

Additional file 1. All 77 episodes for which at least one microbial finding judged as clinically relevant or of unknown significance was detected with blood culture and/or NAATs.

No.	Blood culture results (proportion positive blood culture bottles)	Other microbiological findings	Multiplex PCR results	Microarray results	Clinical comments
1	<i>Escherichia coli</i> (1/4) ^a	-	neg	neg	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 8 days.
2	<i>Enterococcus faecalis</i> (1/4) ^a	Urine: <i>Enterococcus faecalis</i>	neg	neg	<i>E. faecalis</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. faecalis</i> . No SS. LoS 7 days.
3	<i>Enterococcus faecalis</i> (1/4) ^a	Urine: <i>Enterococcus faecalis</i>	neg	neg	<i>E. faecalis</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. faecalis</i> . No SS. LoS 8 days.
4	<i>Escherichia coli</i> (2/2)	Urine: <i>Escherichia coli</i>	neg	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 5 days.
5	<i>Escherichia coli</i> (2/2) ^a	Urine: <i>Escherichia coli</i>	neg	neg	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 10 days.
6	<i>Escherichia coli</i> (2/4)	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i> , <i>Enterococcus faecalis</i>	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant, <i>E. faecalis</i> is OUS. Diagnosis: acute pyelonephritis. No SS. LoS 1 day.
7	<i>Escherichia coli</i> (2/4)	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i>	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 8 days.
8	<i>Escherichia coli</i> (2/4) ^a	-	neg	neg	<i>E. coli</i> is clinically relevant. Diagnosis: acute cholecystitis due to <i>E. coli</i> . No SS. LoS 2 days.
9	<i>Escherichia coli</i> (3/4)	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i> , <i>Pseudomonas aeruginosa</i>	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant, <i>P. aeruginosa</i> is OUS. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 1 day.
10	<i>Escherichia coli</i> (3/4)	-	<i>Escherichia coli</i>	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant. Diagnosis: acute cholecystitis. No SS. LoS 16 days.
11	<i>Escherichia coli</i> (3/4)	-	neg	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 3 days.
12	<i>Escherichia coli</i> (4/4)	-	<i>Escherichia coli</i>	<i>Escherichia coli</i>	<i>E. coli</i> is clinically relevant. Diagnosis: acute cholangitis due to <i>E. coli</i> . No SS. LoS 3 days.
13	<i>Escherichia coli</i> (2/2), <i>Klebsiella pneumoniae</i> (2/2) ^a	-	<i>Escherichia coli</i>	<i>Escherichia coli</i>	<i>E. coli</i> and <i>K. pneumoniae</i> are clinically relevant. Diagnosis: acute cholangitis due to <i>E. coli</i> and <i>K. pneumoniae</i> . SS. LoS 10 days.
14	<i>Escherichia coli</i> (2/4), <i>Klebsiella pneumoniae</i> (2/4)	-	neg	<i>Escherichia coli</i> , <i>Klebsiella pneumoniae</i>	<i>E. coli</i> and <i>K. pneumoniae</i> are clinically relevant. Diagnosis: acute cholangitis. SS. LoS 12 days.
15	<i>Klebsiella oxytoca</i> (4/4)	Urine: <i>Klebsiella oxytoca</i>	neg	<i>Klebsiella oxytoca</i>	<i>K. oxytoca</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>K. oxytoca</i> . No SS. LoS 6 days.

