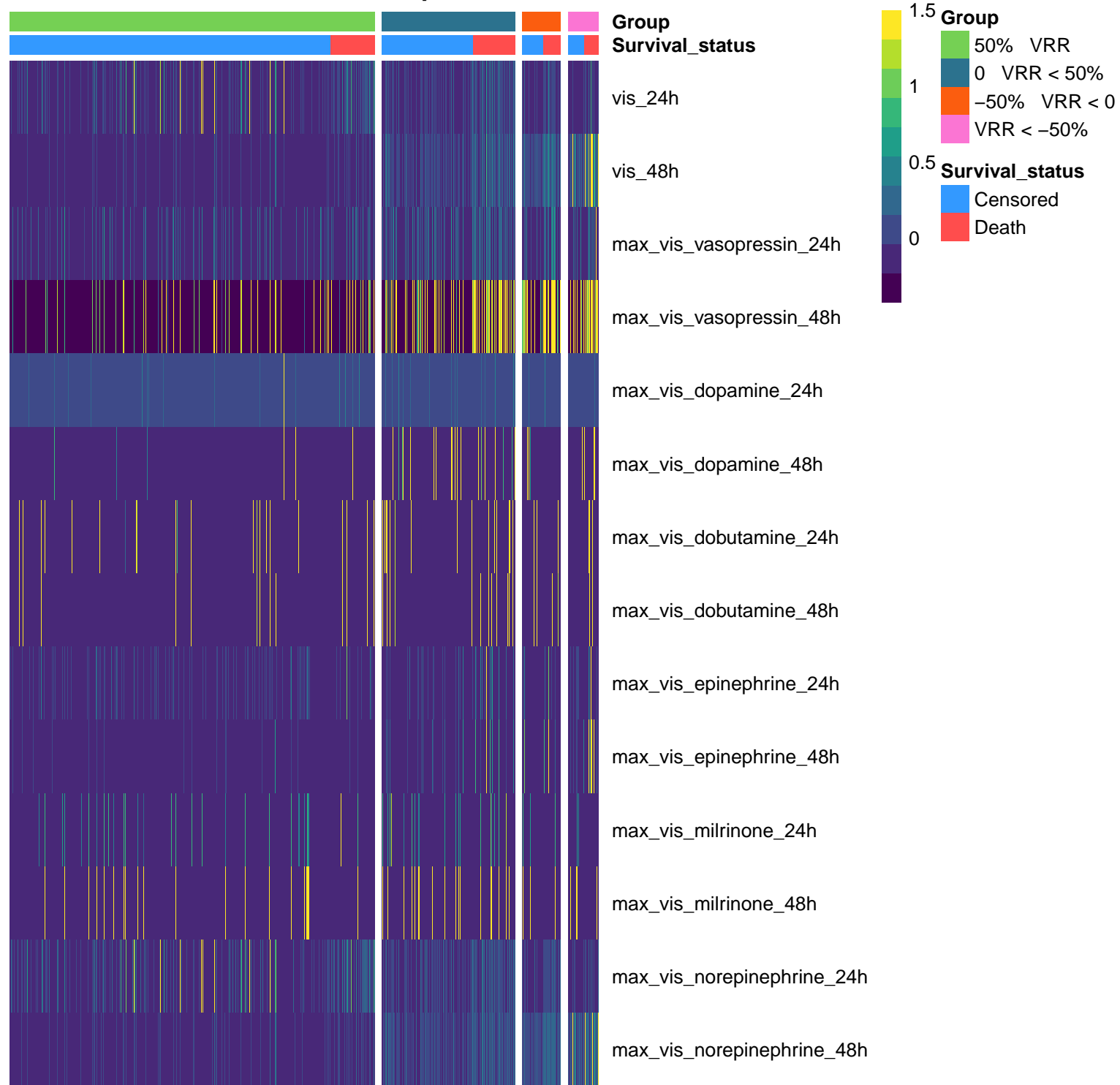
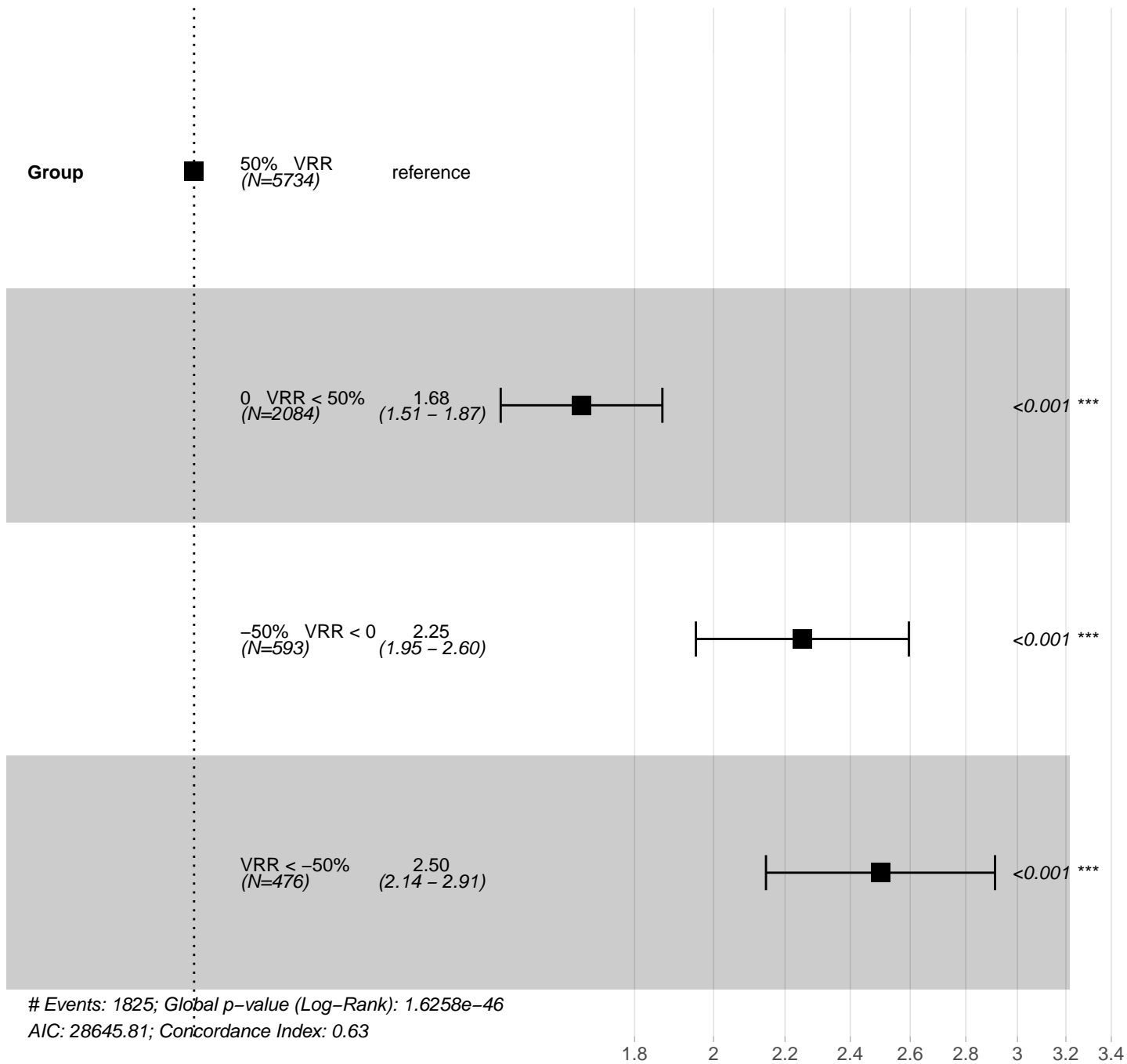


VIS features heatmap

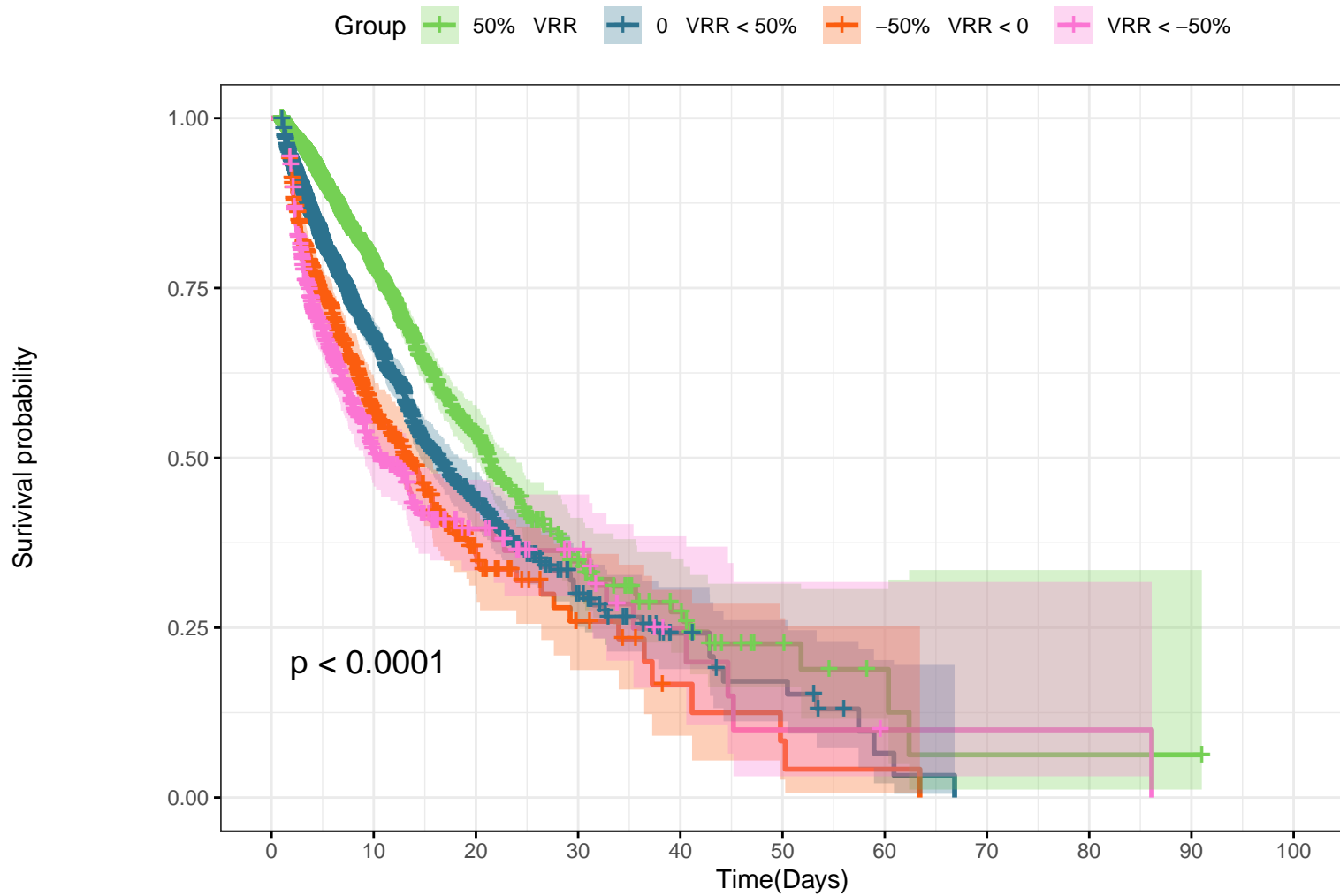


Forest plot of univariate Cox regression analysis for ICU mortality

Hazard Ratio



Kaplan–Meier survival curve for ICU mortality of original cohort

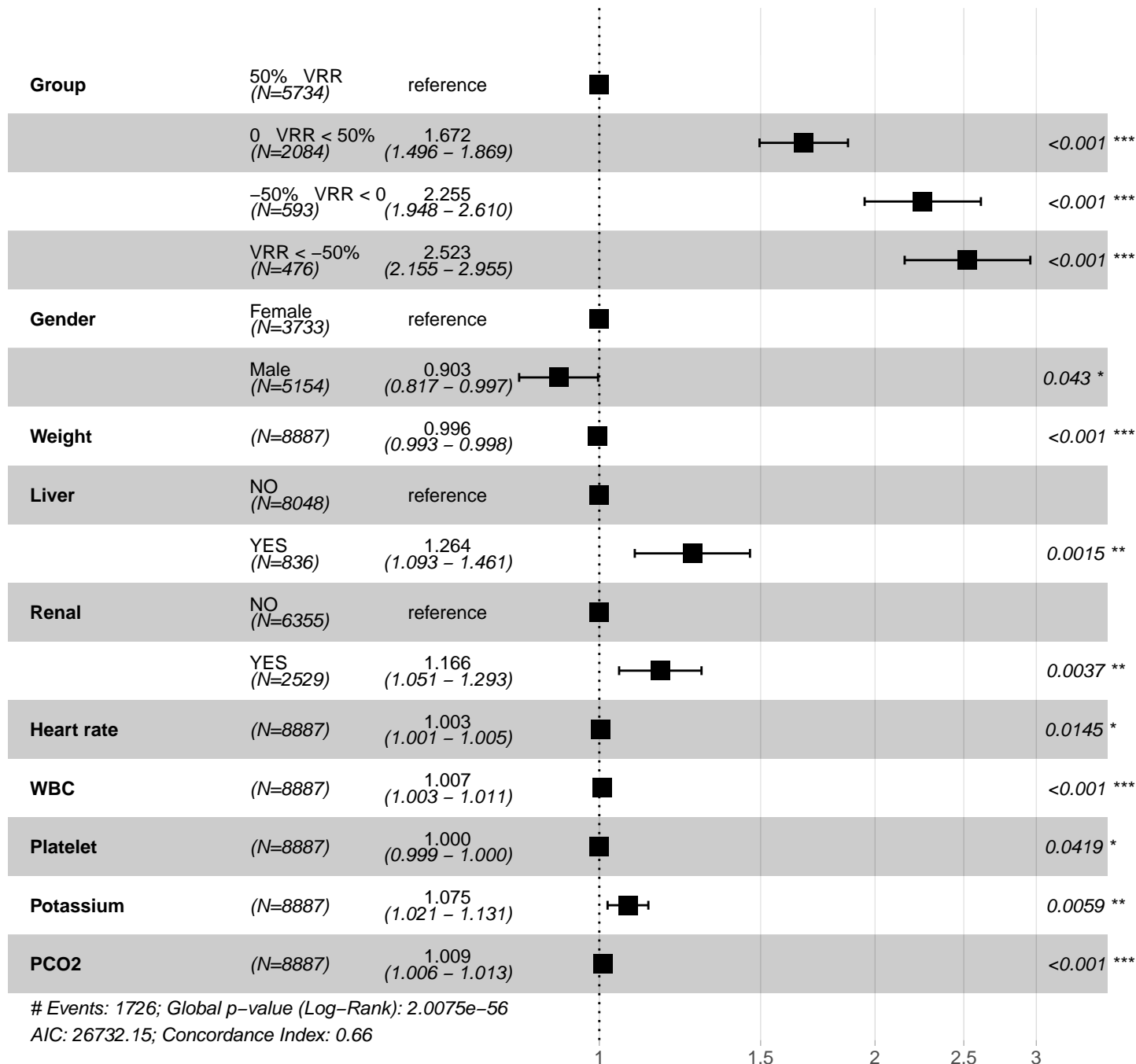


Cumulative number of events

Group	0	10	20	30	40	50	60	70	80	90	100
50% VRR	0	487	631	668	675	678	679	681	681	681	681
0 VRR < 50%	0	489	612	640	646	650	654	656	656	656	656
-50% VRR < 0	0	214	255	261	264	266	267	268	268	268	268
VRR < -50%	0	194	210	212	216	219	219	219	219	220	220

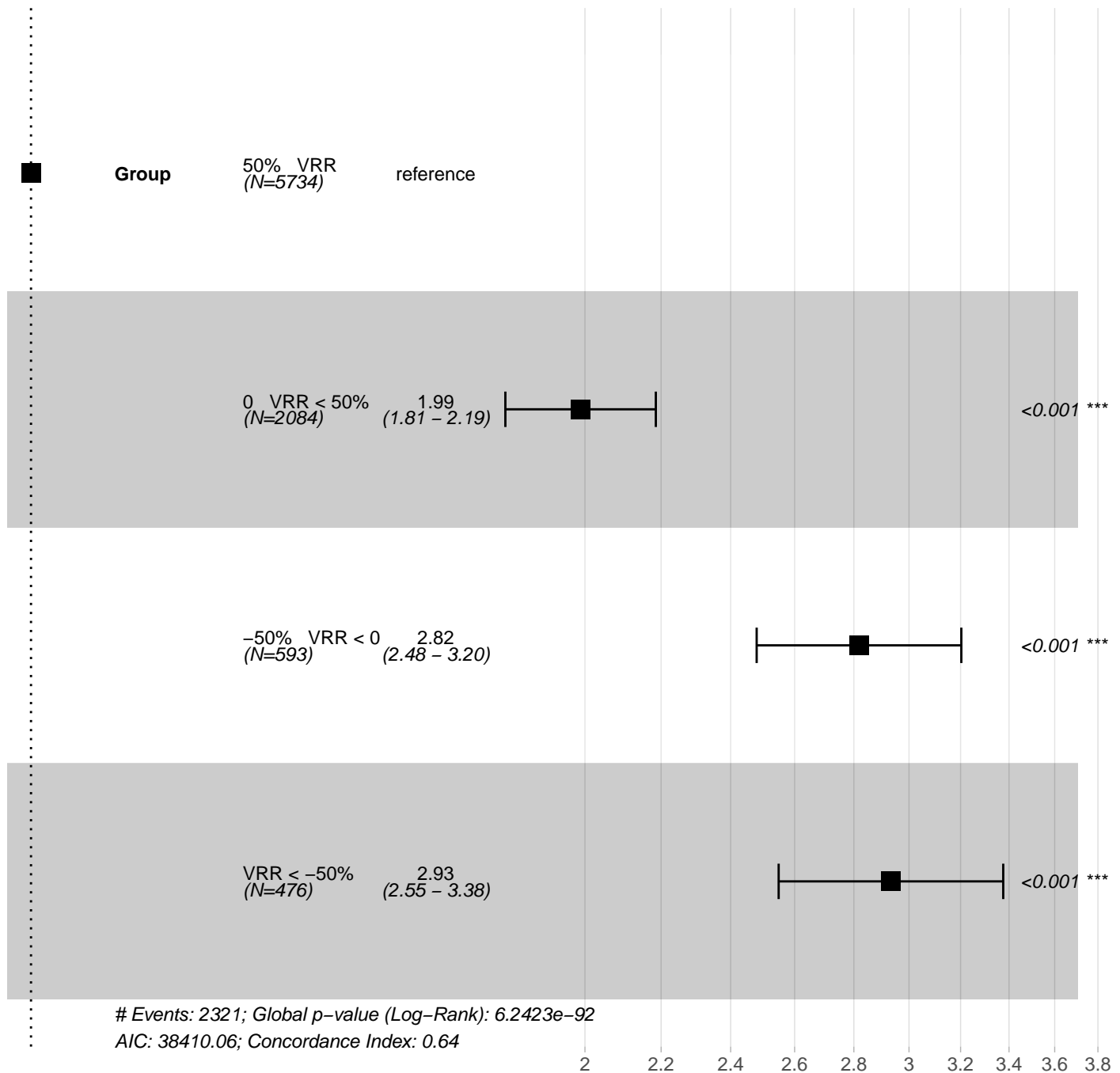
Forest plot of multivariate Cox regression analysis for ICU mortality

