

ERS1369269	21374	7H4	220412	17853	blood	0	0	0	0	0	0	84	male	2012	405	1	worn	no	S	R	R	R	R	R	R	S	S	S	S	S	S	S	R	R	S	S	
ERS1369271	21374	7H6	160312	34208	blood	0	0	0	0	0	0	83	male	2012	131	12	reover	ESBL	S	S	R	R	R	R	R	R	S	S	S	S	S	S	S	R	R	S	S
ERS1369272	21374	7H7	161210	64654	blood	0	0	0	0	0	0	36	female	2010	3177	9	nochange	not tested	S	S	I	R	R	R	R	R	R	S	S	S	S	S	R	R	N	R	S
ERS1369273	21374	7H8	180411	26186	blood	1	1	0	0	0	0	18	male	2011	624	9	nochange	ESBL	S	S	R	R	R	R	R	R	S	S	S	S	S	S	S	R	R	S	S
ERS1369274	21374	7H9	190111	25198	blood	0	0	0	0	0	0	67	male	2011	95	8	reover	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
ERS1369275	21374	7H20	200412	24318	blood	0	0	0	0	0	0	46	female	2012	394	5	reover	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369276	21374	7H21	210912	62870	blood	0	0	0	0	0	0	64	female	2012	12	10	reover	no	S	S	I	R	R	R	R	R	S	S	S	S	S	S	S	R	R	S	S
ERS1369277	21374	7H22	220912	38772	blood	0	0	0	0	0	0	34	male	2012	131	12	worn	ESBL	S	S	I	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369278	21374	7H23	150513	29362	blood	0	1	0	0	0	0	51	female	2013	131	12	reover	S	S	I	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369280	21374	7H25	170112	64769	blood	0	0	0	0	0	0	56	male	2012	405	1	reover	ESBL	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369281	21374	7H26	180413	20302	blood	0	0	0	0	0	0	58	female	2013	69	4	reover	no	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369282	21374	7H28	200413	15740	blood	1	1	0	0	0	0	45	male	2010	48	14	worn	not tested	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369283	21374	7H28	200413	27917	blood	0	0	0	0	0	0	56	male	2013	131	12	reover	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S	
ERS1369284	21374	7H29	211012	17801	blood	0	0	0	0	0	0	35	male	2012	624	9	worn	ESBL	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369285	21374	7H30	221011	26541	blood	0	0	0	0	0	0	57	female	2011	131	12	nochange	ESBL	S	S	I	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369286	21374	7H31	150610	15560	blood	0	0	0	0	0	0	33	female	2010	699	10	reover	not tested	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
ERS1369287	21374	7H32	160412	17305	blood	0	0	0	0	0	0	82	female	2012	73	7	reover	no	I	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
ERS1369288	21374	7H33	170310	17633	blood	0	0	0	0	0	0	65	female	2010	394	5	reover	not tested	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
ERS1369289	21374	7H34	180413	63230	blood	0	0	0	0	0	0	39	female	2013	131	12	reover	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369290	21374	7H35	190112	17108	blood	0	0	0	0	0	0	49	female	2012	1193	13	worn	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	N	R	R	S	S
ERS1369291	21374	7H36	200610	65090	blood	0	0	0	0	0	0	40	male	2010	69	4	reover	not tested	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369292	21374	7H37	211112	16469	blood	0	0	0	0	0	0	53	male	2012	131	12	reover	S	S	I	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369293	21374	7H38	221112	36416	blood	0	0	0	0	0	0	70	male	2012	131	12	reover	ESBL	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369294	21374	7H39	150613	63444	blood	0	1	0	0	0	0	49	male	2013	88	3	worn	ESBL	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369295	21374	7H40	160610	15579	blood	0	0	0	0	0	0	63	male	2010	48	10	nochange	not tested	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369296	21374	7H41	170310	41641	blood	0	0	0	0	0	0	31	male	2010	131	12	nochange	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369297	21374	7H42	180511	30529	blood	0	0	0	0	0	0	56	female	2011	73	7	reover	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S	