16	<i>Klebsiella pneumoniae</i> (1/4) ^a	Urine: <i>Escherichia coli</i>	<i>Staphylococcus aureus</i>	neg	<i>K. pneumoniae</i> is clinically relevant, <i>S. aureus</i> is OUS. Diagnosis: lymphoma and pneumonia due to <i>K. pneumoniae</i> . SS. LoS 26 days.
17	<i>Klebsiella pneumoniae</i> (4/4)	NPH: <i>Streptococcus</i> group G; urine: <i>Klebsiella pneumoniae</i>	<i>Klebsiella pneumoniae</i>	<i>Klebsiella pneumoniae</i>	<i>K. pneumoniae</i> is clinically relevant. Diagnosis: acute cholangitis due to <i>K. pneumoniae</i> . SS. LoS 26 days. Gall bladder cancer.
18	<i>Klebsiella pneumoniae</i> (4/4)	NPH, urine: <i>Klebsiella pneumoniae</i>	neg	<i>Klebsiella pneumoniae</i>	<i>K. pneumoniae</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>K. pneumoniae</i> . No SS. LoS 4 days.
19	<i>Pseudomonas aeruginosa</i> (1/4)	-	neg	<i>Pseudomonas aeruginosa</i>	<i>P. aeruginosa</i> is clinically relevant. Diagnosis: cellulitis due to <i>P. aeruginosa</i> . No SS. LoS 12 days.
20	<i>Proteus mirabilis</i> (4/4)	Urine: <i>Proteus mirabilis</i>	<i>Proteus mirabilis</i>	<i>Proteus mirabilis</i>	<i>P. mirabilis</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>P. mirabilis</i> . SS. LoS 6 days.
21	<i>Staphylococcus aureus</i> (1/4)	-	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia. Septic shock. LoS 1 day. Diseased.
22	<i>Staphylococcus aureus</i> (2/4)	Urine: <i>Staphylococcus aureus</i> ; wound: <i>Staphylococcus aureus</i> , <i>Escherichia coli</i>	neg	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: post-operative wound infection. No SS. LoS 16 days.
23	<i>Staphylococcus aureus</i> (3/4)	Wound: <i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: skin infection. Abscess left leg. No SS. LoS 5 days.
24	<i>Staphylococcus aureus</i> (3/4)	-	neg	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia. No SS. LoS 7 days.
25	<i>Staphylococcus aureus</i> (4/4)	-	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: clinical central line infection. Severe sepsis. LoS 4 days.
26	<i>Staphylococcus aureus</i> (4/4)	-	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia, spondylodiscitis, epidural abscess. No SS. LoS 46 days.
27	<i>Staphylococcus aureus</i> (4/4)	Urine: <i>Enterococcus faecalis</i>	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia and SS. Los 6 days. Diseased.
28	<i>Staphylococcus aureus</i> (4/4)	Urine: <i>Escherichia coli</i>	neg	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia. No SS. LoS 12 days.
29	<i>Staphylococcus aureus</i> (4/4)	Urine: <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> ; wound: <i>Staphylococcus aureus</i>	<i>Klebsiella oxytoca</i> , <i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. <i>K. oxytoca</i> is OUS. Diagnosis: <i>S. aureus</i> endocarditis. No SS. LoS 28 days.
30	<i>Staphylococcus aureus</i> (4/4)	NPH, wound: <i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: acute post-operative mediastinitis. No SS. LoS 10 days.
31	<i>Staphylococcus aureus</i> (4/4)	-	neg	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is clinically relevant. Diagnosis: <i>S. aureus</i> bacteraemia. No SS. LoS 17 days. Diseased.
32	neg	-	<i>Streptococcus agalactiae</i>	neg	<i>S. agalactiae</i> is OUS. SS. LoS 1 day. Diseased.

