Supplementary Material

1 Supplementary Tables

Supplementary Table 1. Information on patients and strain labelling

Strain number	*Gender (Male/Female)*	*Age*	*Comorbidities*	*Sample origin*	*Sample collected*	*bla* genes	IS*Aba1* *bla*$_{OXA-23}$
1	M	>60	BPH[1]	hemoculture	1-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
2	M	>60	HTA[2] thrombophlebitis; gonarthrosis	tip of the aspirator	1-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
3	M	>60	BPH	tip of the aspirator	1-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
4	M	40-60	HTA; DI[3]; pulmonary fibrosis	tip of the aspirator	1-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
5	M	>60	HTA; DI; benign brain tumour, eye tumour	hemoculture	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
6	M	>60	HTA; BPH; dementia	hemoculture	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
7	M	>60	HTA	hemoculture	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
8	M	>60	HTA; DI; benign brain tumour, eye tumour	TBA**	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
9	M	>60	HTA; varicose veins; ulcus cruris; obesity	TBA**	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
10	M	>60	HTA; glaucoma	TBA**	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+

11	M	>60	BPH	TBA**	31-Dec-2020	bla_{OXA-23}, bla_{OXA-51}	+
12	F	>60	DI	hemoculture	4-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
13	F	>60	DI	hemoculture	5-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
14	M	>60	HTA; CVA[4]; hemiplegia flaccid	hemoculture	7-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
15	M	>60	BPH	hemoculture	7-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
16	M	>60	HTA	hemoculture	8-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
17	M	>60	HTA	hemoculture	8-Jan-2021	bla_{OXA-23}, bla_{OXA-51}, bla_{OXA-58}	+
18	M	40-60	Asthma; CHF[5]; MI[6]; AoCbypass	hemoculture	11-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
19	M	40-60	Asthma; CHF; MI; AoC bypass	hemoculture	11-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
20	M	>60	HTA; CVA; hemiplegia flaccid	hemoculture	11-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
21	F	>60	DI	TBA**	4-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
22	M	40-60	HTA; DI; myocarditis; obesity	CVC*	7-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
23	M	>60	HTA; CVA; hemiplegia flaccid	CVC*	7-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
24	M	>60	BPH	CVC*	7-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
25	M	>60	BPH	CVC*	9-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+

26	M	>60	HTA; CVA; hemiplegia flaccid	CVC*	11-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
27	F	>60	RA[7]; HTA; hysterectomy	hemoculture	14-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
28	F	>60	RA; HTA; hysterectomy	hemoculture	15-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
29	F	>60	RA; HTA; hysterectomy	hemoculture	15-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
30	F	>60	HTA	hemoculture	16-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
31	M	40-60	Asthma; CHF; MI; AoC bypass	CVC*	11-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
32	F	>60	RA; HTA; hysterectomy	CVC*	14-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
33	F	>60	HTA	TBA**	15-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
34	F	>60	RA; HTA; hysterectomy	CVC*	16-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
35	M	>60	HTA	CVC*	16-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
36	M	>60	AA[8]; BPH	TBA**	27-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
37	M	>60	AA; BPH	Sputum	29-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
38	F	>60	HTA; DI	CVC*	26-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
39	F	>60	HTA; asthma; hypothyroidism; knee surgery; PE[9]	CVC*	31-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+

40	F	>60	HTA; brain tumour; hysterectomy	hemoculture	18-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
41	F	>60	HTA; brain tumour; hysterectomy	hemoculture	18-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
42	M	40-60	Asthma; CHF; MI; AoC bypass	hemoculture	19-Jan-2021	bla_{OXA-23}, bla_{OXA-51}, bla_{OXA-58}	+
43	F	>60	Varicose veins	hemoculture	22-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}, bla_{OXA-58}	+
44	F	>60	HTA; DI; LBBB[10]; depression	hemoculture	23-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
45	F	>60	HTA; DI; LBBB; depression	hemoculture	23-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
46	F	>60	HTA; DI; LBBB; depression	CVC*	19-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
47	M	40-60	Asthma; CHF; MI; AoC bypass	CVC*	19-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}, bla_{OXA-58}	+
48	M	>60	HTA; DI; BPH; HPLD[11]	CVC*	19-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
49	F	>60	HTA; DI; LBBB; depression	hemoculture	25-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+

50	M	>60	HTA	CVC*	22-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
51	F	>60	HTA; RA; breast cancer surgery; osteoarthrosis	CVC*	23-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
52	F	>60	HTA; DI; LBBB; depression	CVC*	25-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
53	M	>60	BPH; neo cutis	CVC*	25-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
54	F	>60	HTA; ulcus cruris	hemoculture	30-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
55	F	>60	HTA; ulcus cruris	hemoculture	29-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
56	F	>60	HTA; asthma; hypothyreosis; knee surgery; PE	hemoculture	30-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
57	F	>60	HTA; COPD[12]	TBA**	27-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
58	F	>60	HTA; AFL[13]; osteoporosis; thyroid nodules cancer; nephrectomy; PE	CVC*	28-Jan-2021	bla_{OXA-23}, bla_{OXA-51}	+
59	F	>60	HTA; COPD	CVC*	31-Jan-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
60	F	>60	HTA; DI; LBBB; depression	hemoculture	3-Feb-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+

