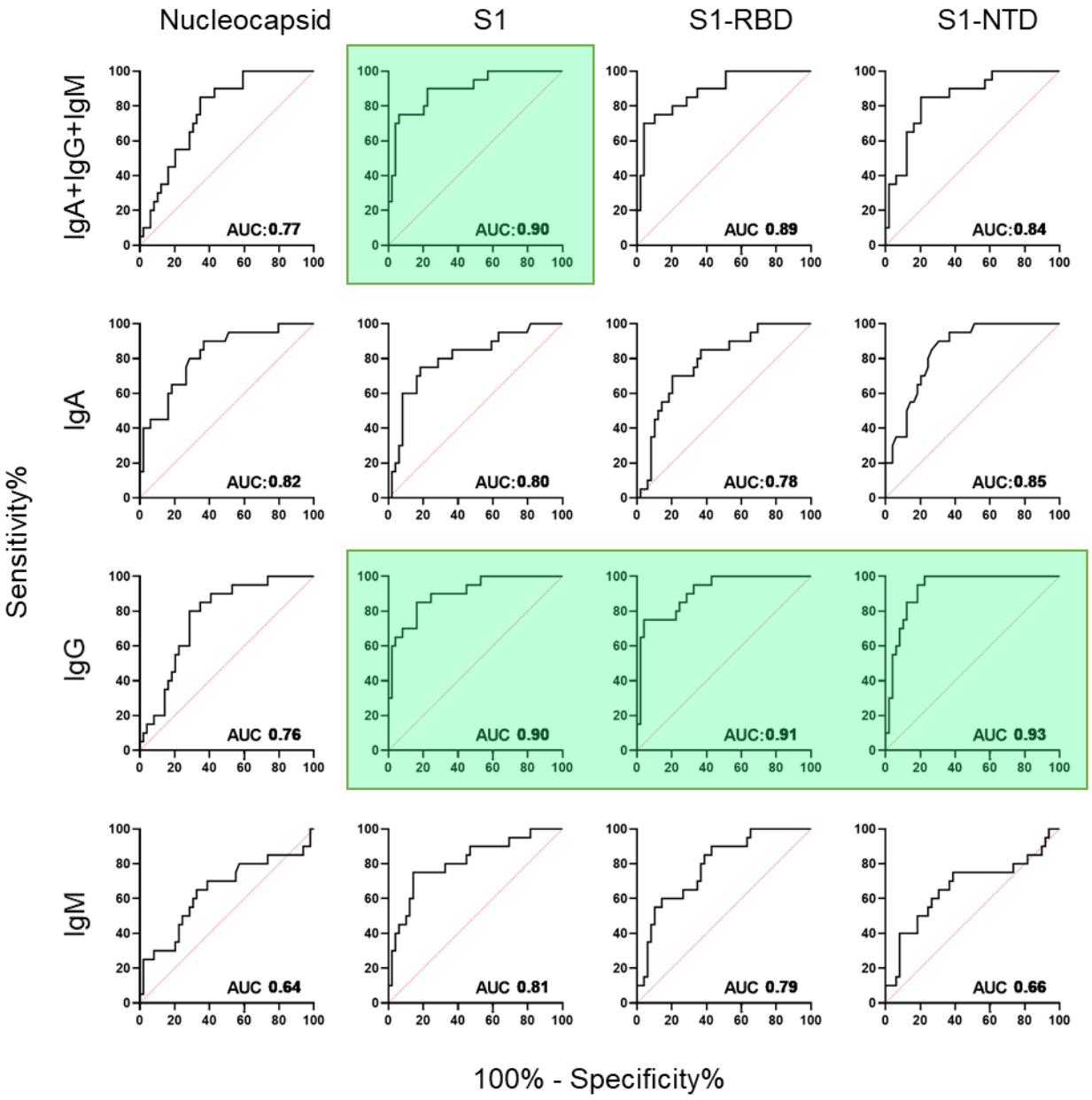

Figure S1. ROC curves distinguish severe/critical and mild/moderate SARS-CoV-2 infections during convalescence. ROC curves were used to compare serum anti-SARS-CoV-2 antibody responses between the 20 severe/critical and 49 mild/moderate infected patients (from Fig. 4) during convalescence. Diagonal, dashed, red lines represent the predicted behavior when the test has no diagnostic value. The area-under-the-curve (AUC) measurements provides an index of potential diagnostic utility: AUC near 0.5 suggest no diagnostic value; AUC values near 1.0 indicate strong diagnostic potential. Antigen:isotype combinations that yielded AUC values greater than 0.90 are highlighted in green.

