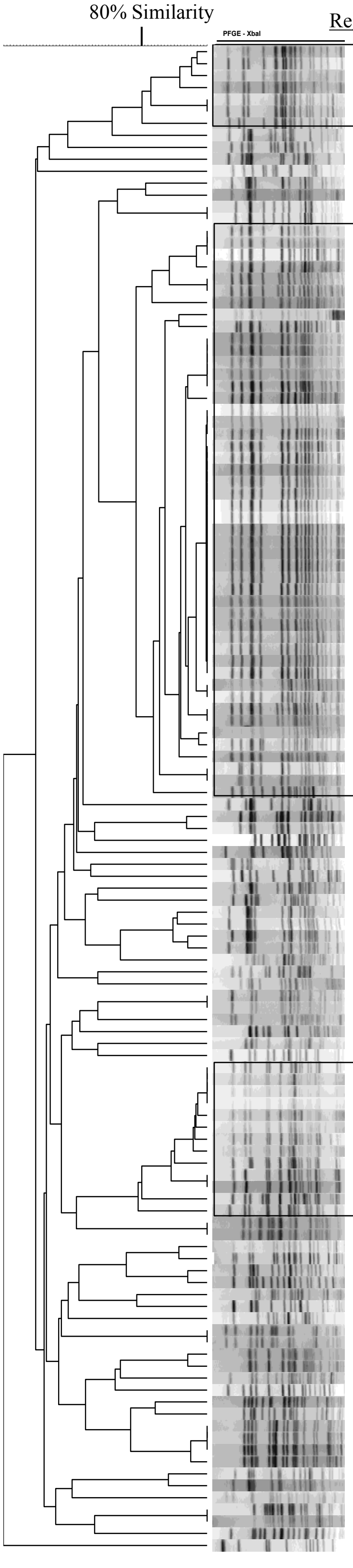
Supplementary Table 1. Antimicrobial susceptibilities from 2010-2014 for all carbapenemase producers

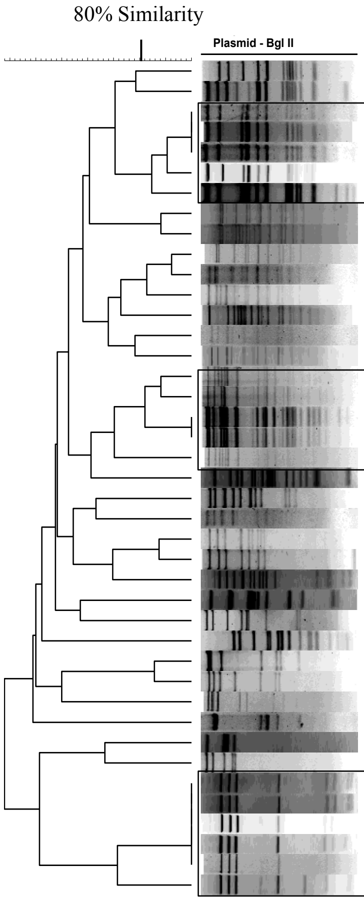
	CLSI breakpoint criteria %(no.)																		
	2010 (n=26)			2011 (n=64)			2012 (n=53)			2013 (n=56)			2014 (n=62)			Overall (n=261)			
Antimicrobial Agent	%S	%I	%R	%S	%I	%R	%S	%I	%R	%S	%I	%R	%S	%I	%R	%S	%I	%R	MIC range (µg/mL)
Ampicillin	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	≥64
Piperacillin-Tazobactam	11.5	3.9	84.6	3.8	0	98.4	1.9	1.9	96.2	10.7	0	89.3	9.7	1.6	88.7	6.1	5.4	92.3	≤4-≥128
Cefazolin	3.9	0	96.2	0	0	100	0	0	100	0	0	100	0	0	100	0.4	0	99.6	≤1-≥64
Ceftriaxone	7.7	0	92.3	3.8	0	98.4	9.4	0	90.6	12.5	0	87.5	8.1	0	91.9	7.7	0	92.3	≤1-≥4
Ciprofloxacin	11.5	7.7	80.8	32.8	3.8	65.6	41.5	3.8	54.7	44.6	1.8	53.6	37.1	8.1	54.8	34.9	4.2	59.8	≤0.5-≥4
Ertapenem	0	0	100	0	3.8	98.4	3.8	0	96.2	3.6	0	96.4	1.6	1.6	96.8	1.9	0.8	97.3	≤0.5-≥8
Meropenem	7.7	11.5	80.8	14.1	9.4	76.6	9.4	1.9	88.7	3.6	3.6	92.9	3.2	1.6	95.2	7.7	5	87.4	≤1-≥4
Amikacin	42.3	0	15	64.1	3.1	32.8	71.7	1.9	26.4	67.9	1.8	30.4	74.2	3.2	22.3	66.7	2.3	31	≤16-≥64
Tobramycin	11.5	19.2	69.2	21.9	12.5	65.6	37.7	11.3	50.9	33.9	14.3	51.8	27.4	9.7	62.9	28	12.6	59.4	≤4-≥16
Gentamicin	61.5	11.5	26.9	46.9	14.1	39.1	50.9	5.7	43.4	51.8	3.6	44.6	41.9	6.5	51.6	49	8	42.9	≤4-≥16
Nitrofurantoin	3.9	7.7	88.5	15.6	18.8	65.6	24.5	17	58.5	25	12.5	62.5	27.4	21	51.6	21.1	16.5	62.5	≤32-≥128
Trimethoprim-Sulfamethoxazole	15.4	n/a	84.6	21.9	n/a	78.1	45.3	n/a	54.7	28.6	n/a	71.4	32.3	n/a	67.7	29.9	n/a	70.1	≤2/38-≥4/76
Tigecylcine	69.2	11.5	19.2	65.6	15.6	18.8	58.5	20.8	20.8	64.3	17.9	17.9	71	12.9	16.1	65.1	16.1	18.4	≤2-≥8
Colistin Etest[b]	69.2	n/a	7.7	79.7	n/a	6.3	92.5	n/a	1.9	76.8	n/a	5.4	87.1	n/a	4.8	83.1	n/a	5	0.047-≥256

Supplementary Figure 1. Pusled-field Gel Electrophoresis (PFGE) using *Xba*I of all Carbapenemase Producing *K. pneumoniae* from 2010-2014. Region-West (British Columbia, Alberta, Saskatchewan, Manitoba), Central (Ontario, Quebec) East (Nova Scotia, New Brunswick, Newfoundland, Prince Edward Island). ST-sequence type. Resistance Type: AMP-ampicillin, AMK-amikacin, AMC-amoxicillin/clavulanic acid, TZP-pipercillin/tazobactam, CFZ-cefazolin, FOX-cefoxitin, CPD-cefpodoxime ,CTX-cefotaxime, CAZ-ceftazidime, CRO-ceftriaxone, CIP-ciprofloxacin, ERT-ertapenem, MEM-meropenem, GEN-gentamicin, TOB-tobramycin, NIT-nitrofurantoin, TGC-tigecycline, SXT-trimethoprim/sulfamethoxazole, COL-colistin.



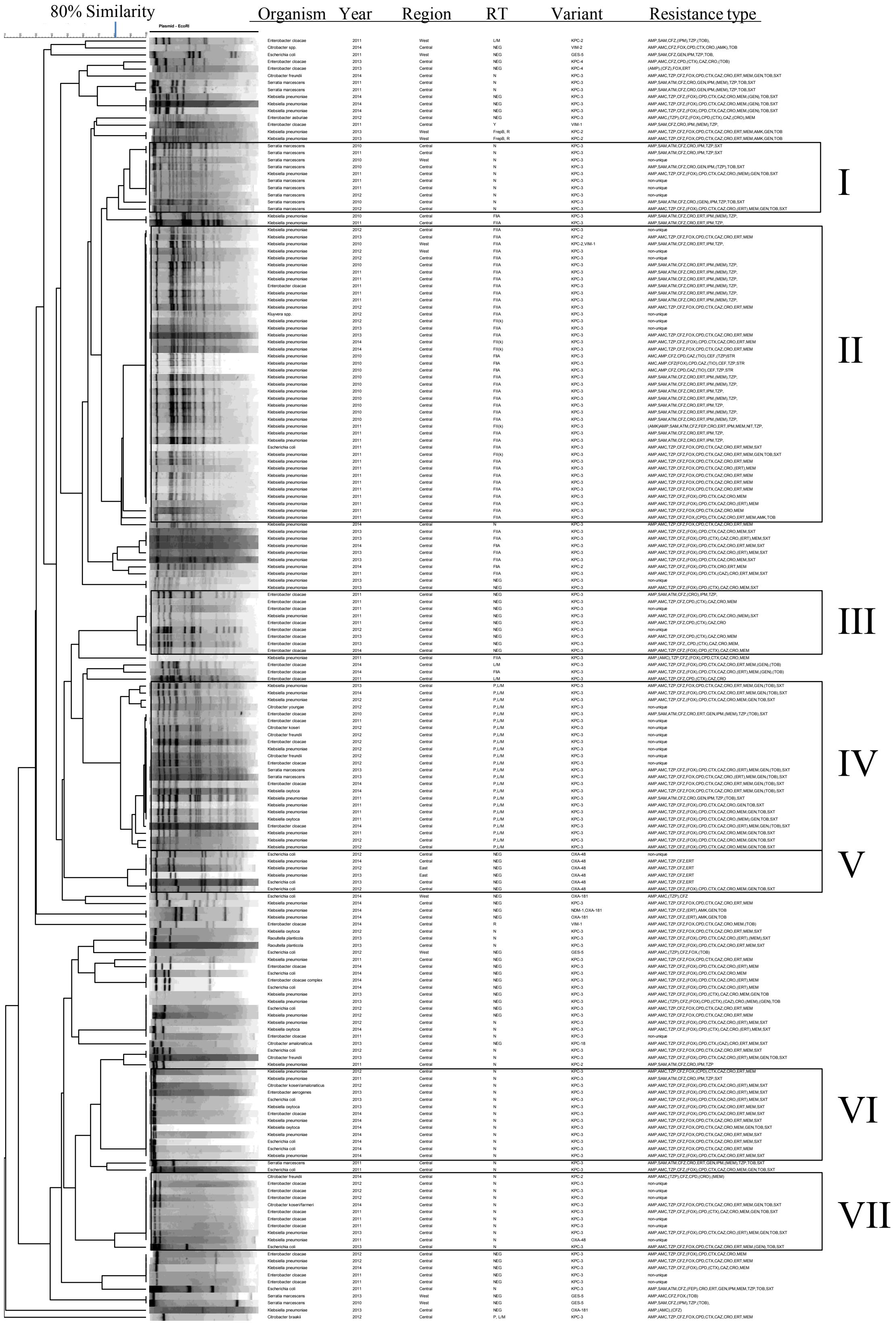
Region	Year	Variant	ST	β-lactamase	Resistance type
West	2012	OXA-181	14	TEM,CTX-M,OXA-1,CMY-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM,GEN,TOB,CIP,(TGC),NIT,SXT
West	2012	OXA-181	14	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,(TGC),NIT,SXT
Central	2013	NDM-1	14	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,SXT
West	2012	OXA-181	14	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
West	2013	OXA-181	14.	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,TGC,NIT,SXT
West	2013	OXA-181	14	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,TGC,NIT,SXT
West	2014	NDM-1	14	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,SXT
Central	2011	KPC-2	15	SHV,TEM	AMP,SAM,ATM,CFZ,CRO,CIP,ERT,(IPM),NIT,TZP,SXT
Central	2011	KPC-3	14	SHV	AMP,(AMC),TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,NIT,
Central	2011	OXA-48	831	SHV,OXA-1	AMP,AMC,TZP,CFZ,ERT,(TOB),(NIT),
Central	2011	KPC-3	138	SHV	AMP,SAM,ATM,CFZ,CRO,ERT,GEN,IPM,TZP,TOB,SXT,COL
Central	2011	NDM-1	11	SHV,CTX-M,OXA-1	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,IPM,MEM,NIT,TZP,TOB,
Central	2013	NDM-1	11	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(TOB),CIP,TGC,NIT,
West	2013	KPC-2	11	SHV,TEM,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,(TGC),NIT,SXT
