

Table S1. Resistance genetic markers screened, initiator oligonucleotides, size of expected amplicons and references.

Marker	Resistance Mechanism	Targeted antimicrobials	Sequence (5'-3')	Amplicon (bp)	Reference
<i>bla_{CTX-M}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	ATG TGC AGY ACC AGT AAA G GGT CAC CAG AAG GAG C	562	[1]
<i>bla_{KPC}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	ATG TCA CTG TAT CGC CGT CT TTT TCA GAG CCT TAC TGC CC	892	[1]
<i>bla_{SHV}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	CTT TAC TCG CCT TTA TCG GC TTA CCG ACC GGC ATC TTT CC	982	[1]
<i>bla_{TEM}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	GTG CGC GGA ACC CCT ATT TTA CCA ATG CTT AAT CAG TGA GGC	968	[1]
<i>bla_{OXA-23}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	GAT CGG ATT GGA GAA CCA GA ATT TCT GAC CGC ATT TCC AT	501	[2]
<i>bla_{OXA-51}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	TAA TGC TTT GAT CGG CCT TG TGG ATT GCA CTT CAT CTT GG	353	[2]
<i>bla_Z</i>	Enzymatic inactivation (β -lactamase)	β -lactams	ACT TCA ACA CCT GCT GCT TTC TGA CCA CTT TTA TCA GCA ACC	173	[3]
<i>amp_C</i>	Enzymatic inactivation (β -lactamase)	β -lactams	CTG TTC GAG ATC GGC TC CGG TAT AGG TCG CGA G	166	[4]
<i>bla_{SPM-1}</i>	Enzymatic inactivation (β -lactamase)	β -lactams	CCT ACA ATC TAA CGG CGA CC TCG CCG TGT CCA GGT ATA AC	649	[5]
<i>mecA</i>	Modified target site	β -lactams	GTA GAA ATG ACT GAA CGT CCG ATA A CCA ATT CCA CAT TGT TTC GGT CTA A	310	[6]

Table S1. Continuation.

Marker	Resistance Mechanism	Targeted antimicrobials	Sequence (5'-3')	Amplicon (bp)	Reference
<i>tet(A)</i>	Efflux pump	Tetracyclines	GCT ACA TCC TGC TTG CCT TC CAT AGA TCG CCG TGA AGA GG	210	[7]
<i>tet(B)</i>	Efflux pump	Tetracyclines	TTG GTT AGG GGC AAG TTT TG GTA ATG GGC CAA TAA CAC CG	659	[7]
<i>tet(E)</i>	Efflux pump	Tetracyclines	AAA CCA CAT CCT CCA TAC GC AAA TAG GCC ACA ACC GTC AG	278	[7]
<i>tet(K)</i>	Efflux pump	Tetracyclines	GTA GCG ACA ATA GGT AAT AGT GTA GTG ACA ATA AAC CTC CTA	360	[8]
<i>tet(L)</i>	Efflux pump	Tetracyclines	TCG TTA GCG TGC TGT CAT TC GTA TCC CAC CAA TGT AGC CG	267	[7]
<i>tet(M)</i>	Ribosomal protection	Tetracyclines	AGT GGA GCG ATT ACA GAA CAT ATG TCC TGG CGT GTC TA	158	[8]
<i>tet(O)</i>	Ribosomal protection	Tetracyclines	AGC GTC AAA GGG GAA TCA CTA TCC CGG CGG GGT TGG CAA ATA	1723	[9]
<i>tet(Q)</i>	Ribosomal protection	Tetracyclines	TTA TAC TTC CTC CGG CAT CG ATC GGT TCG AGA ATG TCC AC	904	[7]
<i>msrA</i>	Efflux pump	Macrolides/ streptogramins B	TCC AAT CAT AGC ACA AAA TC AAT TCC CTC TAT TTG GTG GT	163	[10]
<i>mef</i>	Efflux pump	Macrolides	AGT ATC ATT AAT CAC TAG TGC TTC TTC TGG TAC AAA AGT GG	348	[10]

Table S1. Continuation.

Marker	Resistance Mechanism	Targeted antimicrobials	Sequence (5'-3')	Amplicon (bp)	Reference
<i>erm(A)</i>	Modified target site	MLS*	AAG CGG TAA ACC CCT CTG A TTC GCA AAT CCC TTC TCA AC	190	[8]
<i>erm(B)</i>	Modified target site	MLS*	CTA TCT GAT TGT TGA AGA AGG ATT GTT TAC TCT TGG TTT AGG ATG AAA	142	[3]
<i>erm(C)</i>	Modified target site	MLS*	AAT CGT CAA TTC CTG CAT GT TAA TCG TGG AAT ACG GGT TTG	299	[8]
<i>ere(A)</i>	Enzymatic inactivation (erythromycin esterase)	Macrolides	AAC ACC CTG AAC CCA AGG GAC G CTT CAC ATC CGG ATT CGC TCG A	420	[11]
<i>ere(B)</i>	Enzymatic inactivation (erythromycin esterase)	Macrolides	AGA AAT GGA GGT TCA TAC TTA CCA CAT ATA ATC ATC ACC AAT GGC A	546	[11]
<i>qnrB</i>	Target site protection	Quinolones	GAT CGT GAA AGC CAG AAA GG ATG AGC AAC GAT GCC TGG TA	476	[12]
<i>qnrS</i>	Target site protection	Quinolones	GCA AGT TCA TTG AAC AGG GT TCT AAA CCG TCG AGT TCG GCG	428	[12]
<i>sul1</i>	Modified target site	Sulphonamides	ATG GTG ACG GTG TTC GGC ATT CTG A CTA GGC ATG ATC TAA CCC TCG GTC T	815	[13]
<i>sul2</i>	Modified target site	Sulphonamides	CCT GTT TCG TCC GAC ACA GA GAA GCG CAG CCG CAA TTC AT	396	[14]

* Macrolides, lincosamides and streptogramins

Table S1. Continuation.

Marker	Resistance Mechanism	Targeted antimicrobials	Sequence (5'-3')	Amplicon (bp)	Reference
<i>aacA-aphD</i>	Enzymatic inactivation (acetyltransferase)	Aminoglycosides	TAA TCC AAG AGC AAT AAG GGC GCC ACA CTA TCA TAA CCA CTA	227	[8]
<i>mexB</i>	Efflux pump	**	GTG TTC GGC TCG CAG TAC TC AAC CGT CGG GAT TGA CCT TG	244	[15]
<i>mexD</i>	Efflux pump	**	CGA GCG CTA TTC GCT GC GGC AGT TGC ACG TCG A	165	[4]
<i>mexF</i>	Efflux pump	**	CGC CTG GTC ACC GAG GAA GAG T TAG TCC ATG GCT TGC GGG AAG C	255	[16]
<i>mexY</i>	Efflux pump	**	CCG CTA CAA CGG CTA TCC CT AGC GGG ATC GAC CAG CTT TC	250	[15]
<i>Int11</i>	Integration of genetic cassettes that may contain resistance genes	Class 1 Integron	GGT CAA GGA TCT GGA TTT CG ACA TGC GTG TAA ATC ATC GTC	436	[17]
<i>Int12</i>	Integration of genetic cassettes that may contain resistance genes	Class 2 Integron	CAC GGA TAT GCG ACA AAA AGG TGTA GCA AAC GAG TGA CGA AAT G	788	[17]
<i>Int13</i>	Integration of genetic cassettes that may contain resistance genes	Class 3 Integron	AGT GGG TGG CGA ATG AGT G TGT TCT TGT ATC GGC AGG TG	600	[17]

** Efflux pumps that provide resistance to different antimicrobials

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