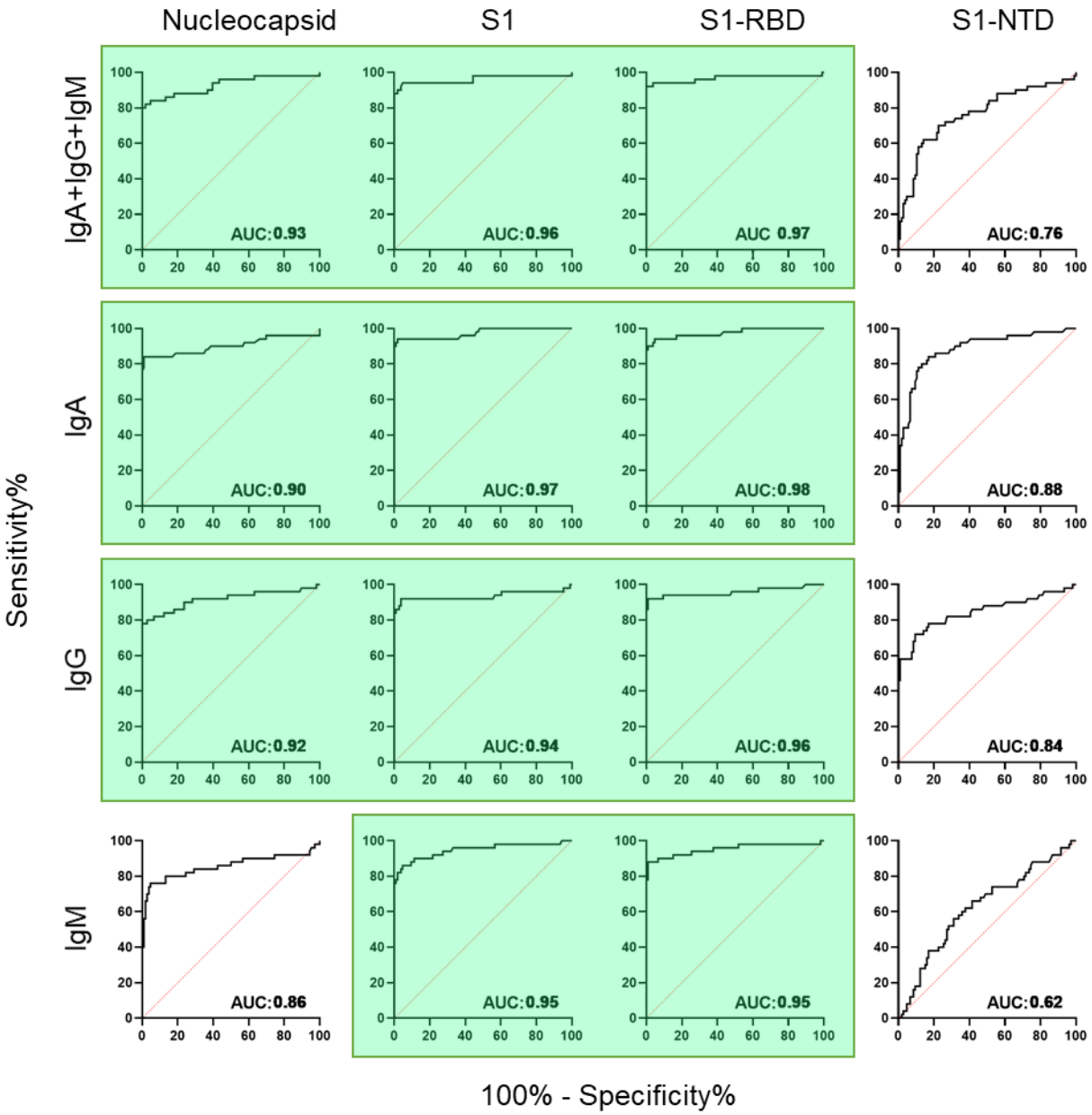

Figure S2. ROC curves assess diagnostic potential of anti-SARS-CoV-2 antibody levels during acute illness. ROC curves compare 50 acutely infected SARS-CoV-2 patients (6-30 DPSO) against 106 pre-pandemic controls. Diagonal, dashed, red lines represent the predicted behavior when the test has no diagnostic value. The area-under-the-curve (AUC) measurements provide an index of diagnostic utility where AUC near 0.5 suggest no diagnostic value and AUC near 1.0 indicate strong diagnostic potential. Antigen:isotype combinations that yielded AUC values greater than 0.90 are highlighted in green.