West	2013	KPC-2	11.	SHV,TEM,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,(TGC),NIT,SXT
Central	2010	KPC-3	258.	SHV,TEM	AMKAMP,SAM,ATM,CFZ,(FEP),CRO,CIP,ERT,IPM,(MEM),NIT,TZP,TOB,SXT,COL
Central	2011	KPC-3	258	SHV,TEM	AMKAMP,SAM,ATM,CFZ,(FEP),CRO,CIP,ERT,IPM,(MEM),NIT,TZP,TOB,SXT
Central	2011	KPC-3	258.	SHV,TEM	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,(MEM),NIT,TZP,TOB,SXT
Central	2014	KPC-2	258	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,NIT
Central	2011	KPC-3	258	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2011	KPC-3	258.	SHV	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(NIT),
Central	2013	KPC-2	258	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,TOB,CIP,NIT
Central	2011	KPC-3	258.	SHV,TEM	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,(GEN),IPM,MEM,NIT,TZP,TOB,SXT,COL
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2013	KPC-3	512.	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,NIT,SXT
Central	2013	KPC-3	512	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,NIT,SXT
Central	2013	KPC-3	512.	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2013	KPC-3	512.	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2014	KPC-3	512.	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2014	KPC-3	512	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2010	KPC-3	512	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
West	2012	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT,COL
Central	2012	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2013	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2014	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2014	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT,COL
Central	2010	KPC-3	512	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2010	KPC-3	512.	SHV,TEM	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT
Central	2011	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),TOB,(NIT),SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2011	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),CIP,TGC,NIT,SXT
Central	2012	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,(TGC),NIT,SXT
Central	2014	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2011	KPC-3	512	SHV,TEM	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,TOB,SXT,COL
Central	2011	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,NIT,SXT
Central	2012	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,NIT,SXT
Central	2013	KPC-3	512.	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),
Central	2012	KPC-3	258	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,TOB,CIP,TGC,NIT,SXT
Central	2013	KPC-3	258.	SHV,TEM	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,NIT,SXT,COL
Central	2013	KPC-3	258	SHV,TEM	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,NIT,SXT,COL
Central	2011	KPC-3	512	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM,GEN,TOB,CIP,NIT,SXT
West	2014	NDM-1	437	SHV,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,TOB,CIP,NIT,SXT
Central	2014	KPC-3	1846	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,NIT,
Central	2014	KPC-3	1846	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,(NIT),(SXT)
Central	2011	KPC-3	258	SHV,TEM	AMP,SAM,ATM,CFZ,CRO,ERT,NIT,TZP,
Central	2011	KPC-3	848	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,TGC,(NIT),SXT
Central	2012	KPC-3	1381	SHV,TEM	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Central	2014	KPC-3	347	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM
West	2013	NDM-3	45	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,NIT,SXT
West	2014	KPC-2	152	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,TGC,NIT,SXT
Central	2010	NDM-1	11	SHV,OXA-1	AMP,SAM,CFZ,FEP,CRO,CIP,ERT,GEN,IPM,MEM,NIT,TZP,TOB,