ERS1369298	21374	7H43	190112	40740	blood	0	0	0	0	0	0	24	male	2012	405	1	worn	ESBL	S	S	R	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369299	21374	7H44	200810	14271	blood	0	0	0	0	0	0	44	male	2010	70	5	worn	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369300	21374	7H45	211210	16560	blood	0	0	0	0	0	0	75	female	2010	38	3	reover	not tested	S	S	R	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369301	21374	7H46	221113	26388	blood	0	0	0	0	0	0	47	female	2013	95	12	reover	no	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369302	21374	7H47	150910	16545	blood	0	0	0	0	0	0	63	male	2010	131	14	nochange	not tested	S	S	I	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369303	21374	7H48	160610	15656	blood	0	0	0	0	0	0	73	female	2010	48	14	reover	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369304	21374	7H49	170412	38720	blood	0	0	0	0	0	0	26	male	2011	172	15	death	ESBL	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S	
ERS1369305	21374	7H50	180612	63824	blood	0	0	0	0	0	0	55	male	2012	421	8	reover	S	S	S	R	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369306	21374	7H51	190513	15714	blood	0	0	0	0	0	0	61	female	2013	193	13	reover	ESBL	S	S	I	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369307	21374	7H52	200912	15265	blood	0	0	0	0	0	0	56	female	2012	48	14	reover	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369308	21374	7H53	220210	24375	blood	0	0	0	0	0	0	65	male	2010	131	12	reover	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369309	21374	7H54	230310	25278	blood	0	0	0	0	0	0	56	male	2010	58	11	reover	not tested	S	S	I	S	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S
ERS1369310	21374	7H55	150912	62204	blood	0	0	0	0	0	0	76	female	2012	1193	13	reover	no	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369311	21374	7H56	160712	17087	blood	0	0	0	0	0	0	73	female	2012	1193	13	nochange	ESBL	S	S	R	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369312	21374	7H57	170413	63438	blood	0	0	0	0	0	0	61	female	2013	648	9	reover	ESBL	S	S	R	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369313	21374	7H58	180813	23546	blood	0	0	0	0	0	0	23	male	2013	998	10	reover	no	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369315	21374	7H60	200913	14489	blood	0	0	0	0	0	0	26	male	2013	131	12	reover	no	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369316	21374	7H61	220112	40931	blood	0	0	0	0	0	0	25	male	2012	131	12	nochange	ESBL	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369317	21374	7H62	230412	10585	blood	0	0	0	0	0	0	14	female	2012	410	6	reover	no	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369318	21374	7H63	150913	14155	blood	0	0	0	0	0	0	79	female	2013	1193	13	reover	no	S	S	S	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369319	21374	7H64	160910	16741	blood	0	0	0	0	0	0	41	female	2010	424	11	worn	not tested	S	S	I	S	S	S	S	S	S	S	S	S	S	S	R	R	S	S	
ERS1369320	21374	7H65	170510	14388	blood	1	1	0	0	0	0	55	male	2010	38	3	worn	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS1369321	21374	7H66	180912	28934	blood	0	0	0	0	0	0	71	female	2012	95	8	reover	S	S	S	R	R	R	R	R	R	R	S	S	S	S	S	R	R	S	S	
ERS1369322	21374	7H67	191010	60577	blood	0	0	0	0	0	0	40	female	2010	95	8	reover	not tested	S	S	S	R	R	R	R	R	R	S	S	S	S	S	S	R	R	S	S
ERS136932																																					

Supplementary table S2. Details and epidemiological data for 159 carriage *E. coli* isolates from HTD.

Sample_accession	lane	SID	infection_site	ST_gest	HT	HierBAPS	ESBL	AMK1	AMC1	CAZ1	CIP1	CRO1	ETP1	FEP1	IPM1	MEM1	OPX1	SXT1	TCC1	TZP1
ERS1451243	21836_4#27	E1298_NLF	rectal swab	648		9	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451251	21836_4#35	E1298_LF	rectal swab	38		3	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451259	21836_4#43	E1815_LF	rectal swab	394		5	ESBL	S	R	R	S	R	R	R	S	S	R	R	R	R
ERS1451267	21836_4#51	E1793_NLF	rectal swab	354		2	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451275	21836_4#59	E1793_LF2	rectal swab	167		14	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451283	21836_4#67	E1309_NLF	rectal swab	131		12	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451291	21836_4#75	E1399_LF	rectal swab	155		11	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451299	21836_4#83	E13097_LF4	rectal swab	4040		5	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451307	21836_4#91	E13097_LF1	rectal swab	58		11	ESBL	S	R	R	R	S	R	R	S	S	S	R	R	R