Hazard Ratio

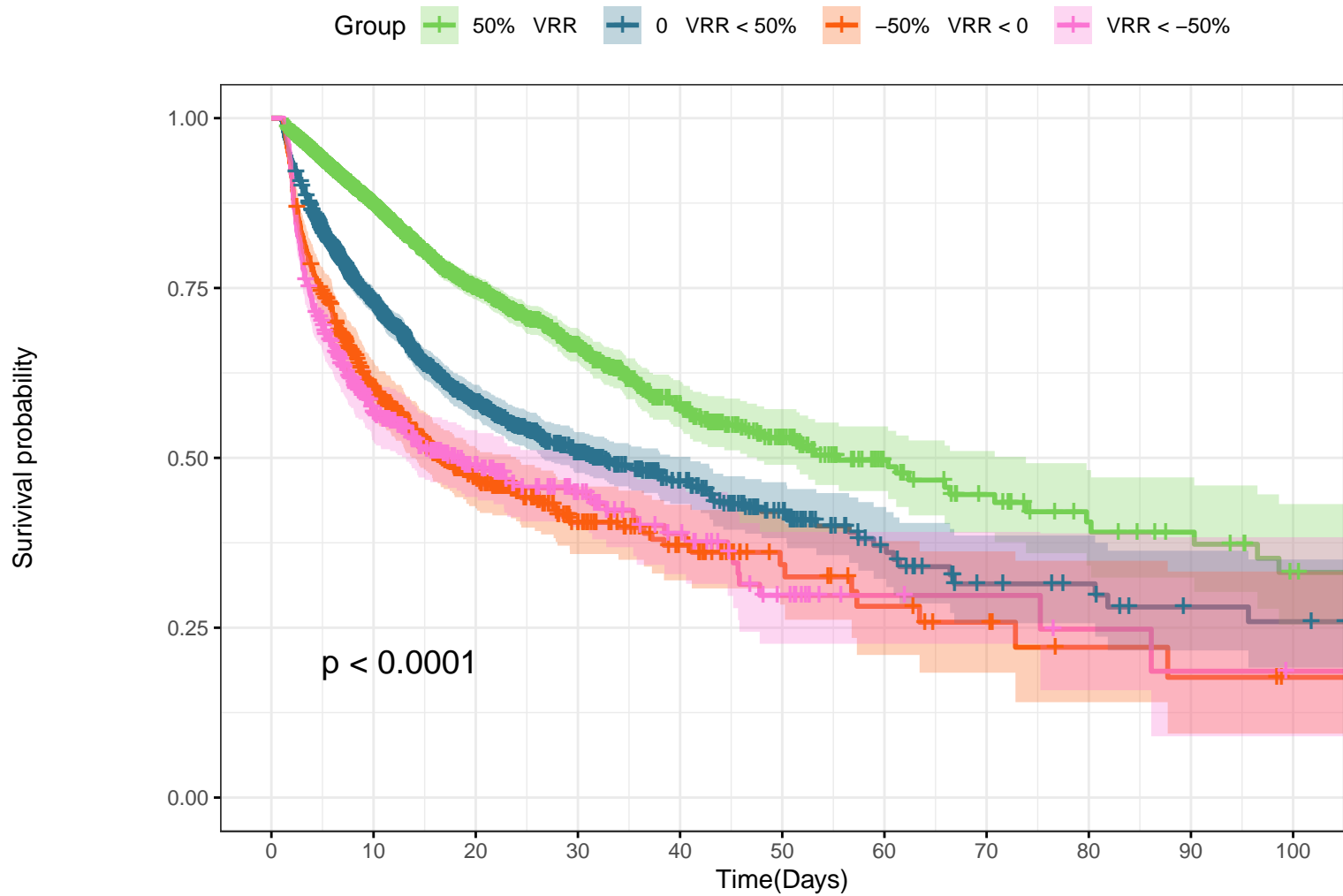


Forest plot of univariate Cox regression analysis for in hospital mortality

Hazard Ratio



Kaplan–Meier survival curve for in hospital mortality of original cohort

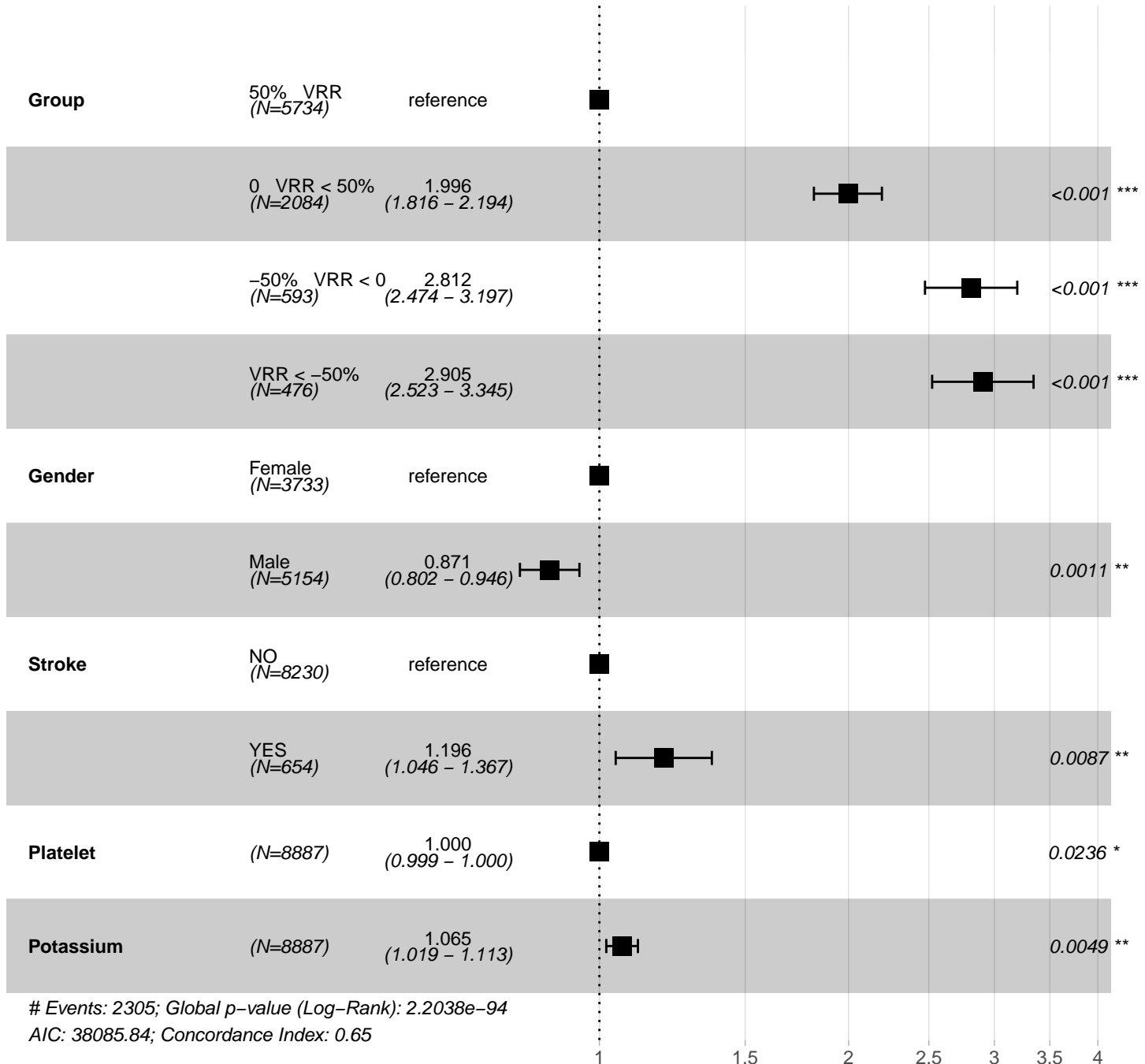


Cumulative number of events

Group	0	10	20	30	40	50	60	70	80	90	100
50% VRR	0	581	815	886	922	935	940	945	948	949	952
0 VRR < 50%	0	538	720	767	781	791	797	802	802	804	805
-50% VRR < 0	0	231	287	301	305	307	310	311	312	313	313
VRR < -50%	0	201	225	232	238	244	244	244	245	246	246

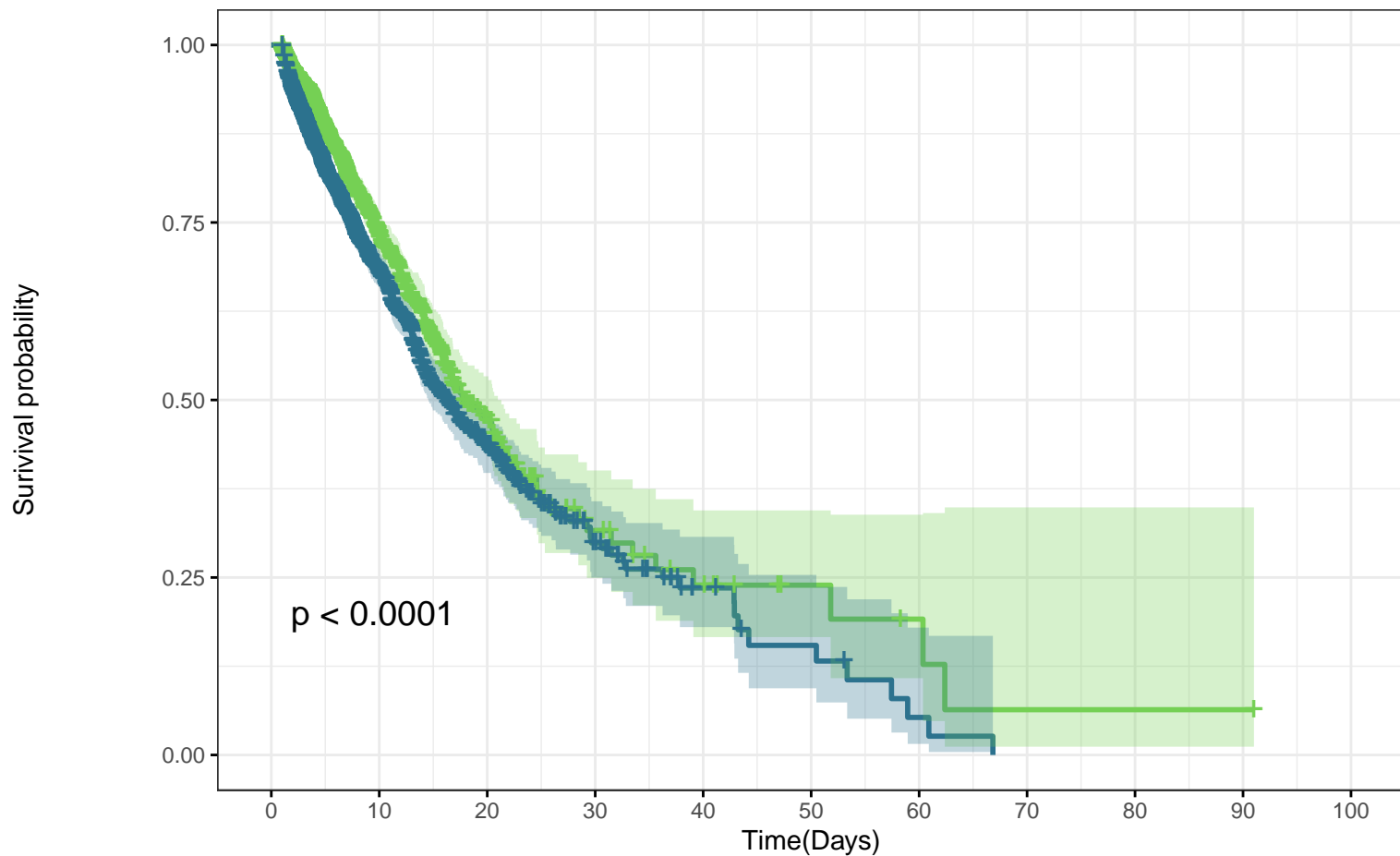
Forest plot of multivariate Cox regression analysis for in hospital mortality

