

SUPPLEMENTARY DATA

Supplementary Table S1. Antibiotic Sensitivity / Resistance pattern of *Klebsiella pneumoniae* isolates against 21 selected antibiotics from the major groups of antibiotics by Kirby Bauer disc diffusion method

S. N.	Source	Name of the isolate	AK	CAZ	CFM	CIP	CPM	CTX	CX	DO	GEN	IPM	LE	MI	MRP	NX	OF	P	PIT	SF	TE	TOB	TR	PB* MIC	CIP* MIC
1	Camel	RCKR2	I	S	S	R	I	I	I	S	S	R	R	S	I	I	S	R	R	S	S	S	S	S	R
2		RCKN3	S	S	S	R	S	S	S	S	S	I	I	S	S	S	S	R	I	S	S	S	S	S	R
3		RCKR3	S	S	S	R	I	S	S	S	S	S	I	I	S	S	S	R	I	S	S	S	S	R	R
4		RCKN4	S	I	S	I	I	I	S	S	S	S	I	I	S	S	S	R	R	S	S	S	S	S	I
5		RCKN7	S	S	S	I	I	S	S	S	S	I	S	I	S	S	S	R	R	S	S	S	S	S	R
6		RCKR7	I	I	S	R	I	I	I	S	S	S	I	I	I	I	S	R	R	S	S	S	S	S	R
7		RCKR9	S	S	S	I	S	S	S	S	S	S	S	S	S	S	S	R	I	S	S	S	S	S	R
8		RCKR11	I	I	S	R	I	I	S	S	S	I	I	I	I	S	S	R	I	S	S	S	S	S	R
9		RCKN12	I	I	S	R	I	I	I	S	S	R	R	R	R	S	S	R	R	S	S	S	S	S	R
10		RCKN13	S	S	S	I	I	S	S	S	S	S	S	S	S	S	S	R	I	S	S	S	S	S	R
11		RCKR13	I	S	S	R	I	I	S	S	S	I	I	I	I	S	S	R	R	S	S	S	S	S	R
12		RCKR15	I	S	S	R	I	I	I	S	S	R	I	I	I	I	I	R	R	S	S	I	S	S	R
13		RCKN18	I	I	S	R	I	I	I	S	S	I	I	I	I	I	I	R	R	S	S	S	S	S	R
14		RCKR18	R	S	S	R	I	I	S	S	S	R	I	S	I	S	S	R	R	S	S	S	S	S	R
15		RCKR22	S	I	S	R	I	I	S	S	R	I	I	I	I	S	S	R	R	S	S	S	S	S	R
16		RCKN24	S	I	I	R	R	R	R	S	S	S	I	I	S	S	S	R	R	S	S	S	S	S	I
17		RCKN27	S	S	S	I	S	S	I	S	S	I	S	S	S	S	S	R	I	S	S	S	S	S	I
18		RCKN29	I	I	S	R	I	I	S	S	S	I	I	S	I	S	S	R	R	S	S	S	S	S	R
19		RCKN30	S	S	S	R	S	S	S	S	S	S	I	S	S	S	S	R	I	S	S	S	S	S	R