Central	2012	NDM-1	11	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(AMK),GEN,TOB,CIP,(TGC),NIT,SXT
West	2014	NDM-1	11	SHV,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,NIT,SXT
West	2013	NDM-1	11	SHV,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(AMK),GEN,TOB,CIP,NIT,SXT
Central	2014	NDM-1	1598	SHV,TEM,CTX-M,CMY-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT
Central	2014	NDM-1	1808	SHV,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(CIP),(NIT),SXT
Central	2013	KPC-3	219	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(TOB),TGC,NIT,SXT
West	2013	NDM-7	278	SHV,TEM,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,NIT,SXT
West	2013	NDM-7	278	SHV,TEM,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,CIP,TGC,NIT,SXT
Central	2012	KPC-3	34	SHV	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,(NIT),
Central	2014	OXA-48	101	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,NIT,COL
Central	2013	KPC-3	1960	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(TGC),(NIT),SXT
Central	2011	KPC-3	993	SHV,TEM	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Central	2013	NDM-1	147	SHV,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,SXT
Central	2011	NDM-1	147	SHV,CTX,OXA	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,IPM,(MEM),NIT,TZP,TOB,SXT
Central	2011	NDM-1	147.	SHV,CTX,OXA	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,(IPM),MEM,NIT,TZP,TOB,SXT
Central	2011	NDM-1	147.	SHV,CTX,OXA	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,IPM,MEM,NIT,TZP,TOB,SXT
Central	2011	NDM-1	147	SHV,CTX,OXA	(AMK)AMP,SAM,ATM,CFZ,(FEP),CRO,CIP,ERT,(GEN),IPM,(MEM),NIT,TZP,TOB
Central	2011	NDM-1	147	SHV,CTX,OXA	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,(IPM),MEM,NIT,TZP,TOB,SXT
Central	2014	NDM-1	147	SHV,CTX-M	AMP,(TZP),CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,CIP,TGC,NIT,SXT
Central	2011	NDM-1	147.	SHV,CTX,OXA	AMKAMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,GEN,IPM,MEM,NIT,TZP,TOB,SXT
Central	2012	NDM-1	147	SHV,CTX,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,
Central	2014	OXA-181	147.	SHV,TEM,CTX-M	AMP,(AMC),TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,AMK,GEN,TOB,CIP,TGC,NIT,SXT
Central	2014	NDM-1,OXA-181	147	SHV,TEM,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,SXT
Central	2014	NDM-1	147	SHV,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,TGC,NIT,
West	2010	KPC-2,VIM-1	147	SHV,TEM	AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,IPM,MEM,NIT,TZP,(TOB),SXT
Central	2013	KPC-3	n/a	NEG	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,(TGC),
Central	2013	KPC-3	n/a	NEG	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(TGC),
Central	2012	KPC-3	1380	SHV	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(NIT),
Central	2012	KPC-3	1380	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(CIP),(NIT),
Central	2010	KPC-3	152	SHV	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(NIT),TZP,
Central	2011	KPC-3	152	SHV	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(NIT),TZP,
Central	2011	KPC-3	unknown	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM,GEN,TOB,CIP,NIT,SXT
Central	2011	KPC-3	152	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),TOB,(NIT),SXT
Central	2011	KPC-3	unknown	SHV	AMP,SAM,ATM,CFZ,CRO,ERT,(IPM),TZP,SXT
Central	2013	KPC-3	1845.	SHV,TEM	AMP,AMC,TZP,CFZ,,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),SXT
Central	2013	KPC-3	1845	SHV	AMP,AMC,TZP,CFZ,CPD,(CTX),CAZ,CRO,ERT,MEM,SXT
Central	2011	KPC-3	111	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,NIT,SXT
Central	2011	KPC-3	111.	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(NIT),SXT
Central	2014	KPC-3	252	SHV	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM
