

Table S1: The causative pathogens of the initial and recurrent FRI of all patients with a recurrent infection.

No.	ALC used	Type of surgery performed	Pathogen(s) initial FRI	Pathogen(s) recurrent FRI	Identical pathogen(s) at initial and recurrent FRI (yes/no)
1	Yes	DAIR	<i>Escherichia coli</i> <i>Enterococcus faecium</i>	<i>Escherichia coli</i>	Yes
2	Yes	DAIR	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	Yes
3	Yes	DAIR	<i>Enterobacter cloacae</i>	<i>Staphylococcus aureus</i> <i>Staphylococcus epidermidis</i> <i>Pseudomonas aeruginosa</i>	No
4	Yes	DAIR	<i>Staphylococcus aureus</i> <i>Finegoldia magna</i>	CN	No
5	Yes	DAIR	<i>Streptococcus dysgalactiae</i>	<i>Streptococcus dysgalactiae</i>	Yes
6	Yes	DAIR	<i>Enterococcus faecalis</i> <i>Enterobacter cloacae</i>	<i>Enterococcus faecalis</i>	Yes
7	Yes	External Fixation	<i>Staphylococcus aureus</i> <i>Enterococcus faecalis</i>	CN	No
8	Yes	External Fixation	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	Yes
9	Yes	External Fixation	<i>Staphylococcus aureus</i> (MRSA)	<i>Staphylococcus aureus</i> (MSSA)	No
10	Yes	External Fixation	<i>Streptococcus pyogenes</i> <i>Staphylococcus aureus</i>	CN	No
11	Yes	External Fixation	<i>Escherichia coli</i> <i>Staphylococcus aureus</i> <i>Streptococcus dysgalactiae</i>	<i>Escherichia coli</i>	Yes
12	Yes	Internal Fixation	<i>Enterococcus caselflavious</i>	CoNS	No
13	Yes	Internal Fixation	CN	<i>Enterobacter cloacae</i>	No
14	Yes	Removal	<i>Escherichia coli</i> <i>Klebsiella oxytoca</i> <i>Dermabacter hominis</i>	<i>Finegoldia magna</i>	No
15	Yes	Removal	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	Yes
16	Yes	Removal	<i>Staphylococcus aureus</i> <i>Morganella morganii</i>	<i>Streptococcus agalactiae</i>	No
17	Yes	Removal	<i>Escherichia coli</i> <i>Enterococcus faecalis</i> <i>Mixed anaerobes</i>	<i>Staphylococcus aureus</i> <i>Morganella morganii</i> <i>Actinomyces spp.</i> <i>Corynebacterium spp.</i>	No
18	Yes	Removal	<i>Staphylococcus epidermidis</i>	CN	No
19	Yes	Removal	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	Yes
20	Yes	Removal	<i>Staphylococcus aureus</i>	CN	No
21	Yes	Removal	CN	<i>Klebsiella oxytoca</i> <i>Enterococcus faecalis</i>	No
22	Yes	Removal	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	Yes
23	Yes	Removal	<i>Staphylococcus epidermidis</i> <i>Enterobacter cloacae</i>	<i>Staphylococcus aureus</i> <i>Bacteroides spp.</i> <i>Stenotrophomonas spp.</i> <i>Anaerococcus spp.</i>	No
24	Yes	Removal	<i>Staphylococcus aureus</i> <i>Escherichia coli</i> <i>Enterococcus faecalis</i> <i>Proteus mirabilis</i>	CN	No