61	F	>60	HTA; DI; LBBB; depression	TBA[**]	3-Feb-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
62	F	>60	COPD; CVA; paraplegia flaccid; CMP[14]	TBA[**]	3-Feb-2021	bla_{OXA-23}, bla_{OXA-51}	+
63	F	>60	HTA; DI	CVC[*]	8-Feb-2021	bla_{OXA-23}, bla_{OXA-24}, bla_{OXA-51}	+
64	F	>60	HTA; DI	CVC[*]	9-Feb-2021	bla_{OXA-23}, bla_{OXA-51}	+

BPH[1]-benign prostatic hyperplasia; HTA[2]- essential arterial hypertension; DI[3]- diabetes insipidus; CVA[4]- cerebrovascular accident; CHF[5]- congestive heart failure; MI[6]- acute myocardial infarction; RA[7]- rheumatoid arthritis; AA[8]- arrhythmia absoluta; PE[9]- pulmonary embolism; LBBB[10]- left bundle branch block; HPLD[11]- hyperlipidemia; COPD[12]- chronic obstructive pulmonary disease; AFL[13]- atrial flutter; CMP[14]- cardiomyopathy; TBA[*]- tracheal aspirate; CVC[**]- tip of the central venous catheter

Supplementary Table 2. Minimal inhibitory concentrations (MICs) for different antibiotics. EUCAST breakpoints were used for MIC interpretation.

Strain number	Colistin[a]		Gentamicin[b]		Imipenem[c]		Meropenem[d]		Levofloxacin[e]		Tobramycin[f]	
	MIC (µg/ml)	Category	MIC (µg/ml)	Category	MIC (µg/ml)	Category	MIC (µg/ml)	Category	MIC (µg/ml)	Category	MIC (µg/ml)	Category
1	2	S	>8	R	>8	R	>8	R	>2	R	8	R
2	2	S	>8	R	8	R	>8	R	>2	R	>8	R
3	2	S	>8	R	8	R	>8	R	>2	R	>8	R
4	2	S	>8	R	8	R	>8	R	>2	R	>8	R
5	2	S	>8	R	8	R	>8	R	>2	R	>8	R
6	2	S	>8	R	8	R	>8	R	>2	R	>8	R
7	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
8	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
9	2	S	>8	R	>8	R	>8	R	>2	R	>8	R

10	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
11	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
12	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
13	2	S	>8	R	8	R	>8	R	>2	R	>8	R
14	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
15	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
16	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
17	2	S	>8	R	8	R	>8	R	>2	R	>8	R
18	2	S	>8	R	8	R	>8	R	>2	R	>8	R
19	2	S	>8	R	8	R	>8	R	>2	R	>8	R
20	2	S	>8	R	8	R	>8	R	>2	R	>8	R
21	2	S	>8	R	8	R	>8	R	>2	R	>8	R
22	2	S	>8	R	8	R	>8	R	>2	R	>8	R
23	2	S	>8	R	8	R	>8	R	>2	R	>8	R
24	1	S	>8	R	8	R	>8	R	>2	R	>8	R
25	2	S	>8	R	8	R	>8	R	>2	R	>8	R
26	2	S	>8	R	8	R	>8	R	>2	R	>8	R
27	2	S	>8	R	8	R	>8	R	>2	R	>8	R
28	2	S	>8	R	8	R	>8	R	>2	R	>8	R
29	2	S	>8	R	8	R	>8	R	>2	R	>8	R
30	2	S	>8	R	8	R	>8	R	>2	R	>8	R
31	2	S	>8	R	8	R	>8	R	>2	R	>8	R

32	2	S	>8	R	8	R	>8	R	>2	R	>8	R
33	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
34	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
35	2	S	>8	R	8	R	>8	R	>2	R	>8	R
36	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
37	2	S	>8	R	8	R	>8	R	>2	R	>8	R
38	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
39	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
40	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
41	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
42	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
43	2	S	>8	R	8	R	>8	R	>2	R	>8	R
44	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
45	2	S	>8	R	8	R	>8	R	>2	R	>8	R
46	2	S	>8	R	8	R	>8	R	>2	R	>8	R
47	2	S	>8	R	8	R	>8	R	>2	R	>8	R
48	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
49	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
50	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
51	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
52	2	S	>8	R	>8	R	>8	R	>2	R	>8	R

53	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
54	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
55	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
56	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
57	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
58	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
59	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
60	2	S	>8	R	8	R	>8	R	>2	R	>8	R
61	2	S	>8	R	8	R	>8	R	>2	R	>8	R
62	2	S	>8	R	>8	R	>8	R	>2	R	>8	R
63	2	S	>8	R	8	R	>8	R	>2	R	>8	R
64	2	S	>8	R	>8	R	>8	R	>2	R	>8	R

a: Breakpoints for Colistin (S≤2, R>2); b: Breakpoint sfor Gentamicin (S≤4, R>4); c: Breakpoints for Imipenem (S≤2, R>4); d: Breakpoints for Meropenem (S≤2, R>2), e: Breakpoints for Levofloxacin (S≤0.5, R>1); f: Breakpoints for Tobramycin (S≤4, R>4)

Supplementary Table 3. Overview of antimicrobial resistance genes detected in genomes of four representative A. *baumannii* isolates using ResFinder.