ERS1451220	21836_4#44	E13097_LF2	rectal swab	4040		5	ESBL	S	R	R	R	S	R	R	S	S	S	R	R	R
ERS1451228	21836_4#12	E1777_LF	rectal swab	648		9	no	S	S	S	R	S	S	S	S	S	R	R	R	S
ERS1451236	21836_4#20	E12619_LF4	rectal swab	23		6	no	S	S	S	R	S	S	S	S	S	R	R	R	S
ERS1451244	21836_4#28	E12619_LF2	rectal swab	38		3	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451252	21836_4#36	E11749_NLF	rectal swab	130		5	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451260	21836_4#44	E11749_LF2	rectal swab	648		9	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451268	21836_4#52	E11808_NLF	rectal swab	1193		13	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451276	21836_4#60	E11808_LF2	rectal swab	131		12	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451284	21836_4#68	E1772_LF2	rectal swab	354		2	ESBL	R	R	R	R	R	S	R	S	S	R	R	R	R
ERS1451292	21836_4#76	E1746_LF1	rectal swab	617		14	no	S	S	S	R	S	S	S	S	S	R	R	R	S
ERS1451300	21836_4#84	E13807_LF	rectal swab	4306		5	no	S	S	S	S	S	S	S	S	S	R	R	R	S
ERS1451308	21836_4#92	E14355_LF_m	rectal swab	602		11	ESBL	R	R	R	R	R	R	R	R	R	R	R	R	R
ERS1451221	21836_4#5	E13127_LF	rectal swab	448		11	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451229	21836_4#13	E14341_BhaeNLF	rectal swab	1193		13	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451237	21836_4#21	E1334_LF	rectal swab	3052		3	ESBL	S	R	R	R	S	R	R	S	S	S	R	R	R
ERS1451245	21836_4#29	E13892_LF	rectal swab	648		9	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451253	21836_4#37	E13892_Bhae	rectal swab	648		9	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451261	21836_4#45	E13892_LF1	rectal swab	44		14	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451269	21836_4#53	E13217_LF2	rectal swab	58		11	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451277	21836_4#61	E13217_LF3	rectal swab	58		11	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451285	21836_4#69	E12721_NLF	rectal swab	1193		13	no	S	S	R	R	S	S	S	S	S	R	R	S	S
ERS1451293	21836_4#77	E14625_NLF	rectal swab	69		4	no	S	S	S	S	S	S	S	S	S	S	S	S	S
ERS1451301	21836_4#85	E14625_LF	rectal swab	5415		11	no	S	S	S	S	S	S	S	S	S	S	S	S	S
ERS1451309	21836_4#93	E11676_NLF	rectal swab	1193		13	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451222	21836_4#6	E1211_NLF	rectal swab	648		9	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451230	21836_4#14	E11537_BhaeNLF	rectal swab	6698		10	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451238	21836_4#22	E11537_LF	rectal swab	131		12	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451246	21836_4#30	E1544_NLF	rectal swab	131		12	ESBL	S	R	R	R	S	R	R	S	S	S	R	R	R
ERS1451254	21836_4#38	E1544_LF	rectal swab	31		5	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451262	21836_4#46	E1644_LF	rectal swab	5208		14	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451270	21836_4#54	E14263_LF	rectal swab	34		14	no	S	S	S	S	S	S	S	S	S	S	R	R	S
ERS1451278	21836_4#62	E14263_NLF	rectal swab	1193		13	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451286	21836_4#70	E132_NLF	rectal swab	1193		13	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451302	21836_4#86	E136_LF	rectal swab	167		14	ESBL	S	R	R	R	S	R	R	S	S	R	R	R	R
ERS1451310	21836_4#94	E1103_NLF	rectal swab	5150		3	ESBL	S	R	R	R	S	R	R	S	S	S	R	R	R
ERS1451223	21836_4#7	E1138_NLF	rectal swab	4381		14	no	S	R	R	R	S	S	S	S	S	S	R	R	S
ERS1451231	21836_4#15	E1138_LF	rectal swab	515		14	no	S	R	R	R	S	S	S	S	S	S	R	R	S

Supplementary table S3. Reference genomes included in this study

No	Reference	Genbank accession
1	Ecoli_O26H11_11368_EHEC	AP010953.1
2	Ecoli_SECEC_SMS35	CP000970.1
3	Escherichia_coli_0127_H6_E2348_69_v1	FM180568.1
4	Escherichia_coli_042_v1	FN554766.1
5	Escherichia_coli_AA86_v1	AFET01000001.1
6	Escherichia_coli_CFT073_v1	AE014075.1
7	Escherichia_coli_D5_v1	CP010145.1
8	Escherichia_coli_ETEC_H10407_v2	FN649414.1
9	Escherichia_coli_IAI1	GCF_000026265_1
10	Escherichia_coli_IAI39	GCF_000026345_1
11	Escherichia_coli_IHE3034_v1	NC_017628.1
12	Escherichia_coli_IMT2125_v1	NZ_HE964769.1
