

Table S1. Pathogen distribution of specimens from different sources

Specimen source	Pathogens identified
Blood	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Enterobacter cloacae, Candida albicans, Epstein-barr virus, Cytomegalovirus, Hepatitis E virus, Adenovirus, Haemophilus influenzae
Sputum	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Candida albicans, Pseudomonas aeruginosa, Streptococcus pneumoniae, Candida tropicalis, Candida glabrata, Chryseobacterium gleum, Enterococcus faecium, Stenotrophomonas maltophilia
Hydrothorax and ascites	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Candida albicans, Pseudomonas aeruginosa, Streptococcus pneumoniae, Candida tropicalis, Candida glabrata, Chryseobacterium gleum, Enterococcus faecium, Stenotrophomonas maltophilia
Pus	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Candida albicans, Pseudomonas aeruginosa, Streptococcus pneumoniae, Candida tropicalis, Candida glabrata, Chryseobacterium gleum, Enterococcus faecium, Stenotrophomonas maltophilia
Bile	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Candida albicans, Pseudomonas aeruginosa, Streptococcus pneumoniae, Candida tropicalis, Candida glabrata, Chryseobacterium gleum, Enterococcus faecium, Stenotrophomonas maltophilia
Urine	Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, Staphylococcus aureus, Candida albicans, Pseudomonas aeruginosa, Streptococcus pneumoniae, Candida tropicalis, Candida glabrata, Chryseobacterium gleum, Enterococcus faecium, Stenotrophomonas maltophilia

Table S2. Blood chemistry data

Group	Number	C1q	CRP	PCT	SAA	RBC	WBC	Hb	PLT	AST	ALT	TBIL	DBIL	Urea	Pro-BNP	CK-MB	cTnI	PT	TT	FIB
Sepsis	1	161.6	156.9	1.13	200	2.66	16.09	81	56	115	110	105	91.7	12.2	12.38	0.5	0.1	14	16.3	3.67
	2	69.1	13.6	68.35	36.3	3.46	15.04	112	94	742	117	6.02	3.3	17.8	6.78	64.44	8.4	14	23.4	2.54
	3	182.1	37.7	7.2	200	3.71	14.65	113	208	12	14	8.23	4.1	21.1	1.18	3.07	0	15	18.5	3.39
	4	176	200	12.91	200	2.59	26.38	81	269	30	21	21.8	14	15.4	0.17	0.97	0	14	16.7	2.37
	5	146.8	162.3	11.9	11	2.03	9.94	64	59	8	3	9.12	5	20.3	14.37	0.18	0	13	19.9	5.54
	6	134.7	134.7	17.4	165	3.54	12.18	110	155	49	31	17.99	11.2	5.83	0.64	21.74	0.1	18	16.8	4.13
	7	183.2	169.9	45.91	56.3	4.23	12.56	128	63	66	51	34.1	15.5	10.1	0.38	4.21	0	11	15.6	5.48
	8	146.6	112.6	7.62	56	4.7	5.65	152	90	28	12	11.73	5.1	4.47	1.28	1.17	0	11	15.3	4.96
	9	170.8	146.2	83.32	119	3.61	34.4	108	164	28	12	14.42	7.4	12.5	2.7	0.35	0	14	14.2	4.7
	10	158.7	0.5	175.6	125	3.83	3.54	113	249	3497	1069	24.45	8	25.7	0.05	4.23	1	11	15.3	4.96
	11	143.5	26.56	90.35	185.9	4.61	51.8	138	16	142	46	9.67	4.9	21.4	6.46	1.9	0.5	15	17.8	1.91
	12	137.2	109.3	733.1	200	4.42	24.23	135	101	52	24	16.9	6.8	13.6	43.87	20.43	3.7	15	80.2	0.91
	13	187	134.6	90.7	200	2.59	5.6	79	45	27	10	21.9	11.5	20	33.5	7.83	2.3	14	14.3	8.73