Strain	Antimicrobial resistance genes
JAPCYJ01.1 (*A. baumannii* 1)	*sul1*, *qacE* , *aac(3)-Ia*, *aadA1*, *catA1*, bla_{OXA-66}, bla_{ADC-25}, bla_{OXA-23}
JAPCYK01.1 (*A. baumannii* 2)	*sul1*, *mph*(E), *msr*(E), *qacE* , *aac(3)-Ia*, *aadA1*, *armA*, *catA1*, bla_{OXA-66}, bla_{ADC-25}, bla_{OXA-23}

JAPCYL01.1 (*A. baumannii* 39)	*sul1*, *mph*(E), *msr*(E), *qacE* , *aac(3)-Ia*, *aph(3')-VIa*, *aadA1*, *armA*, *catA1*, *bla*$_{\text{OXA-66}}$, *bla*$_{\text{ADC-25}}$, *bla*$_{\text{OXA-23}}$
JAPCYM01.1 (*A. baumannii* 54)	*sul1*, *mph*(E), *msr*(E), *qacE* , *aac(3)-Ia*, *aadA1*, *armA*, *catA1*, *bla*$_{\text{OXA-66}}$, *bla*$_{\text{ADC-25}}$, *bla*$_{\text{OXA-23}}$

Supplementary Table 4. Virulence factors genes detected in sequenced genoms using VFDB: Virulence Factors Database

VFclass	Virulence factors	Related genes	*A. baumannii* 1	*A. baumannii* 2	*A. baumannii* 39	*A. baumannii* 54
Adherence	Outer membrane protein	*ompA*	+	+	+	+
	Fibronectin binding protein	*fbpA*	+	-	-	-
	Flagella	*fliP*	+	-	-	-
	GroEL	*groEL*	+	-	-	-
	Polar flagella	*flmH*	+	-	-	-
	Streptococcal plasmin receptor/GAPDH	*Plr/gapA*	+	-	-	-
Biofilm formation	AdeFGH efflux pump/transport autoinducer	*adeF*	+	+	+	+
		adeG	+	+	+	+
		adeH	+	+	+	+
	Biofilm-associated protein	*bap*	+	+	+	+
	Csu pili	*csuA/B*	-	+	+	+
		csuA	-	+	+	+
		csuB	-	+	+	+
		csuC	-	+	+	+

		csuD	-	+	+	+
		csuE	-	+	+	+
	PNAG (Polysaccharide poly-N-acetylglucoseamine	*pgaA*	+	+	+	+
		pgaB	+	+	+	+
		pgaC	+	+	+	+
		pgaD	+	+	+	+
Enzyme	Phospholopase C	*plc*	+	+	+	+
	Phospholipase D	*plcD*	+	+	+	+
Immune evasion	LPS	*lpsB*	+	+	+	+
		lpxA	+	+	+	+
		lpxC	+	+	+	+
		lpxD	+	+	+	+
		lpxL	+	+	+	+
		IpxM	+	+	+	+
Iron uptake	Acinetobactin	*barA*	+	+	+	+
		barB	+	+	+	+
		basA	+	+	+	+
		basB	+	+	+	+
		basC	+	+	+	+
		basD	+	+	+	+
		basF	+	+	+	+
		basG	+	+	+	+
		basH	+	+	+	+
		basI	+	+	+	+

		basJ	+	+	+	+
		bauA	+	+	+	+
		bauB	+	+	+	+
		bauC	+	+	+	+
		bauD	+	+	+	+
		bauE	+	+	+	+
		bauF	+	+	+	+
		entE	+	+	+	+
	Heme utilization	*hemO*	+	+	+	+
	Achromobactin biosynthesis and transport	*cbrD*	+	-	-	-
	Heme biosynthesis	*hemL*	+	-	-	-
	Periplasmic binding protein-dependent ABC transport systems	*vctC*	+	-	-	-
Regulation	Quorum sensing	*abaI*	+	+	+	+
		abaR	+	+	+	+
	Two-component system	*bfmR*	+	+	+	+
		bfmS	+	+	+	+
Cell surface components	Trehalose-recycling ABC transporter	*sugC*	+	-	-	-
Copper uptake	Copper exporter	*ctpV*	+	-	-	-
Intracellular survival	Lipoate protein ligase A1	*lplA1*	+	-	-	-
Invasion	Lipoprotein promoting entry protein	*lpeA*	+	-	-	-
Lipid and fatty acid metabolism	Panthothenate synthesis	*panD*	+	-	-	-

