Supplementary data: Resistome analysis of a carbapenemase (OXA-48)-producing and colistin-resistant *Klebsiella pneumoniae* strain

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1 Supplementary methods

Genomic DNA of *K. pneumoniae* was extracted using the Gentra Puregene kit (Qiagen, Hilden, Germany). A genomic DNA library was prepared using Nextera DNA Sample Preparation Kit, tagged using Nextera Index kit (Illumina, San Diego CA), and sequenced on a MiSeq sequencer (Illumina, San Diego CA) following the manufacturer's protocol. Paired-end 250 bp reads were filtered using fastq-mcf [1], keeping reads with an average Phred quality score higher than 30 (Parameters: –max-ns 0 –mean-qual 30 -q 30). The genome was assembled using SPAdes version v3.9.0 with kmer sizes ranging from 27 to 127, by steps of 4 [2]. Contigs were reordered based on the reference genome of *K. pneumoniae* strain HS11286 (accession: NC_016845) using Mauve version 2015.02.13 [4]. Whole-genome alignments were performed with nucmer [6]. The genome was annotated using Prokka version 1.11 [7]. Circos v0.69-4 was used to make a circular genome representations of the genome [5]. The presence of plasmids was investigated using PlasmidFinder [3]. Antimicrobial resistance genes were identified using ResFinder 2.1 [8].

Table S1: Antibiotic susceptibility of *K. pneumoniae* FR-3[1].

Class	Name	Kirby-Bauer [mm]	MIC Vitek [$\mu g/ml$]	MIC Etest [$\mu g/ml$]	Interpretation
Aminopenicillin /	Amoxicillin / Clavulanic Acid	6	>=32	n/a	R
inhibitor combination	Ampicillin	6	>=32	n/a	R
	Ampicillin / Sulbactam	n/a	n/a	>256	R
Beta-lactam/beta-lactamase inhibitor	Piperacilllin / Tazobactam	6	>=128	n/a	R
	Ticarcillin / Clavulanic Acid	n/a	n/a	>256	R
Cephalosporin II /	Cefoxitin	6	>=64	n/a	R
Cephamycin	Cefuroxime	n/a	n/a	>256	R
Cephalosporin III / IV	Cefepime	6	>=64	n/a	R
	Cefpodoxime	6	>=8	n/a	R
	Ceftazidime	6	>=64	n/a	R
	Ceftriaxone	6	>=64	n/a	R
Monobactam	Aztreonam	6	n/a	n/a	R
Carbapenem	Imipenem	13	8	4	R
	Meropenem	6	>=16	16	R
	Ertapenem	6	>=8	>32	R
Aminoglycoside	Amikacin	22	<=2	n/a	S
	Gentamicin	6	n/a	n/a	R
	Tobramycin	12	8	n/a	R
Fluroquinolone	Ciprofloxacin	6	>=4	n/a	R
	Levofloxacin	n/a	n/a	>32	R
	Moxifloxacin	n/a	n/a	8	R
Tetracyclines	Tetracycline	n/a	n/a	>256	R
	Tigecycline	n/a	n/a	2	R
Miscellaneous	Nitrofurantoin	10	128	n/a	R
	Trimethoprim / Sulfamethoxazole	6	>=320	n/a	R
	Rifampicin	n/a	n/a	>32	R
	Chloramphenicol	n/a	n/a	>256	R
	Fosfomycin	n/a	64	96	R
	Colistin	n/a	>=16	16	R

[1] Disk diffusion and gradient tests were determined with cation-adjusted MH broth (Bio-Rad, Cressier, Switzerland). Disks and Etests were obtained from Oxoid, Thermofisher Scientific (Pratteln, Switzerland) and bioMerieux (Marcy-l'Etoile, France) respectively. The minimum inhibitory concentration (MIC) values were determined using the AST-N242 card from VITEK2 (bioMerieux). For colistin, the MIC was determined using UMIC (Biocentric, Bandol, France) according to the manufacturer's instructions. EUCAST standards (version 2017) were used for categorical interpretation.

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