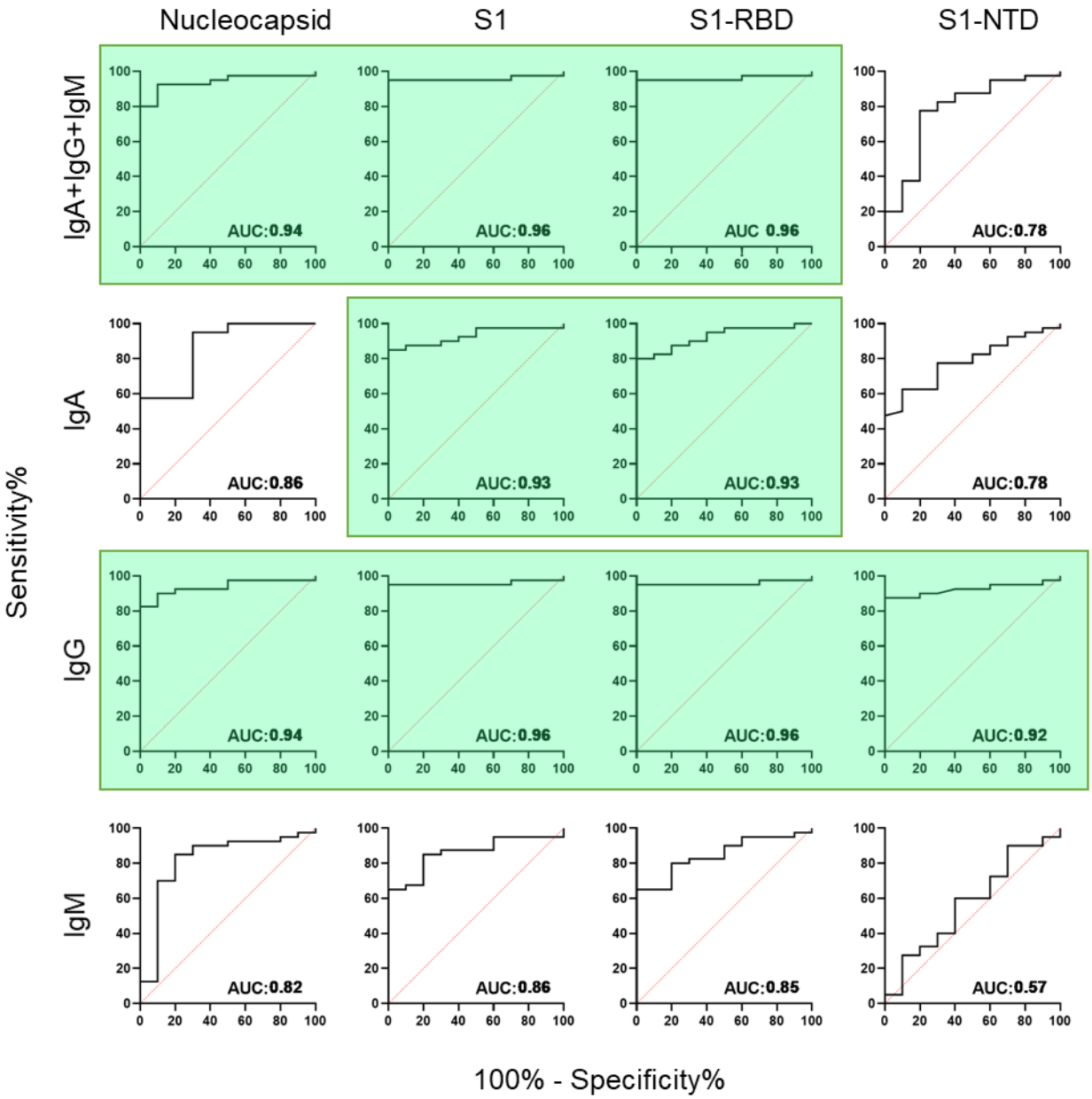

Figure S3. ROC curves distinguish severe/critical from mild/moderate SARS-CoV-2 infections during acute illness. Anti-SARS-CoV-2 antibody levels from the 40 severe/critical and 10 mild/moderate patients during acute illness (Fig. 5) were examined using ROC curves. Samples were collected at least 6 DPSO and no more than 30 DPSO. AUC values near 0.5 indicate poor diagnostic potential (diagonal red line); AUC values near 1.0 reflect strong diagnostic value. Antigen:isotype combinations that yielded AUC values greater than 0.90 are highlighted in green.

Table SI. Antibody levels of severe/critical and mild/moderate SARS-CoV-2 groups converge overtime.

		0-15 DPSO			16-30 DPSO			31-60 DPSO			61-90 DPSO			91-150 DPSO		
		M/M (N=12)	S/C (N=34)	p-value	M/M (N=6)	S/C (N=23)	p-value	M/M (N=20)	S/C (N=10)	p-value	M/M (N=21)	S/C (N=9)	p-value	M/M (N=24)	S/C (N=6)	p-value
AGM	N	6,141	58,375	<0.0001	8,132	53,924	<0.0001	13,092	34,832	0.0057	13,092	34,832	0.0057	12,977	11,826	0.8360
	S1	8,155	113,038	<0.0001	9,996	156,351	<0.0001	22,534	122,593	0.0048	22,534	122,593	0.0048	24,356	26,447	0.8581
	S1-RBD	24,279	173,786	<0.0001	39,308	183,484	<0.0001	57,940	161,640	<0.0001	57,940	161,640	<0.0001	67,462	80,962	0.5981
	S1-NTD	2,024	3,956	0.0763	2,854	8,512	0.0952	1,147	21,946	0.1307	1,147	21,946	0.1307	1,614	3,075	0.0137
IgA	N	951	6,780	0.0004	182	4,595	0.0007	107	2,056	0.2728	107	2,056	0.2728	55	85	0.0837
