

Supplementary Data

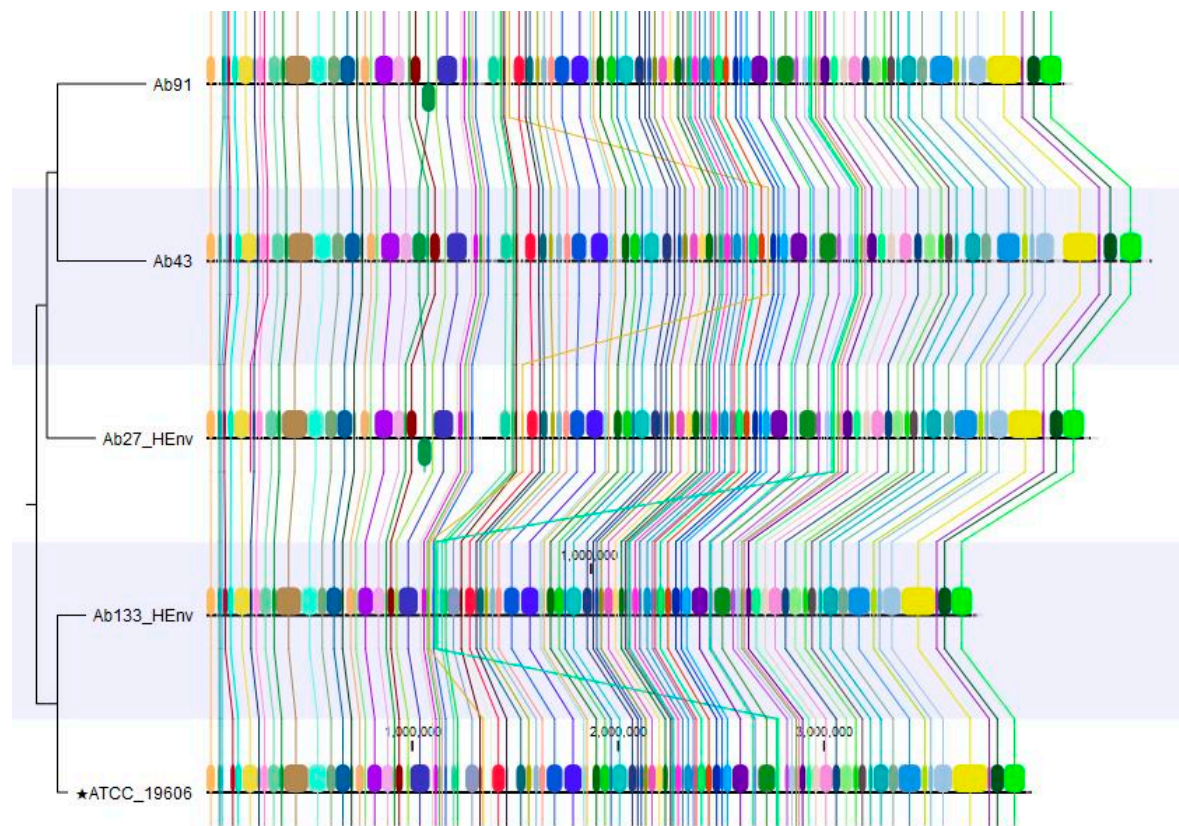


Figure S1. The synteny map is showing whole genome alignment of the *Acinetobacter baumannii* from this study with a reference isolate genome of *A. baumannii* ATCC 19606.

Table S1. Percentage distribution of bacterial community in the different units of the hospital.