Peptidoglycan modification	OatA	*oatA*	+	-	-	-
Secretion system	Type III secretion system	*cdsN*	+	-	-	-
Toxin	Hemolysin III	*hlyIII*	+	-	-	-
Serum resistance	PbpG	*pbpG*	+	+	+	+
Stress adaption	Catalase	*katA*	+	+	+	+

Supplementary Table 5. Biofilm formation of *Acinetobacter baumannii* clinical isolates

Strain number	Origin of the strain	Cut-off value (ODc)	OD average	OD (OD average - ODc)	Biofilm formation category
1	hemoculture	0.2881	0.8250	0.5370	weak
2	tip of the aspirator	0.2881	1.6957	1.4077	strong
3	tip of the aspirator	0.2881	2.4116	2.1235	strong
4	tip of the aspirator	0.2881	1.9408	1.6527	strong
5	hemoculture	0.2881	1.9806	1.6925	strong
6	hemoculture	0.2881	1.9579	1.6698	strong
7	hemoculture	0.2881	2.3482	2.0602	strong
8	tracheal aspirate	0.2881	2.1134	1.8254	strong
9	tracheal aspirate	0.2881	1.7030	1.4150	strong
10	tracheal aspirate	0.2881	2.3746	2.0866	strong

11	tracheal aspirate	0.2881	2.3485	2.0604	strong
12	hemoculture	0.2881	1.9658	1.6778	strong
13	hemoculture	0.2881	1.9613	1.6732	strong
14	hemoculture	0.2881	2.0312	1.7431	strong
15	hemoculture	0.2881	1.8224	1.5343	strong
16	hemoculture	0.2881	2.1890	1.9009	strong
17	hemoculture	0.2881	1.7697	1.4816	strong
18	hemoculture	0.2881	2.1643	1.8762	strong
19	hemoculture	0.2881	1.8153	1.5272	strong
20	hemoculture	0.2881	2.7972	2.5091	strong
21	tracheal aspirate	0.2881	2.3646	2.0765	strong
22	tip of the central venous aspirator	0.2733	0.8720	0.5987	moderate
23	tip of the central venous aspirator	0.2733	0.9776	0.7042	moderate
24	tip of the central venous aspirator	0.2733	1.0587	0.7854	moderate
25	tip of the central venous aspirator	0.3028	3.7244	3.4217	strong
26	tip of the central venous aspirator	0.3028	3.6975	3.3947	strong
27	hemoculture	0.3028	0.9880	0.6853	moderate
28	hemoculture	0.3028	0.9224	0.6196	moderate
29	hemoculture	0.3028	1.1070	0.8042	moderate
30	hemoculture	0.3028	1.5864	1.2837	strong
31	tip of the central venous aspirator	0.3028	1.7434	1.4406	strong

32	tip of the central venous aspirator	0.3028	1.1289	0.8261	moderate
33	tracheal aspirate	0.3028	1.5576	1.2548	strong
34	tip of the central venous aspirator	0.3028	1.6950	1.3922	strong
35	tip of the central venous aspirator	0.3028	1.2632	0.9605	moderate
36	tracheal aspirate	0.3028	1.5505	1.2478	strong
37	sputum	0.3028	2.3367	2.0340	strong
38	tip of the central venous aspirator	0.3028	2.4170	2.1142	strong
39	tip of the central venous aspirator	0.3028	2.1251	1.8223	strong
40	hemoculture	0.3028	1.8384	1.5356	strong
41	hemoculture	0.3028	1.9977	1.6949	strong
42	hemoculture	0.3028	1.3416	1.0388	moderate
43	hemoculture	0.3028	1.5961	1.2933	strong
44	hemoculture	0.3028	1.6231	1.3204	strong
45	hemoculture	0.3028	1.5799	1.2771	strong
46	tip of the central venous aspirator	0.3028	1.5455	1.2427	strong
47	tip of the central venous aspirator	0.3028	1.4531	1.1504	moderate
48	tip of the central venous aspirator	0.3028	1.1765	0.8737	moderate
49	hemoculture	0.3028	2.3577	2.0549	strong
50	tip of the central venous aspirator	0.3028	1.7024	1.3997	strong
51	tip of the central venous aspirator	0.3028	1.7245	1.4218	strong
52	tip of the central venous aspirator	0.3028	1.5301	1.2274	strong
53	tip of the central venous aspirator	0.2683	0.8066	0.5383	moderate

54	hemoculture	0.2683	1.6114	1.3431	strong
55	hemoculture	0.2683	1.1942	0.9258	moderate
56	hemoculture	0.2683	1.3546	1.0862	strong
57	tracheal aspirate	0.2683	1.6059	1.3376	strong
58	tip of the central venous aspirator	0.2683	1.4415	1.1732	strong
59	tip of the central venous aspirator	0.2683	1.4399	1.1716	strong
60	hemoculture	0.2683	1.2504	0.9820	moderate
61	tracheal aspirate	0.2683	1.7658	1.4974	strong
62	tracheal aspirate	0.2683	1.5551	1.2867	strong
63	tip of the central venous aspirator	0.2683	1.1536	0.8853	moderate
64	tip of the central venous aspirator	0.2683	1.5611	1.2928	strong

Supplementary Table 6. Duration of patient hospitalization at ICU and days of hospitalization at ICU prior to *A. baumannii* isolation.