13	Escherichia_coli_JJ1886_v1	CP006784.1
14	Escherichia_coli_NA114_v2	GCF_000214765.2
15	Escherichia_coli_NCTC13351_v1	SAMEA2709031
16	Escherichia_coli_SE11	NC_011419.1
17	Escherichia_coli_SE15_v1	AP009378.1
18	Escherichia_coli_ST131_strain_EC958_v1	HG941718.1
19	Escherichia_coli_UMN026_v2	CU928149.2
20	Escherichia_coli_chi7122_v1	NZ_HE962388.1
21	Escherichia_coli_str_K-12_substr_MG1655_v2	GCF_000005845.2
22	Escherichia_coli_str_K12_substr_W3110_v1	GCF_000010245.2
23	Escherichia_fergusonii_ATCC_35469	GCF_000026225.1
24	Escherichia_albertii_ECO_170	GCF_001549955.1
25	Escherichia_albertii_KF1	GCF_000512125.1

Supplementary table S4. Metadata for paired and longitudinal samples

StudyNo	PatientNo	Sample name	lane	MLST	Link to blood sample	date_since_JCUadmit	type	Outcome	Antibiotics	Antibiotics_other
03-0048	P1	141214_16448	21528_7#106	1722	141214_16448		0 blood	Discharged home to die	Ceftriaxone	Ceftriaxone--12/12/14
03-0048	P1	E1191_LF	21836_4#24	10	141214_16448		3 longitudinal	Discharged home to die	Ceftriaxone	Ceftriaxone--12/12/14
03-0314	P2	260515-15968	21836_4#57	648	260515-15968		0 blood	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1749_NLF	21836_4#36	130	260515-15968		2 carriage	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1749_LF2	21836_4#44	648	260515-15968		2 carriage	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1787_NLF	21836_4#31	130	260515-15968		4 longitudinal	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1787_LF2	21836_4#39	648	260515-15968		4 longitudinal	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1830_LF2	21836_4#47	93	260515-15968		8 longitudinal	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0314	P2	E1888_LF2	21836_4#23	93	260515-15968		11 longitudinal	Discharged home to die	Ceftriaxone	Other-METRONIDAZOLE-
03-0283	P3	E1537_BhaeNLF	21836_4#14	698	010615-16405		1 carriage	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1537_LF	21836_4#22	131	010615-16405		1 carriage	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1564_Bhae	21836_4#87	131	010615-16405		2 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1564_LF	21836_4#16	43	010615-16405		2 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1605_NLF	21836_4#55	698	010615-16405		6 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1605_BhaeLF	21836_4#63	131	010615-16405		6 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1705_LF2	21836_4#95	131	010615-16405		13 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1761_NLF	21836_4#71	698	010615-16405		16 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1761_LF2	21836_4#8	131	010615-16405		16 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	E1864_LF	21836_4#79	131	010615-16405		20 longitudinal	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0283	P3	010615-16405	21836_4#82	131	010615-16405		20 blood	Discharged home, stable	Metronidazole	Other-METRONIDAZOLE-
03-0559	P4	050915-16464	21836_4#25	73	050915-16464		0 blood	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0559	P4	E3399_NLF	21836_4#67	131	050915-16464		0 carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0559	P4	E3399_LF	21836_4#75	155	050915-16464		0 carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0559	P4	E3449_NLF	21836_4#56	38	050915-16464		3 longitudinal	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0559	P4	E3449_LF2	21836_4#72	1722	050915-16464		3 longitudinal	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0559	P4	E3449_LF1	21836_4#64	88	050915-16464		3 longitudinal	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0710	P5	061115-28103	21836_4#18	1193	061115-28103		0 blood	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0710	P5	E4341_BhaeNLF	21836_4#13	1193	061115-28103		1 carriage	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0710	P5	E4381_LF	21836_4#88	69	061115-28103		3 longitudinal	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0710	P5	E4381_NLF	21631_1#96	648	061115-28103		3 longitudinal	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0209	P6	250315-63665	21836_4#2	69	250315-63665		0 blood	Discharged home, stable	Imipenem	Imipenem--
