Supplementary Materials

1. Supplementary Tables.

Table S1. Screening tool for Glasgow prognostic score.

Table S2. Screening tool for Controlling Nutritional Status score.

Table S3. Unadjusted and adjusted effect of PNII category on progression-free survival and overall survival in the training and validation datasets.

2. Supplementary Figures.

Figure S1. Patient selection diagram and inclusion criteria.

Figure S2. Cutoff of lactate dehydrogenase (LDH) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S3. Cutoff of alkaline phosphatase (ALP) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S4. Cutoff of C-reactive protein (CRP) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S5. Survival curves stratified by the Glasgow prognostic score (GPS). No cutoff of GPS was determined here because it is a categorical variable.

Figure S6. Cutoff of neutrophil-lymphocyte ratio (NLR) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure s7. Cutoff of platelet-to-lymphocyte ratio (PLR) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S8. Cutoff of the systemic immune-inflammation index (SII) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S9. Cutoff of the prognostic nutritional index (PNI) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S10. Cutoff of nutrition risk index (NRI) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

Figure S11. Survival curves stratified by controlling nutritional status (CONUT) score. No cutoff of the CONUT score was determined here because it is a categorical variable.

Figure S12. The pair-wise correlations among nutrition risk index, C creative protein, alkaline phosphatase, and lactate dehydrogenase.

Figure S13. The variance inflation factor plot and Eigenvalues plot of nutrition risk index, C creative protein, alkaline phosphatase, and lactate dehydrogenase in the fitting model.

Figure S14. Survival curves for progression-free survival and overall survival stratified by prognostic nutrition and inflammation index (PNII) category in patients without comorbidity (A and B) and in patients with comorbidity (C and D).

Figure S15. The predictive accuracy of the prognostic nutrition and inflammation index (PNII) score for progression-free survival and overall survival in patients without comorbidity (A, B) and patients with comorbidity (C, D).

Table S1. Screening tool for Glasgow prognostic score.		
Parameter	**Values**	**Score**
C reactive protein (mg/L)	≤10	0
	>10	1
Albumin (g/L)	<35	1
	≥35	0

Table s2. Screening tool for Controlling Nutritional Status score.		
Parameter	**Values**	**Score**
Albumin (g/L)	≥35	0
	30-34	2
	25-29	4
	<25	6
Total lymphocyte count (109/L)	≥1600	0
	1200-1599	1
	800-1199	2
	<800	3
Total cholesterol (mmol/L)	≥4.65	0
	3.62-4.64	1
	2.58-3.61	2
	<2.58	3
Dysnutritional states: normal 0–1; mild 2–4; moderate 5–8; severe 9–12.		

Table S3. Unadjusted and adjusted effect of PNII category on progression-free survival and overall survival in the training and validation datasets.

Cohort and endpoint	HR (95% CI)	P-value
Training set		
Progression-free survival		
Unadjusted		
Low PNII	Reference	
Intermediate PNII	2.29 (1.57-3.34)	<0.001
High PNII	4.60 (2.87-7.37)	<0.001
Adjusted		
Low PNII	Reference	
Intermediate PNII	1.96 (1.32-2.91)	<0.001
High PNII	3.14 (1.86-5.32)	<0.001
Overall survival		
Unadjusted		
Low PNII	Reference	
Intermediate PNII	2.18 (1.49-3.21)	<0.001
High PNII	5.66 (3.56-8.99)	<0.001
Adjusted		
Low PNII	Reference	
Intermediate PNII	1.86 (1.24-2.77)	0.002
High PNII	3.95 (2.33-6.69)	<0.001
Validation set		
Progression-free survival		
Unadjusted		
Low PNII	Reference	
Intermediate PNII	1.67 (1.00-2.79)	0.049
High PNII	2.68 (1.49-4.80)	0.001
Adjusted		
Low PNII	Reference	
Intermediate PNII	1.74 (0.98-3.07)	0.056
High PNII	2.34 (1.19-4.62)	0.014
Overall survival		
Unadjusted		
Low PNII	Reference	
Intermediate PNII	1.89 (1.02-3.49)	0.044
High PNII	3.18 (1.60-6.33)	0.001
Adjusted		
Low PNII	Reference	
Intermediate PNII	1.91 (0.99-3.68)	0.054
High PNII	2.66 (1.23-5.75)	0.013

Abbreviation: PNII, prognostic nutrition and inflammation index; HR, hazard ratio; CI, confidence interval.
Note: The adjusted HRs of the PNII category were calculated using the multivariable Cox regression analyses with enter method. That is, all baseline factors were included in the multivariable modeling. Besides, missing pretreatment EBV DNA values were imputed using a multivariable imputation by chained equations algorithm before multivariable modeling.

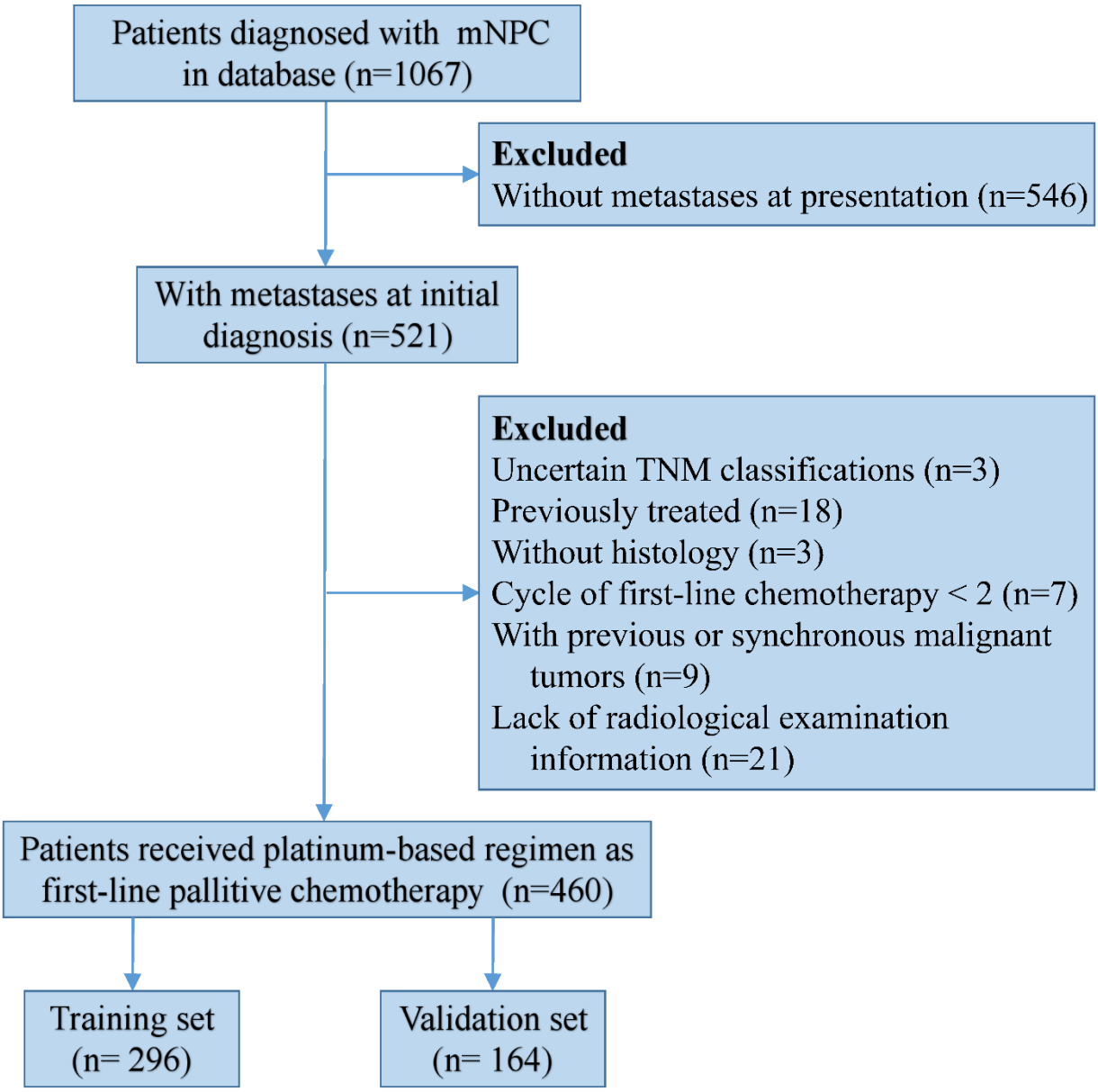


Figure S1. Patient selection diagram and inclusion criteria.