Species	MICU	NICU	SICU	OncW
<i>Achromobacter xylosoxidans</i>	2.39521			
<i>Acinetobacter baumannii</i>	1.197605	9.756098		
<i>Acinetobacter junii</i>				1.234568
<i>Acinetobacter</i> sp.				1.234568
<i>Actinomyces johnsonii</i>				1.234568
<i>Arthrobacter enclensis</i>		21.95122	19.44444	13.58025
<i>Arthrobacter liuii</i>			9.722222	
<i>Arthrobacter pascens</i>		2.439024		
<i>Bacillus badius</i>	0.598802			
<i>Bacillus glycinifermentans</i>				2.469136
<i>Bacillus licheniformis</i>	2.994012			
<i>Bacillus megaterium</i>	0.598802			
<i>Bacillus niacini</i>		2.439024		
<i>Bacillus paralicheniformis</i>			5.555556	3.703704
<i>Bacillus pumilus</i>	1.796407			
<i>Bacillus simplex</i>	0.598802			
<i>Bacillus</i> sp.	3.592814	7.317073	2.777778	
<i>Burkholderia cepacia</i>		7.317073		
<i>Carnobacterium maltaromaticum</i>				2.469136
<i>Cellulomonas flavigena</i>			5.555556	3.703704
<i>Cellvibrio vulgaris</i>				1.234568
<i>Chryseobacterium taihuense</i>				1.234568
<i>Clavibacter michiganensis</i>				1.234568
<i>Corynebacterium aurimucosum</i>	1.197605			
<i>Corynebacterium mucifaciens</i>			2.777778	
<i>Dermabacter hominis</i>	2.39521		1.388889	
<i>Dermaococcus nishinomiyaensis</i>	0.598802			1.234568
<i>Elizabethkingia meningoseptica</i>	1.197605		1.388889	
<i>Enterococcus casseliflavus</i>		2.439024		
<i>Enterococcus faecium</i>			1.388889	
<i>Geobacillus thermoglucosidasius</i>	0.598802			
<i>Klebsiella pneumoniae</i>	7.185629			
<i>Kytococcus sedentarius</i>	1.796407			
<i>Listeria welshimeri</i>			2.777778	
<i>Microbacterium ginsengisoli</i>				2.469136
<i>Microbacterium testaceum</i>				1.234568
<i>Micrococcus luteus</i>	13.17365	17.07317	11.11111	12.34568
<i>Moraxella osloensis</i>		2.439024	1.388889	
<i>Mycobacterium avium</i>				1.234568
<i>Oligella urethralis</i>	1.197605			

<i>Ornithinibacillus composti</i>				1.234568
<i>Paenibacillus durus</i>			1.388889	
<i>Paenibacillus pabuli</i>	1.197605			
<i>Paenibacillus species</i>	0.598802			
<i>Propionibacterium avidum</i>			1.388889	1.234568
<i>Proteus vulgaris</i>	1.197605			
<i>Pseudarthrobacter chlorophenolicus</i>		2.439024	1.388889	2.469136
<i>Pseudomonas aeruginosa</i>	3.592814		5.555556	
<i>Pseudomonas chlororaphis</i>		2.439024		
<i>Pseudomonas fluorescens</i>		4.878049		
<i>Pseudomonas luteola</i>	2.39521			
<i>Pseudomonas oryzihabitans</i>		2.439024		
<i>Pseudomonas stutzeri</i>	3.592814	2.439024		1.234568
<i>Pseudomonas xanthomarina</i>				2.469136
<i>Rothia kristinae</i>	1.197605			
<i>Sphingobacterium spiritivorum</i>				1.234568
<i>Staphylococcus aureus</i>	2.994012			
<i>Staphylococcus capitis</i>	7.185629	2.439024	1.388889	3.703704
<i>Staphylococcus cohnii</i>				1.234568
<i>Staphylococcus epidermidis</i>	17.36527		5.555556	8.641975
<i>Staphylococcus haemolyticus</i>	9.580838		2.777778	13.58025
<i>Staphylococcus hominis</i>	2.994012	7.317073	2.777778	
<i>Staphylococcus lentus</i>	0.598802			
<i>Staphylococcus lugdunensis</i>				2.469136
<i>Staphylococcus saprophyticus</i>				2.469136
<i>Staphylococcus warneri</i>	0.598802	2.439024	2.777778	2.469136
<i>Stenotrophomonas maltophilia</i>	1.796407		6.944444	1.234568
<i>Streptococcus agalactiae</i>			1.388889	
<i>Streptococcus australis</i>				2.469136
<i>Streptococcus salivarius</i>			1.388889	

MICU, medical intensive care unit; NICU, neonatal intensive care unit; SICU, surgical intensive care unit; OncW, oncology ward.

Table S2. Description of the *Acinetobacter baumannii* genomes analyzed in this study.

