

**Table S1. Distribution of molecular characterization of 20 *Klebsiella pneumoniae***

	Strains number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Virulence phenotypes	BF	+	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+
	HMV	+	-	-	-	-	+	+	-	-	-	-	+	+	-	-	-	-	-	-	-
Virulence genes	<i>wzi</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	<i>rmpA</i>	+	-	-	-	-	+	+	-	-	-	-	+	+	-	-	-	-	-	-	-
	<i>magA</i>	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
	<i>wabG</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	<i>fimH</i>	+	+	-	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+
	<i>mrkD</i>	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+
	<i>iucA</i>	-	+	-	-	-	+	+	-	-	-	-	-	+	+	-	+	+	-	-	-
<i>iutA</i>	-	+	-	-	-	+	+	-	-	-	-	-	+	+	-	+	-	-	-	-	
Capsular serotypes	<i>wzi</i> type	168	19	84	137	629	64	206	187	101	83	46	1	1	209	19	121	150	516	275	401
	K type		19		17		14/16			24	23	46/61	1	1		19	43				
ESBLs	MDR	-	+	+	+	+	-	-	+	+	+	+	-	+	+	+	+	+	-	+	-
	phenotype	-	+	+	-	-	-	-	+	+	+	+	-	+	+	-	+	+	-	+	-
	<i>bla<sub>SHV</sub></i>	-	-	-	-	+	+	+	+	+	+	+	+	+	-	+	-	+	-	+	-
	<i>bla<sub>CTX-M</sub></i>	-	+	-	-	-	-	-	-	-	-	+	+	-	+	-	-	+	+	-	+
Carbapenems	<i>bla<sub>TEM</sub></i>	-	+	-	-	-	-	-	+	-	+	+	-	+	-	-	+	+	-	+	-
	phenotype	-	+	-	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
	<i>bla<sub>KPC</sub></i>	-	+	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
	<i>bla<sub>NDM</sub></i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<i>bla<sub>OXA-48</sub></i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quinolones	<i>bla<sub>IMP</sub></i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	phenotype LVF	-	+	+	-	+	-	-	-	+	-	+	-	+	+	+	-	+	-	-	-
	phenotype GAT	-	+	+	-	+	-	-	-	+	-	+	-	+	+	+	+	+	-	-	-
	phenotype CIP	-	+	+	-	+	-	-	+	+	+	+	-	+	+	+	+	+	-	+	-
	<i>qnrA</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<i>qnrB</i>	-	+	-	-	-	-	-	-	+	-	+	-	-	+	-	-	+	-	-	-
	<i>oqxA</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	-
	<i>oqxB</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+
<i>aac</i>	-	+	-	-	-	-	-	-	+	+	+	+	-	+	-	-	+	+	-	-	

Notes: +: Positive; -: Negative; MDR: Multi-drug resistant; BF: Biofilm; HMV: Hypermucoviscous phenotype

**Table S2. Distribution of resistance of 20 *Klebsiella pneumoniae* against 13 antibiotics**

Strains number		aminoglycoside	quinolones			tetracyclines		carbapenem	cephalosporin			penicillins	ESBLs	Monocyclic lactam
		KAN	GAT	LVF	CIP	CHL	DOX	IPN	CAZ	CTX	CFX	PIP	PIT	AZT
	S:	≥18	≥18	≥17	≥21	≥18	≥14	≥23	≥21	≥26	≥18	≥21	≥21	≥21mm
	R:	≤13	≤14	≤13	≤20	≤12	≤10	≤19	≤17	≤22	≤14	≤17	≤17	≤17mm
1		28	28	32	40	25	18	26	26	29	25	22	25	31
		27	29	31	36	25	20	27	29	30	27	22	25	34
		27	28	30	37	24	20	25	27	30	25	20	24	32
	average	27.3	28.3	31.0	37.7	24.7	19.3	26.0	27.3	29.7	25.7	21.3	24.7	32.3
2		6	15	12	6	27	16	14	8	6	6	6	7	6
		6	13	11	6	27	12	14	10	6	6	6	7	6
		7	13	11	5	25	13	15	10	6	5	7	8	5
	average	6.3	13.7	11.3	5.7	26.3	13.7	14.3	9.3	6.0	5.7	6.3	7.3	5.7
3		28	9	12	10	8	6	26	23	16	19	15	22	23
		27	11	13	8	9	8	27	23	18	19	12	22	23
		24	10	11	10	9	8	24	24	18	18	13	21	20
	average	26.3	10.0	12.0	9.3	8.7	7.3	25.7	23.3	17.3	18.7	13.3	21.7	22.0
4		22	23	23	24	23	13	18	22	26	7	12	24	28
		18	23	25	25	25	12	19	25	28	7	20	25	31
		20	24	24	25	23	14	18	23	27	6	14	23	27
	average	20.0	23.3	24.0	24.7	23.7	13.0	18.3	23.3	27.0	6.7	15.3	24.0	28.7
5		26	9	8	6	7	17	12	10	14	6	7	8	6
		28	12	8	6	7	18	11	11	12	6	8	9	6
		26	11	7	7	8	16	11	12	13	6	8	9	7
	average	26.7	10.7	7.7	6.3	7.3	17.0	11.3	11.0	13.0	6.0	7.7	8.7	6.3
6		22	30	26	35	22	20	26	25	29	27	22	22	30
		22	26	26	34	25	19	26	25	28	24	23	21	30
		21	26	27	30	25	20	24	24	26	25	22	20	28
	average	21.7	27.3	26.3	33.0	24.0	19.7	25.3	24.7	27.7	25.3	22.3	21.0	29.3
7		22	25	32	42	24	17	24	25	28	24	20	24	29
		20	28	28	40	25	19	25	25	29	25	21	25	29
		20	26	28	39	24	18	24	23	26	24	20	23	27
	average	20.7	26.3	29.3	40.3	24.3	18.0	24.3	24.3	27.7	24.3	20.3	24.0	28.3
8		8	18	18	13	11	8	24	22	16	24	9	23	25
		9	18	18	13	9	7	24	22	16	25	10	22	26
		8	17	20	15	10	8	22	23	14	22	10	21	24
	average	8.3	17.7	18.7	13.7	10.0	7.7	23.3	22.3	15.3	23.7	9.7	22.0	25.0
9		20	10	12	8	6	6	22	10	15	18	7	19	19
		19	9	12	10	6	6	23	14	14	19	8	19	16
		19	10	13	10	6	7	20	13	13	18	8	20	17
	average	19.3	9.7	12.3	9.3	6.0	6.3	21.7	12.3	14.0	18.3	7.7	19.3	17.3
10		16	16	14	7	24	10	24	16	10	22	7	20	16
		16	17	17	7	24	10	25	16	10	21	7	21	16
		16	16	15	7	22	9	24	17	11	21	7	20	15
	average	16.0	16.3	15.3	7.0	23.3	9.7	24.3	16.3	10.3	21.3	7.0	20.3	15.7