03-0209	P6	E950_LF	21836_4#32	354	250315-63665		1 longitudinal	Discharged home, stable	Imipenem	Imipenem--
03-0514	P7	210815-15032	21836_4#10	448	210815-15032		0 blood	Discharged home to die	Ertapenem	Other-NORFLOXACIN-
03-0514	P7	E3127_LF	21836_4#5	448	210815-15032		8 carriage	Discharged home to die	Ertapenem	Other-NORFLOXACIN-
03-0514	P7	E3185_Ecoil	21631_1#80	448	210815-15032		11 longitudinal	Discharged home to die	Ertapenem	Other-NORFLOXACIN-
03-0012	P8	131114_64463	21528_7#109	1193	131114-64463		0 blood	Discharged home, stable	Ceftriaxone	
03-0012	P8	E332_NLF	21836_4#70	1193	131114-64463		1 carriage	Discharged home, stable	Ceftriaxone	
03-0014	P9	141114_14352	21528_7#111	224	141114-14352		0 blood	Discharged home, stable	Amikacin	
03-0014	P9	E36_LF	21836_4#86	167	141114-14352		0 carriage	Discharged home, stable	Amikacin	
03-0029	P10	201114-14705	21836_4#19	5150	201114-14705		0 blood	Discharged home, stable	Ceftriaxone	

03-0029	P10	E1103_NLF	21836_4#94	5150	201114-14705	8	carriage	Discharged home, stable	Ceftriaxone	
03-0039	P11	101214_16015	21528_7#114	38	101214-16015	0	blood	Discharged home to die	Imipenem	
03-0039	P11	E138_NLF	21836_4#7	4381	101214-16015	1	carriage	Discharged home to die	Imipenem	
03-0039	P11	E138_LF	21836_4#15	515	101214-16015	1	carriage	Discharged home to die	Imipenem	
03-0081	P12	100115-14032	21836_4#1	648	100115-14032	0	blood	Discharged home to die	Ceftriaxone	IMPENEM--10/01/15
03-0081	P12	E1298_NLF	21836_4#27	648	100115-14032	0	carriage	Discharged home to die	Ceftriaxone	IMPENEM--10/01/15
03-0081	P12	E1298_LF	21836_4#35	38	100115-14032	0	carriage	Discharged home to die	Ceftriaxone	IMPENEM--10/01/15
03-0131	P13	310115-63575	21836_4#26	3052	310115-63575	0	blood	Discharged home to die	Ceftriaxone	Imipenem--31/01/15
03-0131	P13	E534_LF	21836_4#21	3052	310115-63575	1	carriage	Discharged home to die	Ceftriaxone	Imipenem--31/01/15
03-0135	P14	010215-15680	21836_4#90	131	010215-15680	0	blood	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0135	P14	E1544_NLF	21836_4#30	131	010215-15680	0	carriage	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0135	P14	E1544_LF	21836_4#38	31	010215-15680	0	carriage	Transfer to another hospital	Amikacin	Ceftriaxone--
03-0151	P15	080215-16203	21836_4#3	410	080215-16203	0	blood	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0151	P15	E1644_LF	21836_4#46	5208	080215-16203	0	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0173	P16	100315-17879	21836_4#73	354	100315-17879	0	blood	Discharged home, stable	Ceftriaxone	Ceftriaxone--10/03/15
03-0173	P16	E1772_LF2	21836_4#68	354	100315-17879	0	carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--10/03/15
03-0173	P16	E1746_LF1	21836_4#76	617	100315-17879	0	carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--10/03/15
03-0185	P17	160315-63225	21836_4#9	394	160315-63225	0	blood	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0185	P17	E1815_LF	21836_4#43	394	160315-63225	0	carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0301	P18	E1676_NLF	21836_4#93	1193	210515-15556	0	carriage	Discharged home to die	Imipenem	Other-METRONIDAZOLE-
03-0322	P19	300515-16242	21836_4#65	131	300515-16242	0	blood	Discharged home, stable	Imipenem	Other-METRONIDAZOLE-
03-0322	P19	E11808_NLF	21836_4#52	1193	300515-16242	0	carriage	Discharged home, stable	Imipenem	Imipenem--
03-0322	P19	E1808_LF2	21836_4#60	131	300515-16242	0	carriage	Discharged home, stable	Imipenem	Imipenem--