	14	179.7	45.26	7.9	10.6	6.52	47.32	218	16	825	312	19.2	8.9	5.7	2.19	5.32	0.4	19	66.3	2.34
	15	144.2	56	12.6	74.6	2.44	24.1	201	120	957	134	18.2	11.9	8.32	5.11	26.7	0.2	12	16.2	4.36
	16	143.7	184.3	76.6	39.2	3.85	16.03	120	116	161	232	22.2	12.3	12.3	6.05	1.95	0.5	16	14.9	4.13
	17	142	143.3	13.56	75	4.66	7.38	151	76	43	62	8.6	4.5	20.6	0.46	1.23	0.1	21	16.3	5.68
	18	193.5	200	147.8	200	3.15	10.18	104	43	164	37	12.01	7.3	14.3	3.04	11.85	0.2	14	13.1	5.83
	19	193.9	195.3	83.29	162	4.29	24.42	116	224	38	17	18.5	12.8	11.7	2.32	0.88	0.4	15	15.2	6.37
	20	135.5	170.6	66.64	122	3.53	9.28	111	114	109	75	27.15	20.3	7.39	0.68	2.18	0.1	13	15.2	3.71
	21	170.9	207.4	100	145	3.74	11.11	109	49	57	25	28.7	21	9.28	14.38	7.23	1	13	13.6	6.76
	22	142.6	154.3	52.19	132	3.44	12.97	99	264	54	20	9.6	5.5	3.52	2.43	1.2	1.1	13	15.2	3.71
	23	112.7	112.2	54.19	120	3.72	12.52	104	121	25	17	18.4	9.8	5.31	6.95	5	2.5	16	14	7.65
	24	174.8	183.3	140.2	200	3.54	19.75	117	120	28	13	12.4	4.7	10.4	2.28	1.08	0	13	14.6	5.83
	25	140.9	52.7	64.38	131.9	4.52	8.05	151	114	31	35	48.9	16.9	10.3	3.1	1.49	0.1	13	16.6	5.83
	26	150.4	224.2	122.3	200	3.85	38.22	106	86	86	49	16.4	11.8	14	18.94	10.83	0.8	15	18.1	4.39
	27	142.3	200	100	200	4.31	26.9	136	69	94	125	83.3	71.6	22.3	1.07	5.26	0	18	15.5	7.92
	28	139	23.1	39.88	119	4.06	5.17	133	109	36	15	33.6	13	12.3	0.6	7.06	0	14	13.6	9.03
	29	111.1	25.3	18.3	64.2	4.18	10.77	123	97	87	64	11.11	7.8	22.9	1.64	7.42	0.1	22	18.1	2.65
	30	181.2	22.9	18.9	69.1	4.04	14.31	122	235	50	76	39.1	21.3	3.81	1.61	5.01	0.1	11	15.9	4.85
	31	127.2	199.8	100	300	2.14	12.67	63	25	26	19	4.45	2.1	30.9	18.31	5.65	0	13	15.4	4.13
	32	201.6	206.6	3.12	300	3.53	18.47	102	209	19	12	8.88	3	3.1	5.86	1.42	0	13	14.2	6.39