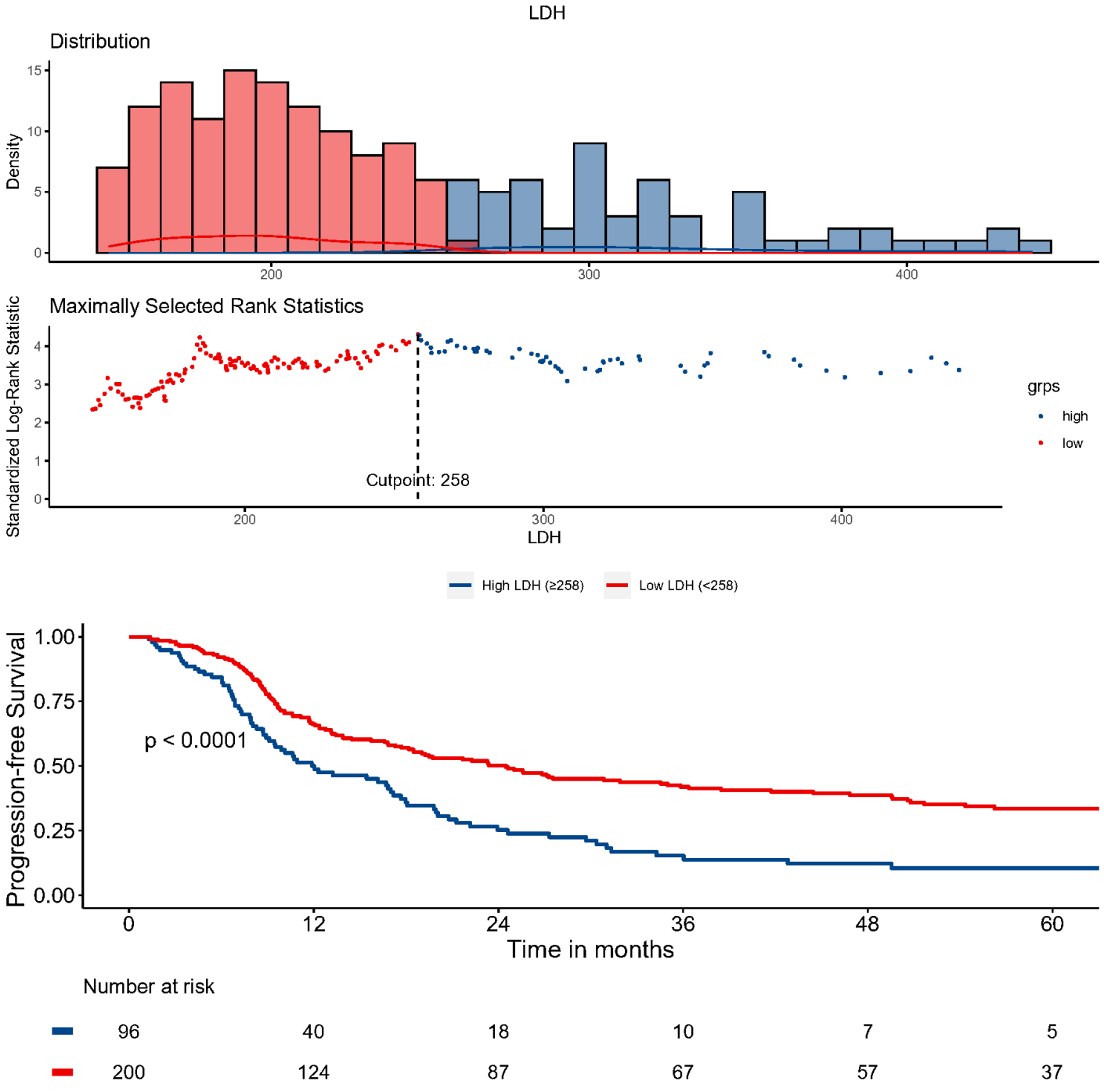


Figure S2. Cutoff of lactate dehydrogenase (LDH) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

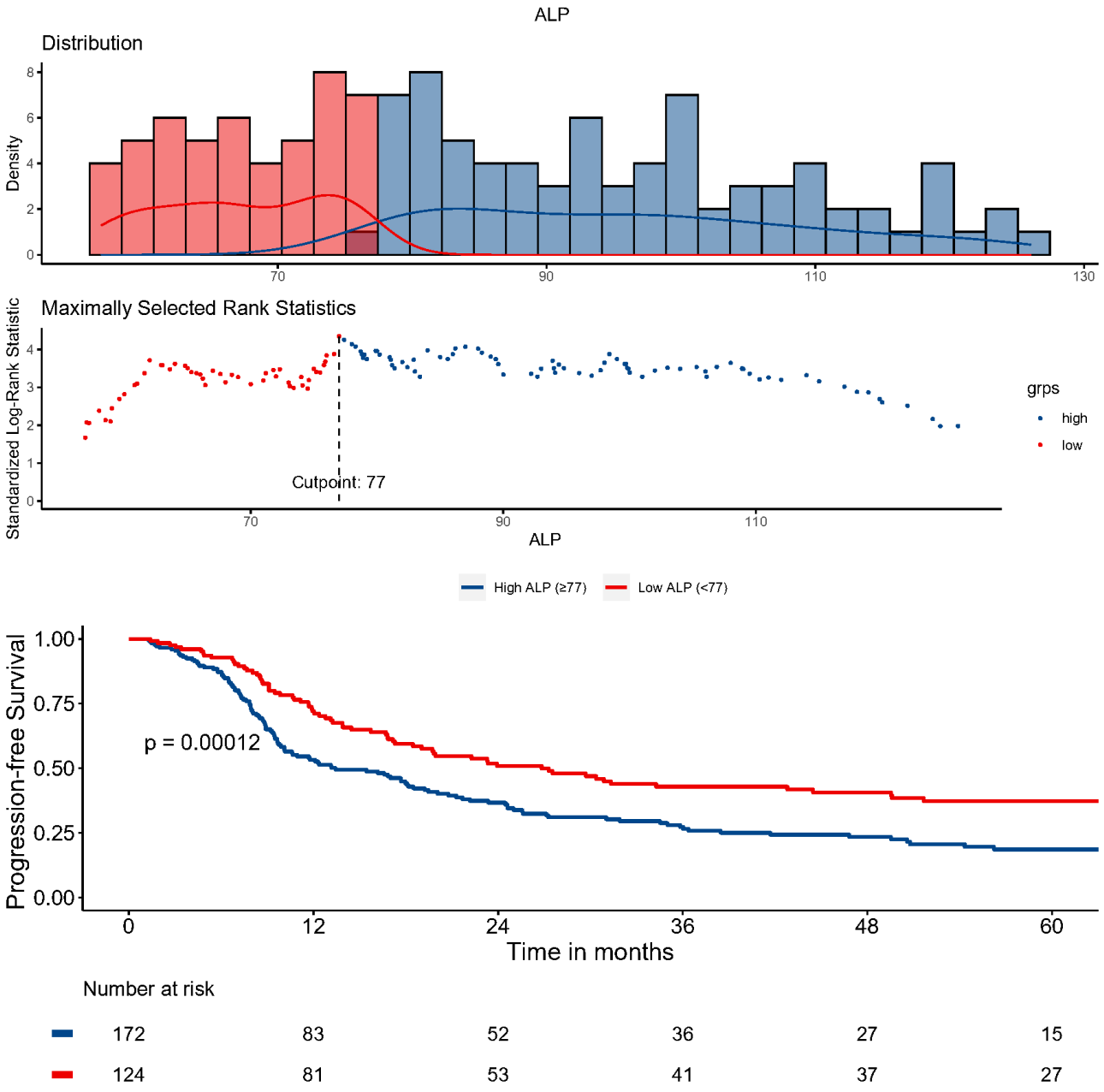


Figure S3. Cutoff of alkaline phosphatase (ALP) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