Central	2012	KPC-3	788	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,NIT,
West	2013	NDM-1	15	SHV,CTX-M	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,(TGC),NIT,
West	2014	NDM-1	15	SHV,TEM,CTX-M,OXA-1,CMY-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,CIP,NIT,SXT
Central	2014	KPC-3	15	SHV,TEM	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,(TGC),(NIT),SXT
Central	2014	KPC-3	15	SHV,TEM	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),TOB,CIP,(NIT),SXT
Central	2014	KPC-3	15	SHV,TEM	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),TOB,CIP,(NIT),SXT
Central	2014	KPC-3	15	SHV,TEM	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,(TGC),SXT
East	2012	OXA-48	307	SHV,TEM,CTX,OXA-1	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),CIP,TGC,NIT,SXT
East	2013	OXA-48	307	SHV,TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,NIT,SXT
Central	2013	OXA-181	1847	TEM,CTX-M,OXA-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,CIP,NIT,SXT
Central	2012	KPC-3	17	SHV,TEM	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,(CIP),TGC,NIT,
Central	2012	KPC-3	17	SHV	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),TGC,NIT,
West	2010	NDM-1	16	SHV-1,CTX-15,OXA-1,CMY-6	AMK,AMP,SAM,ATM,CFZ,FEP,CRO,CIP,ERT,(GEN),IPM,MEM,NIT,TZP,TOB,SXT
Central	2012	KPC-3	251	SHV	AMP,AMC,TZP,CFZ,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),(NIT),

Supplementary Figure 2. Plasmid Restriction Fragment Length Polymorphisms (pRFLP) using BglII of 41 plasmids harbouring *bla*$_{\text{NDM-type}}$ from Enterobacteriaceae. Organism refers to the organism from which the plasmid was isolated. Region-West (British Columbia, Alberta, Saskatchewan, Manitoba), Central (Ontario, Quebec).RT-replicon type. Resistance type of plasmid: AMP-ampicillin, AMK-amikacin, AMC-amoxicillin/clavulanic acid, TZP-pipercillin/tazobactam, CFZ-cefazolin, FOX-cefoxitin, CPD-cefpodoxime ,CTX-cefotaxime, CAZ-ceftazidime, CRO-ceftriaxone, ERT-ertapenem, MEM-meropenem, GEN-gentamicin, TOB-tobramycin, SXT-trimethoprim/sulfamethoxazole.



Organism	Year	Region	RT	Variant	Resistance type	
Klebsiella pneumoniae	2013	Central	R	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Klebsiella pneumoniae	2011	Central	R	NDM-1	AMK,AMP,SAM,CFZ,FEP,CRO,ERT,GEN,IPM,MEM,TZP,TOB,	
Klebsiella pneumoniae	2013	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(AMK),GEN,TOB	
Klebsiella pneumoniae	2012	Central	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Klebsiella pneumoniae	2013	Central	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Klebsiella pneumoniae	2014	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	I
Klebsiella pneumoniae	2010	Central	NEG	NDM-1	AMK,AMP,SAM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,	
Klebsiella pneumoniae	2010	West	A/C	NDM-1	AMK,AMP,AMC,CFZ,FEP,CRO,ERT,IMI,(MEM),TZP,GEN	
Escherichia coli	2010	West	A/C	NDM-1	AMK,AMP,AMC,CFZ,FEP,CRO,ERT,IMI,(MEM),TZP,GEN	
Escherichia coli	2012	Central	A/C	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Klebsiella pneumoniae	2014	Central	A/C	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Klebsiella pneumoniae	2014	West	A/C,R	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Enterobacter spp.	2012	Central	A/C	NDM-1	AMP,AMC,(TZP),CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,(MEM),AMK,TOB,SXT	
Klebsiella pneumoniae	2014	Central	A/C	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,SXT	
Escherichia coli	2014	Central	A/C	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,SXT	
Klebsiella pneumoniae	2011	Central	R	NDM-1	AMK,AMP,SAM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,	
Klebsiella pneumoniae	2011	Central	R	NDM-1	AMP,SAM,CFZ,(FEP),CRO,ERT,(GEN),IPM,MEM,(TZP),TOB,	