S. N.	Source	Name of the isolate	AK	CAZ	CFM	CIP	CPM	CTX	CX	DO	GEN	IPM	LE	MI	MRP	NX	OF	P	PIT	SF	TE	TOB	TR	PB* MIC	CIP* MIC
20		RCKR31	S	S	S	R	S	S	S	S	S	S	I	S	I	S	S	R	I	S	S	S	S	S	R
21		RCKN32	I	I	S	I	I	I	S	S	S	I	I	S	I	S	S	R	I	S	S	S	S	S	R
22		RCKR32	I	S	S	R	I	I	S	S	S	I	I	I	S	S	S	R	I	S	S	S	S	S	R
23	Human	RCKH29	S	I	S	I	I	R	S	S	S	I	I	S	I	S	S	R	I	S	S	S	S	S	I
24		RCKH30	I	S	R	R	I	I	I	S	S	S	I	S	S	S	S	R	I	S	S	S	I	S	R
25		RCKH32	I	S	S	R	S	I	R	S	S	S	I	S	S	S	S	R	I	S	S	S	S	S	R
26	Environ-ment	RCKM20	I	I	S	R	I	I	I	S	I	I	I	I	I	I	S	R	R	S	S	I	S	S	R
27		RCKS21	S	I	S	R	I	I	I	S	S	S	S	S	I	S	S	R	I	S	S	S	S	S	R
28		RCKM26	I	I	I	R	I	I	R	S	S	R	I	R	R	S	S	R	R	S	S	S	S	S	I
29		RCKM27	S	S	S	R	I	I	S	S	S	I	I	S	I	S	S	R	I	S	S	S	S	S	R
30		RCKS27	R	S	S	R	I	I	I	I	S	I	I	I	I	S	S	R	R	S	S	S	S	S	R
31		RCKS30	S	I	R	R	I	R	R	S	S	S	R	I	S	S	S	R	I	S	S	S	I	S	R
32		RCKS31	S	S	S	I	S	I	S	S	S	S	I	R	S	S	S	R	I	S	S	S	S	S	R
33		RCKS32	S	S	S	I	S	S	S	S	S	I	I	S	S	S	S	R	I	S	S	S	S	S	R

*For polymyxin-B and Ciprofloxacin Minimum Inhibitory Concentration determined

Supplementary Table S2: Antibiotic Sensitivity / Resistance pattern of *Klebsiella pneumoniae* isolates against 20 selected antibiotics from the major groups of antibiotics by BD Phoenix M50 method

S. N.	Source	Isolate No.	AMK	AMC	AMP	AZT	CFZ	CPM	CTX	CX	CAZ	CHL	CIP	CL	GEN	IMP	LEV	MRP	PIP	PTZ	TET	TSH
1	Camel	RCKR2	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
2		RCKN3	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
3		RCKR3	S	S	R	S	X	S	X	S	S	S	X	R	S	S	X	S	R	S	S	S
4		RCKN4	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
5		RCKN7	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
6		RCKR7	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
7		RCKR9	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
8		RCKR11	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
9		RCKN12	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
10		RCKN13	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
11		RCKR13	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
12		RCKR15	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
13		RCKN18	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	I	S	S	S
14		RCKR18	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	I	S	S	S
15		RCKR22	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	I	S	S	S
16		RCKN24	S	R	R	S	R	S	X	R	S	S	X	X	S	S	X	S	S	S	S	S
17		RCKN27	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
18		RCKN29	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	I	S	S	S
19		RCKN30	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
20		RCKR31	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
21		RCKN32	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	X	R	S	S	S
22		RCKR32	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S

S. N.	Source	Isolate No.	AMK	AMC	AMP	AZT	CFZ	CPM	CTX	CX	CAZ	CHL	CIP	CL	GEN	IMP	LEV	MRP	PIP	PTZ	TET	TSH
23	Human	RCKH29	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
24		RCKH30	S	R	R	R	R	S	S	R	S	R	X	X	I	S	X	S	S	S	S	S
25		RCKH32	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	R	S	S	S
26	Environ-ment	RCKM20	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
27		RCKS21	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
28		RCKM26	S	R	R	S	R	S	X	R	S	S	X	X	S	S	X	S	S	S	S	S
29		RCKM27	S	S	R	S	X	S	X	S	S	S	X	X	S	S	X	S	I	S	S	S
30		RCKS27	S	S	R	S	R	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S
31		RCKS30	S	S	R	S	S	S	S	S	S	S	X	X	S	S	X	S	R	S	S	S
32		RCKS31	S	S	R	S	S	S	S	S	S	S	X	X	S	S	X	S	R	S	S	S
33		RCKS32	S	R	R	S	X	S	X	S	S	S	X	X	S	S	X	S	S	S	S	S