Hazard Ratio

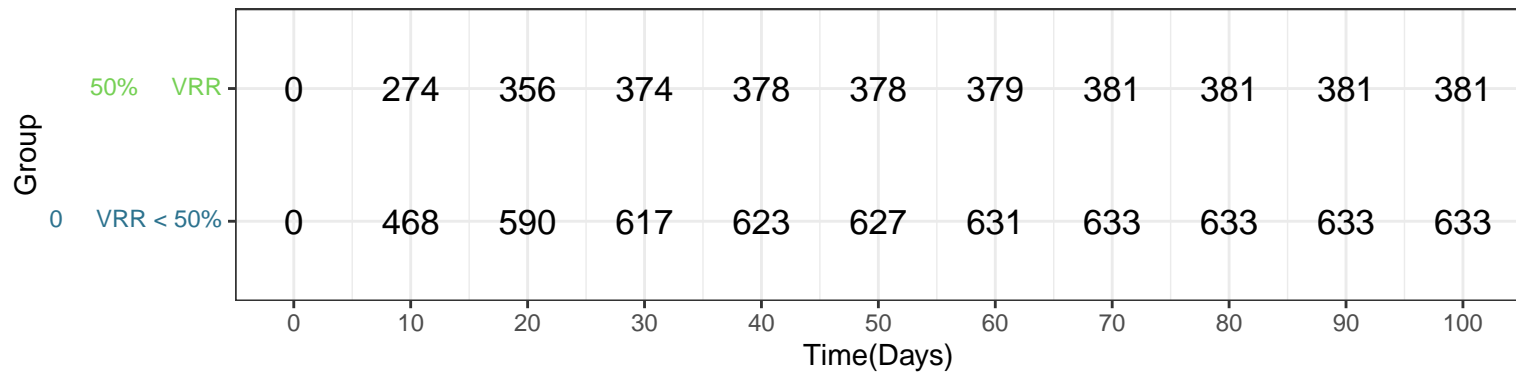


Kaplan–Meier survival curve for ICU mortality of matched cohort1

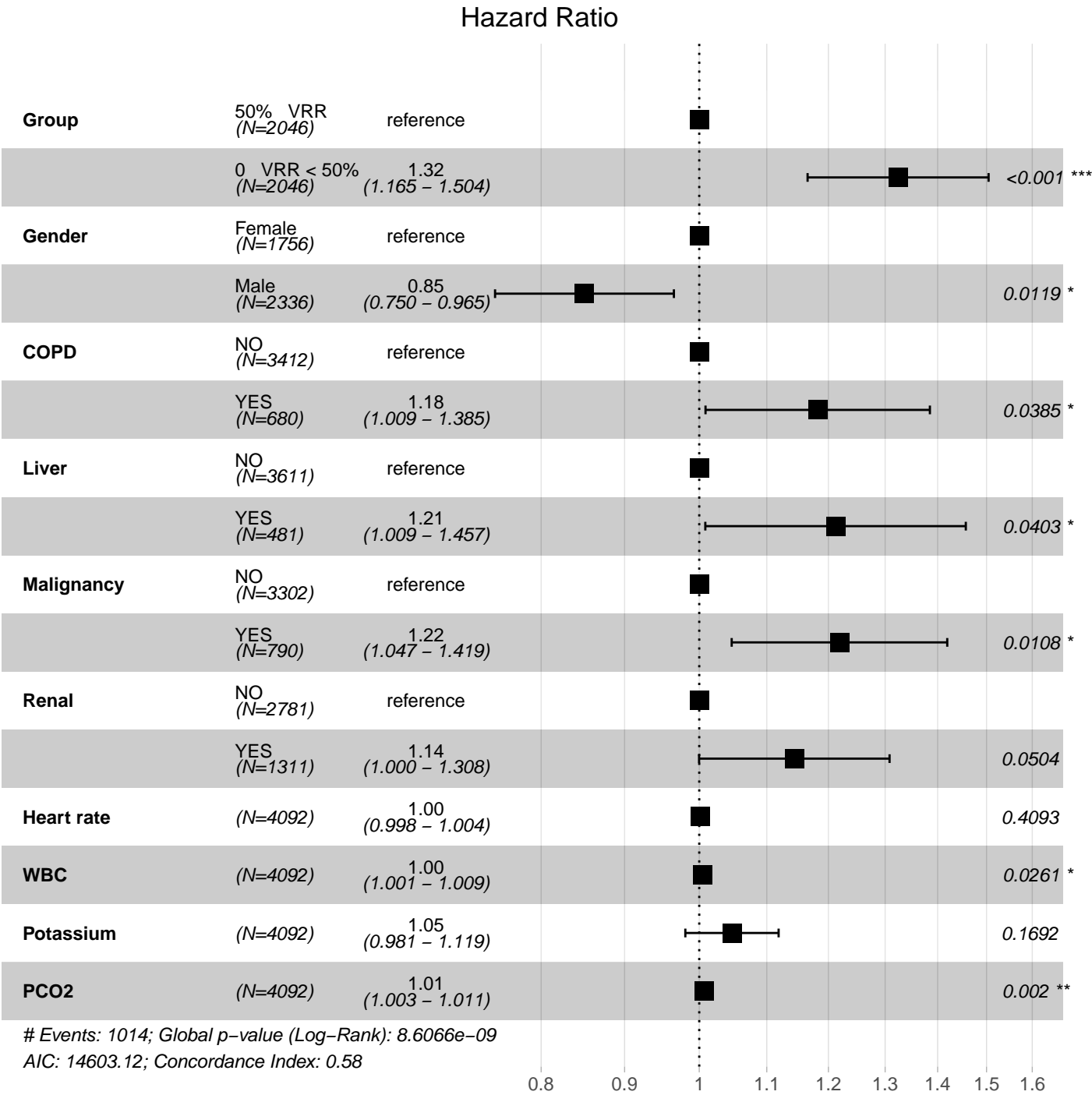
Group 50% VRR 0 VRR < 50%



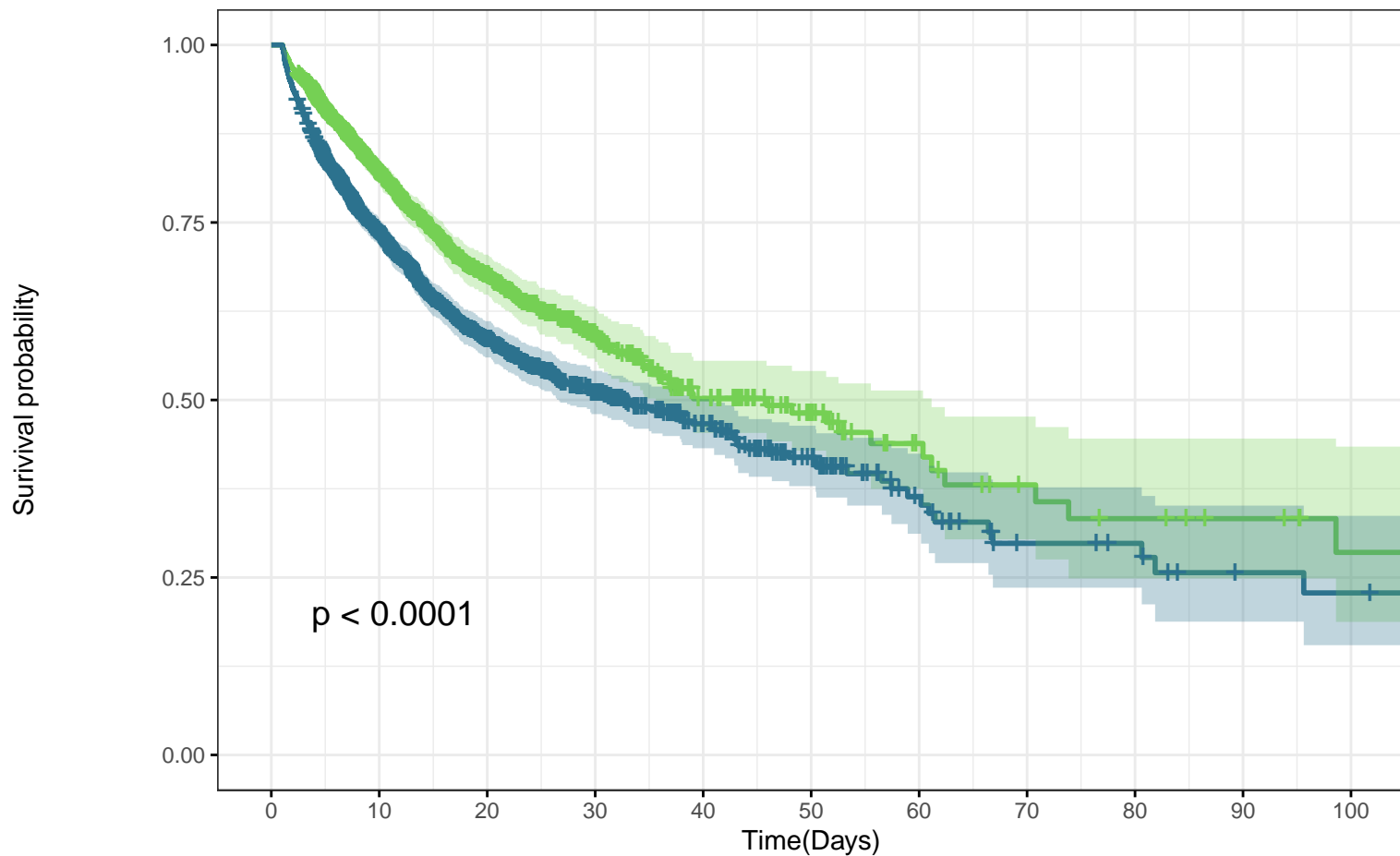
Cumulative number of events



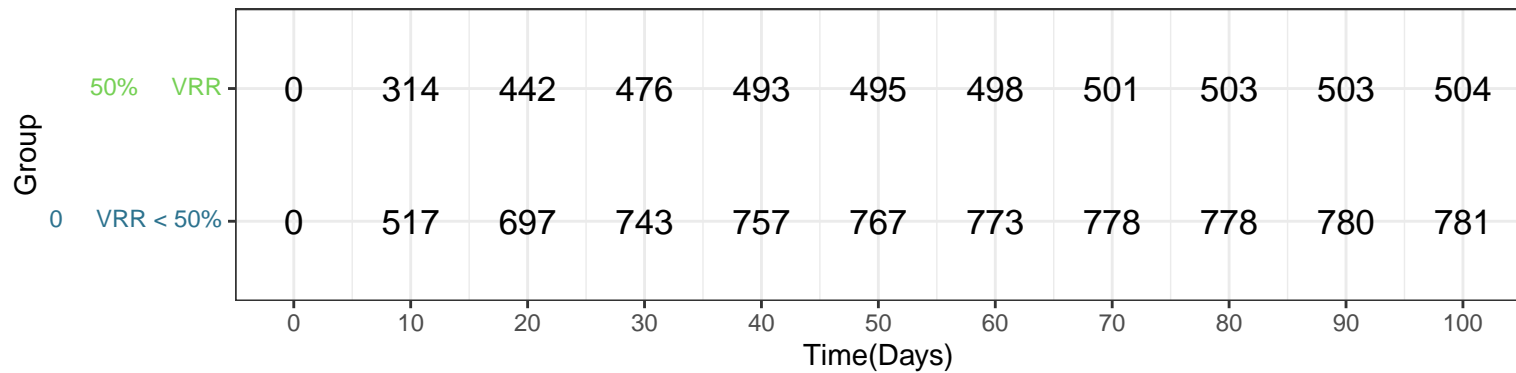
Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort1



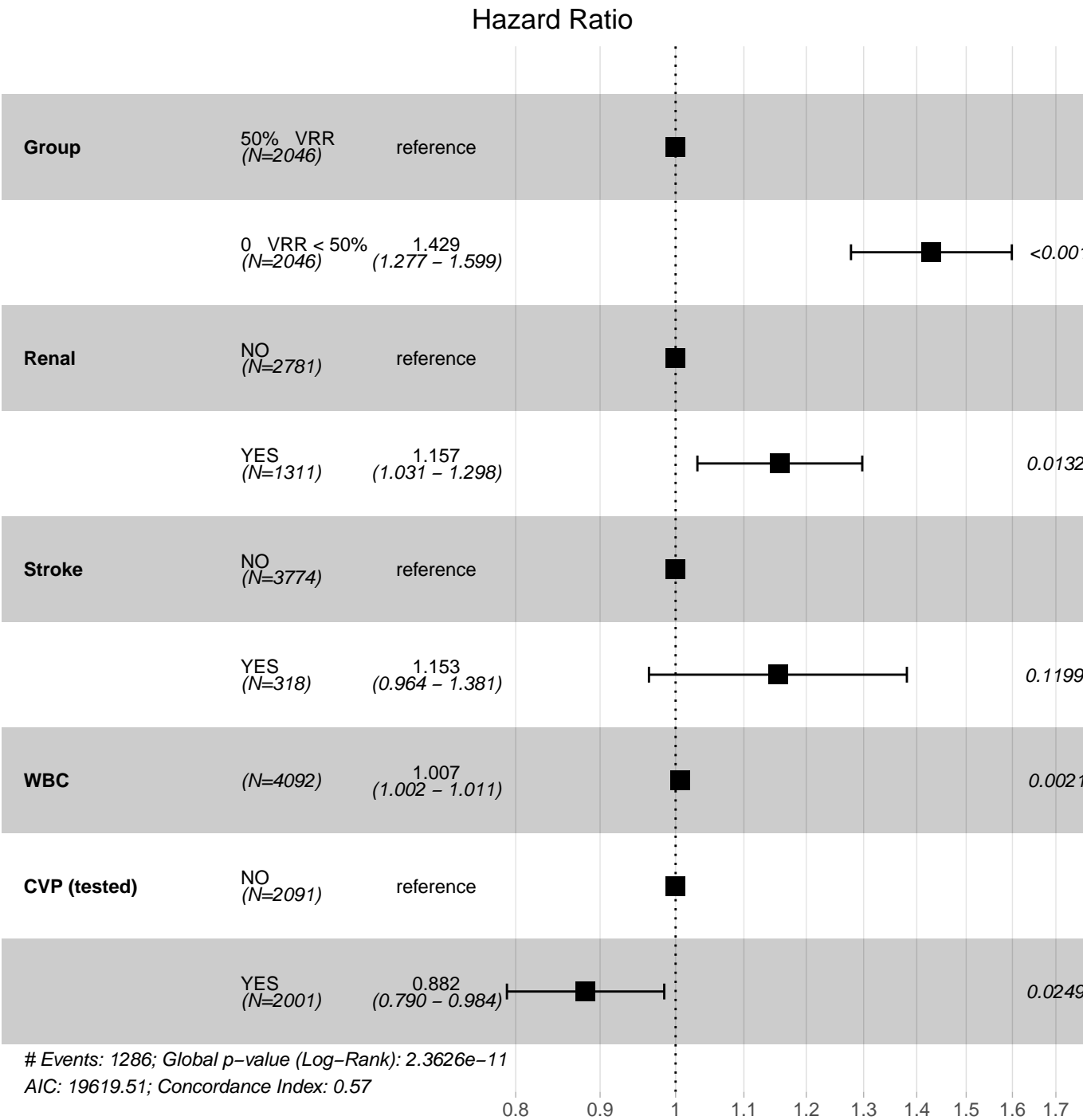
Kaplan–Meier survival curve for in hospital mortality of matched cohort1

Group + 50% VRR + 0 VRR < 50%

Cumulative number of events



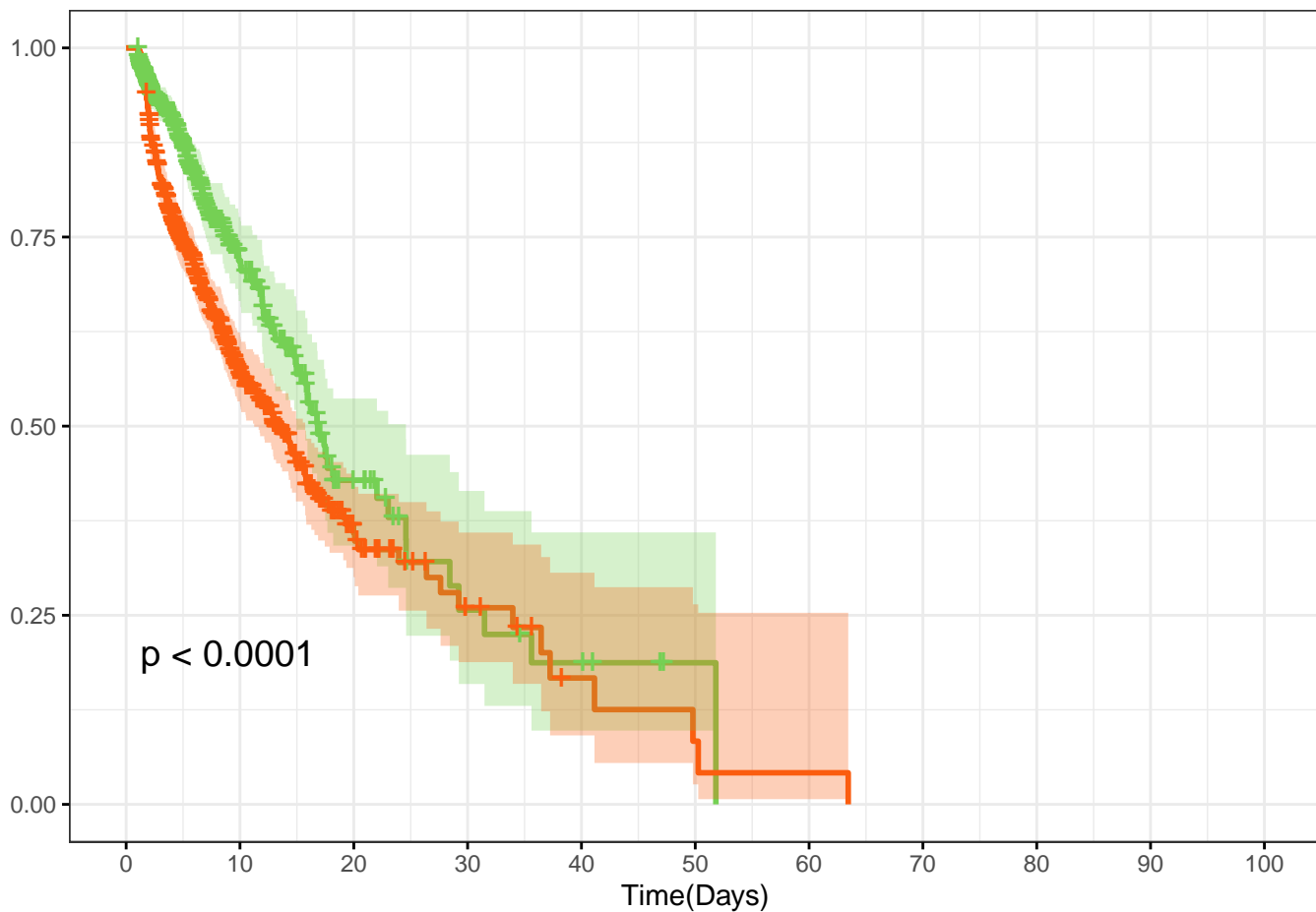
Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort1