	33	91.1	152.4	103.6	151.9	3.27	10.52	97	56	15	17	12.8	5.9	8.1	2.28	0.86	0	18	16.3	1.92
	34	135	229.8	63.4	300	3.71	12.22	112	15	17	29	14	6.8	15.5	16.21	0.37	0.1	12	13.4	7.68
	35	153.3	333.6	332	300	3.3	33.72	100	15	52	18	17.11	12.3	23.9	17.6	7.38	0.5	29	15.2	6.2
	36	183.87	51.3	1.35	135.9	2.7	4.22	72	193	52	72	4.6	1.9	18.5	0.1	3.15	0	14	17.1	4.82
	37	151.4	213.6	100	300	3.56	9.89	108	38	60	38	10.5	4.5	9.38	9.01	13.56	8.6	15	15.6	4.83
	38	135.8	155.9	100	5	4.15	15.42	130	16	647	125	119.3	93.6	15.8	7.833	15.14	0.2	21	23.7	1.03
	39	98	234	10.75	300	3.91	6.91	118	56	65	65	60.45	45	3.13	0.46	0.18	0	15	15.6	3.89
	40	125.2	29.81	8.82	300	4.6	8.68	128	206	35	29	6.16	2	3.16	0.613	5.2	0	11	15.5	3.08
	41	120.5	59.63	15.1	134.2	3.43	6.8	101	159	31	13	9.8	4.7	9.15	0.65	4.68	0	15	14	6.57
	42	191.5	0.5	0.1	5	4.3	7.5	127	264	18	20	6.8	2.3	4.86	0.04	1.7	0	12	16.7	3.95
	43	151.6	335.9	4.59	300	4.11	11.2	30	257	31	16	111.4	4.8	11.7	0.48	1.17	0	12	14.7	8.42
	44	125.2	156.6	16.7	300	3.64	12.76	117	141	37	32	22.4	10	4.4	2.05	3.91	0.1	12	13.4	4.35
	45	157.1	132	99.6	300	3.1	33.99	76	54	2116	503	12.64	9.6	31.1	66.55	1.65	1	21	16.8	6.57
	46	175.7	110	0.31	300	9.72	10.52	171	130	22	22	24.6	12.4	6.49	2.73	0.87	0	15	14.8	4.3
	47	179.9	0.5	0.03	5	4.51	5.46	152	198	19	18	16.1	6.9	4.42	0.064	0.36	0	11	16.1	2.76
	48	94.8	12.5	38.9	124.6	3.46	11.7	109	71	45	13	59.4	6.7	1.25	0.07	0.91	0.1	14	13.3	6.2
	49	126	163.2	100	200	2.8	12.76	97	22	514	358	82.5	31.3	33.7	9.01	9.27	0.9	12	18.4	3.46
	50	134.9	249.7	85.9	300	4.29	11.85	126	126	42	46	20	8.9	13.1	0.76	3.87	0	12	13.9	9.06
	51	190.1	94	100	300	3.33	8.36	96	128	22	17	1.87	0.9	25.4	6.68	2.25	0.7	12	15.3	3.25