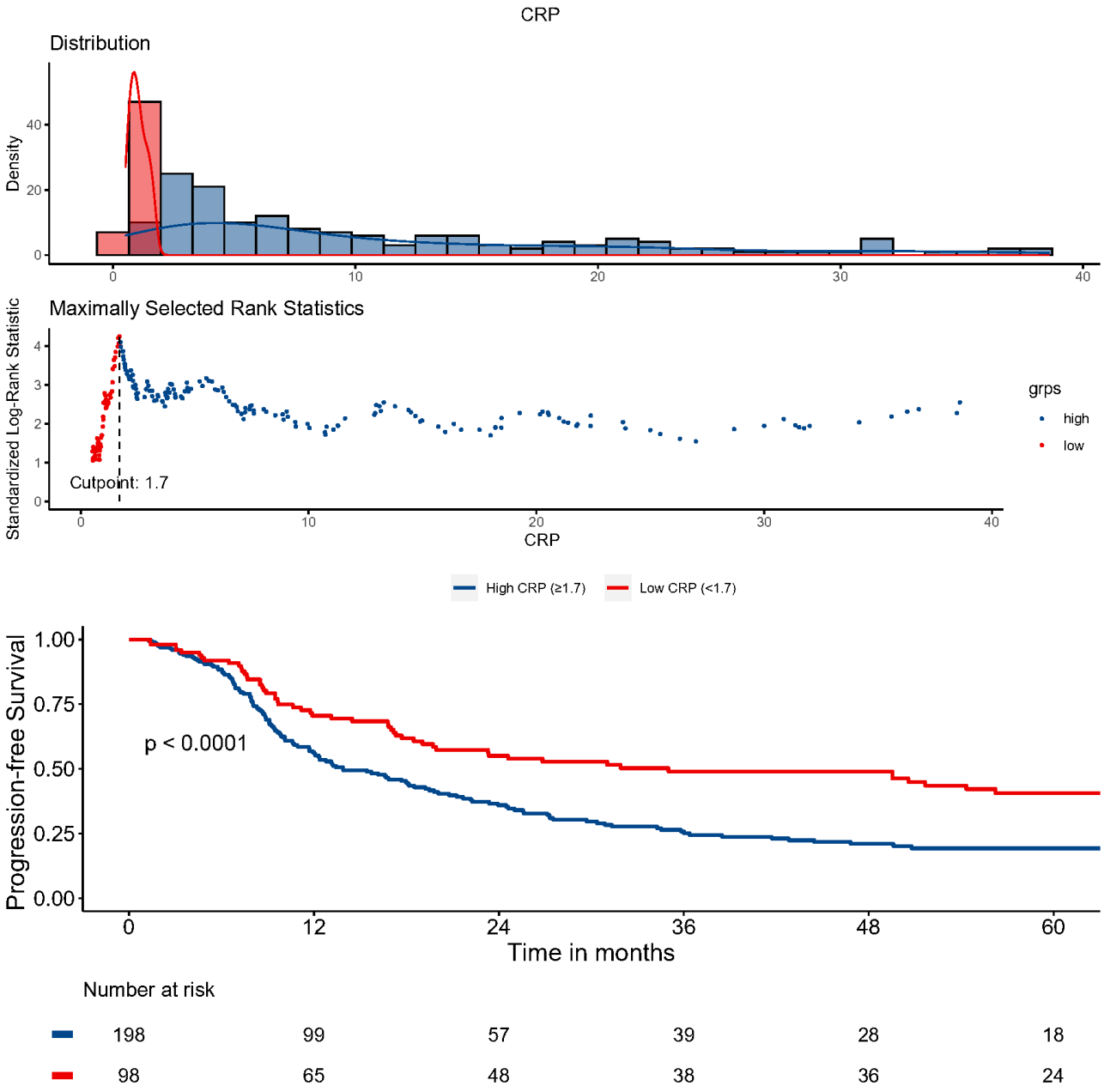


Figure S4. Cutoff of C-reactive protein (CRP) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

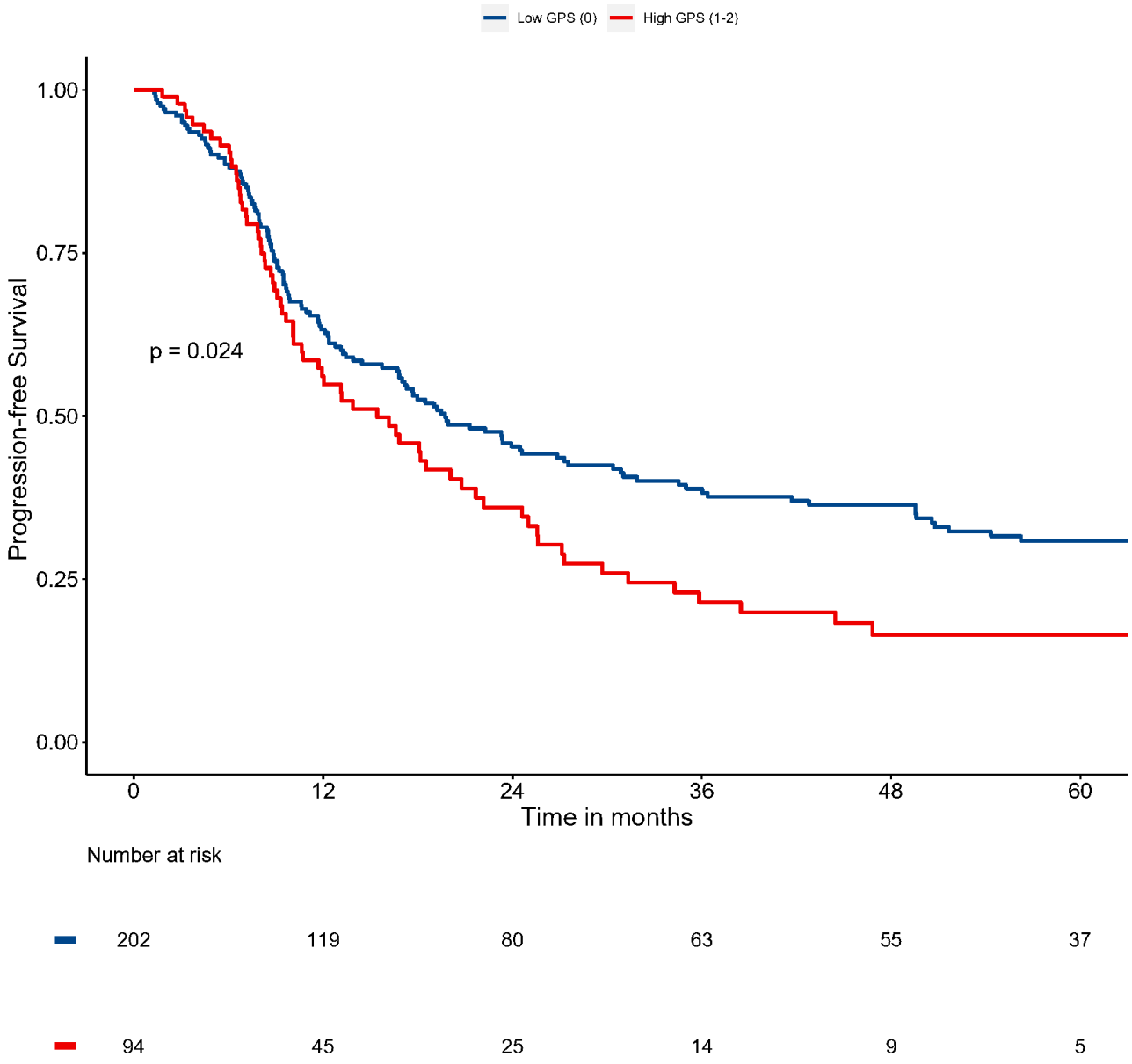


Figure S5. Survival curves stratified by Glasgow prognostic score (GPS). No cutoff of GPS was determined here because it is a categorical variable.