Klebsiella pneumoniae	2011	Central	R	NDM-1	AMK,AMP,SAM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,	II
Klebsiella pneumoniae	2011	Central	R	NDM-1	AMK,AMP,SAM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,	
Klebsiella pneumoniae	2012	Central	R	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT	
Providencia rettgeri	2013	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Klebsiella pneumoniae	2013	Central	R	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Klebsiella pneumoniae	2014	Central	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB	
Citrobacter spp.	2013	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Morganella morganii	2014	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	
Klebsiella pneumoniae	2013	West	NEG	NDM-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Providencia rettgeri	2010	Central	NEG	NDM-1	AMP,(AMC),TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB	
Klebsiella pneumoniae	2011	Central	NEG	NDM-1	AMP,SAM,CFZ,(FEP),CRO,ERT,IPM,MEM,TZP,	
Klebsiella pneumoniae	2011	Central	A/C	NDM-1	AMK,AMP,SAM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,	
Escherichia coli	2014	West	L/M	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN	
Enterobacter cloacae	2014	West	L/M	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN	
Escherichia coli	2012	Central	FIA, FIB	NDM-1	AMP,AMC,CFZ,(FOX),CPD,CAZ,(CRO),(GEN),TOB	
Klebsiella pneumoniae	2014	West	NEG	NDM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(AMK),TOB,SXT	
Escherichia coli	2013	Central	FrepB	NDM-5	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Escherichia coli	2014	Central	FrepB	NDM-5	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB,SXT	
Klebsiella pneumoniae	2013	West	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	
Klebsiella pneumoniae	2013	West	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	
Escherichia coli	2013	West	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	
Escherichia coli	2014	Central	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	III
Escherichia coli	2011	West	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	
Serratia marcescens	2013	West	NEG	NDM-7	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM	

Supplementary Figure 3. Plasmid Restriction Fragment Length Polymorphisms (pRFLP) using EcoR1 of 111 plasmids harbouring carbapenemases from Enterobacteriaceae. Region-West (British Columbia, Alberta, Saskatchewan, Manitoba), Central (Ontario, Quebec). Organism refers to organism from which the plasmid was isolated. Resistant type of plasmid: AMP-ampicillin, AMK-amikacin, AMC-amoxicillin/clavulanic acid, TZP-pipercillin/tazobactam, CFZ-cefazolin, FOX-cefoxitin, CPD-cefpodoxime ,CTX-cefotaxime, CAZ-ceftazidime, CRO-ceftriaxone, ERT-ertapenem, MEM-meropenem, GEN-gentamicin, TOB-tobramycin, SXT-trimethoprim/sulfamethoxazole. Un-unique refers to a plasmid pattern indistinguishable from another, resistance type was not determined for those plasmids.



Organism	Year	Region	RT	Variant	Resistance type
Enterobacter cloacae	2011	West	L/M	KPC-2	AMP,SAM,CFZ,(IPM),TZP,(TOB),
Citrobacter spp.	2014	Central	NEG	VIM-2	AMP,AMC,CFZ,FOX,CPD,CTX,CRO,(AMK),TOB
Escherichia coli	2011	West	NEG	GES-5	AMP,SAM,CFZ,GEN,IPM,TZP,TOB,
Enterobacter cloacae	2013	Central	NEG	KPC-4	AMP,AMC,CFZ,CPD,(CTX),CAZ,CRO,(TOB)
Enterobacter cloacae	2013	Central	NEG	KPC-4	(AMP),(CFZ),FOX,ERT
Citrobacter freundii	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,SXT
Serratia marcescens	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,GEN,IPM,(MEM),TZP,TOB,SXT
Serratia marcescens	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,GEN,IPM,(MEM),TZP,TOB,SXT
Klebsiella pneumoniae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,(GEN),TOB,SXT
Klebsiella pneumoniae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,(GEN),TOB,SXT
