

**Supplementary Table S1.** Antimicrobial susceptibility and genotypic characteristics of CZA-resistant *Klebsiella pneumoniae* strains isolated from the eight patients

"This supplementary material is hosted by Eurosurveillance as supporting information alongside the article [Outbreak of KPC-2-producing *Klebsiella pneumoniae* endowed with ceftazidime-avibactam resistance mediated through a VEB-1-mutant (VEB-25), Greece, September to November 2019], on behalf of the authors, who remain responsible for the accuracy and appropriateness of the content. The same standards for ethics, copyright, attributions and permissions as for the article apply. Supplements are not edited by Eurosurveillance and the journal is not responsible for the maintenance of any links or email addresses provided therein."

Case	1	2		3		4	5	6		7	8
Isolate	KP121	KP370	KP67585	KP374	KP76706	KP368	KP501	KP687	KP4969	KP785	KP842
Source	rectal	rectal	blood	rectal	VAP	rectal	rectal	rectal	blood	rectal	rectal
PFGE	Pulsotype I	Pulsotype II		Pulsotype II		Pulsotype II	Pulsotype II	Pulsotype II		Pulsotype II	Pulsotype II
MLST-type	ST39	ND	ST147	ST147	ND	ST147	ST147	ST147	ND	ST147	ST147
KPC-type	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2	KPC-2
<b>Ampicillin/Sulbactam</b>	>16	>16	>16	>16	>16	>16	>16	>16	>16	>16	>16
<b>Piperacillin/Tazobactam</b>	>64	>64	>64	>64	>64	>64	>64	>64	>64	>64	>64
<b>Cefoxitin</b>	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32
<b>Ceftazidime</b>	2048	1024	1024	1024	1024	512	1024	512	1024	1024	1024
<b>Ceftazidime/Avibactam</b>	64	64	64	32	32	64	64	64	64	32	64
<b>Ceftriaxone</b>	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32
<b>Cefepime</b>	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32
<b>Aztreonam</b>	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32
<b>Imipenem</b>	64	32	32	32	32	32	32	8	16	32	32
<b>Imipenem/Relebactam</b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.25	0.25	0.12	0.25
<b>Meropenem</b>	>64	64	64	64	64	64	32	16	16	16	16
<b>Meropenem/Vaborbactam</b>	0.5	0.25	0.25	0.125	0.125	0.125	0.25	0.125	0.125	0.125	0.125
<b>Amikacin</b>	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32	>32
<b>Gentamicin</b>	>8	>8	>8	>8	>8	>8	>8	>8	>8	>8	>8
<b>Ciprofloxacin</b>	>2	>2	>2	>2	>2	>2	>2	>2	>2	>2	>2
<b>Levofloxacin</b>	>4	>4	>4	>4	>4	>4	>4	>4	>4	>4	>4
<b>Tigecycline</b>	>4	>4	>4	4	4	>4	>4	2	2	2	2
<b>Fosfomycin</b>	64	128	128	64	64	128	128	>128	>128	64	>128
<b>Colistin</b>	2	64	64	128	128	128	64	2	16	8	1
<b>Trimethoprim/Sulfamethoxazole<sup>a</sup></b>	>8	>8	>8	>8	>8	>8	>8	>8	>8	>8	>8
<b>Other β-lactamase genes</b>	<i>bla</i> <sub>SHV-11</sub> , <i>bla</i> <sub>VEB-14</sub> , <i>bla</i> <sub>OXA-10</sub> , <i>bla</i> <sub>TEM-1B</sub>	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV-11</sub> , <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> , <i>bla</i> <sub>TEM-1B</sub>	<i>bla</i> <sub>SHV-11</sub> , <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> , <i>bla</i> <sub>TEM-1B</sub>	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like	<i>bla</i> <sub>SHV-11</sub> , <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> , <i>bla</i> <sub>TEM-1B</sub>	<i>bla</i> <sub>SHV</sub> -like, <i>bla</i> <sub>VEB-25</sub> , <i>bla</i> <sub>OXA-10</sub> -like, <i>bla</i> <sub>TEM</sub> -like
<b>Other resistance determinants</b>	<i>aac(3)-IId</i> , <i>aadA1</i> , <i>aadA2</i> , <i>ant(2'')-Ia</i> , <i>aph(3'')-Ib</i> , <i>aph(3'')-Ia</i> ,	ND	<i>aadA1</i> , <i>aadA2</i> , <i>ant(2'')-Ia</i> , <i>aph(3'')-Ib</i> , <i>aph(3'')-Ia</i> ,	<i>aadA1</i> , <i>aadA2</i> , <i>ant(2'')-Ia</i> , <i>aph(3'')-Ib</i> , <i>aph(3'')-Ia</i> ,	ND	ND	ND	ND	ND	<i>aadA1</i> , <i>aadA2</i> , <i>ant(2'')-Ia</i> , <i>aph(3'')-Ib</i> , <i>aph(3'')-Ia</i> ,	ND

		<i>aph(3'')-Ib,</i> <i>aph(3')-Ia,</i> <i>aph(6)-Id,</i> <i>rmtB, fosA,</i> <i>arr-2,</i> <i>cmlA1,</i> <i>dfrA12,</i> <i>dfrA14,</i> <i>dfrA23,</i> <i>tet(A),</i> <i>tet(G),</i> <i>tet(M),</i> <i>sul1, sul2,</i> <i>sul3</i>		<i>aph(6)-Id,</i> <i>rmtB,</i> <i>fosA, arr-2,</i> <i>cmlA1,</i> <i>dfrA12,</i> <i>tet(A),</i> <i>tet(G),</i> <i>sul1, sul2</i>	<i>aph(6)-Id,</i> <i>rmtB,</i> <i>fosA, arr-2,</i> <i>cmlA1,</i> <i>dfrA12,</i> <i>tet(A),</i> <i>tet(G),</i> <i>sul1, sul2</i>						<i>aph(6)-Id,</i> <i>rmtB,</i> <i>fosA, arr-2,</i> <i>cmlA1,</i> <i>dfrA12,</i> <i>tet(A),</i> <i>tet(G),</i> <i>sul1, sul2</i>		
<b>Major porin mutation</b>	<b>OmpK35</b>	WT	ND	PSC_aa173	PSC_aa173	ND	ND	ND	ND	ND	ND	PSC_aa173	ND
	<b>OmpK36</b>	v3 variant	ND	v3 variant	v3 variant	ND	ND	ND	ND	ND	ND	v3 variant	ND
	<b>OmpK37</b>	PSC_aa251	ND	WT	WT	ND	ND	ND	ND	ND	ND	WT	ND

<sup>a</sup> Trimethoprim-sulfamethoxazole in the ratio 1:19. MICs are expressed as the trimethoprim concentration.

WT, wild-type; ND, not determined; PSC, premature stop codon; OmpK35-WT, GU460162; OmpK36\_v3, JQ781655; OmpK37-WT, WP\_002902433; PSC\_aa173, premature stop codon at amino acid 173; PSC\_aa251, premature stop codon at amino acid 251

**Supplementary Figure S1.** Alignment of the amino acid sequences of VEB-1, VEB-14 and VEB-25 with those of class A-lactamases PER-1, TEM-1, SHV-1, CTX-M-1, GES-1 and KPC-2.

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