	52	218	5.15	0.66	5	3.13	3.84	82	320	18	8	6.22	2.6	3.73	0.07	0.18	0	11	16.1	4.09
	53	163.1	167.1	62.1	300	3.71	12.61	114	108	26	9	36.26	13.7	7	1.3	6.13	0.2	12	13.7	7.41
	54	201	350	60.4	300	3.21	24.6	91	130	26	33	11.3	5	7.29	12.62	1.15	0.4	15	16.3	4.54
	55	142.2	110	100	200	3.01	45.95	90	157	82	92	5.63	2.3	13.7	3.59	10.57	0.4	19	116	2.1
	56	150	36.71	100	195.6	3.33	22.61	110	230	18	18	5.85	2.2	19	2.14	4.71	0.3	13	16.3	2.55
	57	89.1	26.09	60.83	31.92	2.15	7.61	91	77	542	411	42.2	19.5	16.6	17.79	27.13	1.3	18	15.8	1.52
	58	99.9	45.62	100	300	2.78	20.66	91	86	31	9	12.5	8.2	21.1	38.14	2.755	0.6	14	14.5	3.62
	59	180.5	88.35	50.5	300	4.52	7.86	138	174	21	24	14.6	6.3	8.92	0.14	2.29	0	13	14.8	6.57
	60	171.6	48.99	2.68	165	1.86	5.77	55	149	19	14	4.82	2.7	8.84	9.08	0.35	0	13	15.3	3.13
	61	177.9	47.47	1.12	300	3.94	1.48	115	593	27	32	8.9	2.8	3.41	0.24	0.18	0	11	12.9	6.57
	62	58	108	47.5	161	3.74	3.31	116	35	914	527	58.3	44.9	8.09	22.09	12.11	0.2	33	27.5	1.87
	63	136.8	12.6	60.2	200	3.17	29.38	101	121	32	20	13.35	7	6.1	4.87	3.58	0	14	14.5	3.12
	64	188	45.2	13.8	195.6	4.47	8.91	142	244	45	23	24.3	10.6	15	2.74	15.03	0.4	13	15.8	5.26
	65	153.1	23.9	4.8	156.4	3.66	31.52	122	26	744	221	111.9	92	15.1	43.76	5.51	3.9	16	15.4	4.42
	66	137	241.8	11.5	300	2.84	15.74	90	92	23	14	12.42	5.2	18.4	3.59	1.13	0	15	13.9	4.14
	67	181.7	76.14	0.5	179	3.42	1.7	82	63	261	202	22.8	12	5.6	3.06	1.3	0	13	20.9	1.07
	68	167.9	68.84	0.5	206	2.47	1.86	72	54	14	9	10.2	5.7	8.52	0.36	1.71	0	13	16.8	2.94
	69	156	293.7	100	300	2.28	15.34	70	98	24	8	18.7	10.4	49	18.95	0.99	1.3	12	15.6	5.26
	70	106	227.9	12	300	3.96	13.17	127	40	51	11	35.4	30.6	30.3	4.68	5	0.1	38	14.7	0.57
	71	145.8	110.5	0.41	12.53	2.47	8.59	75	344	17	18	8.97	4.5	6.98	0.27	5.41	0	17	16.5	4.46
	72	159.2	121.5	0.2	298	2.95	6.32	90	292	11	8	8.6	3.9	3.9	0.83	0.42	0	13	14.8	2.88
	73	16.9	130	28.3	300	3.29	7.05	89	389	10	11	16.1	11	11.2	0.68	0.82	0	12	15	4.67
	74	105.7	220	25.3	300	4.28	12.22	130	149	23	19	45.49	27	22	14.04	22	0.3	35	15.2	5.55
	75	114.2	204	22.5	280	1.5	8.59	53	33	29	15	19.75	16.5	12.4	33.58	3.9	0.1	21	15.4	2.51
	76	129.9	350	0.61	300	3.6	11.73	111	186	27	16	8.1	3.3	5.98	2.93	6.04	0.1	12	17.1	6.03
	77	140.4	44.1	1.86	87.7	2.01	5.97	64	107	18	13	25.2	12.5	6.03	5.53	0.733	0.7	11	15.4	2.41
	78	99.7	158.7	5.73	300	5.13	40.4	168	281	20	646	7.3	4.7	22.8	1.41	0.96	0	13	6.8	5.11
	79	126.9	193.9	11.3	300	3.9	14.2	120	109	335	646	68.8	52.6	16	2.2	1.14	0	17	16.3	5.55
	80	184.2	0.5	12.9	29.27	4.09	4.24	128	23	643	239	6.7	2.9	6.2	9.14	21.3	1.9	12	20	1.59
	81	184.1	112.6	65.4	300	3.38	10.58	111	38	82	148	13.8	9.6	17.3	18.3	7.34	2.2	2.6	17.8	3.95
	82	90.5	85.85	109	6.02	2.51	11.6	73	41	1950	1675	78	59	28.5	0.66	17.8	2.1	59	67.6	0.68
	83	161.4	153	78.5	291.4	3.73	14.73	115	127	229	361	73.2	51.7	11.4	1.09	0.61	0	16	16	5.26
	84	164.9	184	24.6	300	4.15	24.83	131	89	63	49	66.7	56.8	21	1.79	1.59	0.1	12	14.7	7.89
	85	124.6	142	99.5	300	0.58	19.98	110	113	18	17	8.31	2.6	15.6	12.16	4.74	0.4	13	13.7	6.2
	86	133.2	177.5	100	300	3.49	28.4	106	49	23	21	11	4.1	12.1	6.28	1.01	0.2	13	14.9	4.35
	87	156.1	17.43	80.58	16.48	3.32	14.31	98	200	18	15	4.9	1.4	16.7	81.3	6.62	0.8	12	16.1	4.24
	88	152.5	140.6	1.03	300	4.04	19.56	119	110	93	67	17.7	7.7	11.7	5.3	3.49	0.2	13	15.7	3.62
	89	89.4	25.9	20.5	25.63	3.55	14.79	101	292	12	15	5.5	2.5	34.2	15.6	15.9	3.1	15	19.1	3.61

