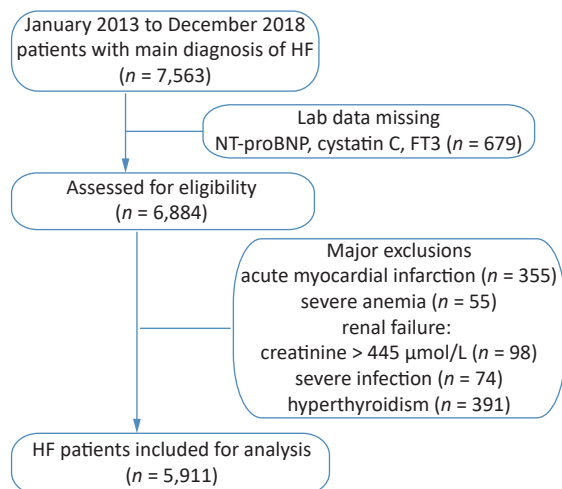
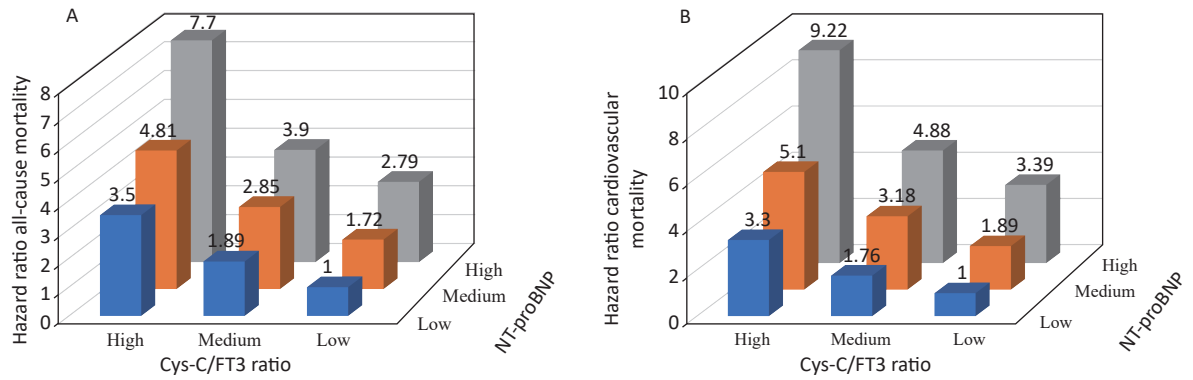


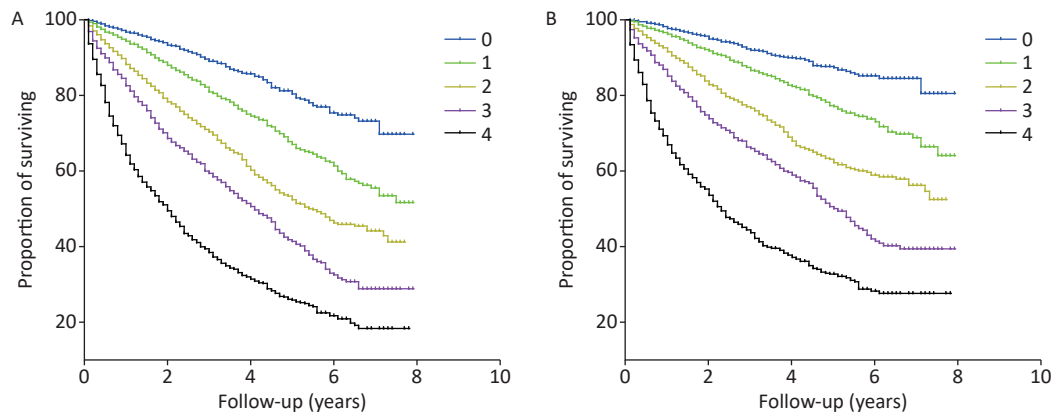
Supplementary Table S1. The AUC of the combination of the Cys-C/FT3 ratio and NT-proBNP level for clinical outcomes prediction

Item	HF	HFrEF	HFmrEF	HFpEF
In-hospital mortality				
Cardiovascular mortality	0.779 (0.746–0.813)	0.781 (0.714–0.847)	0.751 (0.693–0.808)	0.794 (0.739–0.849)
All-cause mortality	0.780 (0.749–0.811)	0.784 (0.721–0.848)	0.749 (0.695–0.802)	0.800 (0.752–0.848)
1-year mortality				
Cardiovascular mortality	0.772 (0.754–0.789)	0.741 (0.709–0.773)	0.745 (0.711–0.779)	0.787 (0.759–0.816)
All-cause mortality	0.767 (0.751–0.782)	0.746 (0.716–0.777)	0.735 (0.705–0.766)	0.787 (0.763–0.811)
3-year mortality				
Cardiovascular mortality	0.729 (0.715–0.744)	0.687 (0.659–0.715)	0.706 (0.667–0.734)	0.741 (0.718–0.765)
All-cause mortality	0.744 (0.731–0.757)	0.713 (0.687–0.739)	0.722 (0.696–0.748)	0.757 (0.737–0.777)
5-year mortality				
Cardiovascular mortality	0.720 (0.706–0.734)	0.675 (0.648–0.702)	0.702 (0.674–0.730)	0.726 (0.704–0.747)
All-cause mortality	0.740 (0.727–0.753)	0.708 (0.682–0.733)	0.726 (0.701–0.751)	0.748 (0.730–0.767)
8-year mortality				
Cardiovascular mortality	0.714 (0.700–0.728)	0.663 (0.635–0.690)	0.695 (0.668–0.723)	0.748 (0.729–0.766)
All-cause mortality	0.737 (0.724–0.749)	0.698 (0.671–0.724)	0.722 (0.697–0.747)	0.756 (0.739–0.774)

**Supplementary Figure S1.** Flow diagram for participant selection.



Supplementary Figure S2. Relative risk of all-cause (A) and cardiovascular (B) mortality stratified by tertiles of Cys-C/FT3 ratio and NT-proBNP level combination.



Supplementary Figure S3. Kaplan-Meier estimates of all-cause (A) and cardiovascular (B) mortality.