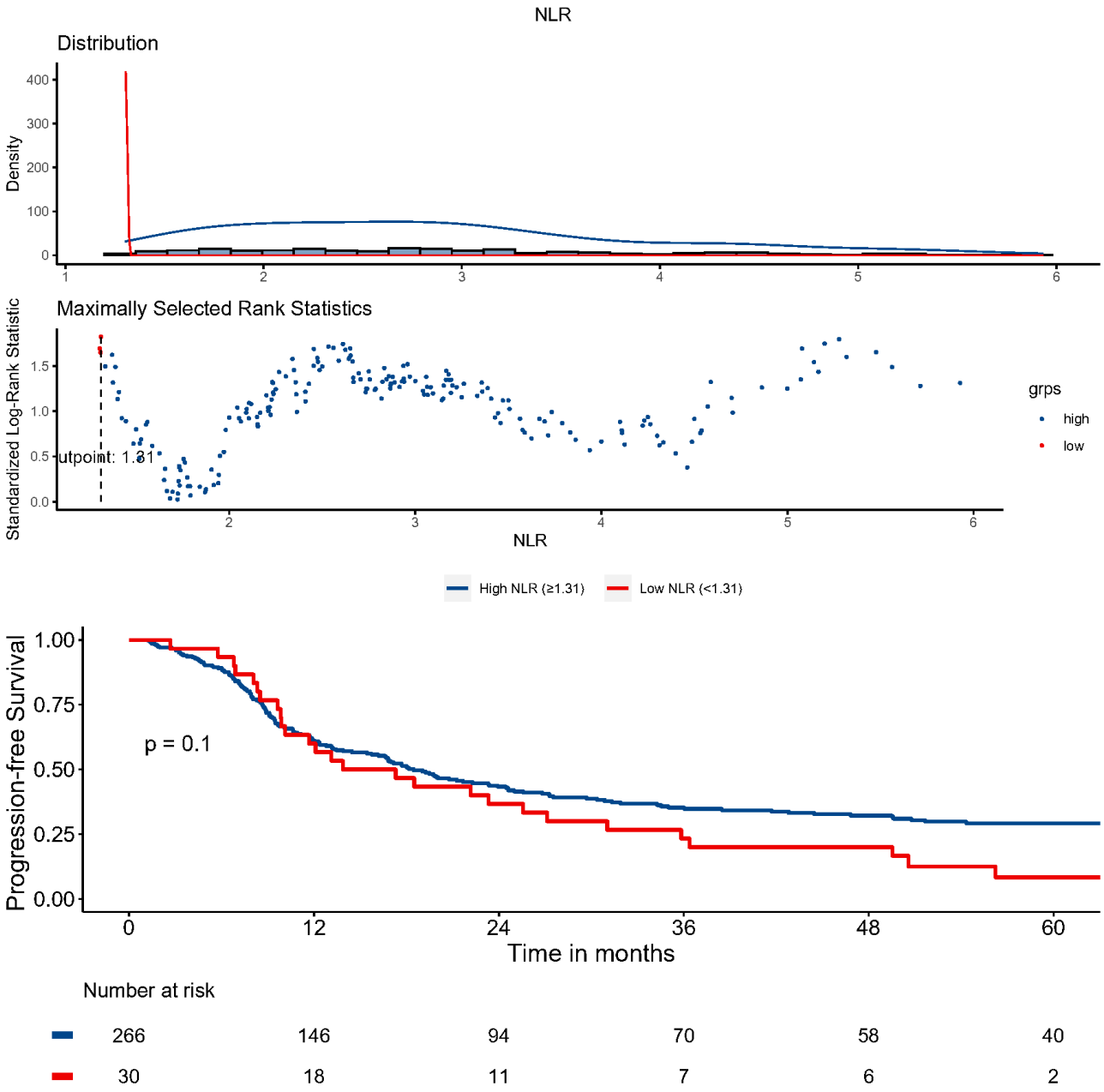


Figure S6. Cutoff of neutrophil-lymphocyte ratio (NLR) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

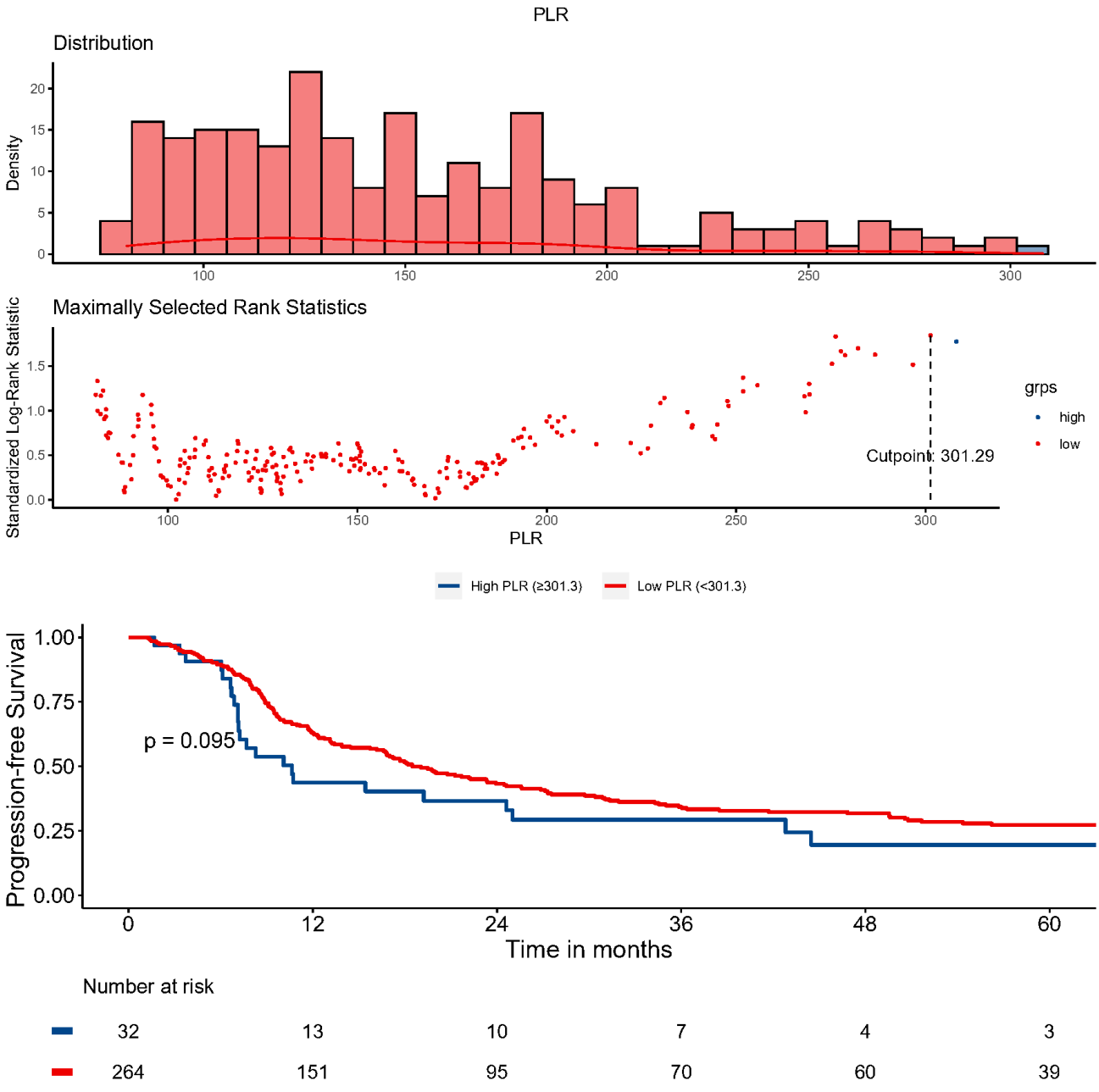


Figure S7. Cutoff of platelet-to-lymphocyte ratio (PLR) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