33	<i>Staphylococcus epidermidis</i> (4/4)	NPH: <i>Streptococcus pneumoniae</i>	<i>Staphylococcus epidermidis</i>	<i>Staphylococcus epidermidis</i>	<i>S. epidermidis</i> is clinically relevant. Diagnosis: central line infection due to <i>S. epidermidis</i> . No SS. LoS 6 days.
34	<i>Streptococcus anginosus</i> (2/4) ^c	-	neg	neg	<i>S. anginosus</i> is clinically relevant. Diagnosis: sub-acute endocarditis. No SS. LoS 26 days.
35	<i>Streptococcus</i> group G (1/4) ^c	-	neg	neg	<i>Streptococcus</i> group G is clinically relevant. Diagnosis: soft tissue infection left leg due to <i>Streptococcus</i> group G. SS. LoS 26 days.
36	<i>Streptococcus mitis</i> (1/4)	NPH: <i>Staphylococcus aureus</i>	neg	neg	<i>S. mitis</i> is clinically relevant. Diagnosis: streptococcal skin infection. No SS. LoS 6 days.
37	<i>Streptococcus parasanguinis</i> (1/4)	NPH: influenza A	neg	neg	<i>S. parasanguinis</i> is OUS. Diagnosis: influenza A, verified by PCR. No SS. LoS 5 days.
38	<i>Streptococcus pneumoniae</i> (1/2)	Urine: alpha streptococci, <i>Escherichia coli</i> , <i>Klebsiella pneumoniae</i>	<i>Streptococcus pneumoniae</i>	<i>Streptococcus pneumoniae</i>	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia due to <i>S. pneumoniae</i> . SS. LoS 5 days. Diseased.
39	<i>Streptococcus pneumoniae</i> (1/4) ^a	-	neg	neg	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia. No SS. LoS 0 days.
40	<i>Streptococcus pneumoniae</i> (4/4)	-	<i>Streptococcus pneumoniae</i>	neg	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia due to <i>S. pneumoniae</i> . No SS. LoS 3 days.
41	<i>Streptococcus pneumoniae</i> (4/4)	NPH: <i>Streptococcus pneumoniae</i>	<i>Streptococcus pneumoniae</i>	<i>Streptococcus pneumoniae</i>	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia due to <i>S. pneumoniae</i> . SS. LoS 9 days.
42	<i>Streptococcus pneumoniae</i> (4/4)	NPH: influenza A, <i>Streptococcus pneumoniae</i> ; urine: <i>Escherichia coli</i>	<i>Streptococcus pneumoniae</i>	<i>Streptococcus pneumoniae</i>	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia due to <i>S. pneumoniae</i> . No SS. LoS 6 days.
43	<i>Streptococcus pyogenes</i> (2/2)	-	<i>Streptococcus pyogenes</i>	neg	<i>S. pyogenes</i> is clinically relevant. Diagnosis: septicaemia due to <i>S. pyogenes</i> . SS. LoS 5 days.
44	<i>Streptococcus pyogenes</i> (4/4)	NPH, wound: <i>Streptococcus pyogenes</i>	<i>Streptococcus pyogenes</i>	<i>Streptococcus pyogenes</i>	<i>S. pyogenes</i> is clinically relevant. Diagnosis: necrotising fasciitis due to <i>S. pyogenes</i> . Septic shock. LoS 27 days. Diseased.
45	neg	Wound: <i>Staphylococcus aureus</i>	<i>Acinetobacter baumannii</i>	neg	<i>A. baumannii</i> is OUS. Diagnosis: infected diabetic leg ulcer. No SS. LoS 7 days.
46	neg	Urine: <i>Escherichia coli</i>	<i>Acinetobacter baumannii</i>	neg	<i>A. baumannii</i> is OUS. Diagnosis: <i>E. coli</i> pyelonephritis. No SS. LoS 3 days.
47	neg	-	<i>Acinetobacter baumannii</i>	neg	<i>A. baumannii</i> is OUS. Diagnosis: pulmonary embolism. No SS. LoS 2 days.
48	neg	Urine: <i>Escherichia coli</i>	<i>Acinetobacter baumannii</i> , <i>Stenotrophomonas maltophilia</i>	neg	<i>A. baumannii</i> and <i>S. maltophilia</i> are OUS. Diagnosis: chronic leg ulcer and acute soft tissue infection. Cured by oxacillin. No SS. LoS 21 days.
49	neg	-	<i>Candida krusei</i>	neg	<i>C. krusei</i> is OUS. Diagnosis: pneumonia verified by X-ray. No SS. LoS 20 days.
50	neg	Urine: <i>Escherichia coli</i>	<i>Candida parapsilosis</i>	neg	<i>C. parapsilosis</i> is OUS. Diagnosis: pyelonephritis due to <i>E. coli</i> . No SS. LoS 7 days.