Accession No.	Strains	Isolation Source	Geographic Location	Genome Source
GCA_021725575.1	Ab27-HEnv	Bed rail	Saudi Arabia	This study
GCA_021726495.1	Ab133-HEnv	Nurses station desk	This study	This study
GCA_021726525.1	Ab43	Bronchial wash	This study	This study
GCA_021725595.1	Ab91	Wound	This study	This study
GCA_002245665.1	Ab15	Bedside table	Brazil	GenBank
GCA_002760765.1	MBL_M5	Urine	Tunisia	GenBank
GCA_002760845.1	MBL_M9	Urine	Tunisia	GenBank
GCA_012524275.1	Ab376	Catheter	Argentina	GenBank
GCA_020101315.1	DETAB-E405	Bed controller	China	GenBank
GCA_020101595.1	DETAB-E422	Stethoscope	China	GenBank
GCA_020101775.1	DETAB-E44	Nebuliser	China	GenBank
GCA_020101795.1	DETAB-E52	Dispensing trolley	China	GenBank
GCA_020101815.1	DETAB-E47	Bedside table	China	GenBank
GCA_020101835.1	DETAB-E45	Bed controller	China	GenBank
GCA_020101875.1	DETAB-E55	Bed rail	China	GenBank
GCA_020101935.1	DETAB-E57	Nebuliser	China	GenBank
GCA_020102055.1	DETAB-E67	Bed rail	China	GenBank
GCA_020102315.1	DETAB-E88	Infusion stand	China	GenBank
GCA_020102355.1	DETAB-E93	Bed rail	China	GenBank
GCA_020102395.1	DETAB-E90	Stethoscope	China	GenBank
GCA_020102415.1	DETAB-E87	Ventilator shelf	China	GenBank
GCA_020102555	DETAB-E1	Ventilator	China	GenBank
GCA_020102615.1	DETAB-E100	Bed rail	China	GenBank
GCA_020102635.1	DETAB-E103	Bed rail	China	GenBank
GCA_020102715.1	DETAB-E107	Bed controller	China	GenBank
GCA_020102755.1	DETAB-E113	Bed rail	China	GenBank
GCA_020102935.1	DETAB-E124	Bedside table	China	GenBank
GCA_020102995.1	DETAB-E115	ECG monitor	China	GenBank
GCA_020103075.1	DETAB-E116	Stethoscope	China	GenBank
GCA_020103215.1	DETAB-E14	Bed controller	China	GenBank
GCA_020103455.1	DETAB-E145	Ventilator	China	GenBank
GCA_020103655.1	DETAB-E158	Ventilator	China	GenBank
GCA_020103835.1	DETAB-E162	Bed rail	China	GenBank
GCA_020103895.1	DETAB-E160	Bed rail	China	GenBank
GCA_020103915.1	DETAB-E167	Bed controller	China	GenBank
GCA_020103935.1	DETAB-E165	Bed controller	China	GenBank
GCA_020104255.1	DETAB-E190	Bed rail	China	GenBank
GCA_020104975.1	DETAB-E227	Crash trolley	China	GenBank
GCA_020105275.1	DETAB-E246	Ventilator shelf	China	GenBank
GCA_020105435.1	DETAB-E247	Infusion stand	China	GenBank
GCA_020105835.1	DETAB-E274	Locker	China	GenBank
GCA_020105975.1	DETAB-E29	Bed controller	China	GenBank