X = AST not detected

Supplementary Table S3. Antibiotic resistance profile of *Klebsiella pneumoniae* isolated from Camels, their handlers and surrounding environment by Kirby Bauer disc diffusion method/MIC/ BD Phoenix M50

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
1	RCKR 2	Jaipur	4 (Beta lactam, Beta lactam combinations, Quinolones and Carbapenem)	Resistant: AMC, AMP, CIP, IPM, P, PIP, PIT Sensitive: AZT, CAZ, CFM, CHL, DO, GEN, LE, MI, OF, SF, TE, TOB, TR, TSH
2	RCKN 3	Jaipur	3 (Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMC, AMP, CIP, P, PIP Sensitive: AK, AZT, CAZ, CFM, CHL, CPM, CTX, CX, DO, GEN, MI, MRP, NX, OF, SF, TE, TOB, TR, TSH
3	RCKR 3	Jaipur	3 (Beta lactam, Quinolones and Monobactams)	Resistant: AMP, CIP, CL, P, PIP Sensitive: AK, AMC, AZT, CAZ, CFM, CHL, CTX, CX, DO, GEN, IMP, MRP, NX, OF, SF, TE, TOB, TR, TSH
4	RCKN 4	Jaipur	2 (Beta lactam, Beta lactam combinations)	Resistant: AMP, PIT, P Sensitive: AK, AMC, AZT, CFM, CHL, CX, DO, GEN, IMP, MRP, NX, OF, PIP, SF, TE, TOB, TR, TSH
5	RCKN 7	Jaipur	2 (Beta lactam, Beta lactam combinations)	Resistant: AMP, PIT, P Sensitive: AK, AMC, AZT, CAZ, CFM, CHL, CTX, CX, DO, GEN, LE, MRP, NX, OF, PIP, SF, TE, TOB, TR, TSH
6	RCKR 7	Jaipur	3 (Beta lactam, Beta lactam)	Resistant: AMP, CIP, P, PIT

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
			combinations, Quinolones)	Sensitive:AMC, AZT, CFM,CHL,CX,DO,GEN,NX,OF,PIP,SF,TE,TOB,TR, TSH
7	RCKR 9	Pushkar, Ajmer	1 (Beta lactam)	Resistant: AMP, P, PIP Sensitive:AK,AMC,AZT,CAZ,CFM,CHL,CPM,CTX,CX,DO,GEN,IMP,LE,MI ,MRP,NX,OF,SF,TE,TOB,TR,TSH
8	RCKR 11	Jaipur	2 (Beta lactam, Quinolones)	Resistant: AMP, CIP, P, PIP Sensitive: AMC, AZT,CFM,CHL,CX,DO,GEN,LE,NX,OF,SF,TE,TOB,TR,TSH
9	RCKN 12	Jaipur	5(Beta lactam, Beta lactam combinations, Quinolones, Carbapenem and Tetracyclines)	Resistant: AMP, CIP, LE, IMP, MI, MRP,P, PIP, PIT Sensitive:CFM,DO,GEN,NX,OF,SF,TE,TOB,TR, TSH
10	RCKN 13	Jaipur	3 (Beta lactam, Quinolone and Monobactams)	Resistant:AMC,AZT,AMP,CHL, P, PIP Sensitive: AK,CAZ,CFM,CTX,CX,DO,GEN,IMP,LE,MI,MRP,NX,OF,SF,TE,TOB,TR
11	RCKR 13	Jaipur	3(Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMC, AMP, CIP, P, PIP, PIT Sensitive: AZT,CAZ,CFM,CHL,CX,DO,GEN,NX,OF,SF,TE,TOB,TR, TSH
12	RCKR 15	Jaipur	4(Beta lactam, Beta lactam combinations, Quinolones, Carbapenem)	Resistant: AMP, CIP, IMP, P, PIP, PIT Sensitive: AMC, AZT,CAZ,CFM,CHL,DO,GEN,SF,TE,TR, TSH