Kaplan–Meier survival curve for ICU mortality of matched cohort2

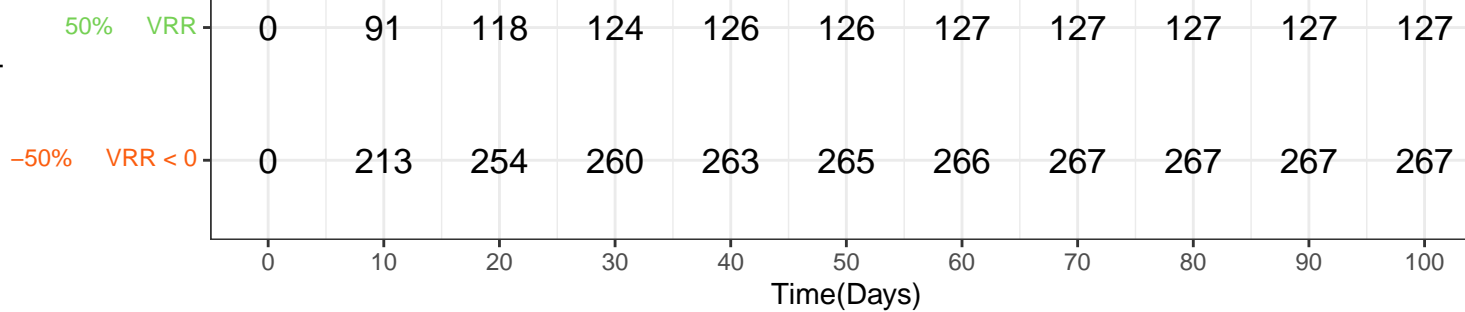
Group + 50% VRR + -50% VRR < 0

Survival probability



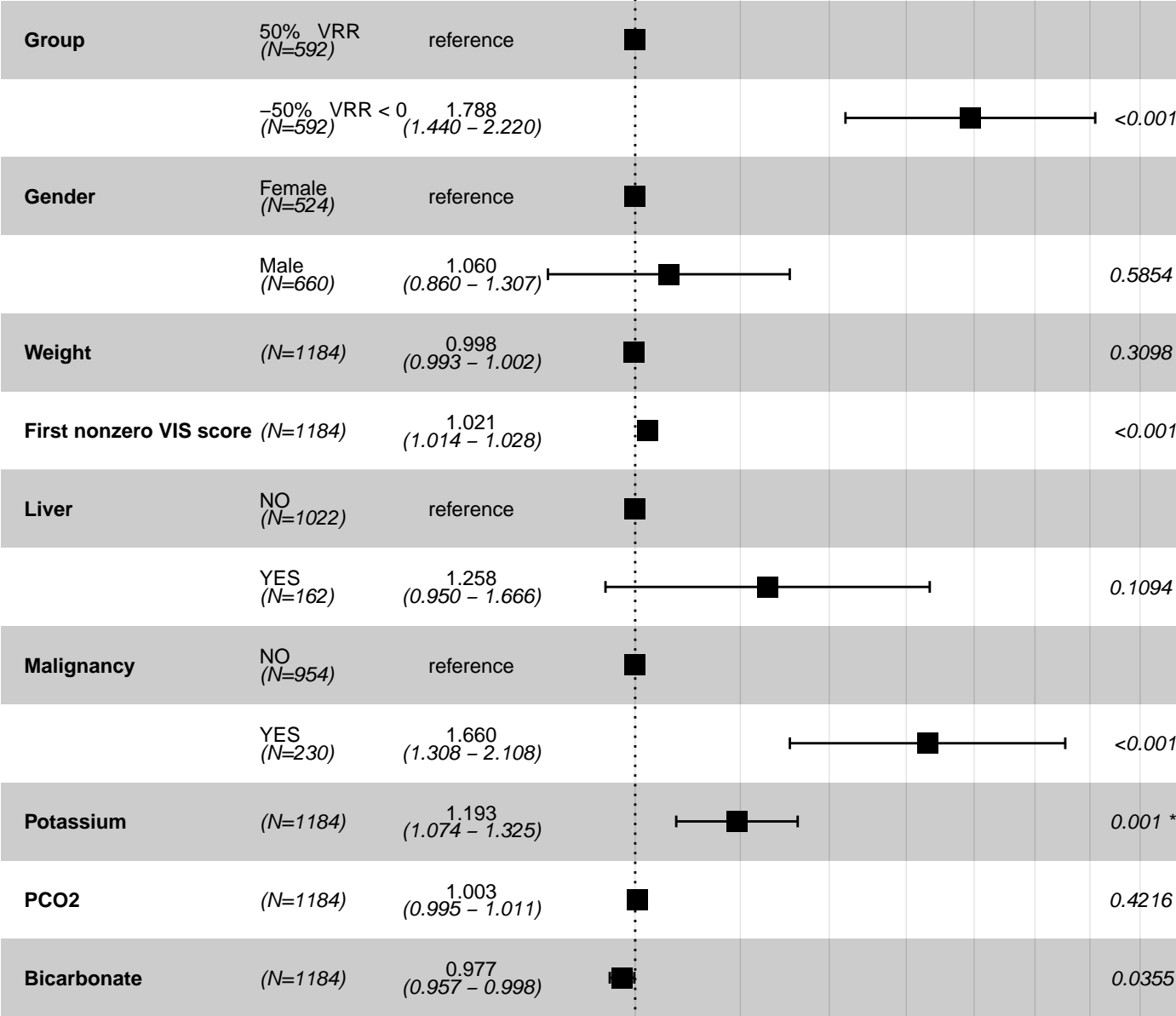
Cumulative number of events

Group



Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort2

Hazard Ratio

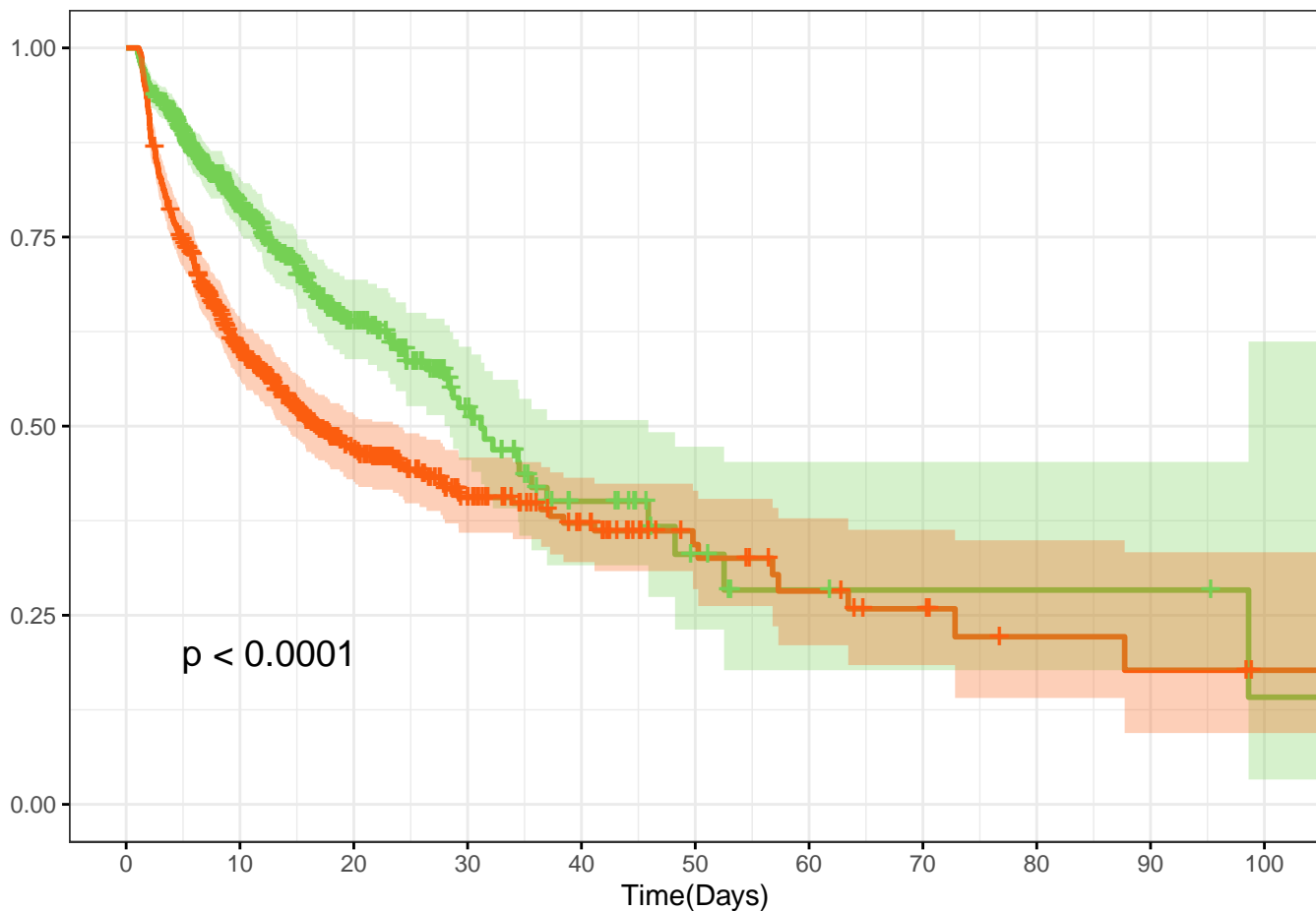


Events: 394; Global p-value (Log-Rank): 3.0409e-14
AIC: 4745.67; Concordance Index: 0.67

Kaplan–Meier survival curve for in hospital mortality of matched cohort2

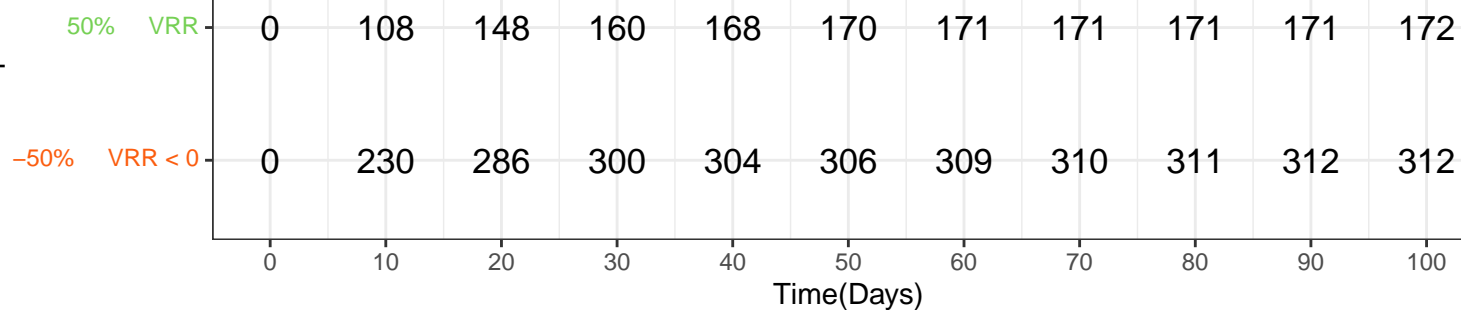
Group + 50% VRR + -50% VRR < 0

Survival probability



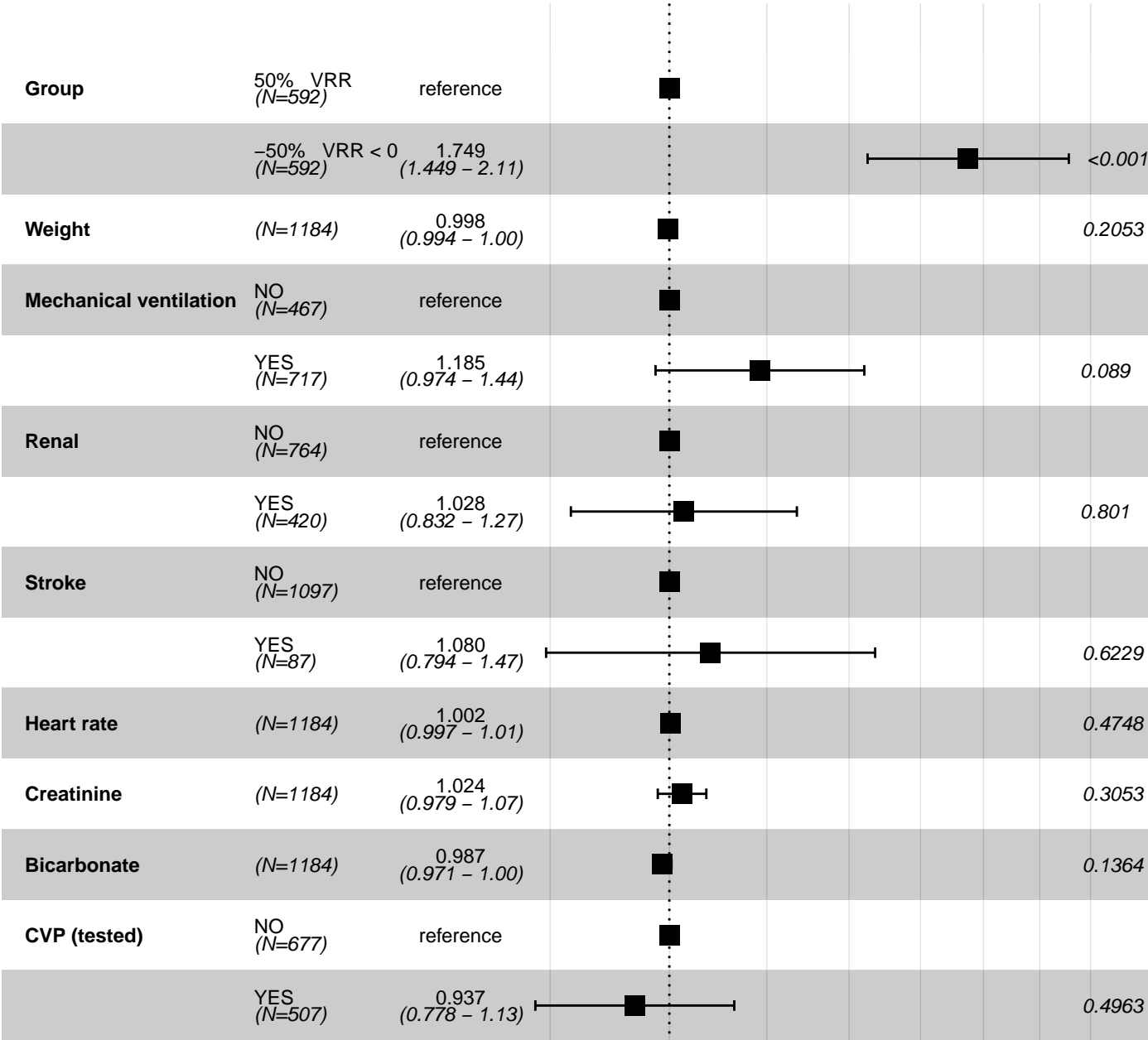
Cumulative number of events

Group



Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort2

Hazard Ratio



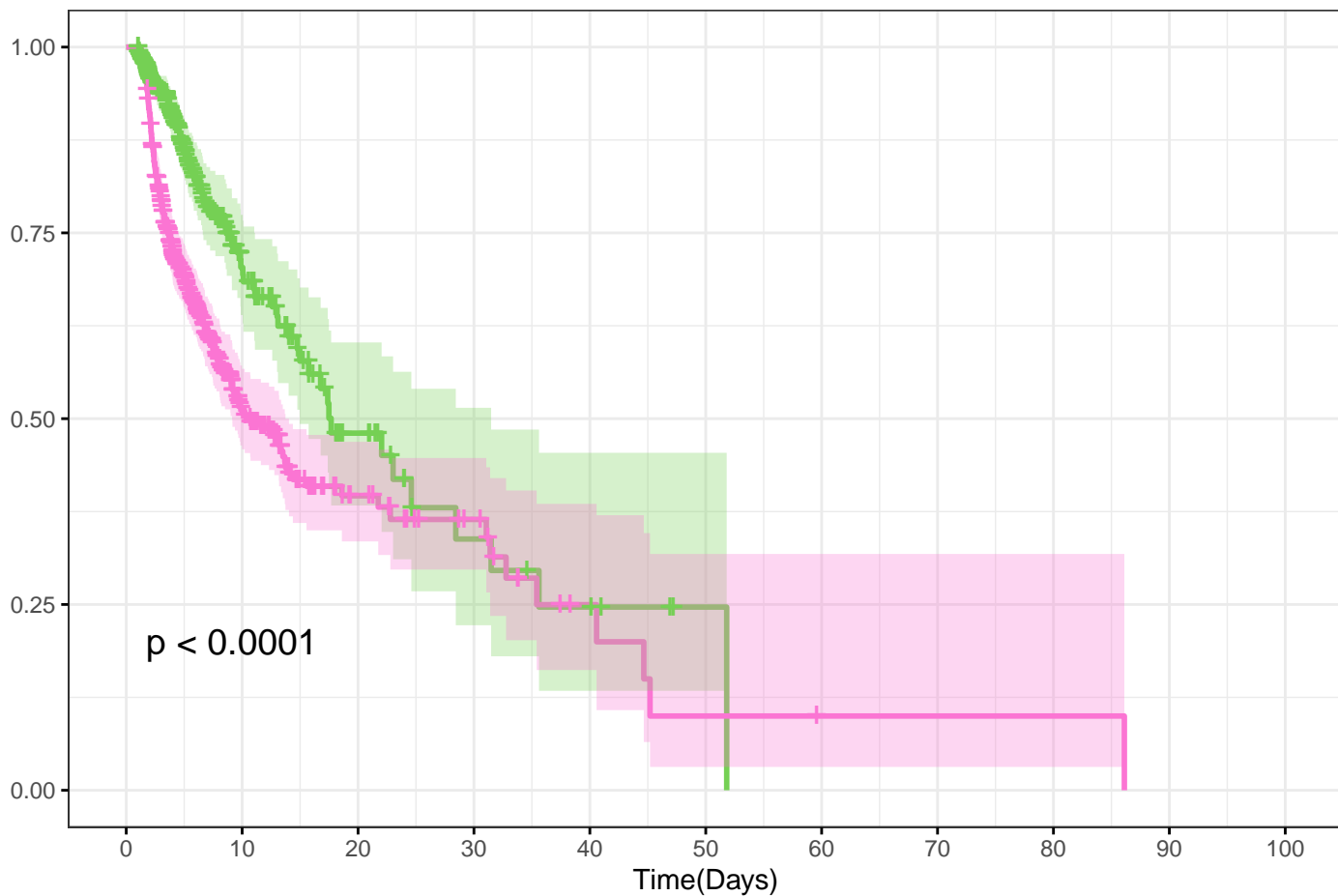
Events: 486; Global p-value (Log-Rank): 1.7015e-06
AIC: 6205.01; Concordance Index: 0.61