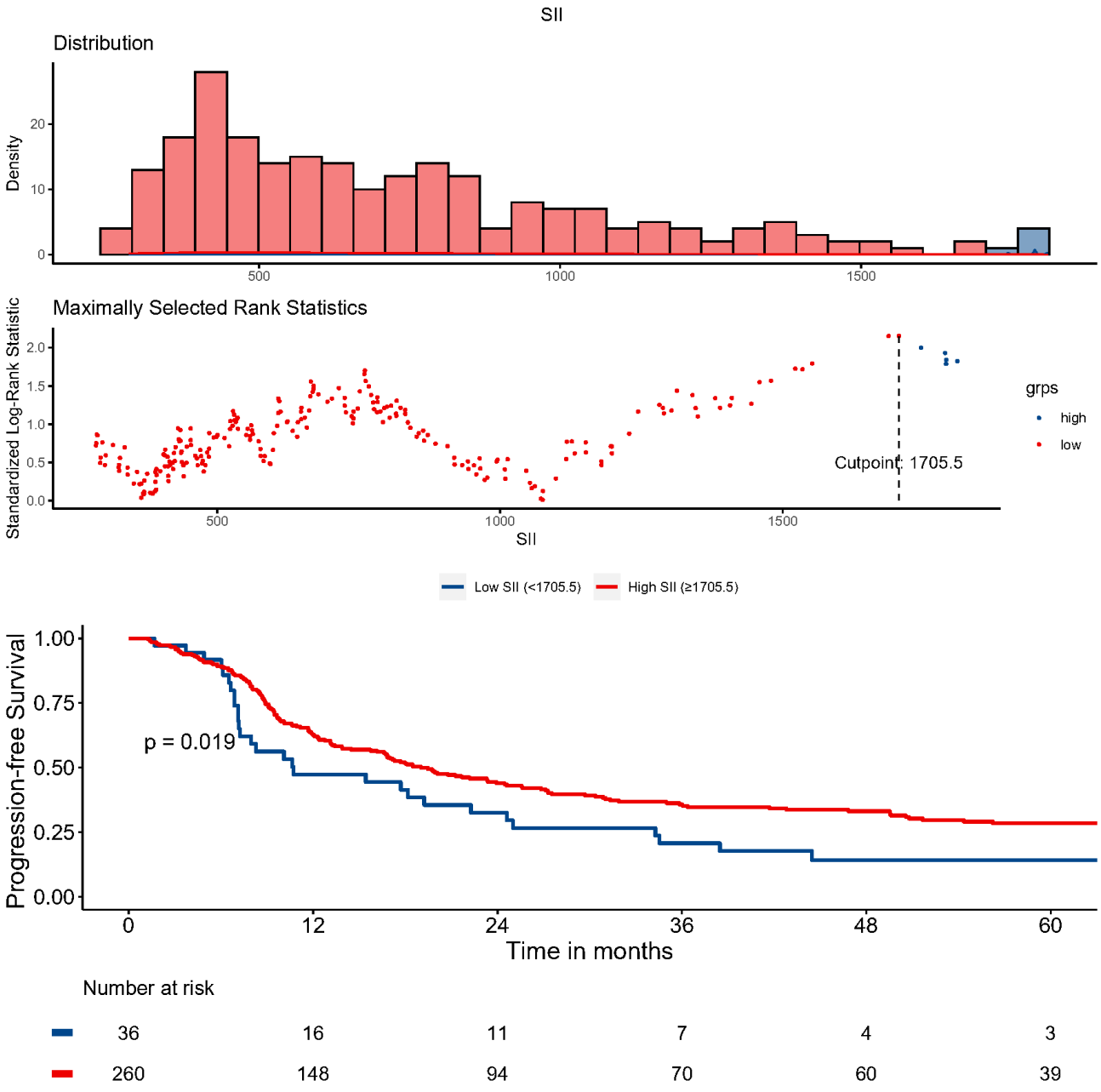


Figure S8. Cutoff of systemic immune-inflammation index (SII) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

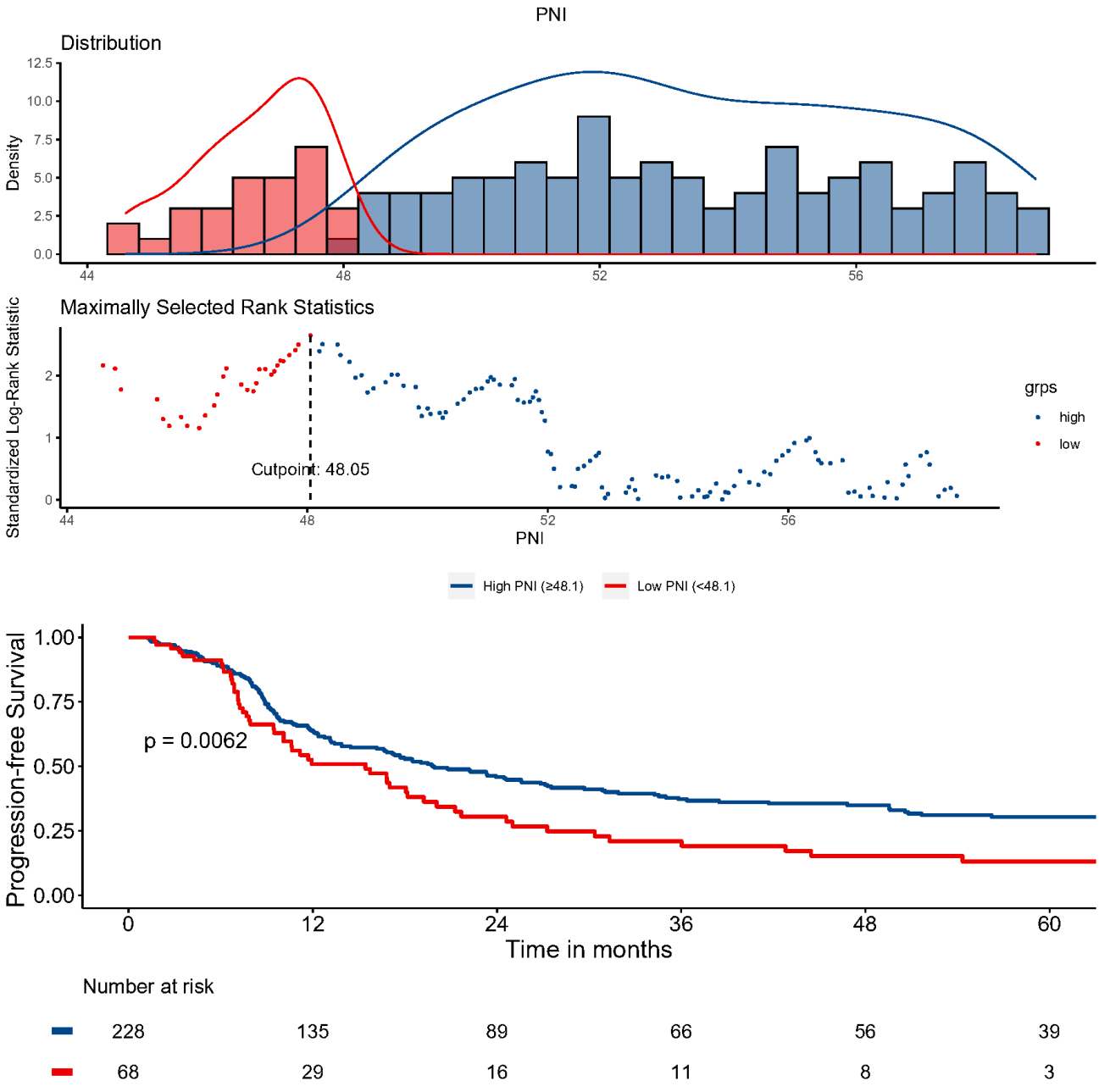


Figure S9. Cutoff of prognostic nutritional index (PNI) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.