	90	132	240.9	69.7	300	3.38	31.93	101	43	33	25	21.8	9	16.1	21.2	3.4	1.1	12	14.9	5.1
	91	182.2	269.3	8.43	300	3.4	12.93	113	236	36	20	5.8	3.1	9.9	0.25	0.71	0	14	14.2	7.89
	92	197	11.5	0.42	13.26	3.61	7.84	107	83	109	100	7.06	2.7	7.5	0.65	0.72	0	10	19.6	2.16
	93	176	23.1	13.1	24.63	3.74	14.99	124	103	20	24	11.4	5.7	5.5	1.08	0.6	0	12	13.4	6.97
	94	123.4	148.1	0.6	107.2	2.56	2.54	81	82	60	63	22.8	12.8	4.5	1.2	0.99	0	15	18.5	2.32
	95	180.4	12.84	1.37	55.32	4.2	17.24	126	78	66	28	21.3	6.1	40.8	0.62	4.82	0	13	17	3.46
	96	183.8	99.79	1.16	300	3.49	9.32	102	475	21	28	4.66	1.4	4.26	0.16	0.18	0	12	19	6.77
	97	69.8	56.2	3.43	200	3.54	6.74	124	177	23	21	18.2	6.9	4.5	5.36	1.68	2.3	14	14.8	4.87
	98	191.1	86.72	0.21	95.81	4.44	17.8	140	546	20	18	53	44.3	4.6	1.4	1.11	0	16	16.9	4.82
	99	125.1	348.6	68.5	300	2.38	15.06	70	169	24	13	6.5	3.3	25.2	38	5.03	0.3	13	14.3	5.76
	100	174.3	120.6	6.24	113.5	3.54	13.99	109	199	16	19	11.2	4.8	10.2	2.26	0.18	0	11	14	8.33
	101	155.3	247.5	13.3	300	3.43	25.17	109	28	16	10	15.2	5.1	13.6	18.54	0.18	0.7	12	14.6	5.43
	102	72.6	85.02	3.96	222.5	3.62	8.77	110	102	138	79	19.8	8.4	7.2	0.2	60.02	4.9	15	15.1	2.02
	103	99.6	30.3	110.8	5	3.47	18.08	106	290	129	28	8.2	3.5	13.6	5.76	18.5	1.1	13	14.4	2.77
	104	152.6	185.5	1.63	300	3.98	20.3	116	368	85	52	7.9	4.4	7.5	12.25	2.45	0.7	18	14.7	7.5
	105	154.6	117.5	1.31	25.6	2.01	6.75	62	196	14	17	0.5	3.6	5.7	0.8	1.31	0.1	13	14.9	2.31
	106	78.7	0.5	0.1		2.2	9.43	54	93	28	15	56.7	20.2	5.64	6.6	0.86	0.2	13	17	1.74
	107	190.6	160.8	19.4	300	4.19	6.23	129	126	14	11	12	4.3	18.7	0.1	1.01	0.2	12	16.4	3.75
	108	142.1	174	95.1	300	3.28	29.4	104	163	40	11	9.6	3.5	9.6	5.42	13.79	0.8	15	14.5	5.24
	109	130.8	297.3	35.7	300	3.6	23.6	114	139	530	3261	69.5	38.8	15.8	17.71	16.5	1.2	34	14.9	8.43
	110	116.8	9.33	2.51	8.42	2.07	3.56	69	74	28	14	3.8	1.7	13.2	10.45	6.67	0.1	13	15.5	1.59
	111	112.8	228	100	300	3.69	6.03	119	169	72	34	24	11.7	28.4	2.5	2.83	1	15	16.4	4.42
	112	126.4	222	63.3	82.5	5.39	20.3	159	80	294	100	14.5	5.2	22.7	0.19	19.5	0.9	14	18.2	3.51
	113	183.9	120.5	27.2	42.9	3.18	14.12	99	268	33	30	7.4	4.1	9.43	0.39	1.69	0	12	14.6	7.94