25	Yes	Removal	CN	<i>Staphylococcus aureus</i>	No
26	No	DAIR	<i>Corynebacterium amycolatum</i> <i>Corynebacterium urealyticum</i>	CN	No
27	No	DAIR	<i>Staphylococcus aureus</i>	<i>Pseudomonas aeruginosa</i>	No
28	No	DAIR	<i>Staphylococcus aureus</i> <i>Finegoldia magna</i>	<i>Staphylococcus aureus</i>	Yes
29	No	DAIR	<i>Staphylococcus aureus</i> <i>Finegoldia magna</i> <i>Peptoniphilus harei</i>	<i>Proteus mirabilis</i> <i>Klebsiella pneumoniae</i> <i>Morganella morganii</i>	No
30	No	DAIR	<i>Staphylococcus lugdunensis</i> <i>Staphylococcus epidermidis</i> <i>Streptococcus agalactiae</i>	<i>Staphylococcus lugdunensis</i> <i>Cutibacterium acnes</i>	Yes
31	No	DAIR	<i>Pasteurella canis</i> <i>Peptostreptococcus canis</i>	<i>Staphylococcus lugdunensis</i> <i>Corynebacterium auriscanis</i> <i>Enterobacter cloacae</i> <i>Staphylococcus pseudointermedius</i> <i>Acinetobacter baumannii</i> <i>Staphylococcus epidermidis</i>	No
32	No	DAIR	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i> <i>Finegoldia magna</i>	Yes
33	No	DAIR	<i>Staphylococcus aureus</i>	CN	No
34	No	DAIR	<i>Rhodococcus hoagii (equi)</i>	CN	No
35	No	DAIR	<i>Staphylococcus aureus</i>	<i>Staphylococcus hominis</i> <i>Paenibacillus species</i>	No
36	No	DAIR	<i>Staphylococcus aureus</i> <i>Staphylococcus caprae</i> <i>Corynebacterium amycolatum</i>	<i>Staphylococcus epidermidis</i> <i>Escherichia coli</i>	No
37	No	DAIR	<i>Serratia marcescens</i> <i>Staphylococcus epidermidis</i> <i>Peptoniphilus gorbachii</i>	<i>Serratia marcescens</i> <i>Streptococcus dysgalactiae</i>	Yes
38	No	DAIR	<i>Staphylococcus aureus</i> <i>Porphyromonas uenonis</i> <i>Prevotella bivia</i> <i>Dialister microaerophilus</i>	<i>Staphylococcus aureus</i> <i>Streptococcus mitis</i> <i>Actinomyces odontolyticus</i> <i>Prevotella melaninogenica</i> <i>Parvimonas micra</i> <i>Veillonella parvula</i>	Yes
39	No	DAIR	<i>Staphylococcus aureus</i>	<i>Staphylococcus haemolyticus</i>	No
40	No	DAIR	<i>Staphylococcus aureus</i>	<i>Escherichia coli</i>	No
41	No	DAIR	<i>Staphylococcus aureus</i> <i>Peptostreptococcus anaerobius</i>	<i>Haemophilis parainfluenza</i> <i>Staphylococcus epidermidis</i>	No
42	No	DAIR	<i>Actinomyces neuii</i>	<i>Dermabacter hominis</i> <i>Cutibacterium acnes</i>	No
43	No	DAIR	<i>Staphylococcus aureus</i> <i>Streptococcus pyogenes</i>	<i>Staphylococcus hominis</i>	No
44	No	DAIR	CN	<i>Streptococcus agalactiae</i>	No
45	No	DAIR	<i>Staphylococcus aureus</i> <i>Micrococcus luteus</i>	CN	No
46	No	DAIR	<i>Staphylococcus lugdunensis</i> <i>Corynebacterium simulans</i>	<i>Staphylococcus hominis</i> <i>Staphylococcus equorum</i> <i>Kocuria rhizophila</i> <i>Micrococcus luteus</i>	No
47	No	DAIR	<i>Streptococcus dysgalactiae</i>	CN	No

48	No	DAIR	<i>Staphylococcus aureus</i> <i>Cutibacterium acnes</i> <i>Streptococcus mitis</i> <i>Finegoldia Magna</i> <i>Staphylococcus lugdenensis</i>	<i>Staphylococcus aureus</i> <i>Cutibacterium acnes</i>	Yes
49	No	DAIR	<i>Staphylococcus aureus</i>	CN	No
50	No	External Fixation	<i>Staphylococcus aureus</i>	CN	No
51	No	External Fixation	CN	<i>Staphylococcus epidermidis</i>	No
52	No	Internal Fixation	<i>Staphylococcus epidermidis</i> <i>Staphylococcus capitis</i>	<i>Staphylococcus epidermidis</i> <i>Cutibacterium acnes</i>	Yes
53	No	Removal	<i>Staphylococcus epidermidis</i>	<i>Streptococcus spp.</i>	No
54	No	Removal	<i>Staphylococcus aureus</i>	<i>Staphylococcus epidermidis</i> <i>Streptococcus agalactiae</i> <i>Finegoldia magna</i>	No
55	No	Removal	<i>Finegoldia magna</i> <i>Staphylococcus lugdunensis</i>	<i>Staphylococcus aureus</i>	No
56	No	Removal	CN	CN	No
57	No	Removal	<i>Staphylococcus epidermidis</i> <i>Pseudomonas aeruginosa</i>	<i>Staphylococcus epidermidis</i> <i>Pseudomonas aeruginosa</i>	Yes
58	No	Removal	<i>Escherichia coli</i> <i>Enterococcus faecalis</i> <i>Staphylococcus aureus</i> <i>Finegoldia magna</i>	<i>Escherichia coli</i>	Yes
59	No	Removal	<i>Staphylococcus epidermidis</i> <i>Corynebacterium tuberculostearicum</i> <i>Staphylococcus aureus</i>	<i>Staphylococcus epidermidis</i>	Yes

CoNS: coagulase negative staphylococci; DAIR: debridement, antibiotics and implant retention; CN: culture negative; spp.: species.

Identical pathogen, isolated at the initial FRI treatment and at the time of recurrence, were found in 10/34 (29.4%) of cases in the non-ALC group and in 9/25 (36.0%) of cases in the ALC group.