Klebsiella pneumoniae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,(GEN),TOB,SXT
Enterobacter asburiae	2012	Central	NEG	KPC-3	AMP,AMC,(TZP),CFZ,(FOX),CPD,(CTX),CAZ,(CRO),MEM
Enterobacter cloacae	2011	Central	Y	VIM-1	AMP,SAM,CFZ,CRO,IPM,(MEM),TZP,
Klebsiella pneumoniae	2013	West	FrepB, R	KPC-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB
Klebsiella pneumoniae	2013	West	FrepB, R	KPC-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,AMK,GEN,TOB
Serratia marcescens	2010	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,IPM,TZP,SXT
Serratia marcescens	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,IPM,TZP,SXT
Serratia marcescens	2010	West	N	KPC-3	non-unique
Serratia marcescens	2010	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,GEN,IPM,(TZP),TOB,SXT
Klebsiella pneumoniae	2011	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(MEM),GEN,TOB,SXT
Serratia marcescens	2011	Central	N	KPC-3	non-unique
Serratia marcescens	2011	Central	N	KPC-3	non-unique
Serratia marcescens	2012	Central	N	KPC-3	non-unique
Serratia marcescens	2010	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,(GEN),IPM,TZP,TOB,SXT
Serratia marcescens	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Klebsiella pneumoniae	2012	Central	FIIA	KPC-3	non-unique
Klebsiella pneumoniae	2013	Central	FIIA	KPC-2	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2010	West	FIIA	KPC-2,VIM-1	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Klebsiella pneumoniae	2012	West	FIIA	KPC-3	non-unique
Klebsiella pneumoniae	2012	Central	FIIA	KPC-3	non-unique
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Enterobacter cloacae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2012	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Kluyvera spp.	2012	Central	FIIA	KPC-3	non-unique
Klebsiella pneumoniae	2012	Central	FII(k)	KPC-3	non-unique
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	non-unique
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2014	Central	FII(k)	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2014	Central	FII(k)	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMC,AMP,CFZ,CPD,CAZ,(TIO),CEF,(TZP)STR
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMC,AMP,CFZ(FOX),CPD,CAZ,(TIO),CEF,TZP,STR
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMC,AMP,CFZ,CPD,CAZ,(TIO),CEF,TZP,STR
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2010	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,(MEM),TZP,
Klebsiella pneumoniae	2011	Central	FII(k)	KPC-3	(AMK)AMP,SAM,ATM,CFZ,FEP,CRO,ERT,IPM,MEM,NIT,TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,IPM,TZP,
Escherichia coli	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Klebsiella pneumoniae	2011	Central	FII(k)	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,(ERT),MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,FOX,(CPD),CTX,CAZ,CRO,ERT,MEM,AMK,TOB
Klebsiella pneumoniae	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,SXT
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,(ERT),MEM,SXT
Klebsiella pneumoniae	2014	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,SXT
Klebsiella pneumoniae	2013	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,SXT
Klebsiella pneumoniae	2014	Central	FIIA	KPC-2	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,(CAZ),CRO,ERT,MEM,SXT
Klebsiella pneumoniae	2013	Central	NEG	KPC-3	non-unique
Klebsiella pneumoniae	2013	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,MEM,SXT
Enterobacter cloacae	2011	Central	NEG	KPC-3	AMP,SAM,ATM,CFZ,(CRO),IPM,TZP,
Enterobacter cloacae	2011	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,CPD,(CTX),CAZ,CRO,MEM
Enterobacter cloacae	2011	Central	NEG	KPC-3	non-unique