0.8 1 1.2 1.4 1.6 1.8 2 2.2

Kaplan–Meier survival curve for ICU mortality of matched cohort3

Group 50% VRR VRR < -50%

Survival probability

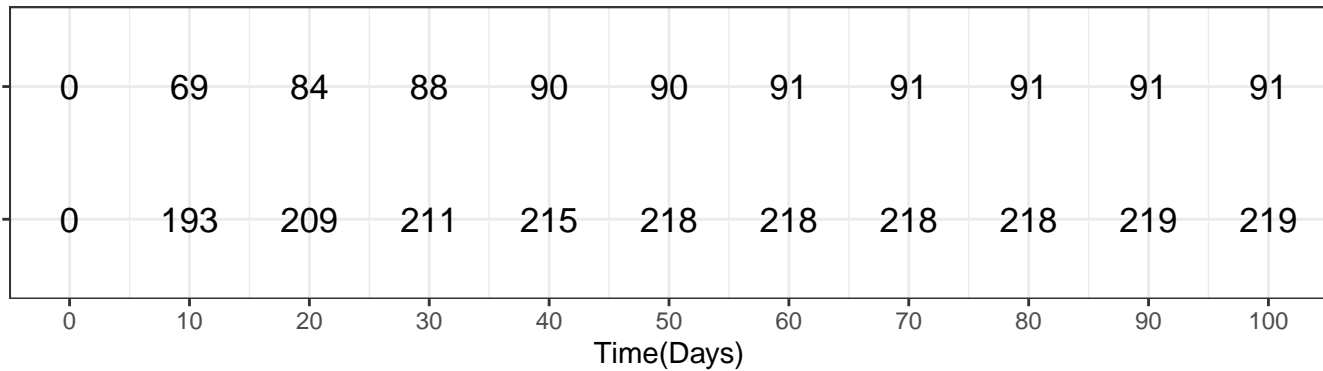


Cumulative number of events

Group

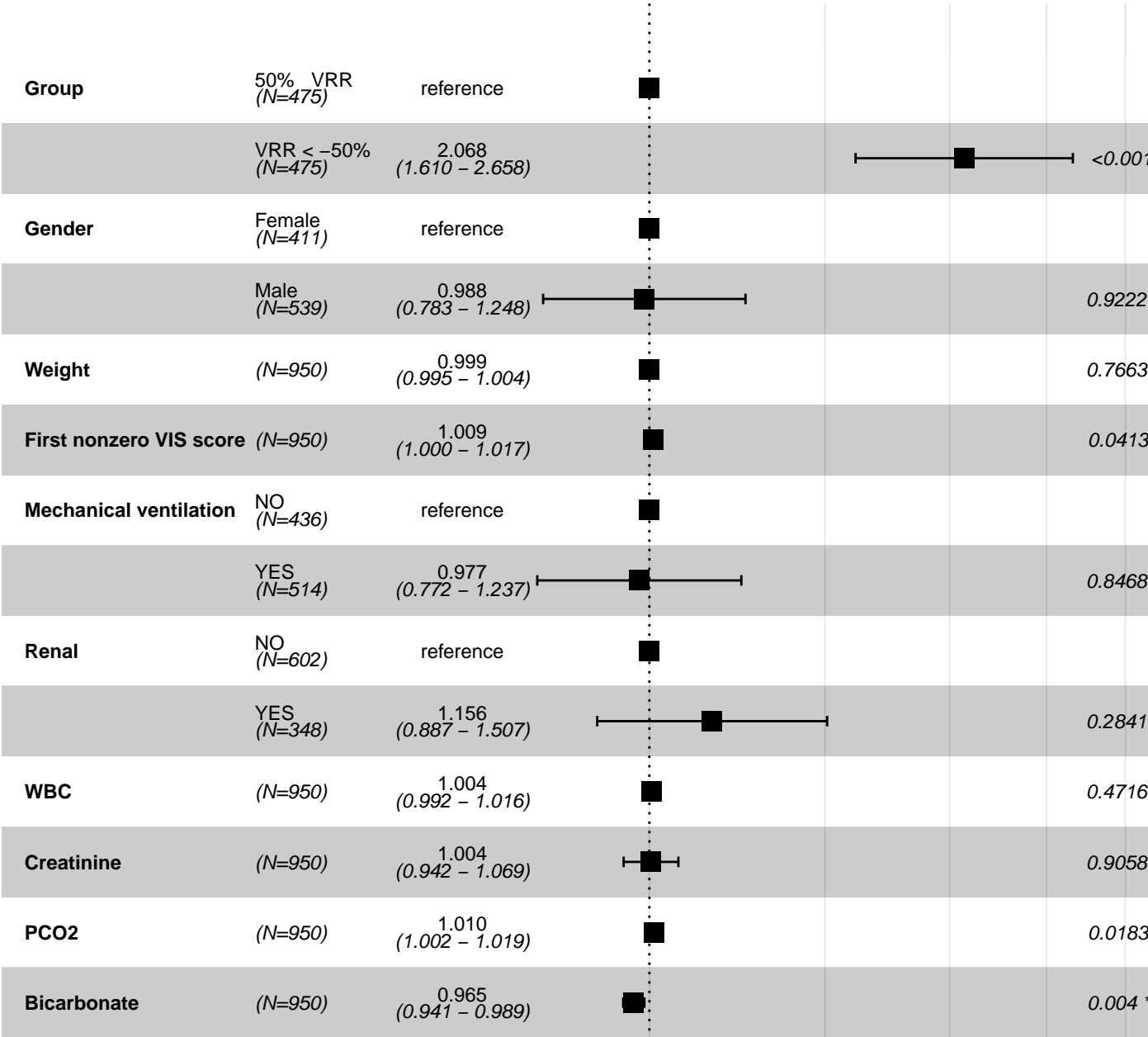
50% VRR

VRR < -50%



Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort3

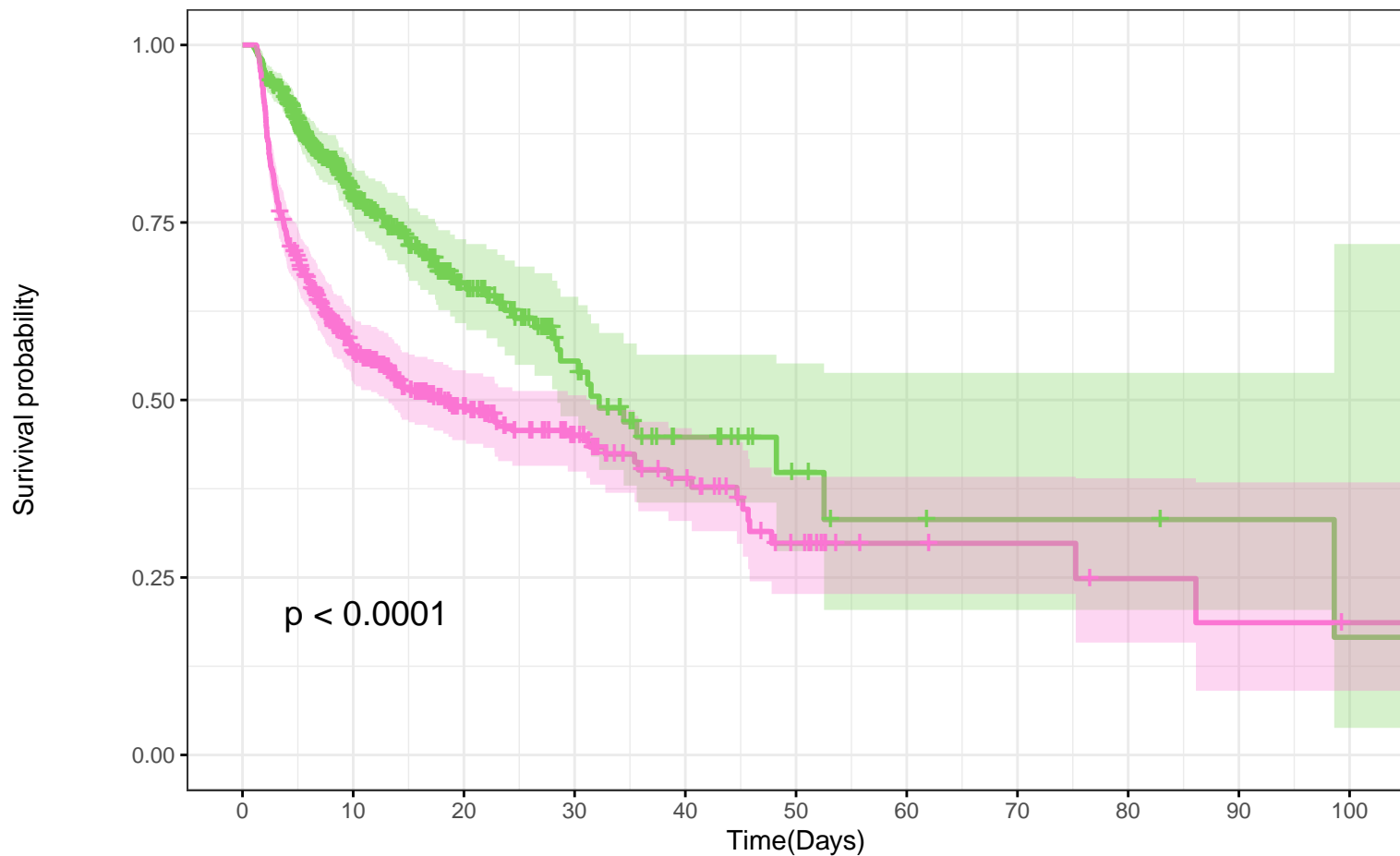
Hazard Ratio



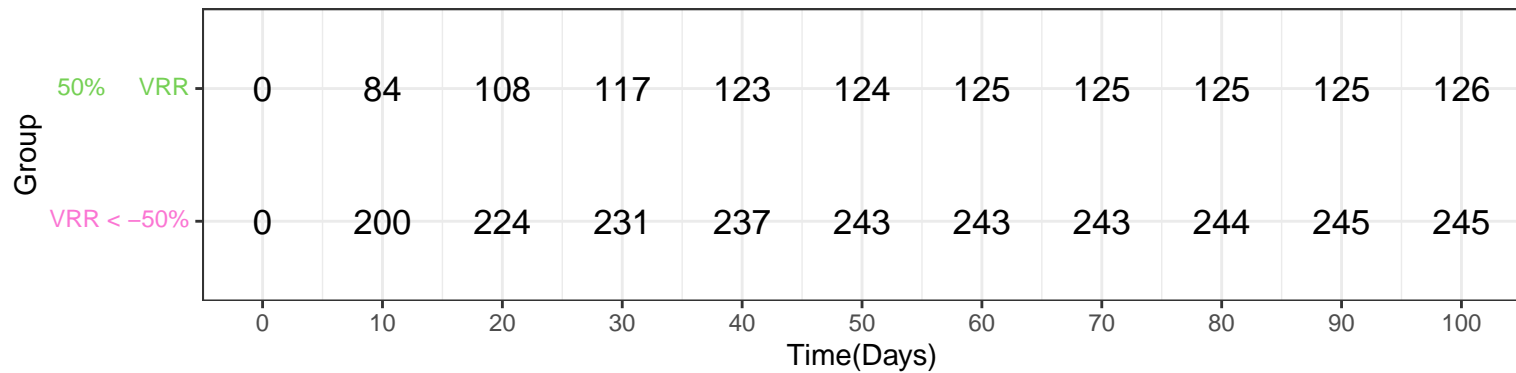
Events: 310; Global p-value (Log-Rank): 5.6713e-07

AIC: 3664.77; Concordance Index: 0.65

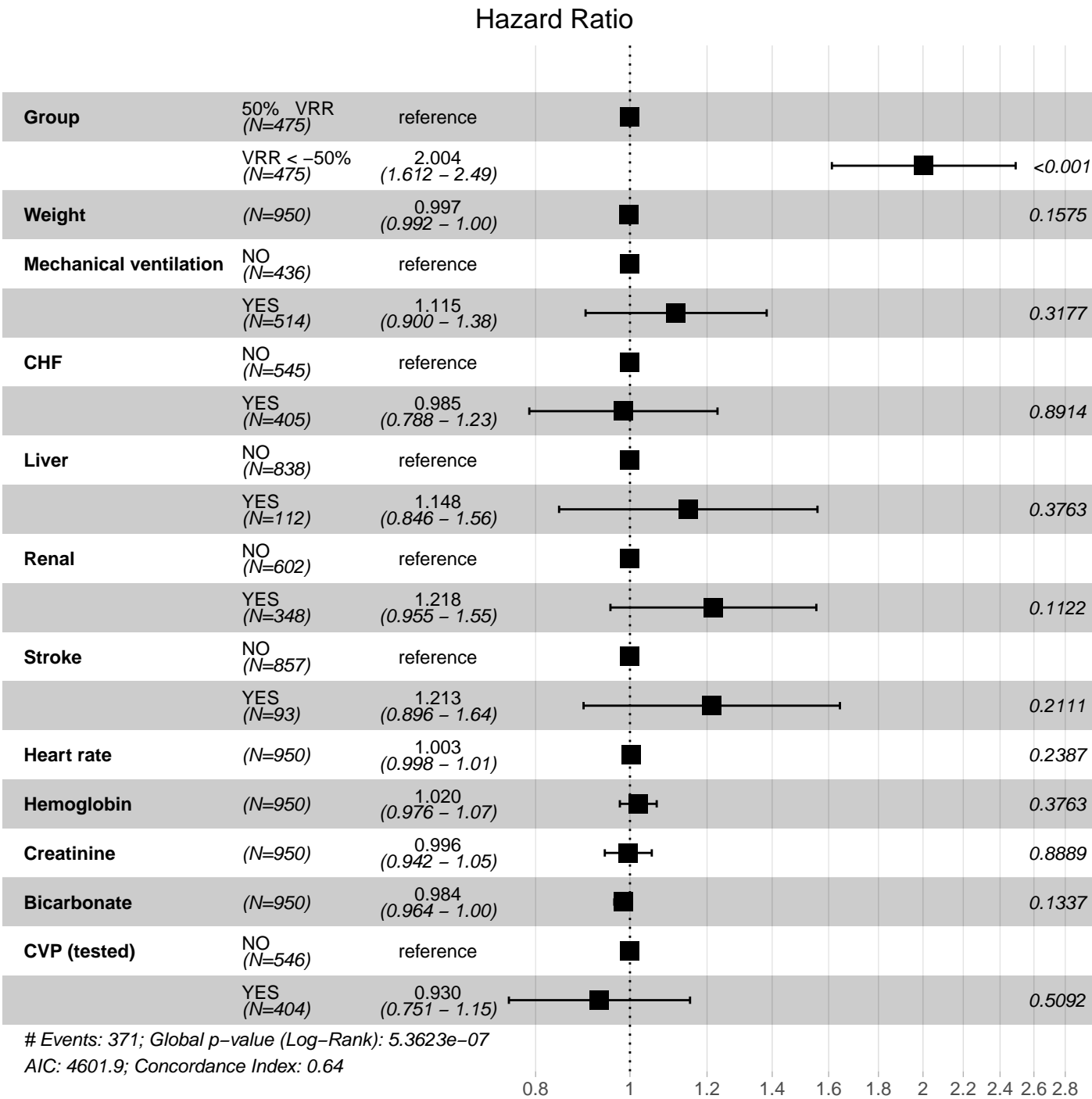
Kaplan–Meier survival curve for in hospital mortality of matched cohort3