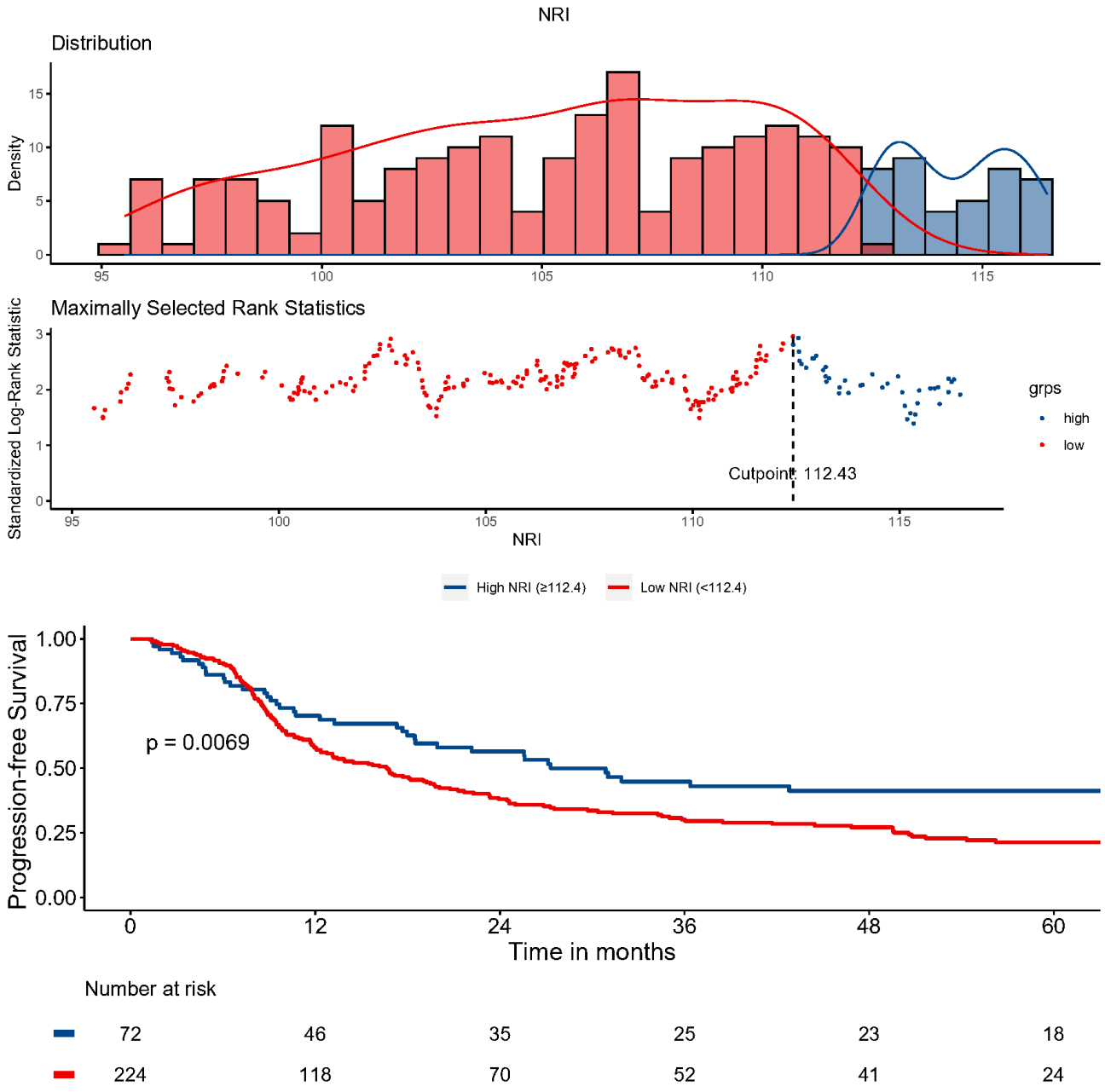
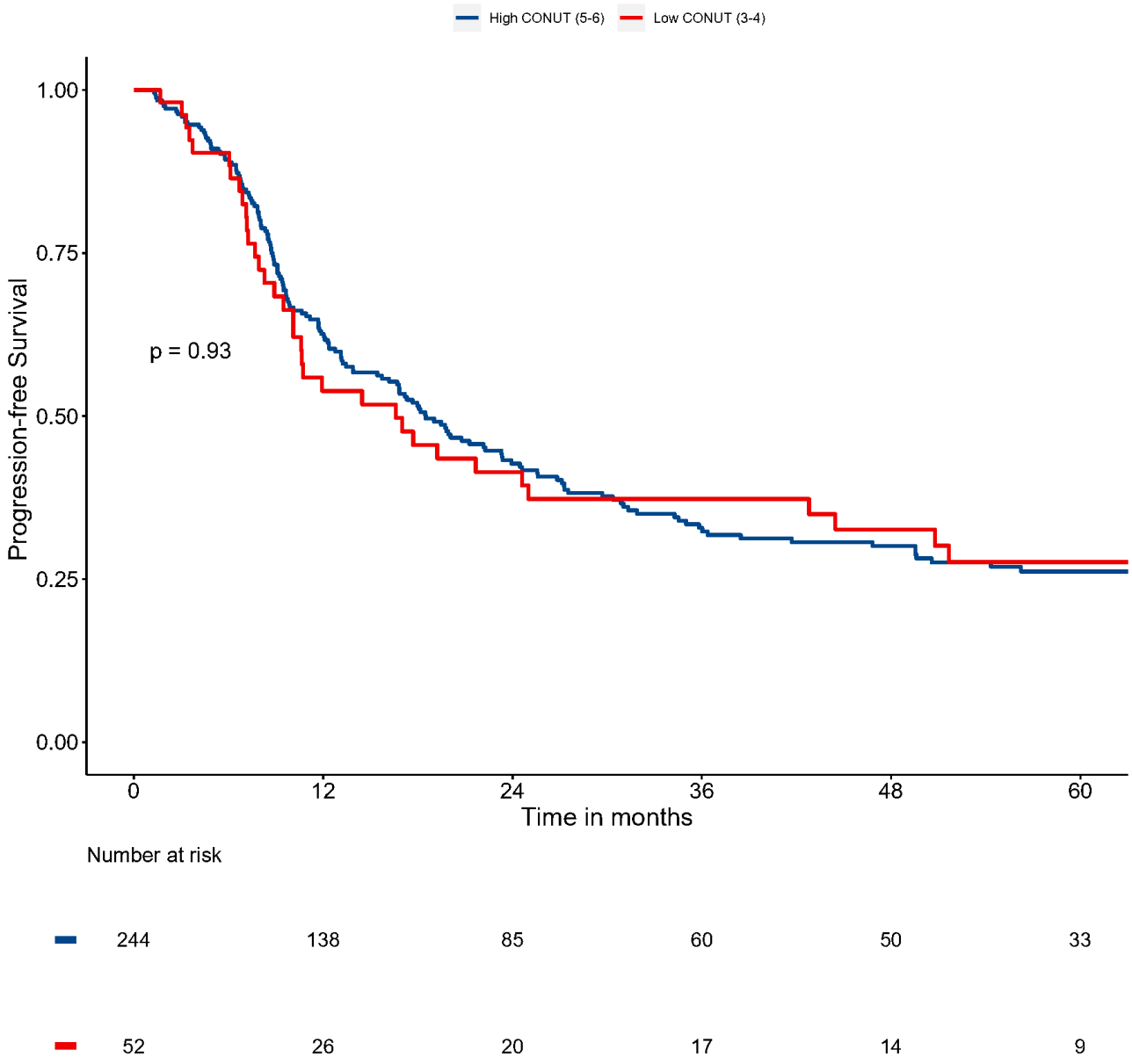


Figure S10. Cutoff of nutrition risk index (NRI) determined by Maximally Selected Rank Statistics, and survival curves stratified by the cutoff.