Klebsiella pneumoniae	2011	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(MEM),SXT
Enterobacter cloacae	2011	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,CPD,(CTX),CAZ,CRO
Enterobacter cloacae	2012	Central	NEG	KPC-3	non-unique
Enterobacter cloacae	2013	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,CPD,(CTX),CAZ,CRO,MEM
Enterobacter cloacae	2013	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,,CPD,(CTX),CAZ,CRO,MEM,
Enterobacter cloacae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,MEM
Klebsiella pneumoniae	2011	Central	FIIA	KPC-3	AMP,(AMC),TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM
Enterobacter cloacae	2014	Central	L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),(TOB)
Enterobacter cloacae	2014	Central	FIIA	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,(GEN),(TOB)
Enterobacter cloacae	2011	Central	L/M	KPC-3	AMP,AMC,TZP,CFZ,CPD,(CTX),CAZ,CRO
Klebsiella pneumoniae	2013	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),SXT
Klebsiella pneumoniae	2014	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),SXT
Klebsiella pneumoniae	2012	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Citrobacter youngae	2012	Central	P,L/M	KPC-3	non-unique
Enterobacter cloacae	2010	Central	P,L/M	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,GEN,IPM,(MEM),TZP,(TOB),SXT
Enterobacter cloacae	2011	Central	P,L/M	KPC-3	non-unique
Citrobacter koseri	2012	Central	P,L/M	KPC-3	non-unique
Citrobacter freundii	2012	Central	P,L/M	KPC-3	non-unique
Enterobacter cloacae	2012	Central	P,L/M	KPC-3	non-unique
Klebsiella pneumoniae	2012	Central	P,L/M	KPC-3	non-unique
Citrobacter freundii	2012	Central	P,L/M	KPC-3	non-unique
Enterobacter cloacae	2012	Central	P,L/M	KPC-3	non-unique
Serratia marcescens	2013	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,(TOB),SXT
Serratia marcescens	2013	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,(TOB),SXT
Enterobacter cloacae	2014	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),SXT
Klebsiella oxytoca	2014	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,(TOB),SXT
Klebsiella pneumoniae	2011	Central	P,L/M	KPC-3	AMP,SAM,ATM,CFZ,CRO,GEN,IPM,TZP,(TOB),SXT
Klebsiella pneumoniae	2011	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,GEN,TOB,SXT
Klebsiella pneumoniae	2011	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Klebsiella oxytoca	2011	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(MEM),GEN,TOB,SXT
Enterobacter cloacae	2014	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,(TOB),SXT
Klebsiella pneumoniae	2011	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2012	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2012	Central	P,L/M	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Escherichia coli	2012	Central	NEG	OXA-48	non-unique
Klebsiella pneumoniae	2014	Central	NEG	OXA-48	AMP,AMC,TZP,CFZ,ERT
Klebsiella pneumoniae	2012	East	NEG	OXA-48	AMP,AMC,TZP,CFZ,ERT
Klebsiella pneumoniae	2013	East	NEG	OXA-48	AMP,AMC,TZP,CFZ,ERT
Escherichia coli	2013	Central	NEG	OXA-48	AMP,AMC,TZP,CFZ,ERT
Escherichia coli	2012	Central	NEG	OXA-48	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Escherichia coli	2014	West	NEG	OXA-181	AMP,AMC,(TZP),CFZ
Klebsiella pneumoniae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2014	Central	NEG	NDM-1,OXA-181	AMP,AMC,TZP,CFZ,(ERT),AMK,GEN,TOB
Klebsiella pneumoniae	2014	Central	NEG	OXA-181	AMP,AMC,TZP,CFZ,(ERT),AMK,GEN,TOB
Enterobacter cloacae	2014	Central	R	VIM-1	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM,(TOB)
Klebsiella oxytoca	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Raoultella planticola	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),(MEM),SXT
Raoultella planticola	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Escherichia coli	2012	West	NEG	GES-5	AMP,AMC,(TZP),CFZ,FOX,(TOB)