GCA_020106075.1	DETAB-E281	Tap surface	China	GenBank
GCA_020106275.1	DETAB-E31	Ventilator	China	GenBank
GCA_020106295.1	DETAB-E302	Bedside table	China	GenBank
GCA_020106415.1	DETAB-E4	Bed rail	China	GenBank
GCA_020106515.1	DETAB-E309	Sink countertop	China	GenBank
GCA_020106535.1	DETAB-E310	Bed rail	China	GenBank
GCA_020106845.1	DETAB-E337	Switch button	China	GenBank
GCA_020107095.1	DETAB-E342	Bedside table	China	GenBank
GCA_020107135.1	DETAB-E339	Ventilator	China	GenBank
GCA_020107555.1	DETAB-E364	Switch button	China	GenBank
GCA_020108075.1	DETAB-E5	Infusion stand	China	GenBank
GCA_020108135.1	DETAB-E400	Bed controller	China	GenBank
GCA_020108155.1	DETAB-E171	Bed rail	China	GenBank
GCA_020108555.1	DETAB-E71	Bed rail	China	GenBank
GCA_020109495.1	DETAB-E425	Sink countertop	China	GenBank
GCA_020109615.1	DETAB-E157	Bed rail	China	GenBank
GCA_020109735.1	DETAB-E187	Bed controller	China	GenBank
GCA_020109835.1	DETAB-E32	Dispensing trolley	China	GenBank
GCA_020110475.1	DETAB-E123	Ventilator shelf	China	GenBank
GCA_020110515.1	DETAB-E128	Bed controller	China	GenBank
GCA_020110955.1	DETAB-E40	ECG monitor	China	GenBank
GCA_020110975.1	DETAB-E41	Computer	China	GenBank
GCA_020111875.1	DETAB-E299	Ventilator shelf	China	GenBank
GCA_020111935.1	DETAB-E382	Inside sink drain	China	GenBank
GCA_020112215.1	DETAB-E81	Bed rail	China	GenBank
GCA_020112895.1	DETAB-E112	Bed controller	China	GenBank
GCA_020113755.1	DETAB-E117	Bed controller	China	GenBank
GCA_020113775.1	DETAB-E327	Bed rail	China	GenBank
GCA_020114155.1	DETAB-E236	Syringe driver	China	GenBank
GCA_900117405.1	ABE12_M	Hospital floor	Morocco	GenBank
GCA_900119395.1	ABE8_07	Hospital floor	Morocco	GenBank
GCA_016538365.2	MRSN11835	Tissue	USA	GenBank
GCF_001640065.1	AB217	Wound swab	Saudi Arabia	GenBank
GCF_001640075.1	AB250	Sputum	Saudi Arabia	GenBank
GCF_002212105.1	AB552	Blood	Saudi Arabia	GenBank
SAMEA5593850	Ab174	Catheter	Saudi Arabia	GenBank
GCA_009035845.1	ATCC-19606	Urine	USA	GenBank
GCF_008632635	K09-14	Soil	Malaysia	GenBank
GCA_000981405.1	Ab1	Hospital environment	Not Applicable	GenBank

Table S3. List of insertion sequences on the specific beta-lactamase resistance genes carrying contigs in the *Acinetobacter baumannii* genomes assemblies.

Genomes accession No.	Strains	OXA-23 contig		OXA-66 contig		ADC-25 contig	
		<i>bla</i> _{OXA-23} gene	IS	<i>bla</i> _{OXA-66} gene	IS	<i>bla</i> _{ADC-25} gene	IS
GCA_021725575.1	Ab27-HEnv	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_021726495.1	Ab133-HEnv	-	-	-	-	+	-
GCA_021726525.1	Ab43	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_021725595.1	Ab91	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba26</i>
GCA_002245665.1	Ab15	+	IS <i>Aba1</i>	-	-	+	IS <i>Aba1</i>
GCA_002760765.1	MBL_M5	+	-	-	-	-	-
GCA_002760845.1	MBL_M9	-	-	-	-	+	-
GCA_012524275.1	Ab376	+	IS <i>Aba1</i>	-	-	+	IS <i>Aba1</i>
GCA_020101315.1	DETAB-E405	+	IS <i>Aba1</i>	+	IS <i>Aba1</i>	+	IS <i>Aba1</i>
GCA_020101595.1	DETAB-E422	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101775.1	DETAB-E44	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101795.1	DETAB-E52	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101815.1	DETAB-E47	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101835.1	DETAB-E45	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101875.1	DETAB-E55	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020101935.1	DETAB-E57	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102055.1	DETAB-E67	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102315.1	DETAB-E88	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102355.1	DETAB-E93	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102395.1	DETAB-E90	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102415.1	DETAB-E87	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102555	DETAB-E1	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102615.1	DETAB-E100	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102635.1	DETAB-E103	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102715.1	DETAB-E107	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102755.1	DETAB-E113	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102935.1	DETAB-E124	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020102995.1	DETAB-E115	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103075.1	DETAB-E116	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103215.1	DETAB-E14	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103455.1	DETAB-E145	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103655.1	DETAB-E158	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103835.1	DETAB-E162	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103895.1	DETAB-E160	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103915.1	DETAB-E167	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>
GCA_020103935.1	DETAB-E165	+	IS <i>Aba1</i>	+	-	+	IS <i>Aba1</i>