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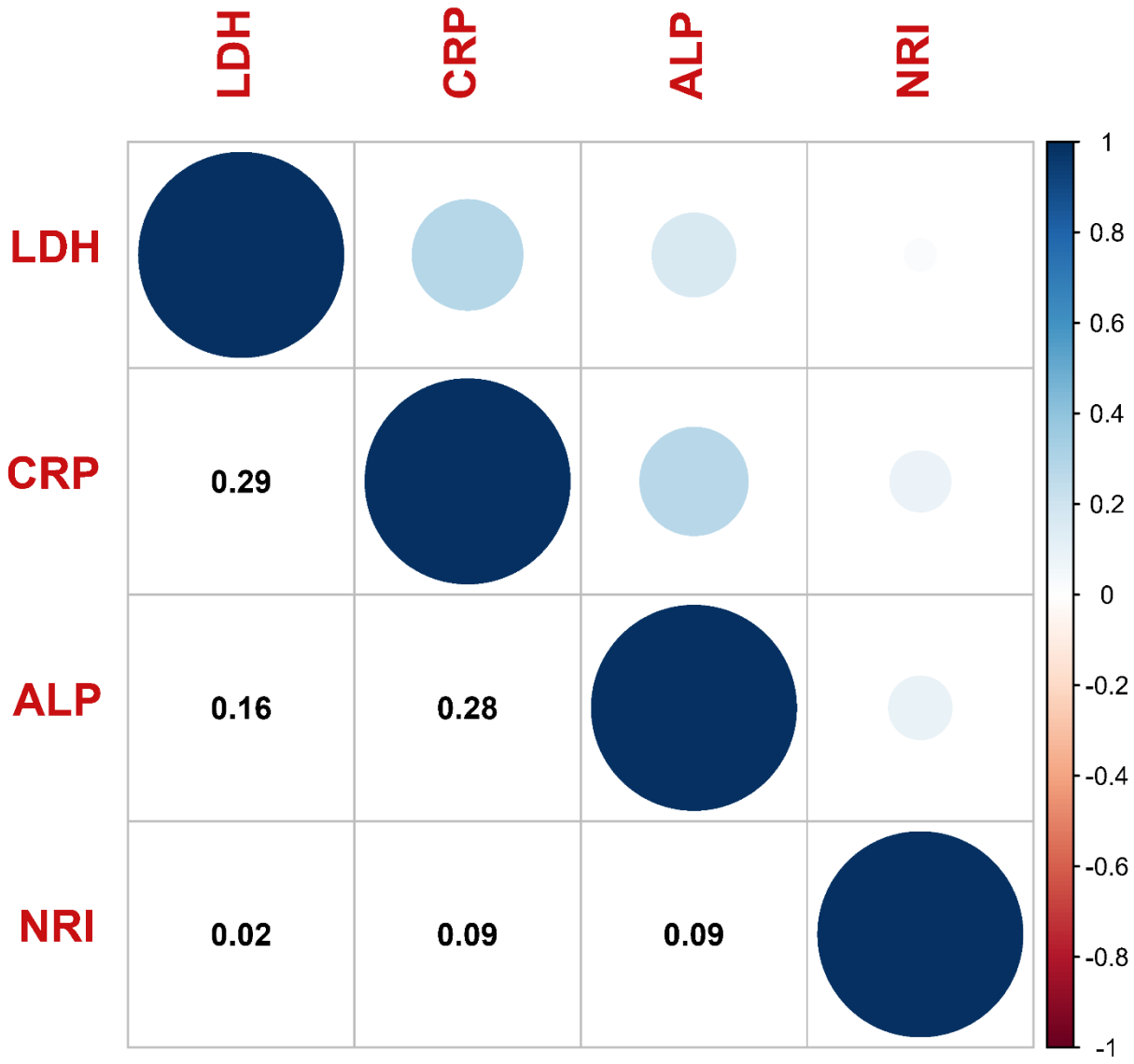

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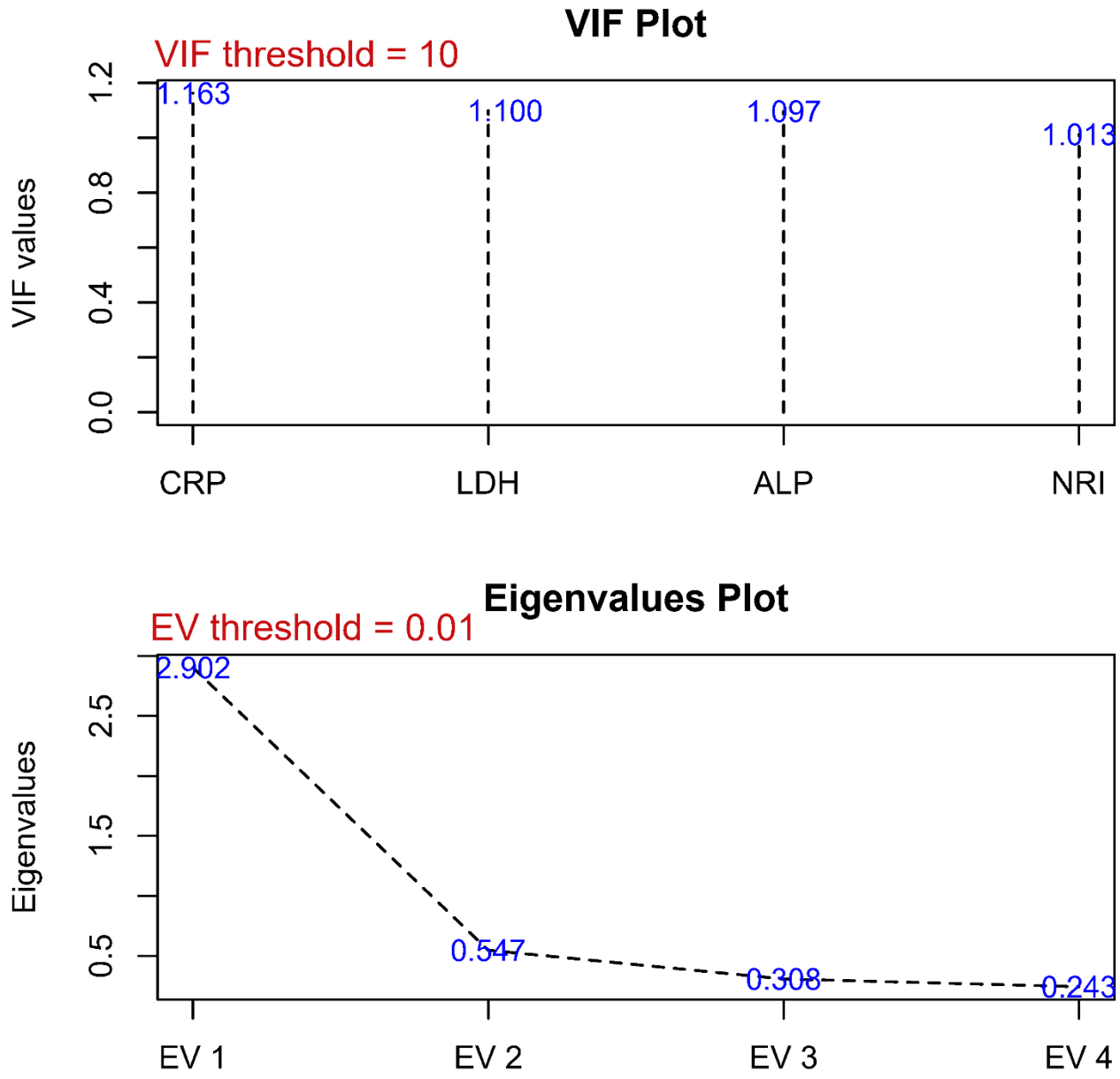

