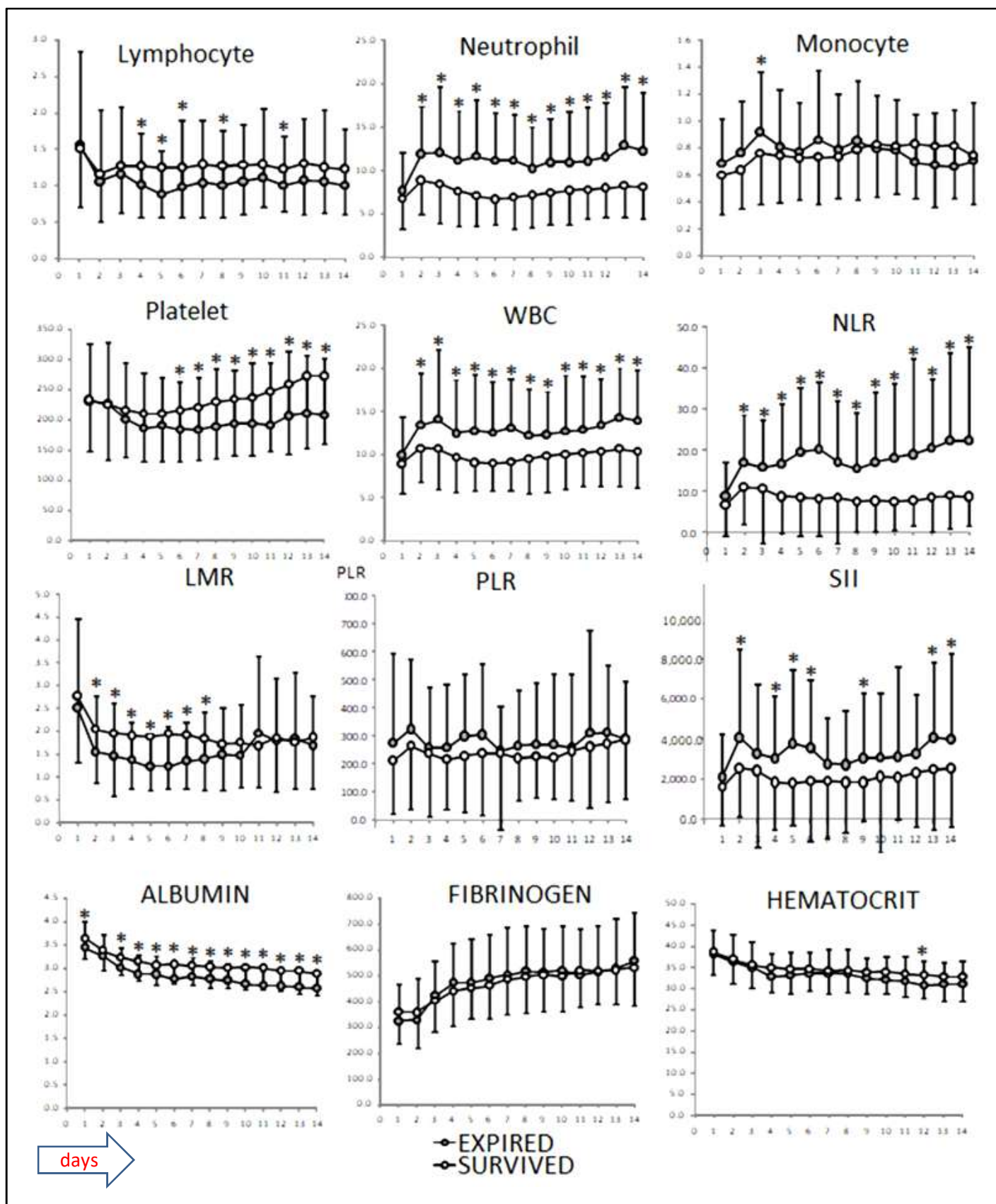


Supplementary Figure 1

Daily changes of peripheral markers according to survival status



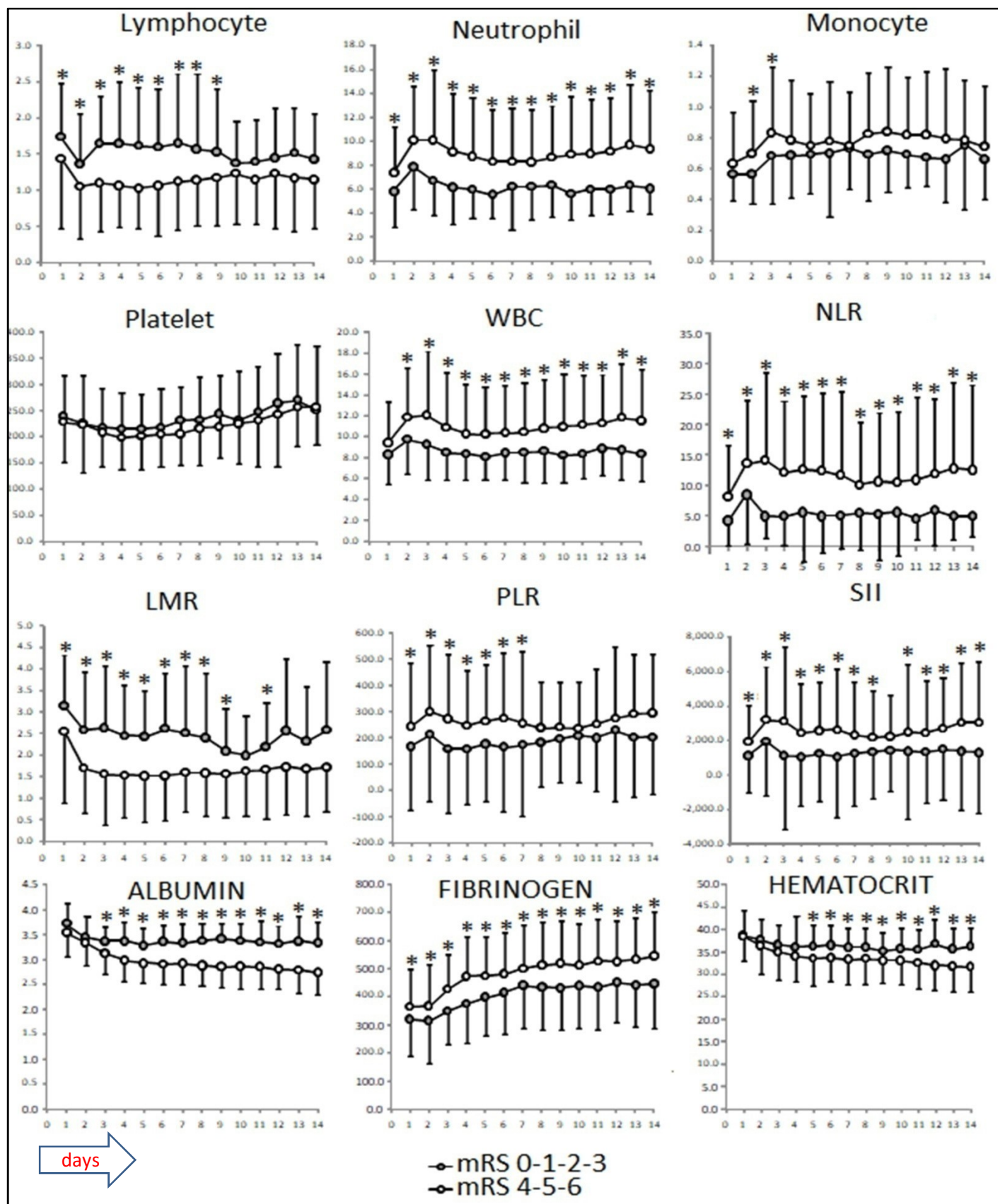
Axis indicates days after stroke. * indicates p < 0.05

Abbreviations: LMR: Lymphocyte-to-Monocyte ratio; NLR: Neutrophil-to-lymphocyte ratio; PLR: Platelet-lymphocyte ratio; SII: Systemic immune-inflammation index.

Units: Lymphocyte, $\times 10^3/\mu\text{L}$; Neutrophil, $\times 10^3/\mu\text{L}$; Monocyte, $\times 10^3/\mu\text{L}$; Platelet, $\times 10^3/\mu\text{L}$; Leukocyte, $\times 10^3/\mu\text{L}$; NLR, LMR, PLR, SII, Albumin, g/dL; Fibrinogen, mg/dL; Hematocrit, %.