Isolate	Date of patient hospitalization at ICU	Date of the patient's discharge	Duration of hospitalization at ICU (days)	Sample collection	Duration of hospitalization prior *A. baumannii* isolation (days)	Type of the sample
1	2020-12-23	2021-01-13	21	2021-01-01	9	hemoculture
2	2020-12-29	2021-01-09	11	2021-01-01	3	tip of the aspirator
3	2020-12-23	2021-01-13	21	2021-01-01	9	tip of the aspirator
4	2020-12-10	2021-01-02	23	2021-01-01	22	tip of the aspirator
5	2020-12-08	2020-12-31	23	2020-12-31	24	hemoculture
6	2020-12-30	2021-01-04	5	2020-12-31	1	hemoculture

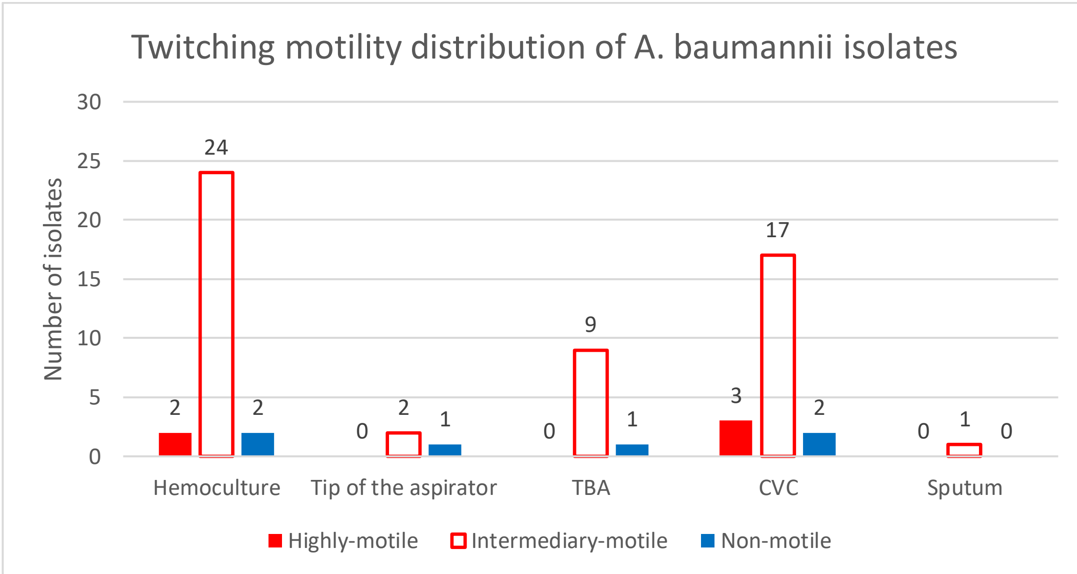
7	2020-12-26	2021-01-10	15	2021-12-31	5	hemoculture
8	2020-12-08	2020-12-31	23	2020-12-31	23	TBA*
9	2020-12-25	2021-01-03	9	2020-12-31	6	TBA*
10	2020-12-28	2021-01-03	6	2021-12-31	3	TBA*
11	2020-12-23	2021-01-13	21	2020-12-31	8	TBA*
12	2020-12-29	2021-01-06	8	2021-01-04	6	hemoculture
13	2020-12-29	2021-01-06	8	2021-01-05	7	hemoculture
14	2020-12-31	2021-01-12	12	2021-01-07	7	hemoculture
15	2020-12-23	2021-01-13	21	2021-01-07	15	hemoculture
16	2020-12-26	2021-01-10	15	2021-01-08	13	hemoculture
17	2020-12-26	2021-01-10	15	2021-01-08	13	hemoculture
18	2021-01-04	2021-01-20	16	2021-01-11	7	hemoculture
19	2021-01-04	2021-01-20	16	2021-01-11	7	hemoculture
20	2020-12-31	2021-01-12	12	2021-01-11	11	hemoculture
21	2020-12-29	2021-01-06	8	2021-01-04	6	TBA*
22	2020-12-31	2021-02-10	41	2021-01-07	7	CVC**
23	2020-12-31	2021-01-12	12	2021-01-08	8	CVC**
24	2020-12-23	2021-01-13	21	2021-01-07	15	CVC**
25	2020-12-23	2021-01-13	21	2021-01-09	17	CVC**
26	2020-12-31	2021-01-12	12	2021-01-11	11	CVC**
27	2021-01-10	2021-01-22	12	2021-01-14	4	hemoculture
28	2021-01-10	2021-01-22	12	2021-01-15	5	hemoculture