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
13	RCKN 18	Jaipur	3 (Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMP, CIP, P, PIT Sensitive: AMC,AZT,CFM,CHL,DO,GEN,SF,TE,TOB,TR, TSH
14	RCKR 18	Jaipur	5 (Beta lactam, Beta lactam combinations, Quinolones, Carbapenems and Aminoglycosides)	Resistant: AK, AMP, CIP, IMP, P, PIT Sensitive: AMC, AZT,CAZ,CFM,CHL,CX,DO,GEN,MI,NX,OF,SF,TE,TOB,TR,TSH
15	RCKM 20	Jaipur	3 (Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMP, CIP, P, PIT Sensitive: AMC,AZT,CFM,CHL,DO,OF,PIP,SF,TE,TR, TSH
16	RCKS 21	Jaipur	2(Beta lactam, Quinolones)	Resistant: AMP, CIP, P Sensitive: AK,AMC, AZT,CFM,CHL,CX,DO,GEN,IMP,LE,MI,NX,OF,PIP, SF,TE,TOB,TR,TSH
17	RCKR 22	Jaipur	4(Beta lactam, Beta lactam combinations, Quinolones, Aminoglycosides)	Resistant: AMP, CIP, GEN, P, PIT Sensitive: AK,AMC, AZT,CFM,CHL,CX,DO,NX,OF,SF,TE,TOB,TR,TSH
18	RCKN 24	Jaipur	4 (Beta lactam, Beta lactam combinations, Quinolones, Cephems)	Resistant: AMC, AMP, CFZ, CIP, CPM, CTX, CX, P, PIT Sensitive: AK,AZT,CAZ,CFM,CHL,DO,GEN,IMP,MRP,NX,OF,PIP,SF,TE,TOB,TR, TSH

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
19	RCKM 26	Jaipur	6(Beta lactam, Beta lactam combinations, Quinolones, Carbapenem, Cephems and Tetracyclines)	Resistant: AMC, AMP, CIP,CFZ, CX, IMP, MI, MRP, P, PIT Sensitive: AZT,CHL, DO,GEN,NX,OF,PIP,SF,TE,TOB,TR, TSH
20	RCKM 27	Jaipur	2 (Beta lactam, Quinolones)	Resistant: AMP, CIP, P Sensitive: AK,AMC,AZT,CAZ,CFM, CHL,CX,DO,GEN,MI,NX,OF,SF,TE,TOB,TR,TSH
21	RCKN 27	Jaipur	1(Beta lactam)	Resistant: AMP, P Sensitive: AK,AMC,AZT,CAZ,CFM, CHL,CPM,CTX,DO,GEN,LE,MI,MRP,NX,OF,PIP,SF,TE,TOB,TR,TSH
22	RCKS 27	Jaipur	5 (Beta lactam, Beta lactam combinations, Quinolones, Aminoglycosides and Cephems)	Resistant: AK, AMP, CFZ, CIP, P, PIT Sensitive:AMC, AZT, CAZ,CFM,CHL,GEN,NX,OF,PIP,SF,TE,TOB,TR, TSH
23	RCKH 29	Jaipur	2 (Beta lactam, Cephems)	Resistant: AMP, CTX, P, PIP Sensitive: AK,AMC,AZT,CFM,CHL,CX,DO,GEN,MI,NX,OF,SF,TE,TOB,TR,TSH
24	RCKN 29	Jaipur	3(Beta lactam, Beta lactam combinations, and Quinolones)	Resistant: AMP, CIP, P, PIT Sensitive: AMC,AZT,CFM,CHL,CX,DO,GEN,MI,NX,OF,SF,TE,TOB,TR,TSH