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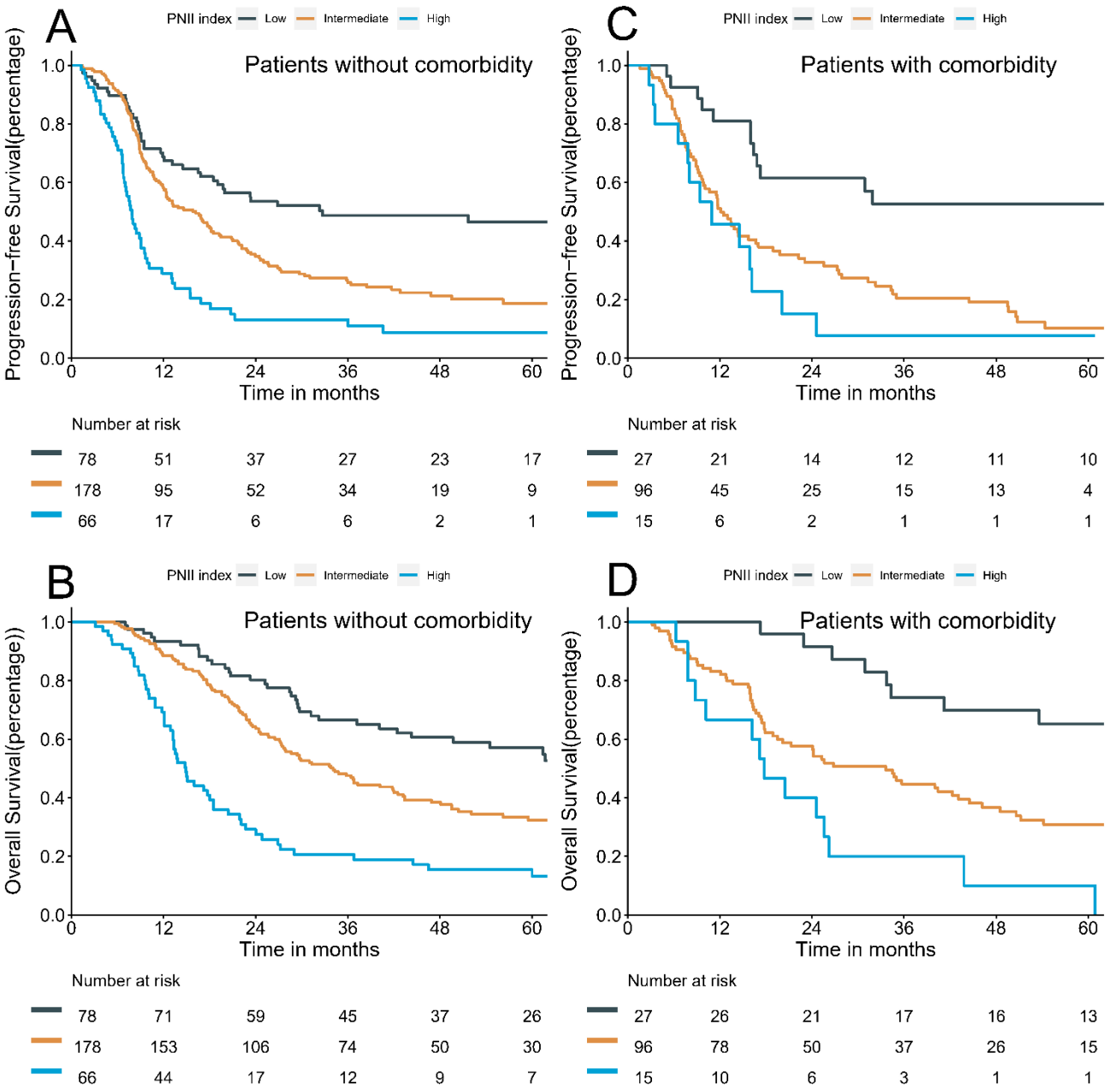

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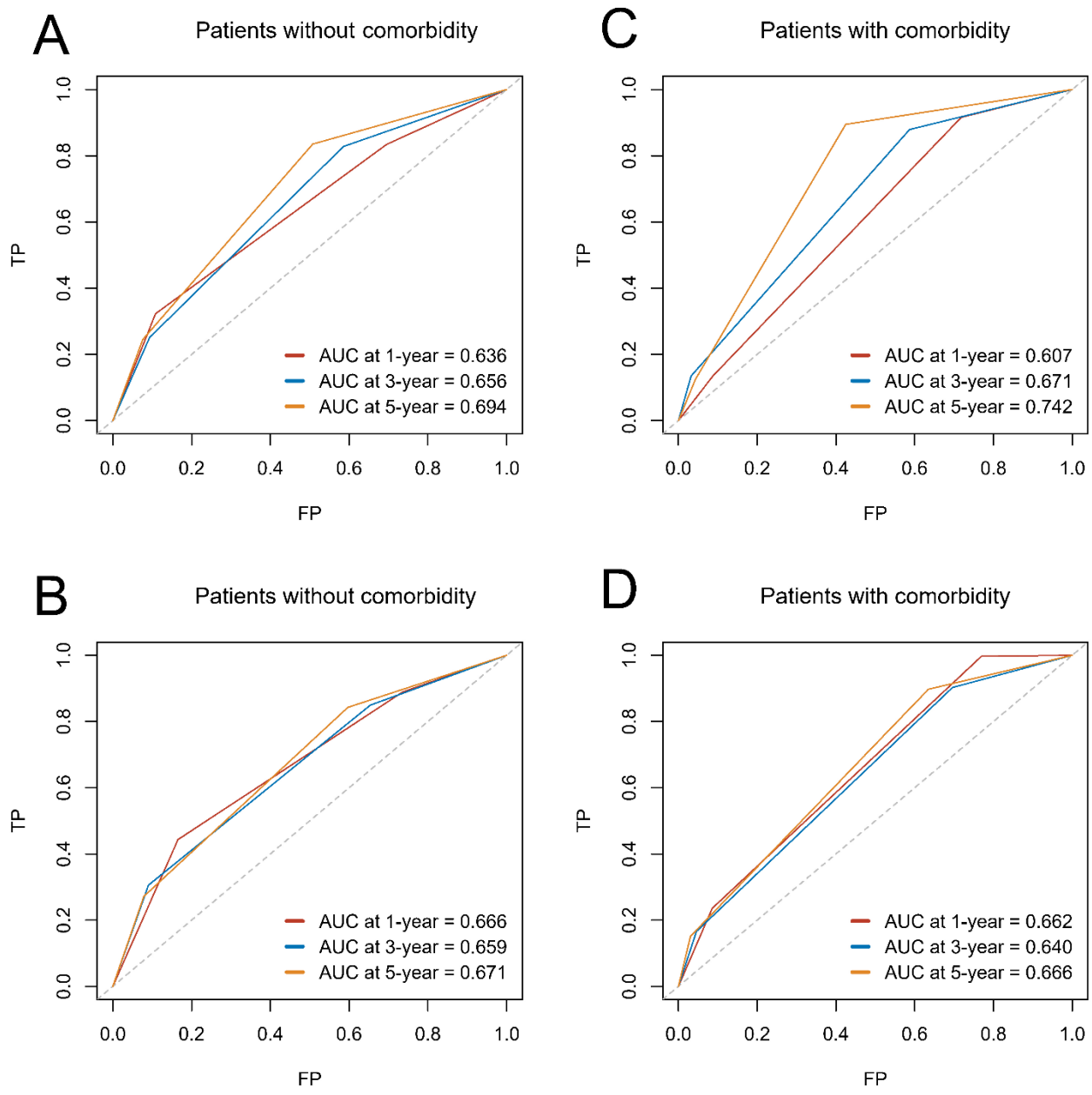

Figure S15. The predictive accuracy of the prognostic nutrition and inflammation index (PNII) score for progression-free survival and overall survival in patients without comorbidity (A, B) and patients with comorbidity (C, D).