

**Supplementary Table 1. Matching characteristics of the study patients**

Characteristics	CRE (n=51)	CSE (n=102)
Age (months), median (IQR),	4.0 (0.1–12)	3.0 (0.3–24.3)
0–28 days	19 (37.3)	38 (37.3)
29 days–1 year	17 (33.3)	34 (33.3)
2–5 years	7 (13.7)	14 (13.7)
6–16 years	8 (15.7)	16 (15.7)
Year of infection		
2009	2 (3.9)	4 (3.9)
2010	1 (2.0)	2 (2.0)
2011	4 (7.8)	8 (7.8)
2012	3 (5.9)	6 (5.9)
2013	7 (13.7)	14 (13.7)
2014	3 (5.9)	6 (5.9)
2015	6 (11.8)	12 (11.8)
2016	7 (13.7)	14 (13.7)
2017	13 (25.5)	26 (25.5)
2018	5 (9.8)	10 (9.8)
Type of infection		
Pneumonia	21 (41.2)	42 (41.2)
Bacteremia	19 (37.3)	38 (37.3)
Urinary tract infection	6 (11.8)	12 (11.8)
Skin and soft-tissue infection	3 (5.9)	6 (5.9)
Intraabdominal infection	2 (3.9)	4 (3.9)

CRE: Carbapenem-resistant *Enterobacteriaceae*; CSE: Carbapenem-susceptible *Enterobacteriaceae*;

IQR: interquartile range.

**Supplementary Table 2. Phenotypes and genotypes of 23 carbapenem-resistant *Enterobacteriaceae* isolates**

Isolates NO.	MIC of Carbapenems ( $\mu\text{g}/\text{mL}$ )		MHT	Resistant genes		
	IPM	ETP		Carbapenemases	ESBLs	AmpCs
EC1	16	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>DHA-1</i>
EC2	8	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>DHA-1</i>
EC3	8	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>DHA-1</i>
EC4	16	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>DHA-1</i>
EC5	16	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>DHA-1</i>
EC6	16	4	+	<i>KPC-2</i>	–	–
EC7	8	4	+	<i>IMP-8</i>	<i>TEM-1, CTX-M-15</i>	–
EC8	32	16	+	<i>NDM-1</i>	<i>SHV-11</i>	–
EC9	32	8	+	<i>NDM-1</i>	<i>SHV-11</i>	–
EC10	16	8	+	<i>NDM-1</i>	–	–
EC11	8	4	+	<i>KPC-2</i>	<i>TEM-1</i>	–
EC12	8	4	+	<i>KPC-2</i>	<i>TEM-1</i>	–
EC13	16	8	+	<i>KPC-2</i>	<i>TEM-1</i>	<i>ACT-1</i>
EC14	32	8	+	<i>KPC-2</i>	<i>TEM-3</i>	–
EC15	8	4	+	<i>KPC-2</i>	<i>TEM-1, SHV-10</i>	–
KO1	32	16	+	<i>KPC-2</i>	<i>TEM-1, CTX-M-1, CTX-M-9</i>	–
KO2	8	4	–	–	<i>TEM-1, SHV-11, CTX-M-1</i>	–
KO3	8	4	–	–	<i>TEM-1, SHV-11, CTX-M-1</i>	–
KP1	32	8	+	<i>KPC-2</i>	<i>TEM-1</i>	–
KP2	16	8	+	<i>KPC-2</i>	<i>TEM-1, SHV-10</i>	–
KP3	32	16	+	<i>KPC-2</i>	<i>TEM-1, SHV-11, CTX-M-1, CTX-M-9</i>	–
ECO1	16	4	+	<i>KPC-2</i>	<i>TEM-1</i>	–
SM1	32	16	+	<i>KPC-2, VIM-1</i>	<i>TEM-1, CTX-M-1</i>	<i>CMY-2</i>

MIC: minimum inhibitory concentration; IPM: imipenem; ETP: ertapenem; MHT: modified Hodge test; ESBL: extended spectrum  $\beta$ -lactamase; AmpC: AmpC cephalosporinase; +: positive; –: not detected; EC: *Enterobacter cloacae*; KO: *Klebsiella oxytoca*; KP: *Klebsiella pneumoniae*; ECO: *Escherichia coli*; SM: *Serratia marcescens*; KPC: *Klebsiella pneumoniae* carbapenemase; NDM: New Delhi metallo- $\beta$ -lactamase; VIM: Verona integron-encoded metallo- $\beta$ -lactamase.

**Supplementary Table 3. Antimicrobial susceptibility testing of carbapenem-resistant *Enterobacteriaceae* isolates**

Agents	No. of isolates tested	Resistant, <i>n</i> (%)	Intermediate, <i>n</i> (%)	Susceptible, <i>n</i> (%)
Amikacin	46	2 (4.3)	2 (4.3)	42 (91.3)
Ampicillin	50	50 (100)	0	0
Ampicillin/sulbactam	29	29 (100)	0	0
Aztreonam	57	47 (82.4)	5 (8.8)	5 (8.8)
Cefazolin	52	52 (100)	0	0
Cefepime	57	55 (96.5)	0	2 (3.5)
Cefotaxime	44	44 (100)	0	0
Cefoperazone/sulbactam	38	26 (68.4)	6 (15.8)	6 (15.8)
Ceftazidime	56	53 (94.6)	0	3 (5.4)
Ceftriaxone	57	55 (96.5)	0	2 (3.5)
Cefuroxime	43	43 (100)	0	0
Ciprofloxacin	57	15 (26.3)	4 (7.0)	38 (66.7)
Ertapenem	11	11 (100)	0	0
Gentamicin	57	28 (49.1)	1 (1.8)	28 (49.1)
Imipenem	57	54 (94.7)	3 (5.3)	0
Levofloxacin	57	12 (21.1)	2 (3.5)	43 (75.4)
Macrodantin	13	5 (38.5)	4 (30.8)	4 (30.8)
Meropenem	29	29 (100)	0	0
Piperacillin	33	33 (100)	0	0
Piperacillin/tazobactam	57	46 (80.7)	8 (14.0)	3 (5.3)
Tigecycline	28	0	0	28 (100)
Trimethoprim/sulfamethoxazole	57	31 (54.4)	0	26 (45.6)
Tobramycin	56	13 (23.2)	11 (19.6)	32 (57.1)

**Supplementary Table 4: Outcomes of patients according to treatment regimens**

Variables	CRE			CSE		
	Died (n=7)	Survived (n=44)	Mortality	Died (n=6)	Survived (n=96)	Mortality
Regimens						
Monotherapy	5	24	17.2	6	91	6.2
Combination therapy	2	20	9.1	0	5	0
Antimicrobial included in therapy						
β-lactam/β-lactamase inhibitors	4	19	17.4	2	33	5.7
Fluoroquinolone	1	13	7.1	0	2	0
Third-generation cephalosporins	0	5	0	0	25	0
Carbapenems	3	9	25.0	4	41	8.9
Aminoglycoside	0	4	0	NA	NA	NA
Fosfomycin	0	8	0	NA	NA	NA
Tigecycline	1	3	25.0	NA	NA	NA

CRE: Carbapenem-resistant Enterobacteriaceae; CSE: Carbapenem-susceptible Enterobacteriaceae;  
NA: Not applicable.