29	2021-01-10	2021-01-22	12	2021-01-15	5	hemoculture
30	2021-01-08	2021-01-18	10	2021-01-16	8	hemoculture
31	2021-01-04	2021-01-20	16	2021-01-11	7	CVC**
32	2021-01-10	2021-01-22	12	2021-01-14	4	CVC**
33	2021-01-08	2021-01-18	10	2021-01-15	7	TBA*
34	2021-01-10	2021-01-22	12	2021-01-16	6	CVC**
35	2021-01-08	2021-01-26	18	2021-01-16	8	CVC**
36	2021-01-24	2021-03-11	46	2021-01-27	3	TBA*
37	2021-01-24	2021-03-11	46	2021-01-29	5	sputum
38	2021-01-16	2021-01-28	12	2021-01-26	10	CVC**
39	2021-01-25	2021-02-02	8	2021-01-31	6	CVC**
40	2021-01-12	2021-01-20	8	2021-01-18	6	hemoculture
41	2021-01-12	2021-01-20	8	2021-01-18	6	hemoculture
42	2021-01-04	2021-01-20	16	2021-01-19	15	hemoculture
43	2020-12-31	2021-01-26	26	2021-01-22	22	hemoculture
44	2021-01-12	2021-02-04	23	2021-01-23	11	hemoculture
45	2021-01-12	2021-02-04	23	2021-01-23	11	hemoculture
46	2021-01-12	2021-02-04	23	2021-01-19	7	CVC**
47	2021-01-04	2021-01-20	16	2021-01-19	15	CVC**
48	2021-01-11	2021-01-20	9	2021-01-19	8	CVC**
49	2021-01-12	2021-02-04	23	2021-01-25	13	hemoculture

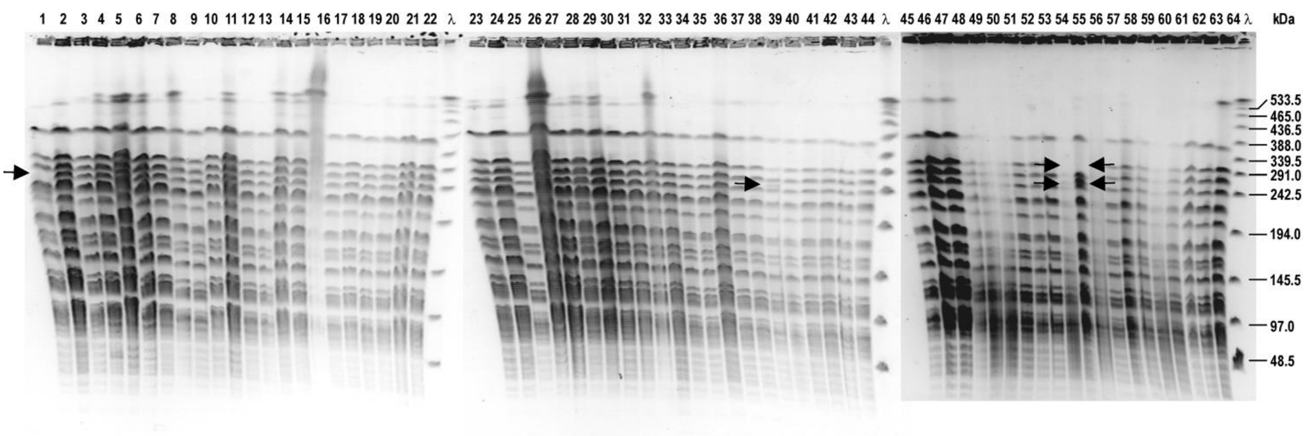
50	2021-01-02	2021-01-24	22	2021-01-22	20	CVC**
51	2021-01-08	2021-01-30	22	2021-01-23	15	CVC**
52	2021-01-12	2021-02-04	23	2021-01-25	13	CVC**
53	2021-01-15	2021-01-27	12	2021-01-25	10	CVC**
54	2021-01-10	2021-01-30	20	2021-01-30	20	hemoculture
55	2021-01-10	2021-01-30	20	2021-01-29	19	hemoculture
56	2021-01-25	2021-02-02	8	2021-01-30	5	hemoculture
57	2021-01-18	2021-02-01	14	2021-01-27	9	TBA*
58	2021-01-07	2021-01-29	22	2021-01-28	21	CVC**
59	2021-01-18	2021-02-01	14	2021-01-31	13	CVC**
60	2021-01-12	2021-02-04	23	2021-02-03	22	TBA*
61	2021-01-12	2021-02-04	23	2021-02-03	22	TBA*
62	2021-01-30	2021-02-18	19	2021-02-03	4	TBA*
63	2021-02-01	2021-02-11	10	2021-02-08	7	CVC**
64	2021-02-01	2021-02-11	10	2021-02-09	8	CVC**