Klebsiella pneumoniae	2011	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Enterobacter cloacae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM
Escherichia coli	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM
Enterobacter cloacae complex	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM
Escherichia coli	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM
Klebsiella pneumoniae	2013	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,MEM,GEN,TOB
Klebsiella pneumoniae	2013	Central	NEG	KPC-3	AMP,AMC,(TZP),CFZ,(FOX),CPD,(CTX),(CAZ),CRO,(MEM),(GEN),TOB
Escherichia coli	2012	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2012	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,SXT
Klebsiella oxytoca	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,(ERT),MEM,SXT
Enterobacter cloacae	2011	Central	N	KPC-3	non-unique
Citrobacter amalonaticus	2013	Central	NEG	KPC-18	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,(CAZ),CRO,ERT,MEM,SXT
Escherichia coli	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Citrobacter freundii	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2011	Central	N	KPC-2	AMP,SAM,ATM,CFZ,CRO,IPM,TZP
Klebsiella pneumoniae	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,(CPD),CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,IPM,TZP,SXT
Citrobacter koseri/amalonaticus	2012	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,SXT
Enterobacter aerogenes	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,SXT
Escherichia coli	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,SXT
Klebsiella oxytoca	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Enterobacter cloacae	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Klebsiella pneumoniae	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Klebsiella oxytoca	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Escherichia coli	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Escherichia coli	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,ERT,MEM,SXT
Serratia marcescens	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,CRO,ERT,GEN,IPM,(MEM),TZP,TOB,SXT
Escherichia coli	2011	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM,GEN,TOB,SXT
Citrobacter freundii	2014	Central	N	KPC-2	AMP,AMC,(TZP),CFZ,CPD,(CRO),(MEM)
Enterobacter cloacae	2012	Central	N	KPC-3	non-unique
Enterobacter cloacae	2012	Central	N	KPC-3	non-unique
Enterobacter cloacae	2012	Central	N	KPC-3	non-unique
Citrobacter koseri/farmeri	2014	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,GEN,TOB,SXT
Enterobacter cloacae	2011	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,MEM,GEN,TOB,SXT
Enterobacter cloacae	2011	Central	N	KPC-3	non-unique
Enterobacter cloacae	2011	Central	N	KPC-3	non-unique
Klebsiella pneumoniae	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,(ERT),MEM,GEN,TOB,SXT
Klebsiella pneumoniae	2011	Central	N	OXA-48	non-unique
Escherichia coli	2013	Central	N	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM,(GEN),TOB,SXT
Enterobacter cloacae	2012	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,CTX,CAZ,CRO,MEM
Klebsiella pneumoniae	2012	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM
Klebsiella pneumoniae	2014	Central	NEG	KPC-3	AMP,AMC,TZP,CFZ,(FOX),CPD,(CTX),CAZ,CRO,MEM
Enterobacter cloacae	2011	Central	NEG	KPC-3	non-unique
Enterobacter cloacae	2011	Central	NEG	KPC-3	non-unique
Escherichia coli	2011	Central	N	KPC-3	AMP,SAM,ATM,CFZ,(FEP),CRO,ERT,GEN,IPM,MEM,TZP,TOB,SXT
Serratia marcescens	2013	West	NEG	GES-5	AMP,AMC,CFZ,FOX,(TOB)
Serratia marcescens	2010	West	NEG	GES-5	AMP,SAM,CFZ,(IPM),TZP,(TOB),
Klebsiella pneumoniae	2013	Central	NEG	OXA-181	AMP,(AMC),(CFZ)
Citrobacter braakii	2012	Central	P, L/M	KPC-3	AMP,AMC,TZP,CFZ,FOX,CPD,CTX,CAZ,CRO,ERT,MEM