11		7	6	6	7	6	6	27	10	8	17	7	19	8
		7	6	6	7	6	6	25	9	7	17	7	19	7
		9	7	7	9	6	7	24	10	6	19	8	20	7
	average	7.7	6.3	6.3	7.7	6.0	6.3	25.3	9.7	7.0	17.7	7.3	19.3	7.3
12		22	28	30	32	25	18	28	22	25	24	19	24	24
		20	27	31	32	25	18	25	24	26	25	19	25	28
		20	26	30	30	24	16	24	24	25	23	18	24	26
	average	20.7	27.0	30.3	31.3	24.7	17.3	25.7	23.3	25.3	24.0	18.7	24.3	26.0
13		7	10	13	10	6	9	25	7	6	18	7	17	6
		7	12	13	10	6	11	26	6	6	19	7	18	6
		7	12	12	9	7	10	24	6	8	17	8	19	7
	average	7.0	11.3	12.7	9.7	6.3	10.0	25.0	6.3	6.7	18.0	7.3	18.0	6.3
14		22	6	7	7	6	14	26	6	13	12	8	18	6
		21	7	7	7	7	15	26	6	10	10	7	19	6
		21	7	7	8	6	13	24	7	11	10	8	16	7
	average	21.3	6.7	7.0	7.3	6.3	14.0	25.3	6.3	11.3	10.7	7.7	17.7	6.3
15		7	12	10	9	25	20	13	13	12	6	7	9	8
		7	14	10	8	28	19	13	11	10	6	8	11	7
		9	11	9	8	26	18	14	11	11	7	9	11	8
	average	7.7	12.3	9.7	8.3	26.3	19.0	13.3	11.7	11.0	6.3	8.0	10.3	7.7
16		7	11	18	9	6	7	25	17	9	20	7	22	15
		7	12	19	9	6	8	26	17	9	20	7	23	16
		8	11	17	10	7	7	25	17	10	18	7	22	15
	average	7.3	11.3	18.0	9.3	6.3	7.3	25.3	17.0	9.3	19.3	7.0	22.3	15.3
17		7	11	11	11	6	12	24	21	12	22	7	23	18
		7	11	11	11	6	12	24	22	12	23	7	23	18
		10	12	11	13	8	10	22	21	12	20	7	25	20
	average	8.0	11.3	11.0	11.7	6.7	11.3	23.3	21.3	12.0	21.7	7.0	23.7	18.7
18		26	26	27	29	26	21	25	23	25	27	11	23	27
		21	26	27	28	25	20	25	24	28	23	11	24	28
		21	24	24	27	25	20	23	24	26	24	12	20	26
	average	22.7	25.3	26.0	28.0	25.3	20.3	24.3	23.7	26.3	24.7	11.3	22.3	27.0
19		7	18	24	18	18	8	25	14	9	19	6	21	10
		7	18	26	20	18	8	23	14	8	19	6	19	11
		9	16	24	19	18	10	23	12	8	20	7	19	10
	average	7.7	17.3	24.7	19.0	18.0	8.7	23.7	13.3	8.3	19.3	6.3	19.7	10.3
20		20	29	26	29	26	20	23	22	25	23	17	23	26
		20	27	26	28	27	19	24	22	29	22	17	24	28
		18	25	26	26	25	19	23	21	24	22	15	23	27
	average	19.3	27.0	26.0	27.7	26.0	19.3	23.3	21.7	26.0	22.3	16.3	23.3	27.0
Total of resistant strains	8	10	9	13	9	8	4	10	13	5	16	3	9	
Rates of resistance	40.0%	50.0%	45.0%	65.0%	45.0%	40.0%	20.0%	50.0%	65.0%	25.0%	80.0%	15.0%	45.0%	
S: susceptibility; R: resistance; CAZ:Ceftazidime, CTX:Cefotaxime, CFX: Cefoxitin, PIP: Piperacillin, AZT:Aztreonam, PIT: Piperacillin-tazobactam, CHL: Chloramphenicol, IPN: Imipenem, DOX: Doxycycline, KAN: Kanamycin, GAT: Gatifloxacin, LVF: Levofloxacin, CIP: Ciprofloxacin														