TBA*- tracheal aspirate; CVC**- tip of the central venous catheter

2 Supplementary Figures

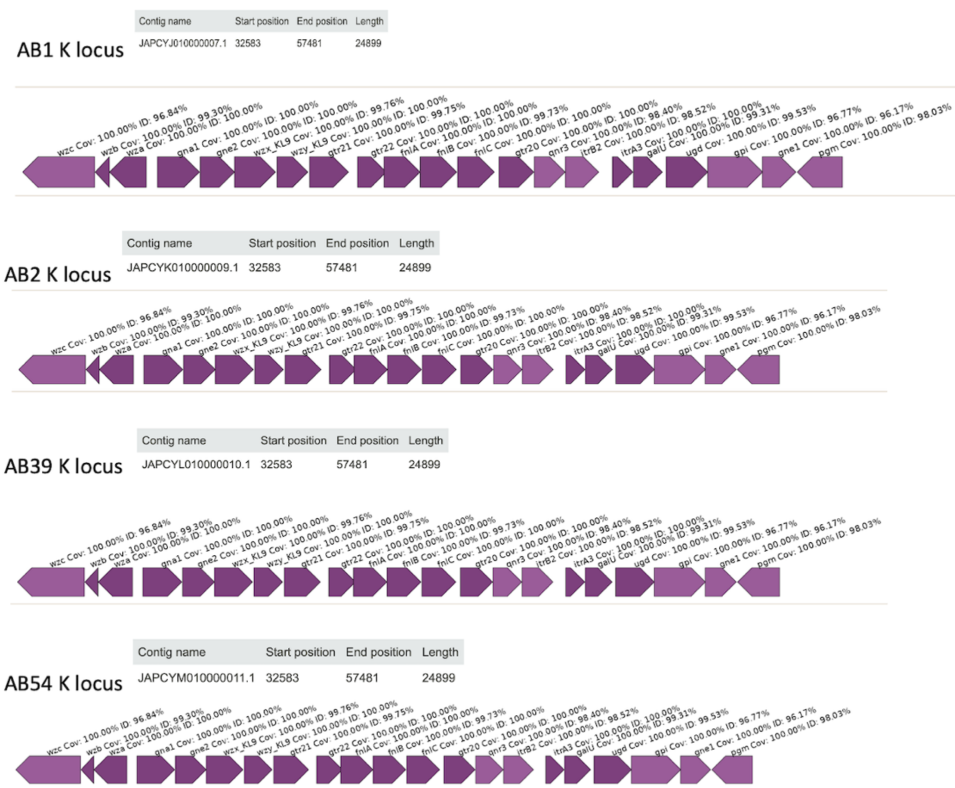


Supplementary Figure 1. Twitching motility distribution of *A. baumannii* isolates.



Supplementary Figure 2. PFGE profiles of *A. baumannii* isolates from COVID-19 patients admitted to ICU at General Hospital "Dr Laza K. Lazarević" Šabac, Serbia (1-64), obtained by *Apa*I digestion. Arrows indicate that isolate 1 lacks an *Apa*I fragment of 242 kb; isolate 39 has an extra *Apa*I fragment of 250 kb; isolates 54 and 55 have the same profile, differing from others in that they lack a fragment of 300 kb, and have a new unique fragment of 250 kb. λ - λ concatemers (New England Biolabs)