03-0437	P20	210715-16270	21836_4#49	38	210715-16270	0	blood	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0437	P20	E12619_LF4	21836_4#20	23	210715-16270	0	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0437	P20	E12619_LF2	21836_4#28	38	210715-16270	0	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0471	P21	010815-34451	21836_4#17	NA	010815-34451	0	blood	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0471	P21	E12793_NLF	21836_4#51	354	010815-34451	1	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0504	P22	E12793_LF2	21836_4#59	167	010815-34451	1	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0504	P22	160815-14563	21836_4#33	126	160815-14563	0	blood	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0504	P22	E3097_LF4	21836_4#83	4040	160815-14563	1	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0504	P22	E3097_LF1	21836_4#91	58	160815-14563	1	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0504	P22	E3097_LF2	21836_4#4	4040	160815-14563	1	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0525	P23	240815-15273	21836_4#42	69	240815-15273	0	blood	Transfer to another hospital	Ceftriaxone	Other-METRONIDAZOLE-
03-0525	P23	E13217_LF2	21836_4#53	58	240815-15273	0	carriage	Transfer to another hospital	Ceftriaxone	Other-METRONIDAZOLE-
03-0525	P23	E13217_LF3	21836_4#61	58	240815-15273	0	carriage	Transfer to another hospital	Ceftriaxone	Other-METRONIDAZOLE-
03-0625	P24	290915-14739	21836_4#81	69	290915-14739	0	blood	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0625	P24	E13807_LF	21836_4#84	4306	290915-14739	0	carriage	Transfer to another hospital	Ceftriaxone	Ceftriaxone--
03-0634	P25	061015-15322	21836_4#34	131	061015-15322	0	blood	Transfer to another hospital	Imipenem	Imipenem--
03-0634	P25	E13892_LF	21836_4#29	648	061015-15322	0	carriage	Transfer to another hospital	Imipenem	Imipenem--
03-0634	P25	E13892_Bhae	21836_4#37	648	061015-15322	0	carriage	Transfer to another hospital	Imipenem	Imipenem--
03-0634	P25	E13892_LF1	21836_4#45	44	061015-15322	0	carriage	Transfer to another hospital	Imipenem	Imipenem--

03-0699	P26	311015-17508	21836_4#11	1193	311015-17508	0	blood	Discharged home to die	Imipenem	Imipenem--
03-0699	P26	EI4263_LF	21836_4#54	34	311015-17508	0	carriage	Discharged home to die	Imipenem	Imipenem--
03-0699	P26	EI4263_NLF	21836_4#62	1193	311015-17508	0	carriage	Discharged home to die	Imipenem	Imipenem--
03-0714	P27	071115-14091	21836_4#89	602	071115-14091	0	blood	Discharged home, stable	Imipenem	Imipenem--
03-0714	P27	EI4355_LF_m	21836_4#92	602	071115-14091	0	carriage	Discharged home, stable	Imipenem	Imipenem--
03-0770	P28	301115-16266	21836_4#58	1193	301115-16266	0	blood	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0770	P28	EI4625_NLF	21836_4#77	69	301115-16266	0	carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--
03-0770	P28	EI4625_LF	21836_4#85	5415	301115-16266	0	carriage	Discharged home, stable	Ceftriaxone	Ceftriaxone--

Supplementary table S5. Pairwise SNPs distance between isolates taken from the same patients

Taxon1_name	Taxon2_name	SNPs	ID	taxon1_st	taxon2_st	group	sameST
141214_16448	EI191_LF	67679	71.11229	1722	10	intra-patient	no
131114_64463	EI32_NLF	3	99.99873	1193	1193	intra-patient	yes
141114_14352	EI36_LF	36597	84.27045	224	167	intra-patient	no
101214_16015	EI138_LF	64020	72.06331	38	515	intra-patient	no
101214_16015	EI138_NLF	64582	72.12544	38	4381	intra-patient	no
EI3185_Ecoli	210815-15032	0	100	448	448	intra-patient	yes
EI3185_Ecoli	EI3127_LF	0	100	448	448	intra-patient	yes
EI4381_NLF	EI4341_BhaeNLF	65958	71.98427	648	1193	intra-patient	no
EI4381_NLF	061115-28103	65928	71.99154	648	1193	intra-patient	no
EI4381_NLF	EI4381_LF	58231	75.32428	648	69	intra-patient	no
100115-14032	EI298_NLF	2	99.99915	648	648	intra-patient	yes
100115-14032	EI298_LF	57918	75.32769	648	38	intra-patient	no
210815-15032	EI3127_LF	0	100	448	448	intra-patient	yes
311015-17508	EI4263_LF	70080	69.80117	1193	34	intra-patient	no
311015-17508	EI4263_NLF	1	99.99958	1193	1193	intra-patient	yes
EI4341_BhaeNLF	061115-28103	0	100	1193	1193	intra-patient	yes
EI4341_BhaeNLF	EI4381_LF	73711	68.76441	1193	69	intra-patient	no
EI1537_BhaeNLF	EI1564_LF	76212	67.29127	6698	43	intra-patient	no
EI1537_BhaeNLF	EI1537_LF	32748	85.95176	6698	131	intra-patient	no
EI1537_BhaeNLF	EI1605_NLF	0	100	6698	6698	intra-patient	yes
EI1537_BhaeNLF	EI1605_BhaeLF	32749	85.95139	6698	131	intra-patient	no
EI1537_BhaeNLF	EI1761_NLF	2	99.99914	6698	6698	intra-patient	yes
