

Supplementary file S3. The characteristics of patients.

Patient No.	Sex	Age	Diagnosis	Outcome	Medical history	Clinical bacteriological examination		
						Blood culture	Suction sputum or expectorated sputum	Urinary catheter
1	M	68	Legionella pneumonia	Hospital transfer	Hypertension, Dyslipidemia, Mental retardation	-	Neisseria α -streptococcus 1+, Corynebacterium sp. 2+, Coagulase(-) Staphylococcus 2+	Escherichia coli 3+
2	F	82	Bacterial pneumonia	Hospital transfer	Mycobacterium avium complex	-	Neisseria α -streptococcus 1+	-
3	M	75	Aspiration pneumonia	Healing	UNK	-	Neisseria α -streptococcus 1+, Candida albicans 1+, Coagulase(-) Staphylococcus 1+	-
4	M	82	Aspiration pneumonia	Healing	Rectal cancer	-	Neisseria α -streptococcus 3+, Hamophilus influenzae 3+	-
5	M	70	Bacterial pneumonia	Hospital transfer	Cerebral infarction, Subarachnoid hemorrhage	-	-	-
6	F	79	Atypical pneumonia	Healing	Non-tuberculous mycobacterial disease, Chronic bronchitis	-	Mycobacterium avium, Aspergillus niger 1+, Candida albicans 1+, Neisseria α -streptococcus 3+	-
7	M	31	Bacterial	Healing	UNK	-	Neisseria α -streptococcus 2+	-

8	F	82	pneumonia Bacterial pneumonia	Healing	Cardiomyopathy, Alzheimer dementia	-	Candida albicans 1+, Neisseria α -streptococcus 1+	-
9	F	94	Bacterial pneumonia	Mortality	Hypertension, Atrial fibrillation, Pulmonary edema	-	Candida albicans 1+, Neisseria α -streptococcus 3+, Coagulase(-) Staphylococcus 1+	-
10	F	72	Aspiration pneumonia	Healing	Septic shock, Acute respiratory failure, Acute heart failure	-	Candida albicans 1+, Pseudomonas aeruginosa 3+, Corynebacterium sp. 2+	Enterococcus faecium 1+
11	M	61	Bacterial pneumonia	Healing	Hypertension, Atrial fibrillation, Cerebral infarction	-	-	-
12	M	70	Bacterial pneumonia	Mortality	Hypertension, Lung abscess, Acute kidney injury, Hypocalcaemia, Mental illness	-	Pseudomonas aeruginosa 3+, Neisseria α -streptococcus 3+, Stenotrophomonas maltophilia 1+, Mycobacterium intracellulare	-
13	M	74	Aspiration pneumonia	Healing	Respiratory failure, Pneumothorax, Disturbance of consciousness,	-	Neisseria α -streptococcus 2+, Coagulase(-) Staphylococcus 2+	-

					Dysphagia			
					Cerebral infarction,		Neisseria α -streptococcus 2+	
					Diabete,		<Alveolar lavage fluid>	
14	M	82	Bacterial pneumonia	Hospital transfer	Brain tumor,	-	MRSA 1+,	-
					Lung cancer		Enterococcus faecium 1+,	
							Candida albicans 1+	
					Diabetes,		Neisseria α -streptococcus 3+	
15	M	75	Pneumonia	Healing	Hypertension,	-		-
					Dyslipidemia			
					Hypertension,			
16	M	73	Pneumonia	Healing	Chronic renal failure,	-	Neisseria α -streptococcus 3+	-
					Hyperuricemia			
					Lung cancer,			
					Hypertension,			
					Combined pulmonary		Candida albicans 1+,	
17	F	76	Bacterial pneumonia	Healing	fibrosis and emphysema,	-	Neisseria α -streptococcus 2+,	-
					Dyslipidemia,		Bifidobacterium sp. 1+	
					Chronic obstructive			
					pulmonary disease			
							Enterobacter aerogenes 1+,	
18	F	79	Aspiration pneumonia	Hospital transfer	Parkinson's disease	-	Candida albicans 1+,	Escherichia coli 3+,
							Neisseria α -streptococcus 2+	γ -Streptococcus 3+

19	F	62	Bacterial pneumonia	Healing	Chronic obstructive pulmonary disease, Essential thrombocythemia	-	Pseudomonas aeruginosa 1+, Neisseria α -streptococcus 2+	-
20	M	52	Aspiration pneumonia	Mortality	Bone marrow tumor, Malignant glioma, Dysphagia		MSSA, Neisseria α -streptococcus 3+, Klebsiella pneumonia 1+	-
21	F	73	Aspiration pneumonia	Hospital transfer	Symptomatic epilepsy Pulmonary edema	-	Neisseria α -streptococcus 2+	-
22	M	73	Aspiration pneumonia	Hospital transfer	Spastic paralysis Iron deficiency anemia	-	MRSA 2+, Corynebacterium sp. 2+, Escherichia coli 3+, Aspergillus fumigatus 1+, Neisseria α -streptococcus 1+	-
23	F	23	Suspected aspiration pneumonia	Hospital transfer	Right empyema, Respiratory failure, Disuse syndrome	Pseudo monas aerugin osa Mtype	Pseudomonas aeruginosa Mtype 2+, Neisseria α -streptococcus 2+, Enterococcus faecalis 2+	-
24	M	76	Chronic obstructive pulmonary disease	Healing	Pneumonia, Atrial fibrillation, Heart failure	-	-	-
25	M	84	Aspiration	Healing	Dysphagia,	-	Enterobacter cloacae 2+,	-

			pneumonia		Xerostomia		Neisseria α -streptococcus 3+	
							Pseudomonas aeruginosa 1+,	
							Klebsiella pneumoniae 1+,	
26	F	48	Streptococcal sepsis	Healing	UNK	-	Coagulase(-) Staphylococcus 2+,	-
							Candida albicans 2+	
							Coagulase(-) Staphylococcus 1+,	-
27	F	55	Influenzal pneumonia	Healing	UNK	-	γ -Streptococcus 1+	
							Klebsiella pneumoniae 1+,	
28	M	81	Influenzal pneumonia	Healing	UNK	-	Candida tropicalis 2+,	-
							Neisseria α -streptococcus 3+	
							Streptococcus dysgalactiae 3+,	
							Klebsiella pneumoniae 1+,	
29	F	89	Aspiration pneumonia	Healing	Cerebral infarction, Dementia, Osteoporosis	-	Neisseria α -streptococcus 3+,	
							Coagulase(-) Staphylococcus 2+,	-
							Candida albicans 1+,	
							Neisseria α -streptococcus 1+	
							MSSA 3+,	
30	M	74	Staphylococcal pneumonia, Aspiration pneumonia	Mortality	UNK	MSSA	Candida krusei 2+,	-
							Neisseria α -streptococcus 3+	

31	M	66	Bacterial pneumonia	Healing	Chronic hepatitis, Enteritis	-	Neisseria α -streptococcus 2+	-
		72.0						
Mean \pm SD		\pm						
		12.6						

M: Male; F: Female; UNK: Unknown