

(Supplemental) TABLE 1. Sources of 305 isolates of ertapenem-non-susceptible *Enterobacteriaceae* collected in this study

Hospital (location in Taiwan) and source	No. (%) of isolates							
	<i>E. coli</i> (n=64)	<i>K. pneumoniae</i> (n=219)	<i>K. oxytoca</i> (n=1)	<i>E. cloacae</i> (n=15)	<i>E. aerogenes</i> (n=2)	<i>S. marcescens</i> (n=2)	<i>C. diversus</i> (n=1)	<i>C. freundii</i> (n=1)
Hospital								
A (northern)	23	58	1	0	0	0	0	0
B (northern)	7	29	0	0	0	0	0	0
C (northern)	8	32	0	1	0	0	0	0
D (northern)	1	36	0	0	0	0	0	0
E (northern)	2	9	0	5	0	1	1	1
F (northern)	1	15	0	1	0	0	0	0
G (northern)	4	19	0	0	0	0	0	0
H (central)	3	5	0	1	0	0	0	0
I (central)	4	11	0	2	1	0	0	0
J (southern)	1	0	0	0	0	0	0	0
K (southern)	10	5	0	5	1	1	0	0
Sites of isolation								

Sputum	3	104	0	7	0	1	1	0
Urine	36	52	1	5	1	0	0	0
Blood	9	26	0	0	0	0	0	0
Pus or wound	9	25	0	2	0	0	0	0
Cerebrospinal fluid	0	0	0	0	0	1	0	0
Ascites	4	4	0	0	0	0	0	1
Pleural effusion	0	1	0	0	0	0	0	0
Bile	2	2	0	1	1	0	0	0
Catheter tips	1	5	0	2	0	0	0	0

(Supplemental) TABLE 2. Antimicrobial susceptibilities among 305 ertapenem-nonsusceptible (ertapenem minimum inhibitory concentration [MICs] of ≥ 1 $\mu\text{g/ml}$) *Enterobacteriaceae* isolates to 20 agents using the Phoenix MIC testing panel according the interpretive criteria recommended by the Clinical and Laboratory Standards Institute 2012 (12).

Bacteria (no. of isolates) and agent	MIC ($\mu\text{g/ml}$)			No. (%) of isolates		
	Range	MIC ₅₀	MIC ₉₀	Susceptible	Intermediate	Resistant
<i>Enterobacteriaceae</i> (n=305)						
Ampicillin	> 16	> 16	> 16	0 (0)	0 (0)	305 (100)
Ampicillin-sulbactam	16/8->16/8	> 16/8	> 16/8	0 (0)	7 (2)	298 (98)
Cefazolin	> 16	> 16	> 16	0 (0)	0 (0)	305 (100)
Cefametzole	8->32	> 32	> 32	9 (3)	6 (2)	290 (95)
Cefotaxime	2->16	> 16	> 16			
Cefepime	2->16	> 16	> 16	76 (25)	28 (9)	201 (66)
Cefpirome	2->32	> 32	> 32			
Piperacillin-tazobactam	4/4->64/4	> 64/4	> 64/4	33 (11)	23 (8)	249 (82)
Ertapenem	1->4	2	> 4	0	0	305 (100)
Imipenem	1->8	1	> 8	211 (69)	16 (5)	78 (26)
Meropenem	1->8	1	8	249 (82)	8 (3)	48 (16)
Aztreonam	2->16	> 16	> 16	25 (8)	10 (3)	270 (89)
Gentamicin	2->8	> 8	> 8	132 (43)	4 (1)	169 (55)
Amikacin	8->32	8	> 32	229 (75)	1 (0)	75 (25)
Levofloxacin	1->4	> 4	> 4	43 (14)	6 (2)	256 (84)
Ciprofloxacin	0.5->2	> 2	> 2	37 (12)	8 (3)	260 (85)
Moxifloxacin	1->4	> 4	> 4			
Trimethoprim-sulfamethoxazole	0.5/9.5->2/38	> 2/38	> 2/38	91 (30)	-	214 (70)
Tigecycline	0.064-8	0.5	2			
Colistin	1->4	1	1			

<i>E. coli</i> (n=64)						
Ampicillin	> 16	> 16	> 16	0 (0)	0 (0)	64 (100)
Ampicillin-sulbactam	16/8->16/8	> 16/8	> 16/8	0 (0)	5 (8)	59 (92)
Cefazolin	> 16	> 16	> 16	0 (0)	0 (0)	64 (100)
Cefmetazole	8->32	> 32	> 32	6 (9)	3 (5)	55 (86)
Cefotaxime	2->16	> 16	> 16			
Cefepime	2->16	16	> 16	30 (47)	12 (19)	22 (34)
Cefpirome	2->32	32	> 32			
Piperacillin-tazobactam	4/4->64/4	> 64/4	> 64/4	16 (25)	9 (14)	39 (61)
Ertapenem	1->4	2	> 4	0 (0)	0 (0)	64 (100)
Imipenem	1->8	1	> 8	46 (72)	5 (8)	13 (20)
Meropenem	1->8	1	4	54 (84)	1 (2)	9 (14)
Aztreonam	2->16	> 16	> 16	1 (2)	4 (6)	59 (92)
Gentamicin	2->8	> 8	> 8	25 (39)	1 (2)	38 (59)
Amikacin	8->32	8	8	62 (97)	0 (0)	2 (3)
Levofloxacin	1->4	> 4	> 4	19 (30)	0 (0)	45 (70)
Ciprofloxacin	0.5->2	> 2	> 2	18 (28)	1 (2)	45 (70)
Moxifloxacin	1->4	> 4	> 4			
Trimethoprim-sulfamethoxazole	0.5/9.5->2/38	> 2/38	> 2/38	27 (42)	-	37 (58)
Tigecycline	0.06-1	0.25	0.5			
Colistin	1	1	1			
<i>K. pneumoniae</i> (n=219)						
Ampicillin	> 16	> 16	> 16	0 (0)	0 (0)	219 (100)
Ampicillin-sulbactam	16/8->16/8	> 16/8	> 16/8	0 (0)	1 (0)	218 (100)
Cefazolin	> 16	> 16	> 16	0 (0)	0 (0)	219 (100)
Cefmetazole	8->32	> 32	> 32	3 (1)	3 (1)	213 (97)
Cefotaxime	2->16	> 16	> 16			
Cefepime	2->16	> 16	> 16	34 (16)	14 (6)	171 (78)
Cefpirome	2->32	> 32	> 32			