EI1537_BhaeNLF	EI1864_LF	32749	85.95133	6698	131	intra-patient	no
EI1537_BhaeNLF	EI1761_LF2	32748	85.95182	6698	131	intra-patient	no
EI1537_BhaeNLF	010615-16405	32749	85.95133	6698	131	intra-patient	no
EI1537_BhaeNLF	EI1564_Bhae	32748	85.95176	6698	131	intra-patient	no
EI1537_BhaeNLF	EI1705_LF2	32748	85.95182	6698	131	intra-patient	no
EI138_LF	EI138_NLF	40589	82.40349	515	4381	intra-patient	no
EI1564_LF	EI1537_LF	75022	68.00358	43	131	intra-patient	no
EI1564_LF	EI1605_NLF	76131	67.312	43	6698	intra-patient	no
EI1564_LF	EI1605_BhaeLF	75022	68.00358	43	131	intra-patient	no
EI1564_LF	EI1761_NLF	76111	67.30431	43	6698	intra-patient	no
EI1564_LF	EI1864_LF	75021	68.00401	43	131	intra-patient	no
EI1564_LF	EI1761_LF2	75023	68.00316	43	131	intra-patient	no
EI1564_LF	010615-16405	75022	68.00358	43	131	intra-patient	no
EI1564_LF	EI1564_Bhae	75023	68.00316	43	131	intra-patient	no
EI1564_LF	EI1705_LF2	75022	68.00358	43	131	intra-patient	no
010815-34451	EI2793_NLF	65168	71.96436	NA	354	intra-patient	no
010815-34451	EI2793_LF2	74971	67.84238	NA	167	intra-patient	no
061115-28103	EI4381_LF	73701	68.76256	1193	69	intra-patient	no
201114-14705	EI103_NLF	4	99.99831	5150	5150	intra-patient	yes
250315-63665	EI950_LF	58833	74.89085	69	354	intra-patient	no
EI2619_LF4	EI2619_LF2	61995	73.5816	23	38	intra-patient	no
EI2619_LF4	210715-16270	61995	73.5816	23	38	intra-patient	no
EI534_LF	310115-63575	1	99.99958	3052	3052	intra-patient	yes
EI1537_LF	EI1605_NLF	32670	85.9792	131	6698	intra-patient	no
EI1537_LF	EI1605_BhaeLF	3	99.99873	131	131	intra-patient	yes
EI1537_LF	EI1761_NLF	32648	85.98167	131	6698	intra-patient	no
EI1537_LF	EI1864_LF	1	99.99958	131	131	intra-patient	yes

EI1537_LF	EI1761_LF2	2	99.99915	131	131	intra-patient	yes
EI1537_LF	010615-16405	3	99.99873	131	131	intra-patient	yes
EI1537_LF	EI1564_Bhae	2	99.99915	131	131	intra-patient	yes
EI1537_LF	EI1705_LF2	0	100	131	131	intra-patient	yes
EI1888_LF2	EI1787_NLF	64670	72.23713	93	130	intra-patient	no
EI1888_LF2	EI1749_NLF	64670	72.23713	93	130	intra-patient	no
EI1888_LF2	EI1787_LF2	66560	71.61584	93	648	intra-patient	no
EI1888_LF2	EI1749_LF2	66560	71.6179	93	648	intra-patient	no
EI1888_LF2	EI1830_LF2	1	99.99957	93	93	intra-patient	yes
EI1888_LF2	260515-15968	66561	71.61747	93	648	intra-patient	no
050915-16464	EI3449_NLF	72878	68.98122	73	38	intra-patient	no
050915-16464	EI3449_LF1	75451	67.81375	73	88	intra-patient	no
050915-16464	EI3399_NLF	33547	85.67206	73	131	intra-patient	no
050915-16464	EI3449_LF2	65796	71.99348	73	1722	intra-patient	no
050915-16464	EI3399_LF	75587	67.74514	73	155	intra-patient	no
EI298_NLF	EI298_LF	57896	75.3316	648	38	intra-patient	no
EI2619_LF2	210715-16270	0	100	38	38	intra-patient	yes
EI3892_LF	061015-15322	65654	72.03595	648	131	intra-patient	no
EI3892_LF	EI3892_Bhae	1	99.99958	648	648	intra-patient	yes
EI3892_LF	EI3892_LF1	66451	71.65809	648	44	intra-patient	no
080215-16203	EI644_LF	34393	85.20489	410	5208	intra-patient	no
EI544_NLF	EI544_LF	74625	67.88748	131	31	intra-patient	no
EI544_NLF	010215-15680	2	99.99915	131	131	intra-patient	yes
EI1787_NLF	EI1749_NLF	0	100	130	130	intra-patient	yes
EI1787_NLF	EI1787_LF2	58363	75.08814	130	648	intra-patient	no
EI1787_NLF	EI1749_LF2	58362	75.09038	130	648	intra-patient	no
EI1787_NLF	EI1830_LF2	64656	72.23694	130	93	intra-patient	no
EI1787_NLF	260515-15968	58363	75.08995	130	648	intra-patient	no
160815-14563	EI3097_LF2	74848	68.20431	126	4040	intra-patient	no
160815-14563	EI3097_LF4	74848	68.20431	126	4040	intra-patient	no
160815-14563	EI3097_LF1	76218	67.45949	126	58	intra-patient	no
061015-15322	EI3892_Bhae	65643	72.03444	131	648	intra-patient	no
061015-15322	EI3892_LF1	74745	68.01231	131	44	intra-patient	no
EI1749_NLF	EI1787_LF2	58363	75.08814	130	648	intra-patient	no
EI1749_NLF	EI1749_LF2	58362	75.09038	130	648	intra-patient	no
EI1749_NLF	EI1830_LF2	64656	72.23694	130	93	intra-patient	no
EI1749_NLF	260515-15968	58363	75.08995	130	648	intra-patient	no
EI3892_Bhae	EI3892_LF1	66433	71.65949	648	44	intra-patient	no
