (55.3%)	30 (9.4%)	113 (35.3%)
<b>Ceftriaxone</b>	227 (73.7%)	7 (2.3%)	74 (24.0%)
<b>Ampicillin</b>	293 (89.3%)	7 (2.1%)	28 (8.5%)
<b>Ceftazidime</b>	178 (56.3%)	30 (9.5%)	108 (34.2%)
<b>Ertapenem</b>	146 (44.4%)	14 (4.3%)	169 (51.4%)
<b>Nalidixic acid</b>	209 (63.3%)	29 (8.8%)	92 (27.9%)
<b>Trimethoprim-sulfamethoxazole</b>	236 (71.5%)	1 (0.3%)	93 (28.2%)
<b>Multidrug resistant</b>	290 (88.0%)		
<b>Susceptible to all antibiotics tested</b>			5 (1.5%)

Supplementary Table S2. Antimicrobial susceptibility of *K. pneumoniae* and non-typhoidal *Salmonella* isolates

	No. tested isolates	Resistant N (%)	Intermediate N (%)	Susceptible N (%)
Antimicrobial susceptibility of <i>Klebsiella pneumoniae</i> blood isolates				
<b>Meropenem</b>	84	20 (23.8%)	4 (4.8%)	60 (71.4%)
<b>Tetracycline</b>	84	75 (89.3%)	0 (0.0%)	9 (10.7%)
<b>Chloramphenicol</b>	84	59 (70.2%)	1 (1.2%)	24 (28.6%)
<b>Gentamicin</b>	76	63 (82.9%)	1 (1.3%)	12 (15.8%)
<b>Cefotaxime</b>	84	72 (85.7%)	2 (2.4%)	10 (11.9%)
<b>Azithromycin</b>	84	39 (46.4%)	2 (2.4%)	43 (51.2%)
<b>Ciprofloxacin</b>	84	62 (73.8%)	8 (9.5%)	14 (16.7%)
<b>Ceftriaxone</b>	83	70 (84.3%)	1 (1.2%)	12 (14.5%)
<b>Ampicillin</b>	83	83 (100.0%)	0 (0.0%)	0 (0.0%)
<b>Ceftazidime</b>	84	58 (69.0%)	9 (10.7%)	17 (20.2%)
<b>Ertapenem</b>	84	25 (29.8%)	6 (7.1%)	53 (63.1%)
<b>Nalidixic acid</b>	84	49 (58.3%)	13 (15.5%)	22 (26.2%)
<b>Trimethoprim-sulfamethoxazole</b>	84	72 (85.7%)	1 (1.2%)	11 (13.1%)
<b>Multidrug resistant</b>	84	81 (96.4%)		
<b>Susceptible to all antibiotics tested</b>	84			0 (0.0%)
Antimicrobial susceptibility of Non-typhoidal <i>Salmonella</i> blood isolates				
<b>Meropenem</b>	18	3 (16.7%)	1 (5.6%)	14 (77.8%)
<b>Tetracycline</b>	18	6 (33.3%)	0 (0.0%)	12 (66.7%)
<b>Chloramphenicol</b>	18	5 (27.8%)	0 (0.0%)	13 (72.2%)
<b>Gentamicin</b>	17	4 (23.5%)	0 (0.0%)	13 (76.5%)
<b>Cefotaxime</b>	18	7 (38.9%)	4 (22.2%)	7 (38.9%)
<b>Azithromycin</b>	17	4 (23.5%)	0 (0.0%)	13 (76.5%)
<b>Ciprofloxacin</b>	18	5 (27.8%)	0 (0.0%)	13 (72.2%)
<b>Ceftriaxone</b>	18	4 (22.2%)	0 (0.0%)	14 (77.8%)
<b>Ampicillin</b>	18	6 (33.3%)	0 (0%)	12 (66.7%)
<b>Ceftazidime</b>	18	5 (27.8%)	1 (5.6%)	12 (66.7%)
<b>Ertapenem</b>	18	3 (16.7%)	0 (0.0%)	15 (83.3%)
<b>Nalidixic acid</b>	18	3 (16.7%)	0 (0.0%)	15 (83.3%)
<b>Trimethoprim-sulfamethoxazole</b>	18	6 (33.3%)	0 (0.0%)	12 (66.7%)
<b>Multidrug resistant</b>	18	7 (38.9%)		
<b>Susceptible to all antibiotics tested</b>	18			3 (16.7%)