Group + 50% VRR + VRR < -50%

Cumulative number of events

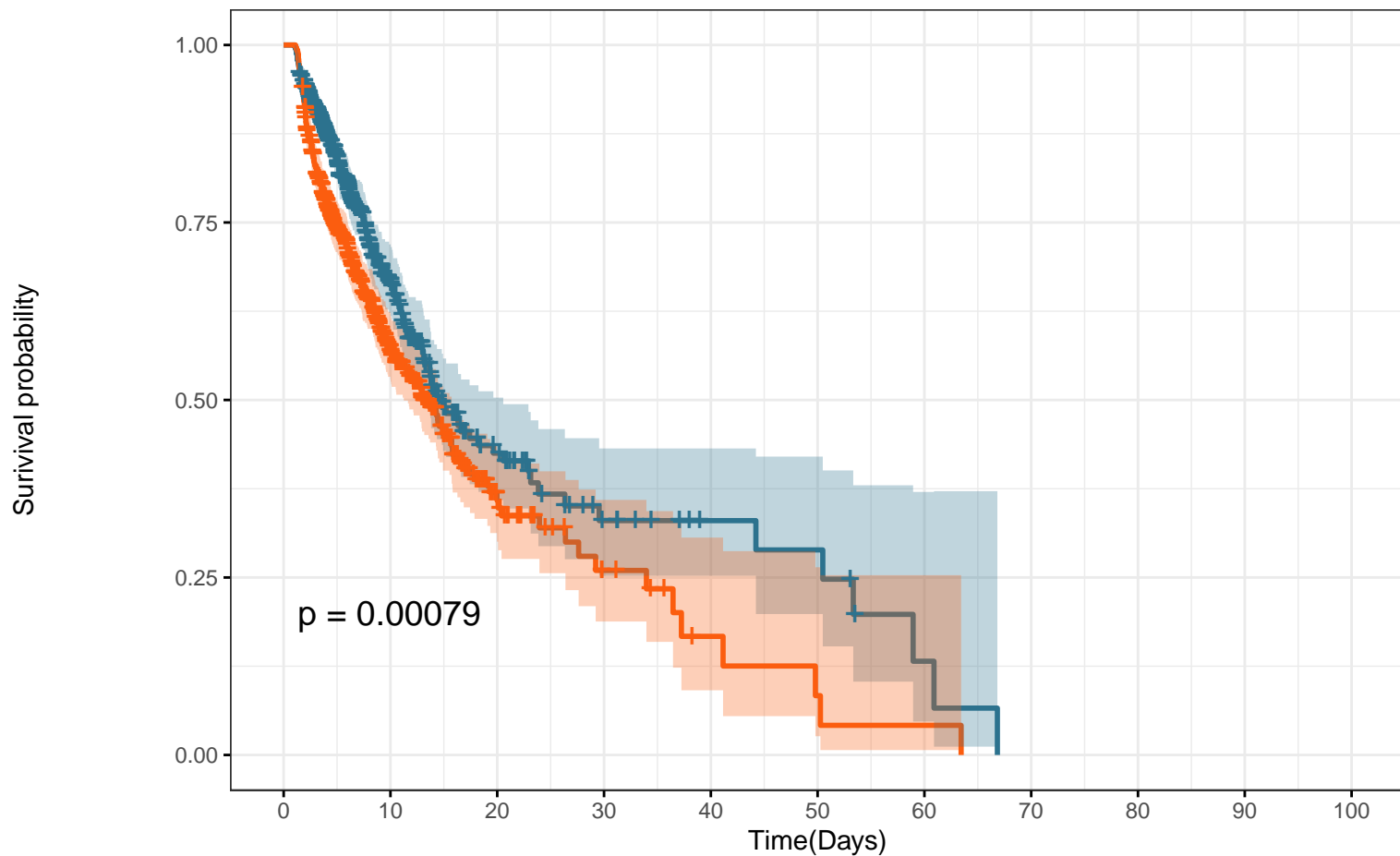


Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort3

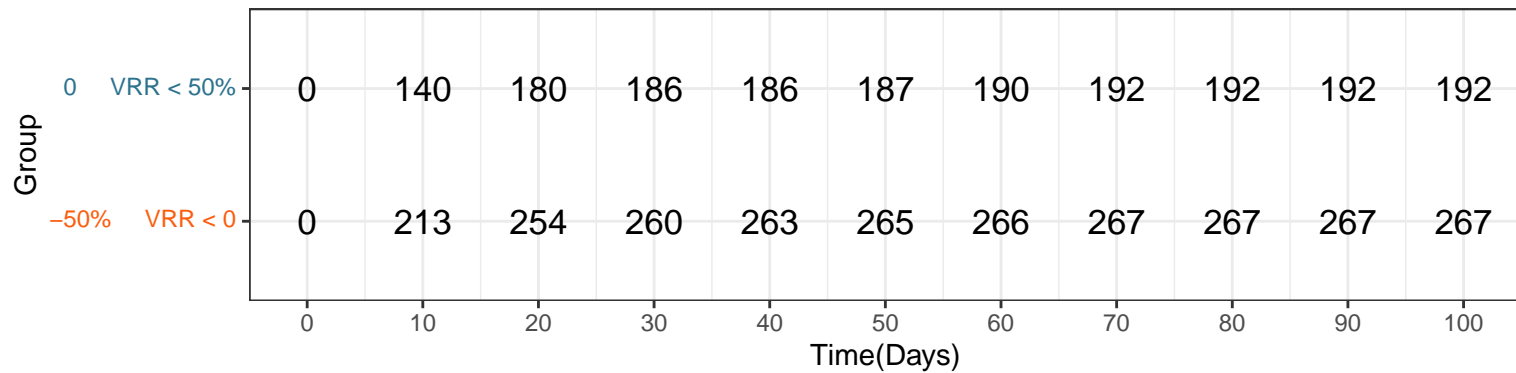


Kaplan–Meier survival curve for ICU mortality of matched cohort4

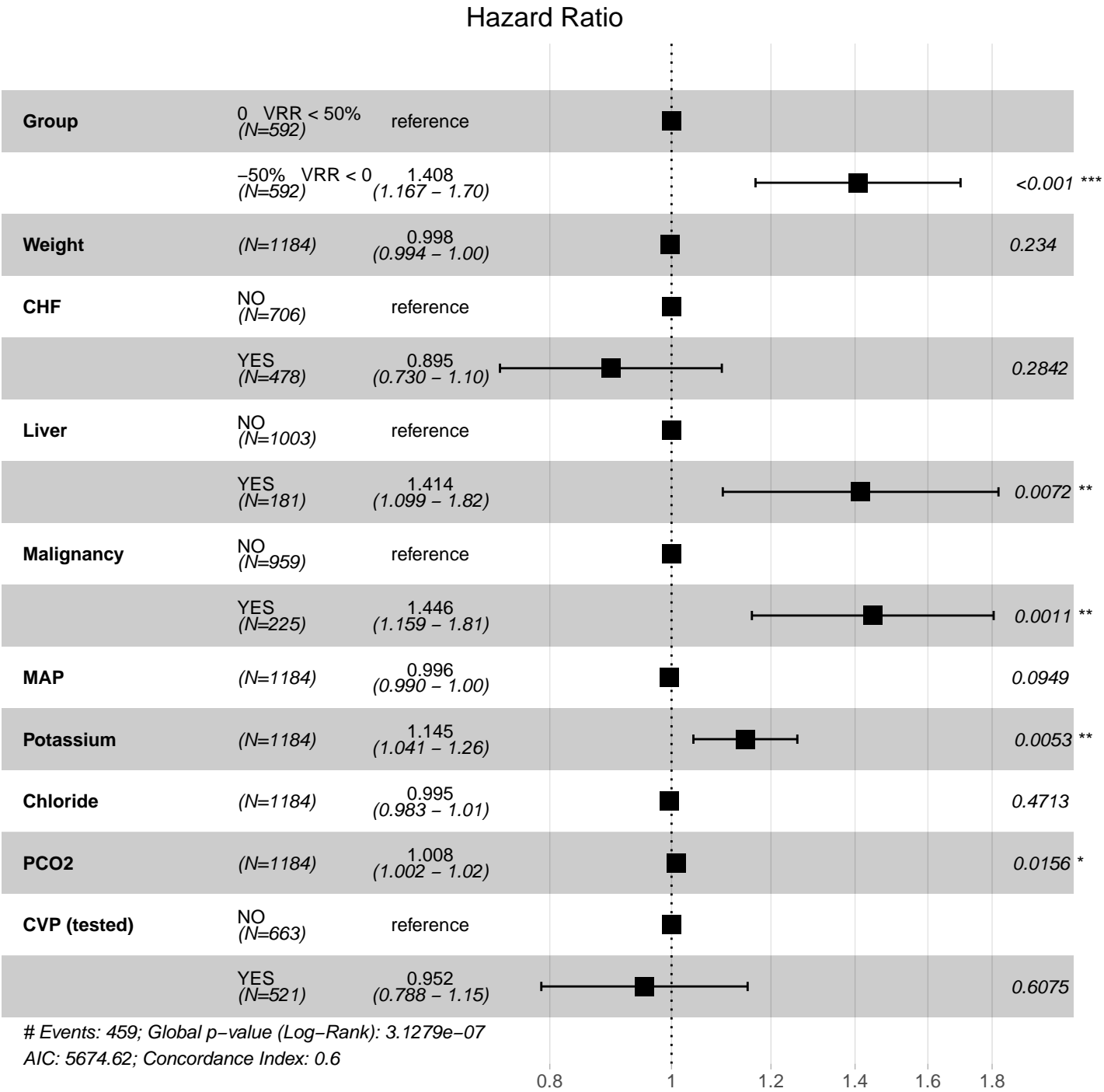
Group 0 VRR < 50% -50% VRR < 0



Cumulative number of events



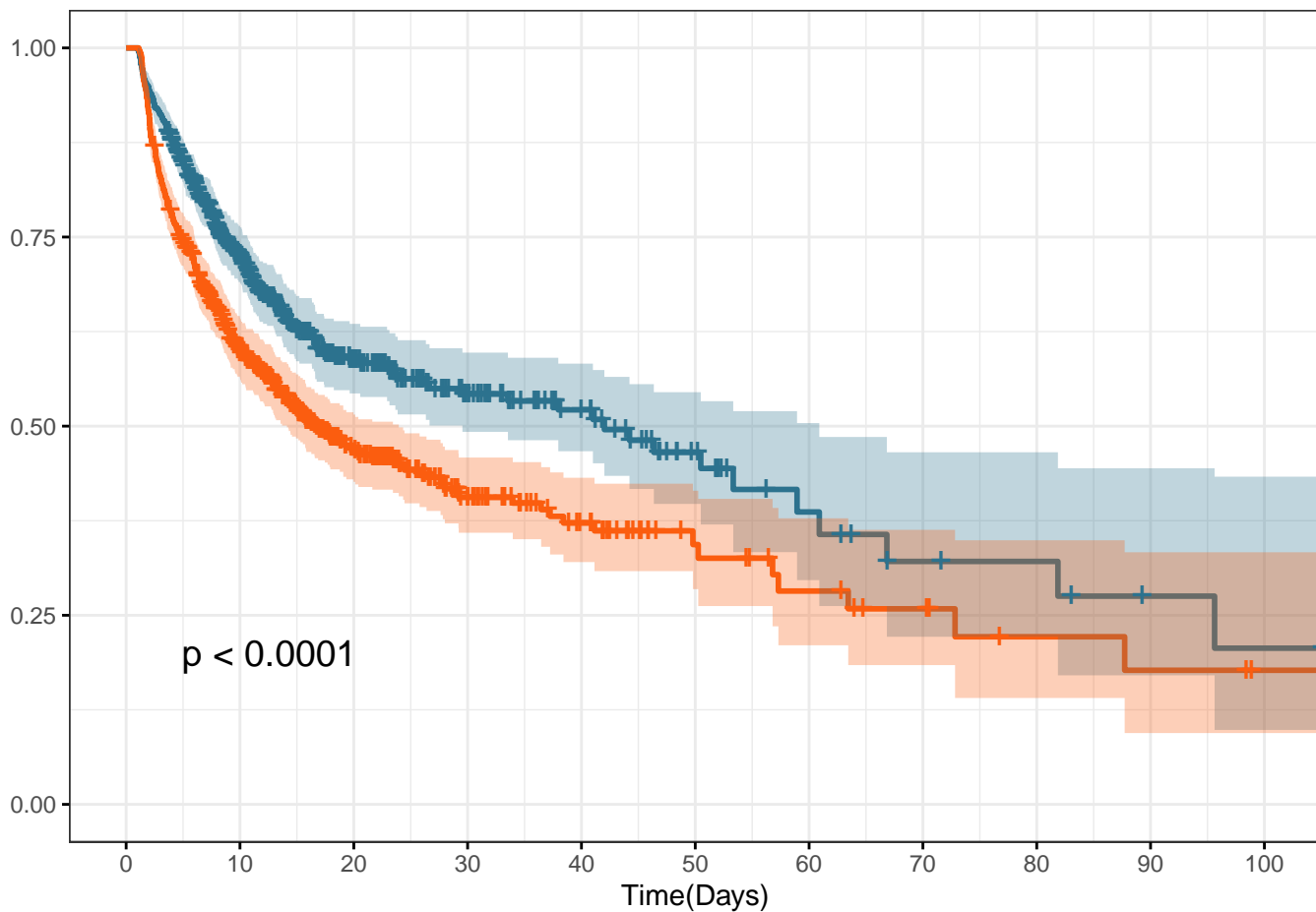
Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort4