	S1	2,920	14,867	0.0041	1,326	12,287	<0.0001	630	3,423	0.0550	630	3,423	0.0550	954	869	0.9083
	S1-RBD	8,765	30,500	0.0247	9,099	21,472	0.1431	2,380	6,174	0.0391	2,380	6,174	0.0391	4,781	3,541	0.6928
	S1-NTD	58	221	0.0007	69	637	0.0400	29	242	0.0799	29	242	0.0799	30	74	0.2372
IgG	N	1,943	35,424	<0.0001	3,781	35,539	<0.0001	9,616	23,473	0.0112	9,616	23,473	0.0112	7,567	7,642	0.9829
	S1	880	66,846	<0.0001	2,845	108,589	<0.0001	15,559	82,934	0.0055	15,559	82,934	0.0055	12,788	15,663	0.6530
	S1-RBD	3,595	105,489	<0.0001	11,294	126,621	<0.0001	36,540	112,540	<0.0001	36,540	112,540	<0.0001	37,990	51,328	0.3851
	S1-NTD	39	1,562	0.0001	57	4,178	<0.0001	263	9,842	0.2167	263	9,842	0.2167	413	1,159	0.0056
IgM	N	1,688	5,782	0.0322	518	4,950	0.0062	676	2,179	0.3775	676	2,179	0.3775	287	208	0.3288
	S1	2,488	15,455	0.0007	2,128	20,111	0.0073	3,617	20,273	0.1471	3,617	20,273	0.1471	793	475	0.2090
	S1-RBD	7,193	37,737	0.0001	6,921	42,051	0.0010	12,748	43,117	0.1028	12,748	43,117	0.1028	3,693	2,291	0.1832
	S1-NTD	832	729	0.6769	1,160	1,470	0.6663	388	4,983	0.2677	388	4,983	0.2677	356	432	0.5319

Average net MFI was calculated for mild/moderate and severe/critical patients in 15-, 30-, and 60-day intervals over a five-month period post symptom onset. T-tests of significance were performed to compare the two groups at each time interval. Significant differences decreased between the two groups over time.