	114	104.9	173.4	14.2	300	3.62	7.43	111	49	111	44	46	36.4	6.43	3.95	0.4	0.1	13	13.2	6.72
	115	145	299.6	7.44	300	3.88	22.33	118	252	36	20	41	33	8.1	0.13	2.49	0	14	14.3	9.31
	116	132.7	116	3.51	22.1	3.14	7.27	100	98	123	144	39.4	33.5	14.8	0.88	3.58	0	12	17.4	4.18
	117	142.7	332	100	300	3.79	36.27	111	120	40	17	9.6	5.5	15.2	0.44	4.47	0.1	13	14	7.9
	118	105.5	115.6	10.4	200	3.23	9.7	79	220	24	6	7.8	4.5	18.3	0.77	8.85	0.5	10	14.7	5
	119	133.7	142.4	15.3	300	4.04	18.93	107	136	18	17	10	4	10.7	0.38	2.46	0.1	14	15.5	4.42
	120	180.7	77.59	20	300	2.85	17.78	74	222	601	245	5.1	2.1	17.5	7.11	141.5	37	13	14.9	1.66
	121	150.8	22.13	0.1	98.98	3.97	9.39	113	218	17	9	8.41	2.4	7.3	0.07	3.5	0	12	15.8	3.58
	122	84.7	168.8	25.7	189	3.24	4.78	94	51	226	75	53	35	11.4	0.98	2.82	0.9	14	13.2	2.03
	123	200.8	136.1	50	300	3.8	15.59	109	192	26	22	11.2	3.8	3.97	0.84	1.04	0.3	12	15.3	4.87
	124	103.2	99.36	1.44	159.4	5.22	9.3	141	247	58	13	35	15	0.15	0.34	41.4	12	12	15.7	4.87
	125	148.9	198.6	14.3	249	3.85	18.56	109	162	25	20	4.5	1.9	22.7	7.24	14.52	1.5	15	16.6	3.44
	126	146.1	201.3	17.9	300	4.02	19.8	115	210	8	12	8.54	3.5	17.2	2.35	1.85	0.1	13	15.2	6.8
	127	153.9	12.69	78.9	128.3	4.09	11.42	123	115	164	359	61.4	41.4	7.1	0.42	0.6	0	13	15.4	5.21

	93	188.4	4	5	3.74	5.43	0.04	130	212	-	-	-	-	-	-	-	-	-	-
	94	186.1	0.5	5	4.49	8.35	0.06	118	263	-	-	-	-	-	-	-	-	-	-
	95	196.4	0.5	5	4.25	7.12	0.01	120	196	-	-	-	-	-	-	-	-	-	-

Research Object Information Confidentiality Statement

This study is a retrospective study, which was approved by the ethics committee of the Renmin Hospital of Wuhan University (No. WDRY2020-K223) and also approved to exempt patients from informed consent.

Here, we declare that we will keep strictly confidential the clinical information of all research objects in this study (Serum C1q levels have prognostic value for sepsis and are related to the severity of sepsis and organ damage), and we will delete all identifiable information that can identify the research objects to ensure that the privacy of the research objects is protected! And we declare that our study is compliance with the Declaration of Helsinki.

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