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
25	RCKH 30	Jaipur	4(Beta lactam, Quinolones, Monobactam and Cephems)	Resistant: AMC, AMP, AZT, CFM, CFZ, CHL, CIP, P Sensitive: CAZ,DO,GEN,IMP,MI,MRP,NX,OF,PIP,SF,TE,TOB, TSH
26	RCKN 30	Jaipur	2 (Beta lactam, Quinolones)	Resistant: AMP, CIP, P, PIP Sensitive: AK,AMC,AZT,CAZ,CFM,CHL,CPM,CTX,CX,DO,GEN,IMP,MI,MRP, NX,OF,SF,TE,TOB,TR, TSH
27	RCKS 30	Jaipur	3(Beta lactam, quinolones, Cephems)	Resistant: AMP, CFM, CIP, CTX, CX, LE, P, PIP Sensitive: AK,AMC,AZT,CFZ,CHL,DO,GEN,IMP,MRP,NX,OF,SF,TE,TOB,TSH
28	RCKR 31	Jaipur	3(Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMC, AMP, CIP, P, PIP Sensitive: AK,AZT, CAZ, CFM, CHL,CPM, CTX, CX, DO, GEN, IMP, MI, NX, OF, SF, TE, TOB, TR, TSH
29	RCKS 31	Jaipur	2 (Beta lactam, Tetracyclines)	Resistant: AMP, MI, P, PIP Sensitive: AK, AMC,AZT,CAZ, CFM, CFZ, CHL,CPM, CX, DO, GEN, IMP, MRP, NX, OF, SF, TE, TOB, TR,TSH
30	RCKH 32	Jaipur	3(Beta lactam, Quinolones, Cephemes)	Resistant: AMP, CIP, CX, P, PIP Sensitive: AMC,AZT,CAZ,CFM,CHL,CPM,DO,GEN,IMP,MI,MRP,NX, OF,SF,TE,TOB,TR,TSH
31	RCKN 32	Jaipur	1 (Beta lactam)	Resistant: AMP, P, PIP Sensitive: AMC,AZT,CFM,CHL,CX,DO,GEN,MI,NX,OF,SF,TE,TOB,TR, TSH

S.N .	Name of the isolate	Area of isolation	Resistance to number of categories of antibiotics	Antibiotic sensitivity/resistance profile
32	RCKR 32	Jaipur	3 (Beta lactam, Beta lactam combinations, Quinolones)	Resistant: AMC, AMP, CIP, P, PIP Sensitive: AZT, CAZ, CFM, CHL, CX, DO, GEN, MRP, NX, OF, SF, TE, TOB, TR, TSH
33	RCKS 32	Jaipur	2 (Beta lactam, Beta lactam combinations)	Resistant: AMC, AMP, P Sensitive: AK, AZT, CAZ, CFM, CHL, CPM, CTX, CX, DO, GEN, MI, MRP, NX, OF, PIP, SF, TE, TOB, TR, TSH

Supplementary Table S4. Detection and distribution of multiple antibiotic resistance index (MAR index) value

S.N.	MAR category	Isolate ID	No. of isolate	Total count of antibiotics to which the isolate was resistant	MAR index	Significance
1	MAR1	RCKM26	1	10	0.34	Isolates which have 0.2 or more than 0.2 MAR index with high potential for spread of multiple drug resistance
2	MAR2	RCKN12, RCKN24	2	9	0.31	
3	MAR3	RCKH30,RCKS30	2	8	0.27	
4	MAR4	RCKR2	1	7	0.24	
5	MAR5	RCKR13, RCKR15, RCKR18, RCKS27	4	6	0.21	
6	MAR6	RCKN3, RCKR3,RCKR22, RCKR31, RCKH32, RCKR32	6	5	0.17	

7	MAR7	RCKR7, RCKR11, RCKN18, RCKM20, RCKH29, RCKN29, RCKN30,RCKS31	8	4	0.14	
8	MAR8	RCKN4, RCKN7, RCKR9, RCKN13,RCKS21, RCKM27, RCKN32, RCKS32	8	3	0.10	
9	MAR9	RCKN27	1	2	0.07	