a.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AB39 K locus
Contig name Start position End position Length
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AB54 K locus
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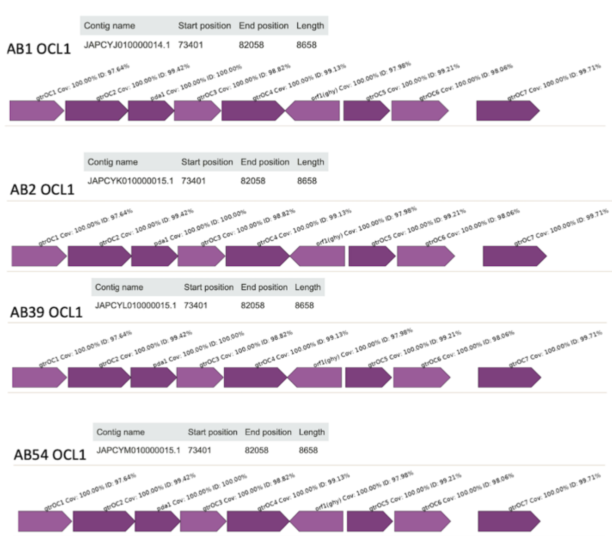
b.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AB39 OCL1
Contig name Start position End position Length
JAPCYL010000015.1 73401 82058 8658
AB54 OCL1
Contig name Start position End position Length
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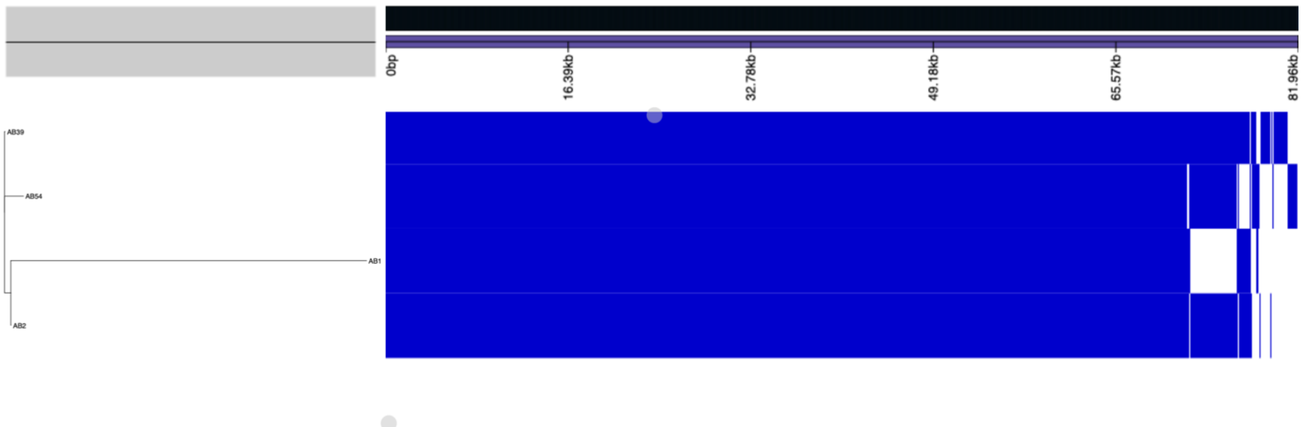
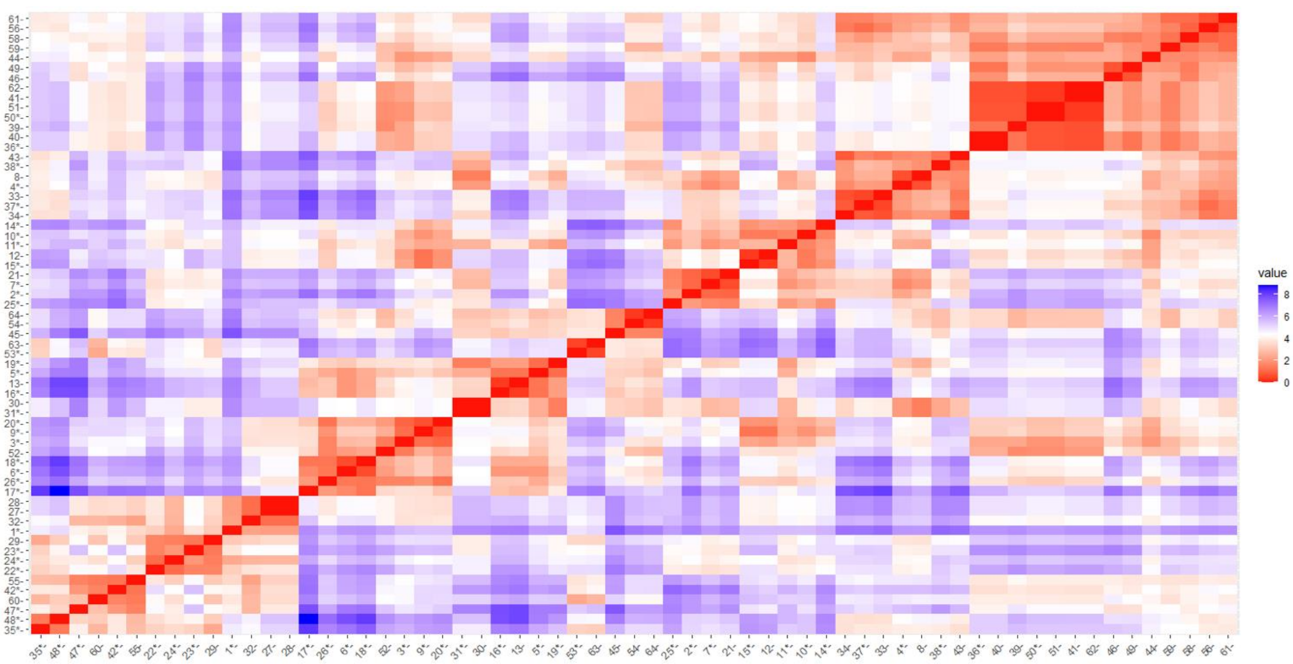
Supplementary Figure 3. Comparisson of K locus (3a) and outer LPS (O) locus (3b) using Kaptive 2.0 tool.



Supplementary Figure 4. Visualization of pan-genome constructed using Roary based on the core and accessory genes showing phylogenetic relatedness of the isolates by blue (present) and white (absent) fragments.



Supplementary Figure 5. Heatmap displaying the results of hierarchical clustering among 64 *A.baumannii* isolates. The color scale indicates the degree of correlation (blue, low correlation; red, high correlation).