Piperacillin-tazobactam	4/4->64/4	> 64/4	> 64/4	11 (5)	11 (5)	197 (90)
Ertapenem	1->4	2	> 4	0 (0)	0 (0)	219 (100)
Imipenem	1->8	1	> 8	150 (68)	9 (4)	60 (27)
Meropenem	1->8	1	8	175 (80)	7 (3)	37 (17)
Aztreonam	2->16	> 16	> 16	21 (10)	5 (2)	193 (88)
Gentamicin	2->8	> 8	> 8	93 (43)	3 (1)	123 (56)
Amikacin	8->32	8	> 32	145 (66)	1 (0)	73 (33)
Levofloxacin	1->4	> 4	> 4	12 (6)	4 (2)	203 (92)
Ciprofloxacin	0.5->2	> 2	> 2	9 (4)	5 (2)	205 (94)
Moxifloxacin	1->4	> 4	> 4			
Trimethoprim-sulfamethoxazole	0.5/9.5->2/38	> 2/38	>2/38	52 (24)	-	167 (76)
Tigecycline	0.125-8	0.5	2			
Colistin	1->4	1	1			

E. cloacae (n=15)

Ampicillin	> 16	> 16	> 16	0 (0)	0 (0)	15 (100)
Ampicillin-sulbactam	16/8->16/8	> 16/8	> 16/8	0 (0)	1 (7)	14 (93)
Cefazolin	> 16	> 16	> 16	0 (0)	0 (0)	15 (100)
Cefmetazole	> 32	> 32	> 32	0 (0)	0 (0)	15 (100)
Cefotaxime	2->16	> 16	> 16			
Cefepime	2->16	8	> 16	9 (60)	1 (7)	5 (33)
Cefpirome	2->32	32	> 32			
Piperacillin-tazobactam	4/4->64/4	> 64/4	> 64/4	3 (20)	3 (20)	9 (60)
Ertapenem	1->4	4	> 4			15 (100)
Imipenem	1->4	1	2	13 (87)	1 (7)	1 (7)
Meropenem	1	1	1	15 (100)		
Aztreonam	2->16	> 16	> 16	1 (7)	0 (0)	14 (93)
Gentamicin	2->8	2	> 8	11 (73)	0 (0)	4 (27)
Amikacin	8	8	8	15 (100)		
Levofloxacin	1->4	2	> 4	8 (53)	0 (0)	7 (47)

Ciprofloxacin	0.5->2	1	> 2	8 (53)	0 (0)	7 (47)
Moxifloxacin	1->4	4	> 4			
Trimethoprim-sulfamethoxazole	0.5/9.5->2/38	> 2/38	> 2/38	7 (47)	-	8 (53)
Tigecycline	0.38-4	2	4			
Colistin	1->4	1	1			
Others (n=7) ^a						
Ampicillin	> 16	> 16	> 16	0 (0)	0 (0)	7 (100)
Ampicillin-sulbactam	> 16/8	> 16/8	> 16/8	0 (0)	0 (0)	7 (100)
Cefazolin	> 16	> 16	> 16	0 (0)	0 (0)	7 (100)
Cefmetazole	> 32	> 32	> 32	0 (0)	0 (0)	7 (100)
Cefotaxime	16->16	> 16	> 16	0 (0)	0 (0)	7 (100)
Cefepime	2->16	16	> 16	3 (43)	1 (14)	3 (43)
Cefpirome	2->32	16	> 32			
Piperacillin-tazobactam	8/4->64/4	> 64/4	> 64/4	3 (43)	0 (0)	4 (57)
Ertapenem	1->4	4	> 4	0 (0)	0 (0)	7 (100)
Imipenem	1->8	8	> 8	2 (29)	1 (14)	4 (57)
Meropenem	1-4	1	4	5 (71)	0 (0)	2 (29)
Aztreonam	2->16	> 16	> 16	2 (29)	1 (14)	4 (57)
Gentamicin	2->8	> 8	> 8	3 (43)	0 (0)	4 (57)
Amikacin	8	8	8	7 (100)	0 (0)	0 (0)
Levofloxacin	1->4	2	4	4 (57)	2 (29)	1 (14)
Ciprofloxacin	0.5->2	2	> 2	2 (29)	2 (29)	3 (43)
Moxifloxacin	1->4	4	> 4			
Trimethoprim-sulfamethoxazole	0.5/9.5->2/38	0.5/9.5	> 2/38	5 (71)	-	2 (29)
Tigecycline	0.094-4	2	4			
Colistin	1	1	1			

^a Includes *K. oxytoca* (n=1), *E. aerogenes* (n=2); *C. freundii* (n=1), *C. diversus* (n=1), and *S. marcescens* (n=2)