GCA_020104255.1	DETAB-E190	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020104975.1	DETAB-E227	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020105275.1	DETAB-E246	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020105435.1	DETAB-E247	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020105835.1	DETAB-E274	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020105975.1	DETAB-E29	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020106075.1	DETAB-E281	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020106275.1	DETAB-E31	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020106295.1	DETAB-E302	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020106415.1	DETAB-E4	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020106515.1	DETAB-E309	+	ISAb α 1	+	-	+	-
GCA_020106535.1	DETAB-E310	+	ISAb α 1	+	-	+	-
GCA_020106845.1	DETAB-E337	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020107095.1	DETAB-E342	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020107135.1	DETAB-E339	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020107555.1	DETAB-E364	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020108075.1	DETAB-E5	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020108135.1	DETAB-E400	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020108155.1	DETAB-E171	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020108555.1	DETAB-E71	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020109495.1	DETAB-E425	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020109615.1	DETAB-E157	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020109735.1	DETAB-E187	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020109835.1	DETAB-E32	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020110475.1	DETAB-E123	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020110515.1	DETAB-E128	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020110955.1	DETAB-E40	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020110975.1	DETAB-E41	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020111875.1	DETAB-E299	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020111935.1	DETAB-E382	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020112215.1	DETAB-E81	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020112895.1	DETAB-E112	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020113755.1	DETAB-E117	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020113775.1	DETAB-E327	+	ISAb α 1	+	-	+	ISAb α 1
GCA_020114155.1	DETAB-E236	+	ISAb α 1	+	-	+	ISAb α 1
GCA_900117405.1	ABE12_M	+	-	+	-	+	ISAb α 1
GCA_900119395.1	ABE8_07	+	-	+	-	+	ISAb α 26
GCA_016538365.2	MRSN11835	+	ISAb α 1	-	-	+	ISAb α 1
GCF_001640065.1	AB217	+	ISAb α 1	+	-	+	ISAb α 1
GCF_001640075.1	AB250	+	ISAb α 1	+	-	+	ISAb α 1
GCF_002212105.1	AB552	-	-	+	-	+	ISAb α 1

SAMEA5593850	Ab174	-	-	-	-	+	-
GCA_009035845.1	ATCC-19606	-	-	-	-	+	-
GCF_008632635	K09-14	-	-	-	-	+	-
GCA_000981405.1	Ab1	-	-	-	-	+	<i>ISAb1</i>

IS, insertion sequences; detected (+); not detected (-).

Table S4. List of antibiotics disk used against Gram-negative and Gram-positive isolates for antibiotic susceptibility screening.

Gram-negative Bacteria	Gram-positive Bacteria
Ampicillin 10 µg	Benzylpenicillin 10 units
Amoxicillin/Clavulanic acid 20/10 µg	Ampicillin 10 µg
Piperacillin/Tazobactam 100/10 µg	Azithromycin 15 µg
Cefazolin 30 ug	Vancomycin 30 µg
Azithromycin 15 µg	Ciprofloxacin 5 µg
Levofloxacin 5 µg	Clindamycin 2 µg
Cefepime 30 µg	Erythromycin 15 µg
Imipenem 10 µg	Tetracycline 30 µg
Meropenem 10 µg	Imipenem 10 µg
Gentamicin 10 µg	Gentamicin 10 µg
Amikacin 30 µg	Rifampin 5 µg
Trimethoprim/Sulfamethoxazole 1.25/23.75 µg	Trimethoprim/Sulfamethoxazole 1.25/23.75 µg
Ciprofloxacin 5 µg	Cefazolin 30 µg
Chloramphenicol 30 µg	Chloramphenicol 30 µg
Streptomycin 10 µg	
Tetracycline 30 µg	
Piperacillin 100 µg	
Ceftazidime/ Clavulanic acid 30/10 µg	
Kanamycin 30 µg	