Supplementary Figure 2

Daily changes of peripheral markers according to functional prognosis



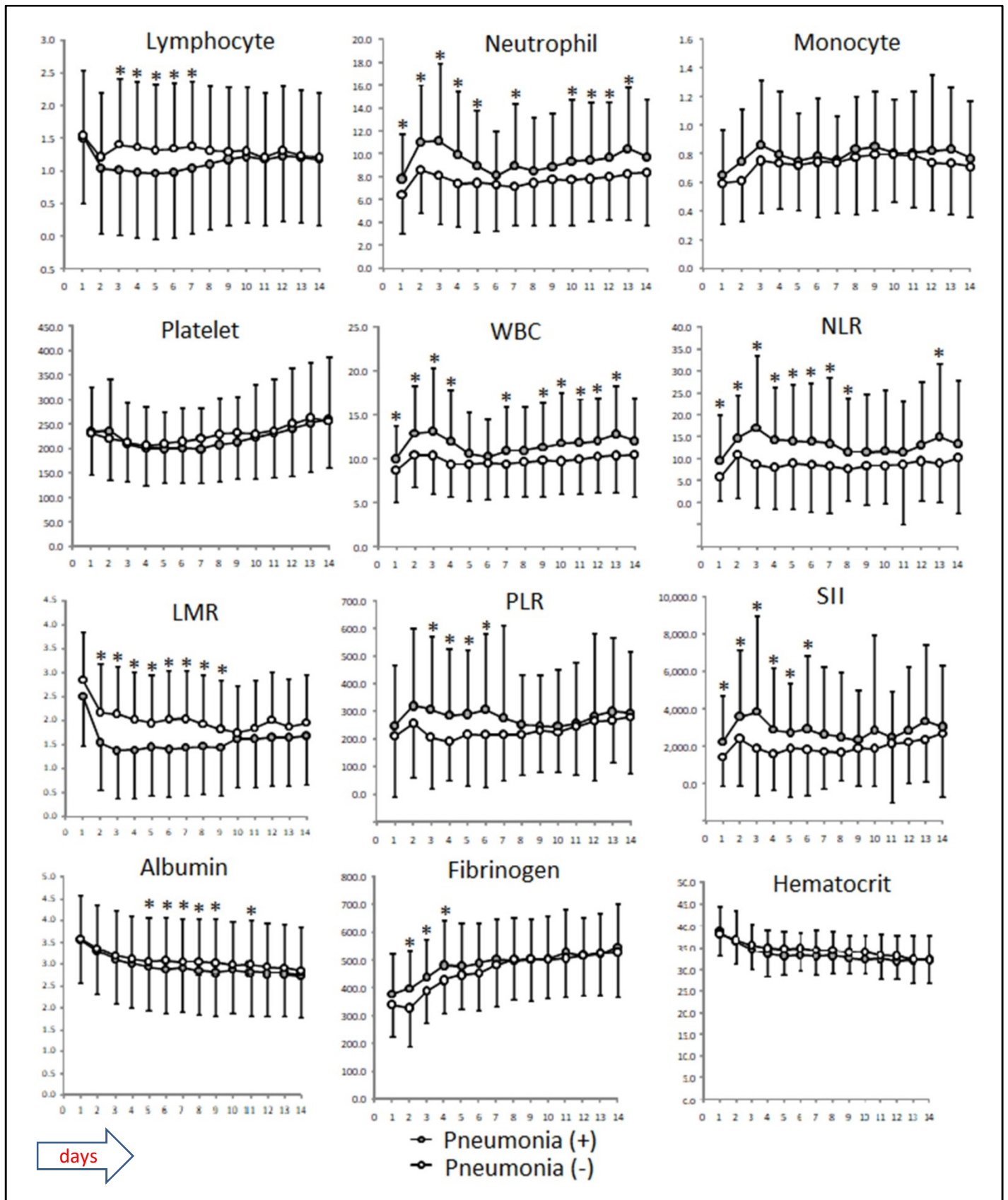
Axis indicates days after stroke. * indicates $p < 0.05$

Abbreviations: LMR: Lymphocyte-to-Monocyte ratio; NLR: Neutrophil-to-lymphocyte ratio; PLR: Platelet-lymphocyte ratio; SII: Systemic immune-inflammation index.

Units: Lymphocyte, $\times 10^3/\mu\text{L}$; Neutrophil, $\times 10^3/\mu\text{L}$; Monocyte, $\times 10^3/\mu\text{L}$; Platelet, $\times 10^3/\mu\text{L}$; Leukocyte, $\times 10^3/\mu\text{L}$; NLR, LMR, PLR, SII, Albumin, g/dL; Fibrinogen, mg/dL; Hematocrit, %.

