Supplementary Table 1 Stratified analyses of the associations between combined SHR/TIR groups and 28-day mortality

Subgroup	n	SHR-L_TIR-H	SHR-L_TIR-L	SHR-H_TIR-H	SHR-H_TIR-L	P for interaction
History of diabetes						0.495
Yes	283	Ref	1.50 (0.44, 5.15)	1.32 (0.08, 20.58)	3.06 (0.84, 11.07)	
No	423	Ref	1.37 (0.56, 3.35)	1.37 (0.50, 3.79)	1.41 (0.46, 4.33)	
Admission type						0.132
Emergency surgery	343	Ref	2.06 (0.50, 8.53)	2.28 (0.30, 17.25)	7.20 (1.64, 31.57)[a]	
Elective surgery	363	Ref	1.10 (0.51, 2.41)	1.28 (0.43, 3.75)	1.38 (0.57, 3.31)	
Use of glucocorticoid						0.389
Yes	193	Ref	1.06 (0.36, 3.08)	1.10 (0.23, 5.24)	1.96 (0.61, 6.27)	
No	513	Ref	1.24 (0.50, 3.09)	1.50 (0.46, 4.92)	1.99 (0.74, 5.33)	
Disease category						
Trauma						0.742
Yes	147	Ref	0.23 (0.03, 1.88)	1.21 (0.12, 12.16)	0.30 (0.03, 3.00)	
No	559	Ref	1.46 (0.70, 3.06)	1.39 (0.49, 3.91)	2.54 (1.13, 5.73)[a]	
Cardiothoracic surgery						0.679
Yes	110	Ref	1.65 (0.18, 15.21)	3.05 (0.19, 48.67)	8.75 (0.88, 87.09)	
No	596	Ref	1.15 (0.55, 2.40)	1.40 (0.51, 3.83)	1.76 (0.78, 3.98)	

Abdominal surgery					0.870
Yes	250	Ref	1.96 (0.70, 5.48)	1.51 (0.30, 7.53)	2.87 (0.84, 9.76)
No	456	Ref	0.76 (0.29, 1.97)	1.60 (0.51, 4.96)	1.47 (0.55, 3.90)

All the models were adjusted for age, sex (male/female), BMI, APACHE II score, admission type (Emergency surgery/ Elective surgery), glucocorticoid use (yes/no), history of diabetes (yes/no), and average number of glucose measurements per day, unless the variable was the stratified factor. [a]$P < 0.05$.

Supplementary Table 2 Association between SHR and 28-day mortality after exclusion of severe anemia (WHO criteria)

	Univariate Analysis		Multivariate Analysis	
	OR (95% CI)	P-value	Adjusted OR (95% CI)	Adjusted P-value
Q1	1.47 (0.68, 3.19)	0.325	1.27 (0.56, 2.91)	0.580
Q2	1.00 (Ref)		1.00 (Ref)	
Q3	1.64 (0.76, 3.52)	0.207	1.26 (0.56, 2.87)	0.575
Q4	3.18 (1.57, 6.44)	0.001	2.39 (1.10, 5.20)	0.028

The model was adjusted for age (continuous variable), sex (male/female), BMI (continuous variable), APACHE II (continuous variable), history of diabetes (categorical variable), admission type (categorical variable), average number of glucose measurements per day (continuous variable), and use of glucocorticoid (categorical variable).