EI544_LF	010215-15680	74585	67.88216	31	131	intra-patient	no
EI1787_LF2	EI1749_LF2	2	99.99915	648	648	intra-patient	yes
EI1787_LF2	EI1830_LF2	66570	71.60589	648	93	intra-patient	no
EI1787_LF2	260515-15968	3	99.99873	648	648	intra-patient	yes
EI3097_LF2	EI3097_LF4	0	100	4040	4040	intra-patient	yes
EI3097_LF2	EI3097_LF1	64433	72.55437	4040	58	intra-patient	no
240815-15273	EI3217_LF2	63636	72.93928	69	58	intra-patient	no
240815-15273	EI3217_LF3	63654	72.93714	69	58	intra-patient	no
EI815_LF	160315-63225	0	100	394	394	intra-patient	yes
EI1749_LF2	EI1830_LF2	66570	71.60794	648	93	intra-patient	no
EI1749_LF2	260515-15968	1	99.99958	648	648	intra-patient	yes
EI1830_LF2	260515-15968	66571	71.60752	93	648	intra-patient	no
EI2793_NLF	EI2793_LF2	68040	70.6385	354	167	intra-patient	no
EI1808_NLF	EI1808_LF2	33725	85.63035	1193	131	intra-patient	no

EI1808_NLF	300515-16242	33778	85.62491	1193	131	intra-patient	no
EI3217_LF2	EI3217_LF3	0	100	58	58	intra-patient	yes
EI4263_LF	EI4263_NLF	70083	69.80313	34	1193	intra-patient	no
EI1605_NLF	EI1605_BhaeLF	32671	85.97883	6698	131	intra-patient	no
EI1605_NLF	EI1761_NLF	2	99.99914	6698	6698	intra-patient	yes
EI1605_NLF	EI1864_LF	32671	85.97877	6698	131	intra-patient	no
EI1605_NLF	EI1761_LF2	32670	85.97926	6698	131	intra-patient	no
EI1605_NLF	010615-16405	32671	85.97877	6698	131	intra-patient	no
EI1605_NLF	EI1564_Bhae	32670	85.9792	6698	131	intra-patient	no
EI1605_NLF	EI1705_LF2	32670	85.97926	6698	131	intra-patient	no
EI3449_NLF	EI3449_LF1	65163	72.28746	38	88	intra-patient	no
EI3449_NLF	EI3399_NLF	74236	68.33489	38	131	intra-patient	no
EI3449_NLF	EI3449_LF2	58710	75.06678	38	1722	intra-patient	no
EI3449_NLF	EI3399_LF	64892	72.37768	38	155	intra-patient	no
301115-16266	EI4625_NLF	71486	69.65699	1193	69	intra-patient	no
301115-16266	EI4625_LF	72945	68.99269	1193	5415	intra-patient	no
EI1808_LF2	300515-16242	40	99.98298	131	131	intra-patient	yes
EI1605_BhaeLF	EI1761_NLF	32649	85.9813	131	6698	intra-patient	no
EI1605_BhaeLF	EI1864_LF	2	99.99915	131	131	intra-patient	yes
EI1605_BhaeLF	EI1761_LF2	1	99.99958	131	131	intra-patient	yes
EI1605_BhaeLF	010615-16405	0	100	131	131	intra-patient	yes
EI1605_BhaeLF	EI1564_Bhae	1	99.99958	131	131	intra-patient	yes
EI1605_BhaeLF	EI1705_LF2	3	99.99873	131	131	intra-patient	yes
EI3449_LF1	EI3399_NLF	74810	68.04685	88	131	intra-patient	no
EI3449_LF1	EI3449_LF2	67711	71.1971	88	1722	intra-patient	no
EI3449_LF1	EI3399_LF	24842	89.41962	88	155	intra-patient	no
210515-15556	EI1676_NLF	40	99.98306	1193	1193	intra-patient	yes
EI3399_NLF	EI3449_LF2	65978	71.87051	131	1722	intra-patient	no
EI3399_NLF	EI3399_LF	75429	67.77048	131	155	intra-patient	no
EI772_LF2	100315-17879	4	99.9983	354	354	intra-patient	yes
EI772_LF2	EI746_LF1	65753	71.83543	354	617	intra-patient	no
EI1761_NLF	EI1864_LF	32649	85.98124	6698	131	intra-patient	no
EI1761_NLF	EI1761_LF2	32648	85.98173	6698	131	intra-patient	no
EI1761_NLF	010615-16405	32649	85.98124	6698	131	intra-patient	no
EI1761_NLF	EI1564_Bhae	32648	85.98167	6698	131	intra-patient	no
EI1761_NLF	EI1705_LF2	32648	85.98173	6698	131	intra-patient	no
EI3449_LF2	EI3399_LF	67636	71.22044	1722	155	intra-patient	no
100315-17879	EI746_LF1	65753	71.83604	354	617	intra-patient	no
EI4625_NLF	EI4625_LF	62371	73.47687	69	5415	intra-patient	no
EI1864_LF	EI1761_LF2	3	99.99873	131	131	intra-patient	yes
EI1864_LF	010615-16405	2	99.99915	131	131	intra-patient	yes
EI1864_LF	EI1564_Bhae	3	99.99873	131	131	intra-patient	yes
EI1864_LF	EI1705_LF2	1	99.99958	131	131	intra-patient	yes
EI1761_LF2	010615-16405	1	99.99958	131	131	intra-patient	yes
EI1761_LF2	EI1564_Bhae	0	100	131	131	intra-patient	yes
EI1761_LF2	EI1705_LF2	2	99.99915	131	131	intra-patient	yes
290915-14739	EI3807_LF	43452	81.55429	69	4306	intra-patient	no
010615-16405	EI1564_Bhae	1	99.99958	131	131	intra-patient	yes
010615-16405	EI1705_LF2	3	99.99873	131	131	intra-patient	yes
EI3097_LF4	EI3097_LF1	64431	72.55417	4040	58	intra-patient	no
EI1564_Bhae	EI1705_LF2	2	99.99915	131	131	intra-patient	yes
071115-14091	EI4355_LF_m	0	100	602	602	intra-patient	yes