Supplementary Figure 3

Daily changes of peripheral markers according to pneumonia diagnosis



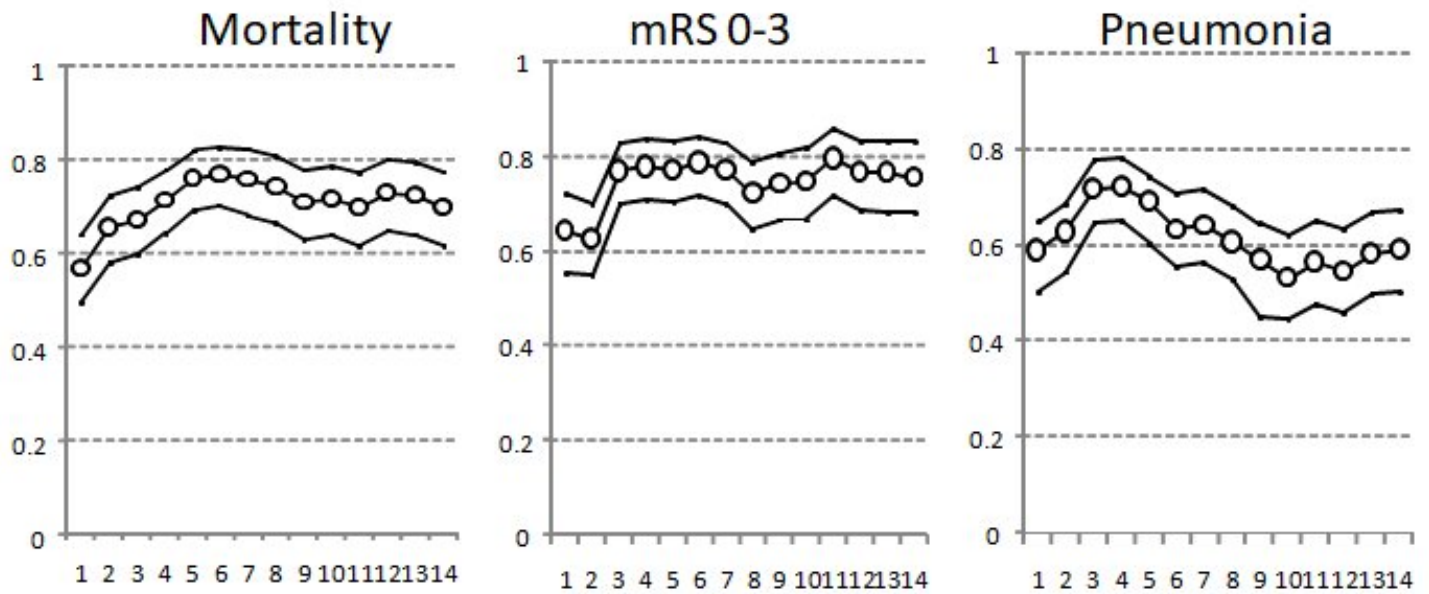
Axis indicates days after stroke. * indicates $p < 0.05$

Abbreviations: LMR: Lymphocyte-to-Monocyte ratio; NLR: Neutrophil-to-lymphocyte ratio; PLR: Platelet-lymphocyte ratio; SII: Systemic immune-inflammation index.

Units: Lymphocyte, $\times 10^3/\mu\text{L}$; Neutrophil, $\times 10^3/\mu\text{L}$; Monocyte, $\times 10^3/\mu\text{L}$; Platelet, $\times 10^3/\mu\text{L}$; Leukocyte, $\times 10^3/\mu\text{L}$; NLR, LMR, PLR, SII, Albumin, g/dL; Fibrinogen, mg/dL; Hematocrit, %.