Kaplan–Meier survival curve for in hospital mortality of matched cohort4

Group 0 VRR < 50% -50% VRR < 0

Survival probability

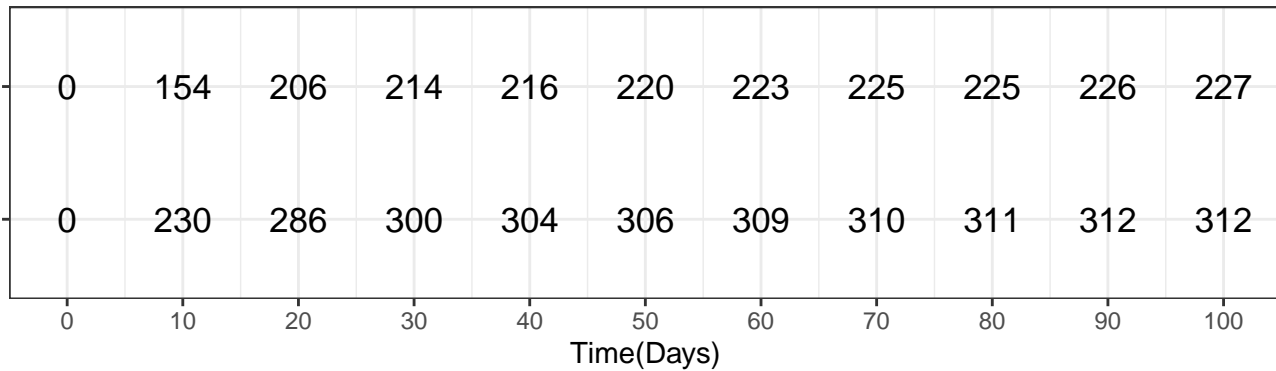


Cumulative number of events

Group

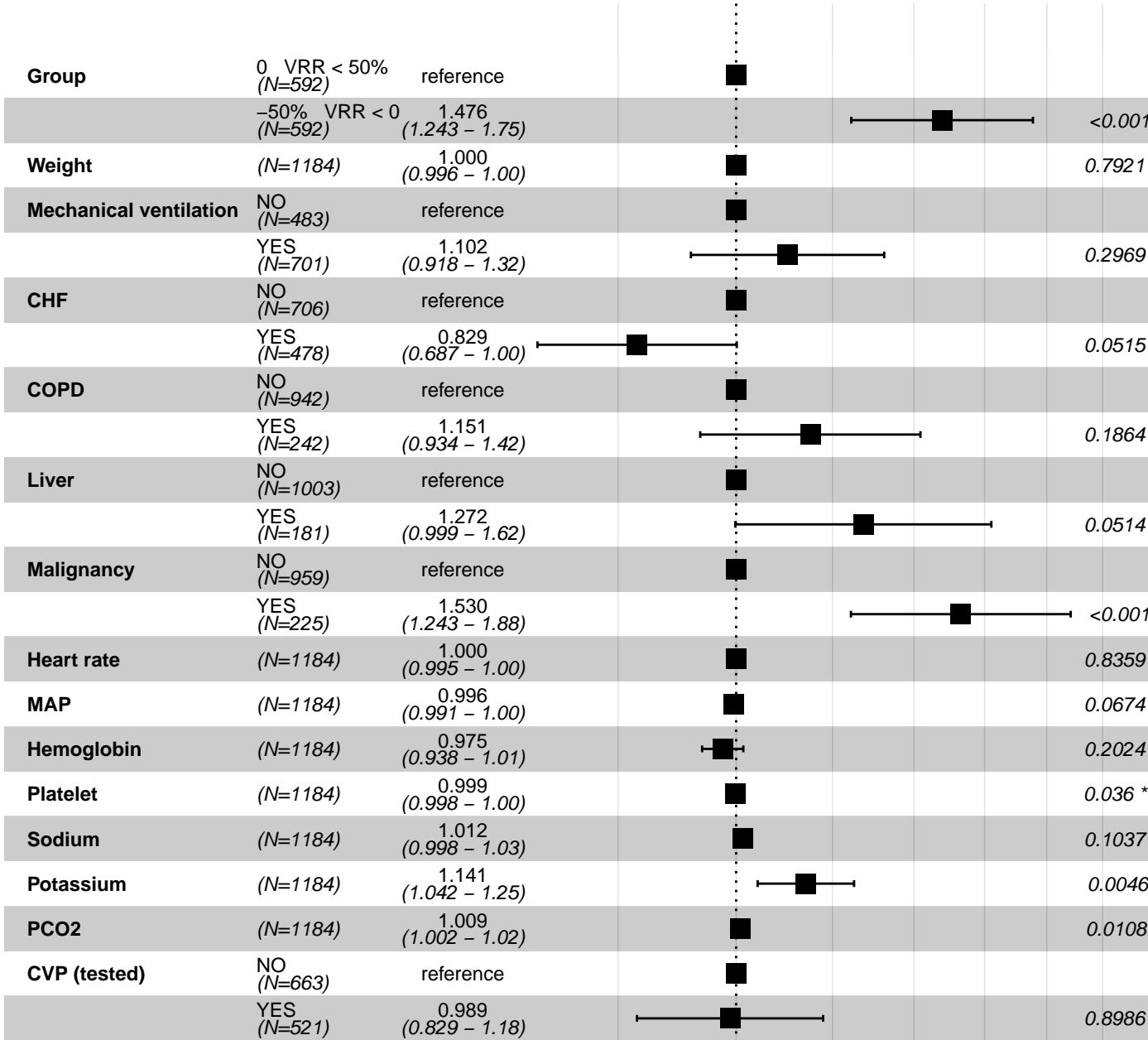
0 VRR < 50%

-50% VRR < 0



Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort4

Hazard Ratio



Events: 541; Global p-value (Log-Rank): 4.5503e-10

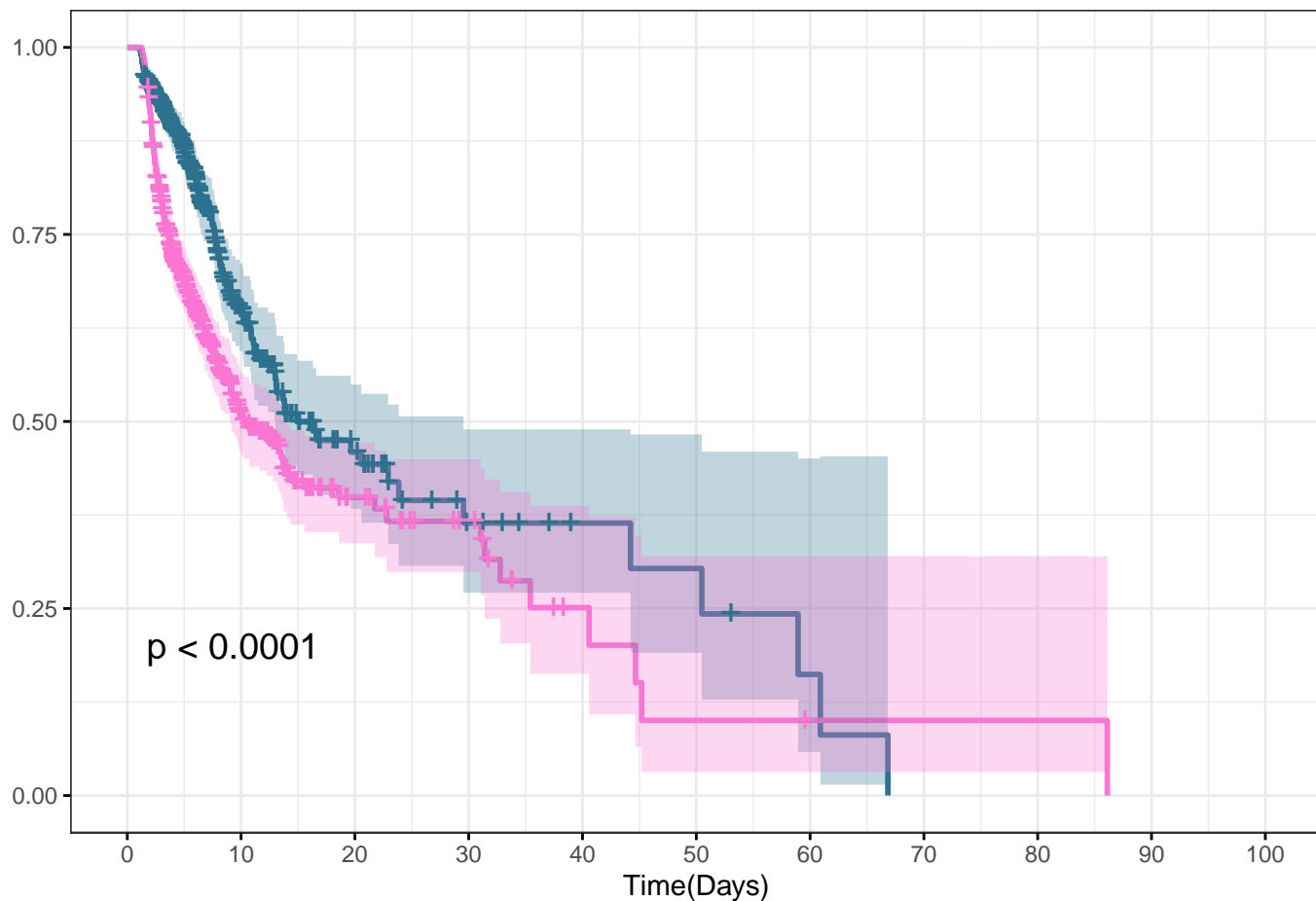
AIC: 6972.22; Concordance Index: 0.61

0.8 1 1.2 1.4 1.6 1.8 2

Kaplan–Meier survival curve for ICU mortality of matched cohort5

Group 0 VRR < 50% VRR < -50%

Survival probability

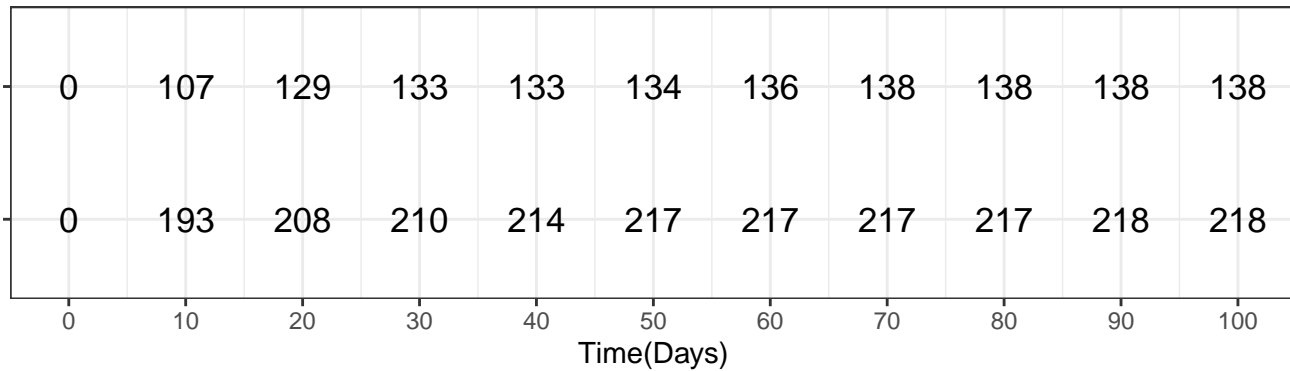


Cumulative number of events

Group

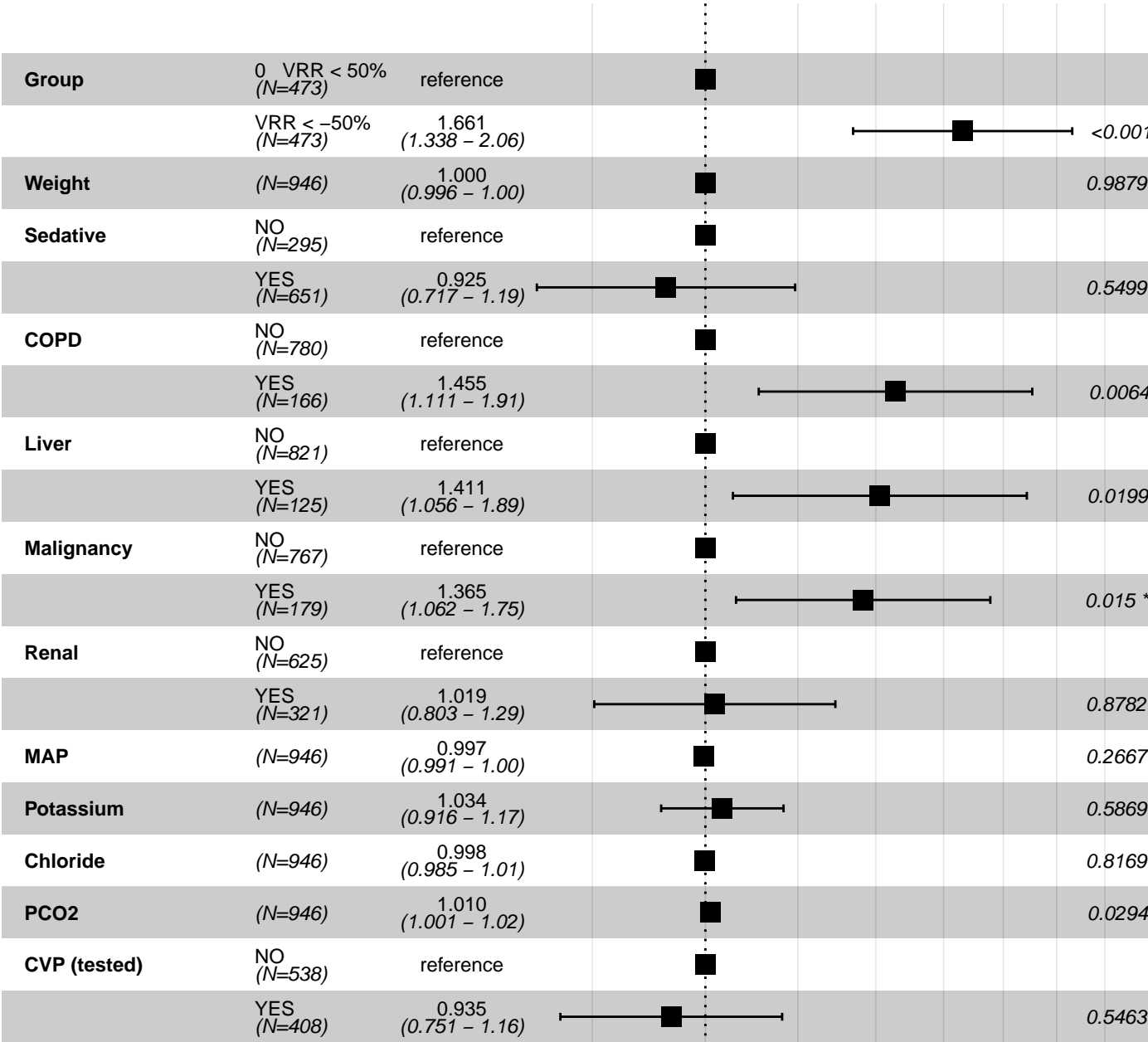
0 VRR < 50%

VRR < -50%



Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort5

Hazard Ratio



Events: 356; Global p-value (Log-Rank): 3.5664e-06

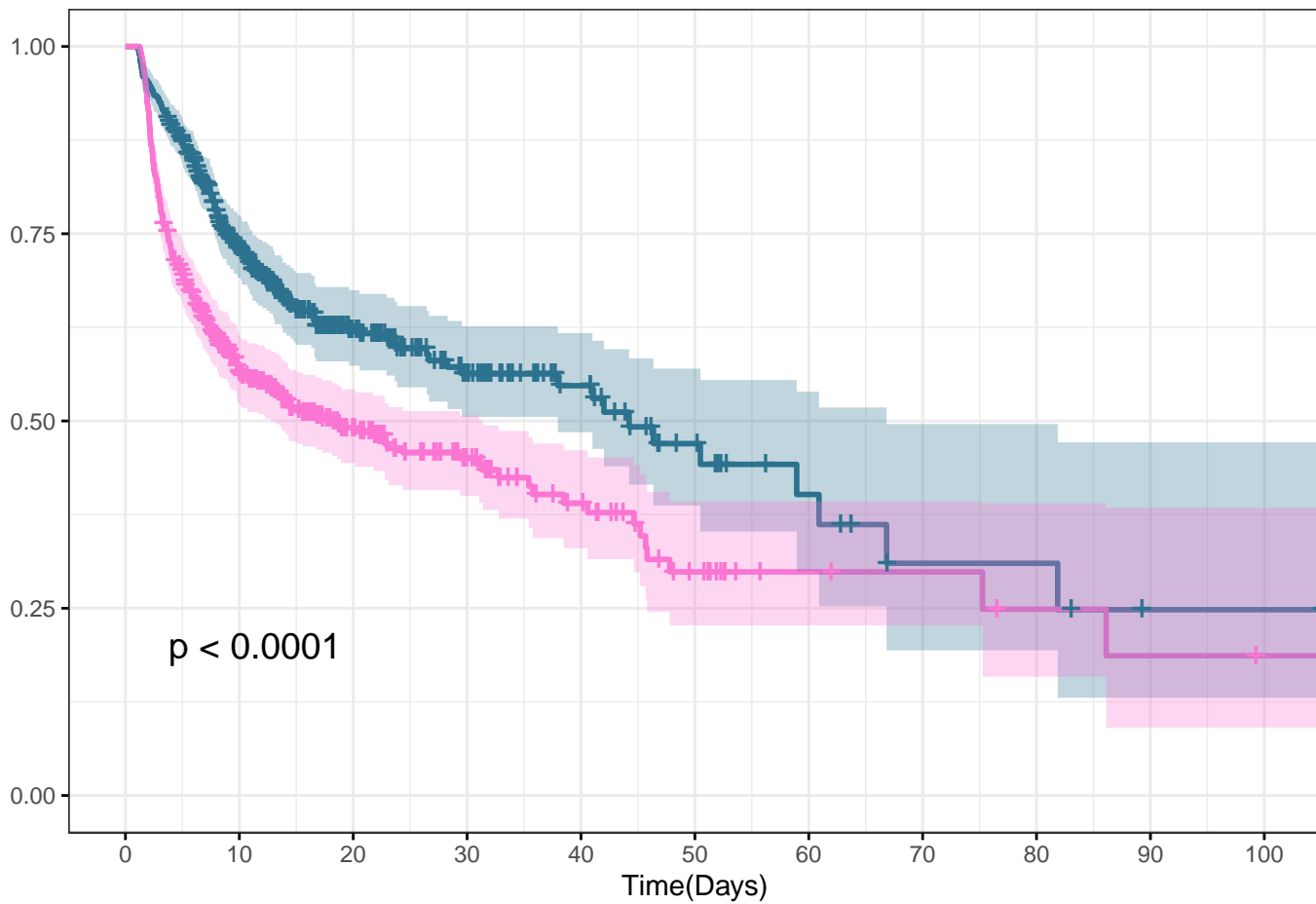
AIC: 4274.91; Concordance Index: 0.62

0.8 1 1.2 1.4 1.6 1.8 2 2.2

Kaplan–Meier survival curve for in hospital mortality of matched cohort5

Group 0 VRR < 50% VRR < -50%

Survival probability

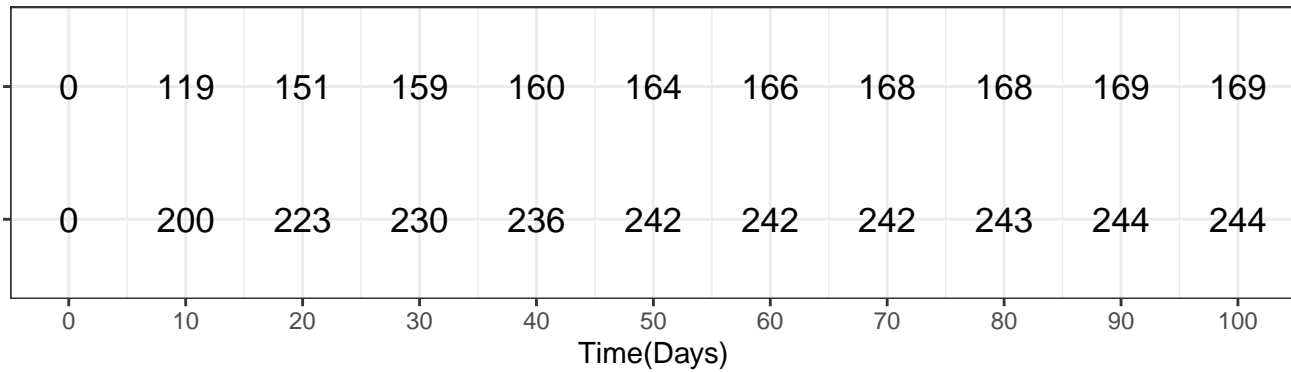


Cumulative number of events

Group

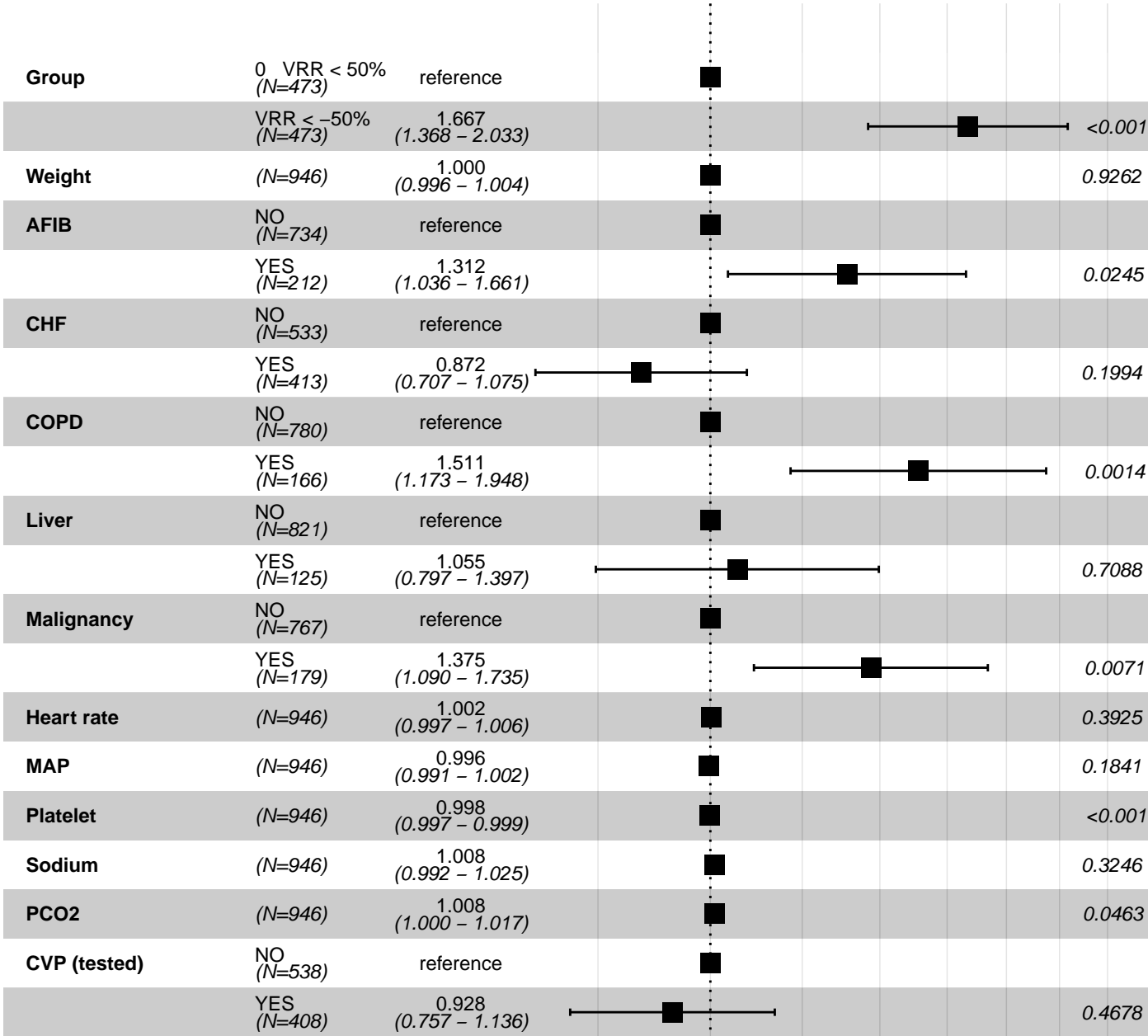