Supplementary Table S3: Antimicrobial susceptibility of *A. baumannii*, *E. coli* and *P. aeruginosa* isolates

	No. tested isolates	Resistant N (%)	Intermediate N (%)	Susceptible N (%)
Antimicrobial susceptibility of <i>Acinetobacter baumannii</i> blood isolates				
Meropenem	39	12 (30.8%)	2 (5.1%)	25 (64.1%)
Tetracycline	40	22 (55.0%)	2 (5.0%)	16 (40.0%)
Chloramphenicol	40	35 (87.5%)	1 (2.5%)	4 (10.0%)
Gentamicin	31	14 (45.2%)	1 (3.2%)	16 (51.6%)
Cefotaxime	40	36 (90.0%)	1 (2.5%)	3 (7.5%)
Azithromycin	40	17 (42.5%)	-	23 (57.5%)
Ciprofloxacin	34	15 (44.1%)	7 (20.6%)	15 (44.1%)
Ceftriaxone	27	24 (88.9%)	1 (3.7%)	2 (7.4%)
Ampicillin	39	37 (94.9%)	1 (2.6%)	1 (2.6%)
Ceftazidime	33	19 (57.6%)	4 (12.1%)	10 (30.3%)
Ertapenem	40	36 (90.0%)	1 (2.5%)	3 (7.5%)
Nalidixic acid	40	20 (50.0%)	7 (17.5%)	13 (32.5%)
Trimethoprim-sulfamethoxazole	40	23 (57.5%)	-	17 (42.5%)
Multidrug resistant	40	39 (97.5%)		
Susceptible to all antibiotics tested	40			0 (0.0%)
Antimicrobial susceptibility of <i>E. coli</i> blood isolates				
Meropenem	88	23 (26.1%)	-	65 (73.9%)
Tetracycline	88	71 (80.7%)	-	17 (19.3%)
Chloramphenicol	88	36 (40.9%)	5 (5.7%)	47 (53.4%)
Gentamicin	76	34 (44.7%)	2 (2.6%)	40 (52.6)
Cefotaxime	87	64 (73.6%)	6 (6.9%)	17 (19.5%)
Azithromycin	88	41 (46.6%)	1 (1.1%)	46 (52.3%)
Ciprofloxacin	88	54 (61.4%)	9 (10.2%)	25 (28.4%)
Ceftriaxone	86	67 (77.9%)	2 (2.3%)	17 (19.8%)
Ampicillin	88	77 (87.5%)	3 (3.4%)	8 (9.1%)
Ceftazidime	88	59 (67.0%)	8 (9.1%)	21 (23.9%)
Ertapenem	88	26 (29.5%)	3 (3.4%)	59 (67.0)
Nalidixic acid	88	68 (77.3%)	3 (3.4%)	17 (19.3%)
Trimethoprim-sulfamethoxazole	88	63 (71.6%)	-	25 (28.4%)
Multidrug resistant	88	83 (94.3%)		
Susceptible to all antibiotics tested	88			2 (2.3%)
Antimicrobial susceptibility of <i>Pseudomonas aeruginosa</i> blood isolates				
Meropenem	25	13 (52.0%)	-	12 (48.0%)
Tetracycline	25	23 (92.0%)	1 (4.0%)	1 (4.0%)
Chloramphenicol	25	19 (76.0%)	2 (8.0%)	4 (16.0%)
Gentamicin	25	6 (24.0%)	-	19 (76.0%)
Cefotaxime	25	21 (84.0%)	-	4 (16.0%)
Azithromycin	25	9 (36.0%)	-	16 (64.0%)
Ciprofloxacin	25	8 (32.0%)	2 (8.0%)	15 (60.0%)
Ceftriaxone	25	20 (80.0%)	3 (12.0%)	2 (8.0%)
Ampicillin	25	24 (96.0%)	-	1 (4.0%)
Ceftazidime	25	10 (40.0%)	-	15 (60.0%)
Ertapenem	25	21 (84.0%)	1 (4.0%)	3 (12.0%)
Nalidixic acid	25	23 (92.0%)	-	2 (8.0%)
Trimethoprim-sulfamethoxazole	25	23 (92.0%)	-	2 (8.0%)
Multidrug resistant	25	25 (100%)		
Susceptible to all antibiotics tested	25			0 (0%)