Supplementary Figure 4

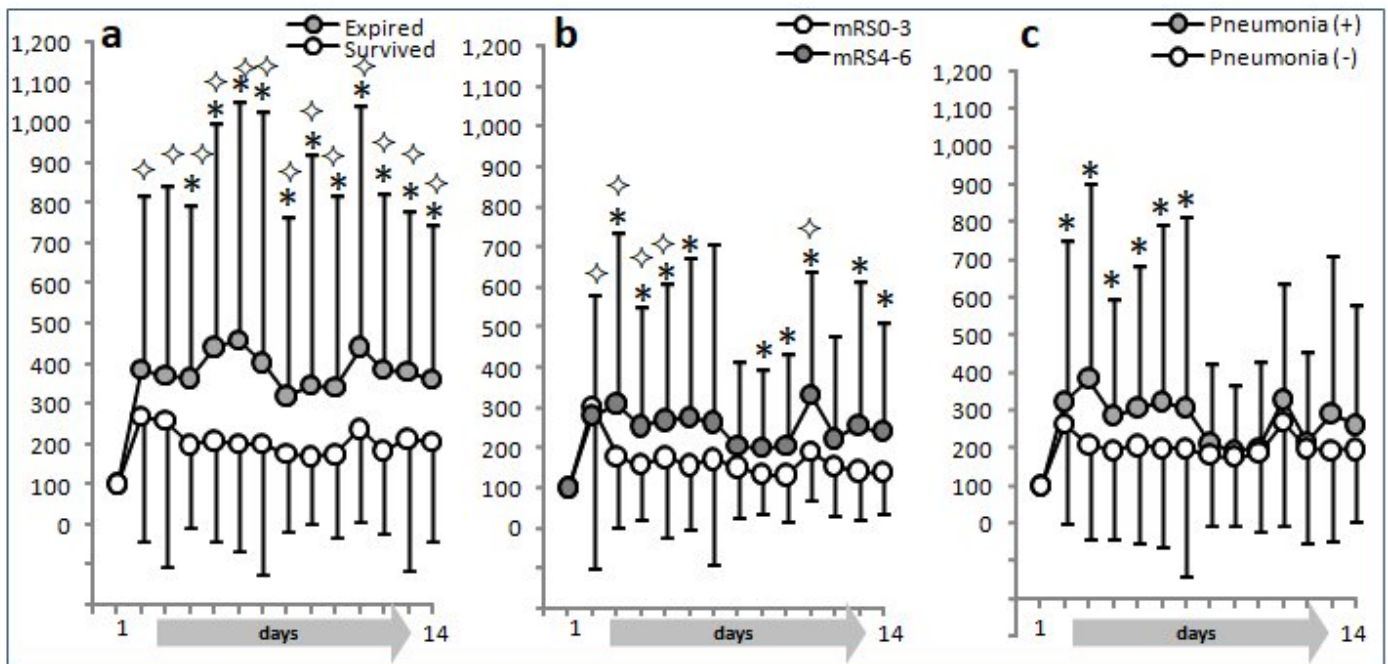
Daily basis discriminative capacity of NLR



Area under the curve (AUC) of Receiver Operating Characteristic (ROC) curve is shown. Circles represent median ROC values, lower and upper lines indicate 95% confidence interval limits. Axis represents days after stroke.

Supplementary Figure 5

Daily basis percent NLR changes



* $p < 0.05$ (binary), $\diamond p < 0.05$ (repeated)

Supplementary Table 1

Time Course of AUC of ROC curves



A

Mortality	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Lymphocyte	0.458	0.518	0.51	0.545	0.602	0.598	0.555	0.565	0.557	0.585	0.585	0.532	0.596	0.552
Neutrophil	0.46	0.587	0.586	0.626	0.666	0.728	0.661	0.572	0.609	0.583	0.589	0.594	0.603	0.609
Monocyte	0.463	0.516	0.518	0.437	0.452	0.483	0.445	0.442	0.427	0.481	0.551	0.544	0.544	0.461
Platelet	0.46	0.411	0.486	0.5	0.48	0.512	0.521	0.514	0.524	0.543	0.568	0.55	0.556	0.563
Leukocyte	0.479	0.554	0.544	0.549	0.608	0.63	0.671	0.595	0.585	0.568	0.571	0.593	0.596	0.596
NLR	0.492	0.581	0.597	0.64	0.69	0.73	0.68	0.664	0.629	0.637	0.613	0.647	0.639	0.613
LMR	0.486	0.562	0.54	0.541	0.599	0.614	0.59	0.573	0.53	0.553	0.448	0.471	0.461	0.459
PLR	0.453	0.493	0.483	0.456	0.511	0.513	0.48	0.466	0.432	0.404	0.467	0.417	0.475	0.408
SII	0.47	0.526	0.547	0.54	0.605	0.62	0.614	0.548	0.57	0.523	0.492	0.534	0.579	0.522
Albumin	0.513	0.489	0.573	0.594	0.561	0.621	0.583	0.567	0.608	0.651	0.641	0.6	0.615	0.613
Fibrinogen	0.425	0.496	0.436	0.481	0.453	0.466	0.424	0.456	0.422	0.424	0.446	0.412	0.396	0.434
Hematocrit	0.431	0.42	0.432	0.523	0.492	0.469	0.478	0.484	0.51	0.486	0.492	0.523	0.517	0.523