51	neg	Urine: <i>Candida albicans</i>	<i>Enterobacter aerogenes</i>	neg	<i>E. aerogenes</i> is clinically relevant. Diagnosis: abdominal abscess. No SS. LoS 34 days.
52	neg	NPH: coronavirus, human metapneumovirus	<i>Enterobacter cloacae</i>	neg	<i>E. cloacae</i> is OUS. Diagnosis: adverse reaction to hydroxyurea. No infection. No SS. LoS 6 days.
53	neg	Urine: <i>Enterococcus faecalis</i>	<i>Enterococcus faecalis</i>	<i>Enterobacter cloacae</i>	<i>E. faecalis</i> is clinically relevant. <i>E. cloacae</i> is OUS. Diagnosis: <i>E. faecalis</i> pyelonephritis. No SS. LoS 12 days.
54	neg	-	<i>Enterococcus gallinarum</i>	neg	<i>E. gallinarum</i> is OUS. Diagnosis: nausea. No SS. LoS 2 days. Received 1 dose of cefotaxime.
55	neg	-	<i>Escherichia coli</i>	<i>Staphylococcus aureus</i>	<i>E. coli</i> is clinically relevant. <i>S. aureus</i> is OUS. Diagnosis: acute pyelonephritis. No urine culture. No SS. LoS 4 days.
56	neg	-	<i>Escherichia coli</i>	neg	<i>E. coli</i> is clinically relevant. Diagnosis: acute cholecystitis. No SS. LoS 12 days. In Nov. 2011 acute cholecystitis with <i>E. coli</i> bacteraemia and septic shock.
57	neg	-	<i>Escherichia coli</i>	neg	<i>E. coli</i> is clinically relevant. Diagnosis: abscess after appendectomy. No SS. LoS 5 days.
58	neg	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i>	neg	<i>E. coli</i> is clinically relevant. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 1 day.
59	neg	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i>	neg	<i>E. coli</i> is clinically relevant. Diagnosis: <i>E. coli</i> pyelonephritis. No SS. LoS 4 days.
60	neg	-	<i>Escherichia coli</i>	neg	<i>E. coli</i> is OUS. Diagnosis: acute purulent media otitis. No SS. LoS 5 days.
61	neg	Urine: <i>Escherichia coli</i>	<i>Escherichia coli</i> , <i>Streptococcus pneumoniae</i>	neg	<i>E. coli</i> is clinically relevant. <i>S. pneumoniae</i> is OUS. Diagnosis: acute pyelonephritis due to <i>E. coli</i> . No SS. LoS 2 days.
62	neg	Urine, wound: <i>Escherichia coli</i>	<i>Klebsiella oxytoca</i>	neg	<i>K. oxytoca</i> is clinically relevant. Diagnosis: perianal abscess. No SS. LoS 8 days.
63	neg	-	<i>Klebsiella pneumoniae</i>	neg	<i>K. pneumoniae</i> is OUS. Vomiting. Pneumonia? UTI? CRP max is 66. No SS. LoS 17 days.
64	neg	-	<i>Klebsiella pneumoniae</i>	neg	<i>K. pneumoniae</i> is clinically relevant. Diagnosis: acute pyelonephritis. Culture negative. No SS. LoS 2 days.
65	neg	NPH: <i>Moraxella catarrhalis</i> ; urine: mixed flora; wound: <i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	neg	<i>S. aureus</i> is clinically relevant. Diagnosis: infected foot ulcer and pneumonia. No SS. LoS 12 days.
66	neg	-	<i>Staphylococcus aureus</i>	neg	<i>S. aureus</i> is OUS. Diagnosis: pneumonia. No SS. LoS 1 day.
67	neg	NPH: influenza A; urine: mixed flora	<i>Staphylococcus aureus</i> , <i>Streptococcus</i> spp. ^b	neg	<i>S. aureus</i> and <i>Streptococcus</i> spp. are OUS. Diagnosis: influenza A verified by PCR. 4 doses of PCG. No SS. LoS 6 days.

68	neg	-	<i>Streptococcus pneumoniae</i>	neg	<i>S. pneumoniae</i> is clinically relevant. Diagnosis: pneumonia and SS. LoS 5 days.
69	neg	-	<i>Stenotrophomonas maltophilia</i>	neg	<i>S. maltophilia</i> is clinically relevant. Diagnosis: infected chronic leg ulcers. No SS. LoS 23 days.
70	neg	-	<i>Stenotrophomonas maltophilia, Streptococcus pneumoniae</i>	neg	<i>S. maltophilia</i> is OUS, <i>S. pneumoniae</i> is clinically relevant. Diagnosis: pulmonary fibrosis, suspected pneumonia. No SS. LoS 10 days.
71	neg	NPH: human rhinovirus	<i>Streptococcus pneumoniae</i>	neg	<i>S. pneumoniae</i> is OUS. Diagnosis: diabetic ketoacidotic. No clinical infection. No SS. LoS 3 days.
72	neg	-	<i>Streptococcus</i> spp. ^b	neg	<i>Streptococcus</i> spp. is OUS. Diagnosis: goiter. No antibiotic treatment. LoS 3 days.
73	neg	-	<i>Streptococcus</i> spp. ^b	neg	<i>Streptococcus</i> spp. is clinically relevant. Diagnosis: acute cholangitis. No SS. LoS 11 days.
74	neg	-	neg	<i>Enterobacter cloacae</i>	<i>E. cloacae</i> is OUS. Diagnosis: neutropenic fever. No SS. LoS 5 days.
75	neg	Wound: <i>Staphylococcus aureus</i>	neg	<i>Enterobacter cloacae</i>	<i>E. cloacae</i> is OUS. Diagnosis: tendinitis of the hand due to <i>S. aureus</i> . No SS. LoS 7 days.
76	neg	Urine: <i>Enterococcus faecalis</i>	neg	<i>Enterococcus faecalis</i>	<i>E. faecalis</i> is clinically relevant. Diagnosis: acute bronchitis (probably viral). No SS. LoS 2 days. Received one dose of tobramycin and 2 doses of penicillin G that would be effective against enterococci.
77	neg	-	neg	<i>Staphylococcus aureus</i>	<i>S. aureus</i> is OUS. Diagnosis: pneumonia. No SS. LoS 4 days.

LoS length of stay; neg no microbial finding was detected; NAAT nucleic acid amplification test; NPH nasopharynx; OUS of unknown significance; SS severe sepsis.

^a Microbial findings were detected in blood culture bottle(s) not included in that pair of bottles used for sampling blood material for microarray analysis.

^b Further speciation not provided.

^c Species not included in the microarray panel.