0 VRR < 50%

VRR < -50%



Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort5

Hazard Ratio



Events: 413; Global p-value (Log-Rank): 2.847e-10

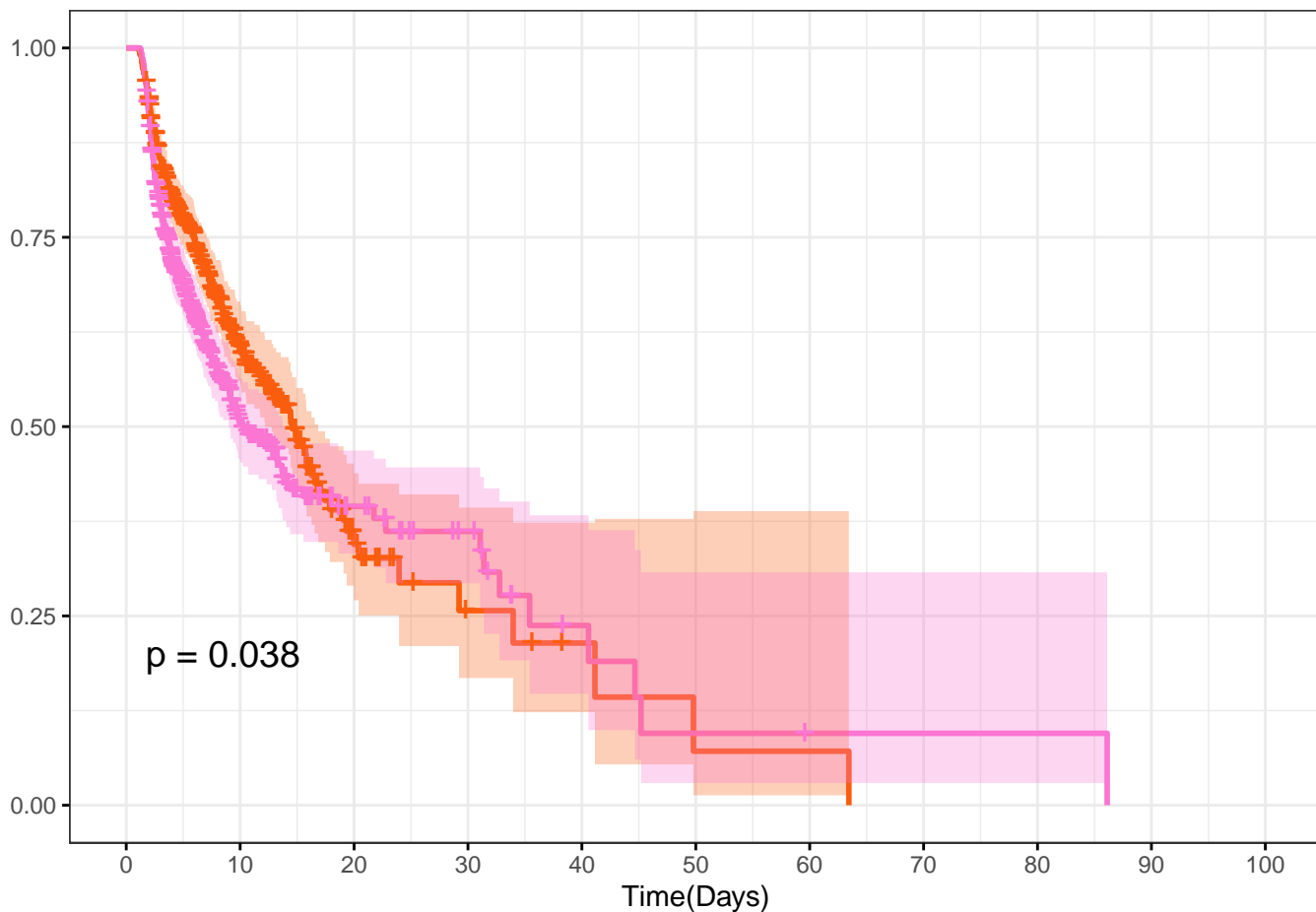
AIC: 5156.71; Concordance Index: 0.62

0.8 1 1.2 1.4 1.6 1.8 2 2.2

Kaplan–Meier survival curve for ICU mortality of matched cohort6

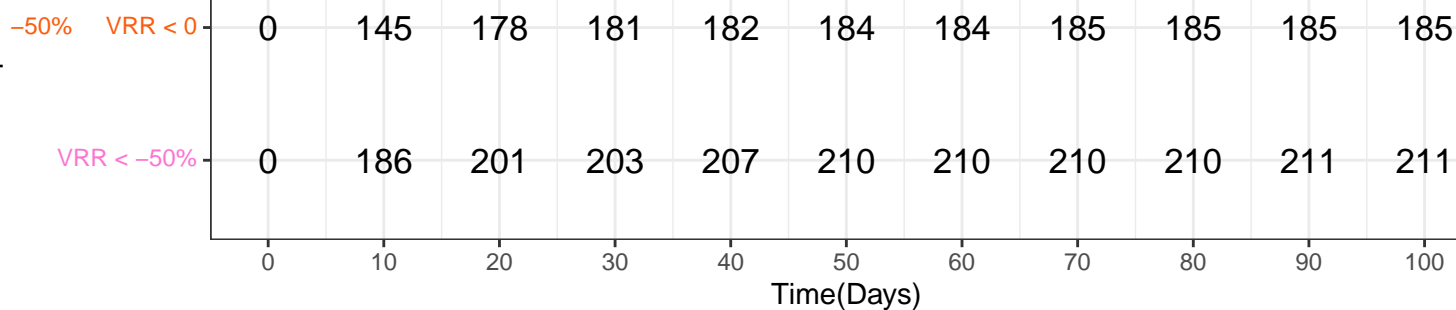
Group + -50% VRR < 0 + VRR < -50%

Survival probability



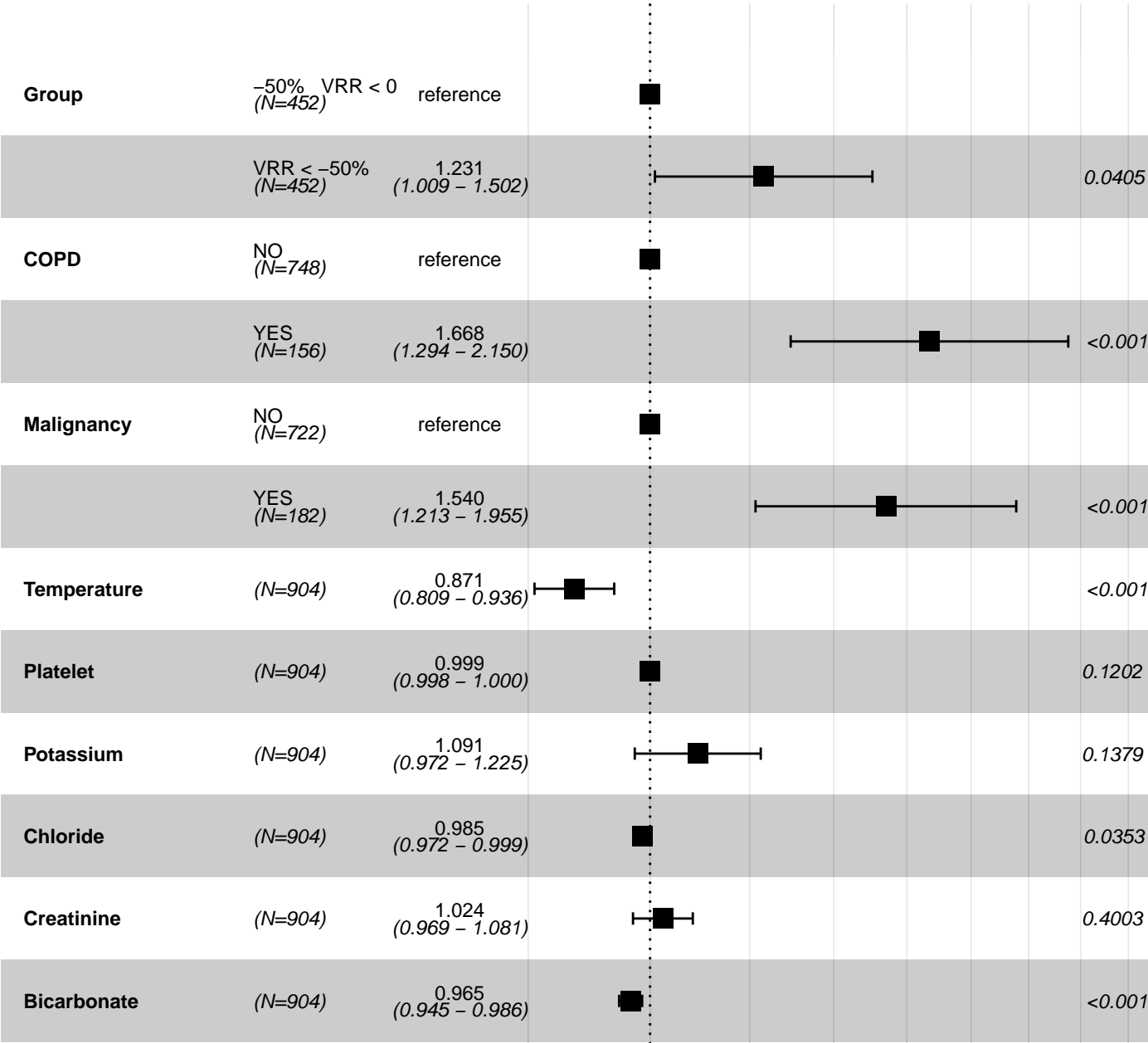
Cumulative number of events

Group



Forest plot of multivariate Cox regression analysis for ICU mortality of matched cohort6

Hazard Ratio



Events: 396; Global p-value (Log-Rank): 3.4819e-10

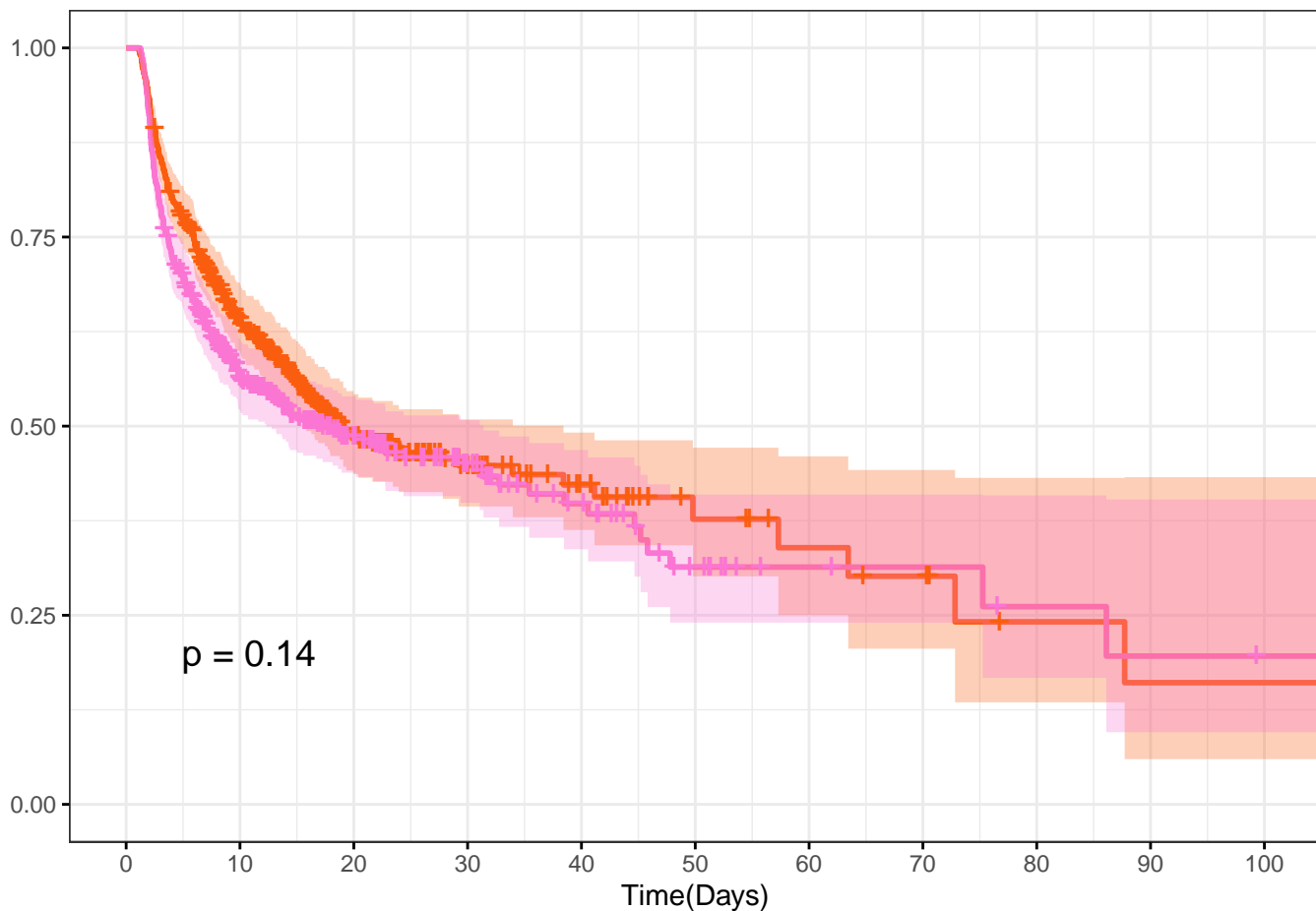
AIC: 4750.61; Concordance Index: 0.63

0.8 1 1.2 1.4 1.6 1.8 2 2.2 2.4

Kaplan–Meier survival curve for in hospital mortality of matched cohort6

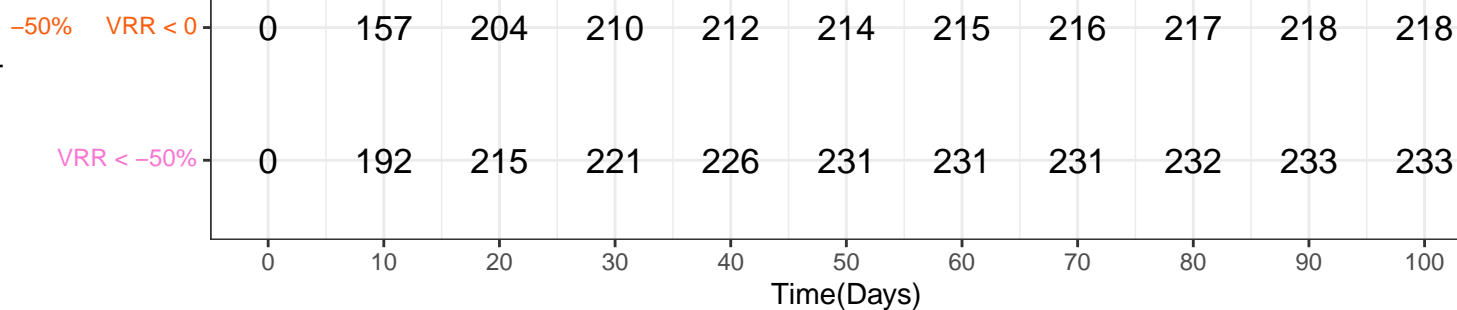
Group + -50% VRR < 0 + VRR < -50%

Survival probability

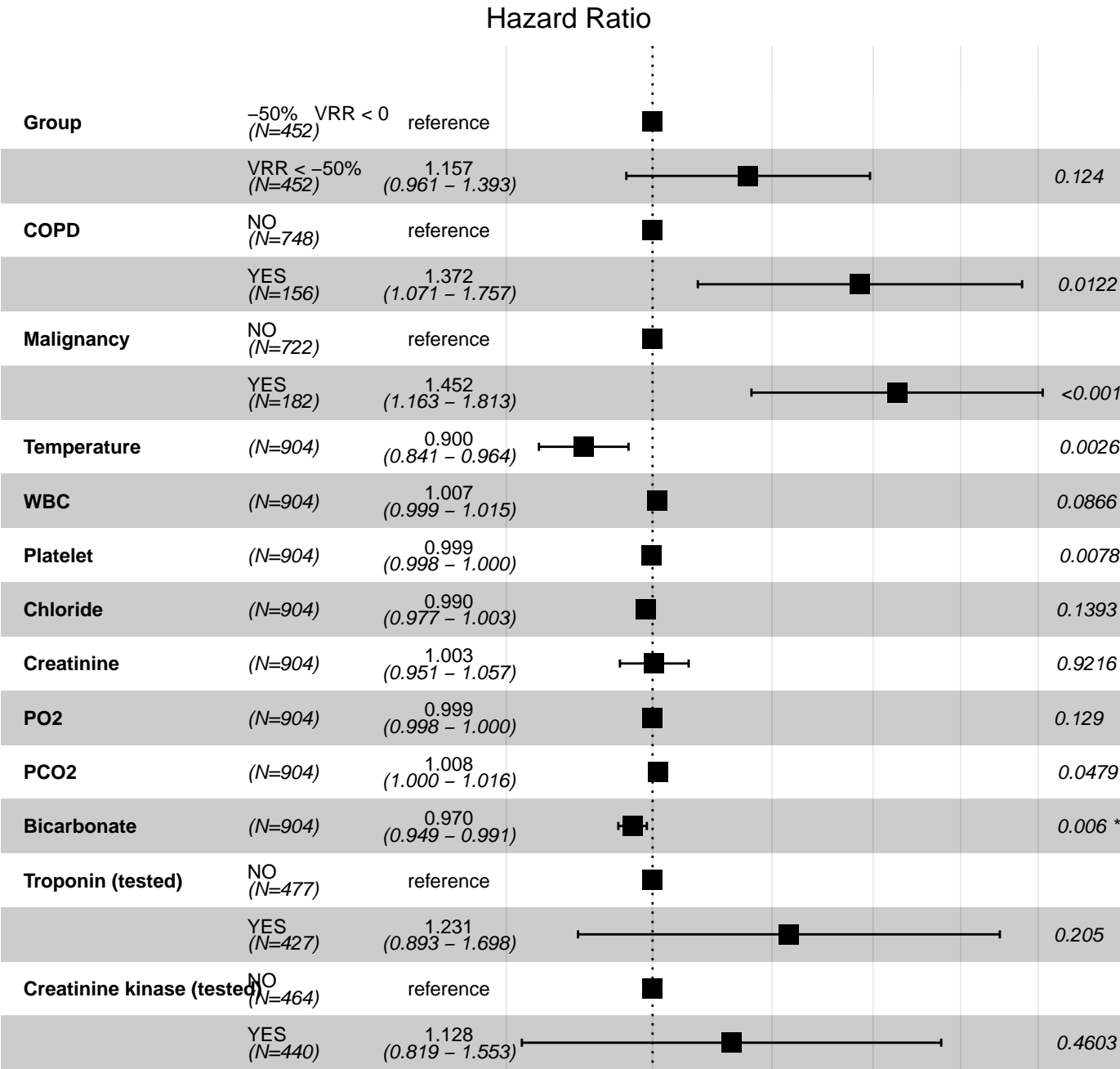


Cumulative number of events

Group



Forest plot of multivariate Cox regression analysis for in hospital mortality of matched cohort6



Events: 453; Global p-value (Log-Rank): 2.4519e-09
AIC: 5610.34; Concordance Index: 0.64