B

MRS 0-3	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Lymphocyte	0.568	0.519	0.671	0.642	0.643	0.642	0.619	0.54	0.554	0.479	0.557	0.496	0.56	0.536
Neutrophil	0.535	0.558	0.623	0.649	0.614	0.643	0.571	0.551	0.559	0.629	0.623	0.677	0.67	0.539
Monocyte	0.44	0.568	0.547	0.499	0.462	0.507	0.441	0.498	0.507	0.563	0.486	0.506	0.516	0.435
Platelet	0.48	0.438	0.464	0.495	0.482	0.514	0.514	0.499	0.507	0.514	0.462	0.488	0.436	0.45
Leukocyte	0.553	0.516	0.524	0.533	0.488	0.523	0.549	0.539	0.556	0.618	0.635	0.636	0.652	0.614
NLR	0.554	0.595	0.7	0.709	0.703	0.717	0.701	0.645	0.667	0.665	0.716	0.687	0.684	0.684
LMR	0.582	0.589	0.66	0.67	0.659	0.682	0.621	0.621	0.618	0.603	0.586	0.586	0.555	0.567
PLR	0.537	0.511	0.619	0.579	0.598	0.561	0.548	0.487	0.486	0.44	0.467	0.418	0.493	0.453
SII	0.561	0.527	0.65	0.638	0.641	0.634	0.605	0.546	0.586	0.548	0.595	0.562	0.616	0.611
Albumin	0.532	0.532	0.649	0.713	0.715	0.726	0.72	0.74	0.781	0.74	0.689	0.713	0.712	0.755
Fibrinogen	0.595	0.544	0.599	0.648	0.628	0.57	0.543	0.581	0.569	0.568	0.586	0.611	0.561	0.581
Hematocrit	0.415	0.465	0.476	0.531	0.56	0.56	0.568	0.55	0.562	0.573	0.618	0.627	0.63	0.653

C

Pneumonia	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Lymphocyte	0.431	0.467	0.584	0.573	0.555	0.581	0.552	0.522	0.488	0.487	0.433	0.413	0.433	0.495
Neutrophil	0.514	0.532	0.569	0.559	0.513	0.482	0.531	0.463	0.492	0.493	0.497	0.51	0.518	0.502
Monocyte	0.487	0.545	0.477	0.44	0.445	0.468	0.463	0.465	0.489	0.431	0.422	0.448	0.472	0.436
Platelet	0.428	0.47	0.439	0.442	0.453	0.481	0.491	0.489	0.481	0.461	0.466	0.453	0.45	0.44
Leukocyte	0.523	0.528	0.527	0.553	0.495	0.474	0.522	0.481	0.512	0.495	0.513	0.522	0.54	0.516
NLR	0.503	0.544	0.645	0.648	0.603	0.584	0.531	0.496	0.473	0.457	0.488	0.469	0.491	0.496
LMR	0.439	0.536	0.592	0.607	0.573	0.584	0.531	0.535	0.518	0.422	0.392	0.436	0.474	0.459
PLR	0.405	0.488	0.574	0.574	0.542	0.528	0.489	0.457	0.42	0.448	0.428	0.465	0.438	0.422
SII	0.466	0.52	0.607	0.606	0.558	0.545	0.539	0.476	0.468	0.427	0.46	0.433	0.472	0.472
Albumin	0.404	0.462	0.499	0.489	0.534	0.55	0.51	0.531	0.549	0.433	0.478	0.459	0.455	0.45
Fibrinogen	0.469	0.51	0.51	0.524	0.491	0.495	0.473	0.431	0.428	0.384	0.446	0.428	0.394	0.457
Hematocrit	0.451	0.46	0.45	0.461	0.494	0.499	0.508	0.516	0.499	0.499	0.474	0.453	0.435	0.436

*: Lower limit of 95% CI of the AUC of ROC curve, Yellow box indicates significance

(Yellow boxes indicates positive discriminative ability)

Abbreviations: LMR: Lymphocyte-to-Monocyte ratio; NLR: Neutrophil-to-lymphocyte ratio; PLR: Platelet-lymphocyte ratio; SII: Systemic immune-inflammation index.