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SUPPLEMENTAL DATA

Combined SHR and SIRI biomarkers predict increased coronary heart disease risk in type 2 diabetes

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Table S1. Sensitivity analysis of CHD risk in patients with T2DM[a]

variable		OR (95%CI)	*p*
Sensitivity Analysis I			
SIRI	T1	Ref.	
	T2	1.155(1.061-1.257)	<0.001
	T3	1.819(1.247-2.655)	0.002
SHR	T1	Ref.	
	T2	1.743(1.155-2.629)	0.008
	T3	1.834(1.202-2.800)	0.005
Sensitivity Analysis II			
SIRI	T1	Ref.	
	T2	1.123(1.055-1.195)	<0.001
	T3	1.729(1.183-2.528)	0.005
SHR	T1	Ref.	
	T2	1.751(1.162-2.638)	0.007
	T3	1.730(1.137-2.632)	0.010

[a] The regression model is based on Model III; Model III: adjusted for age, sex ,BMI, admission history of SBP, DBP, smoking history, hypertension, heart failure, antihypertensive, dyslipidemia, hypoglycemic, and antiplatelet medication history; Sensitivity Analysis I: triglyceride, total cholesterol(TC), low-density lipoprotein(LDL), and high-density lipoprotein(HDL) were readjusted; Sensitivity Analysis II: adjusted for estimated glomerular filtration rate (eGFR) above or below 60mL/min/1.73m^2. Abbreviations: SIRI: Systemic inflammation response index; SHR: Stress hyperglycemia ratio; OR: Odds ratio; CI: Confidence interval; Ref: Reference.

Table S2. NRI and IDI analyses

SHR+ SIRI	NRI(Categorical)		NRI(Continuous)		IDI	
	OR (95%CI)	***p***	**OR (95%CI)**	***p***	**OR (95%CI)**	***p***
V.S. SHR	0.160(0.106-0.213)	<0.001	0.335(0.211-0.460)	<0.001	0.050(0.037-0.062)	<0.001
V.S. SIRI	0.128(0.072-0.184)	<0.001	0.422(0.295-0.549)	<0.001	0.039(0.027-0.050)	<0.001

Abbreviations: NRI: Net reclassification index; IDI: Integrated discrimination improvement; SIRI: Systemic inflammation response index; SHR: Stress hyperglycemia ratio; OR: Odds ratio; CI: Confidence interval.

Table S3. ROC curves analysis in the bootstrap bias-corrected (B=1000).

Variable	AUC	95%CI	*p*	sensitivity	specificity	Youden's index	Cut-off
SHR	0.793	0.752-0.833	<0.001	0.655	0.828	0.483	0.742
SIRI	0.742	0.705-0.780	<0.001	0.875	0.494	0.369	0.557
SHR+SIRI	0.846	0.814-0.880	<0.001	0.720	0.840	0.560	0.426

Abbreviations: ROC: Receiver operating characteristic; AUC: Area under the curve; CI: Confidence interval; SIRI: Systemic inflammation response index; SHR: Stress hyperglycemia ratio.

Table S4. NRI and IDI analysis in the bootstrap bias-corrected (B=1000).

SHR+ SIRI	NRI(Categorical)		NRI(Continuous)		IDI	
	OR (95%CI)	***p***	**OR (95%CI)**	***p***	**OR (95%CI)**	***p***
V.S. SHR	0.103(0.047-0.158)	<0.001	0.403(0.236-0.571)	<0.001	0.053(0.033-0.073)	<0.001
V.S. SIRI	0.205(0.128-0.282)	<0.001	0.424(0.257-0.591)	<0.001	0.059(0.037-0.080)	<0.001

Abbreviations: NRI: Net reclassification index; IDI: Integrated discrimination improvement; SIRI: Systemic inflammation response index; SHR: Stress hyperglycemia ratio; OR: Odds ratio; CI: Confidence interval.

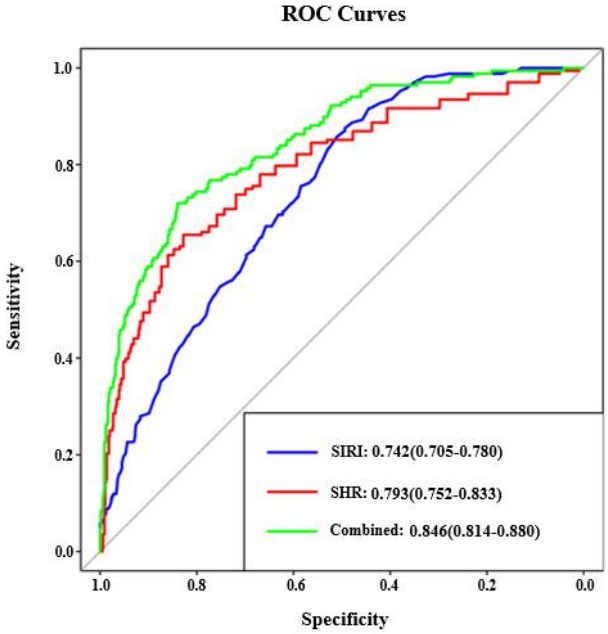
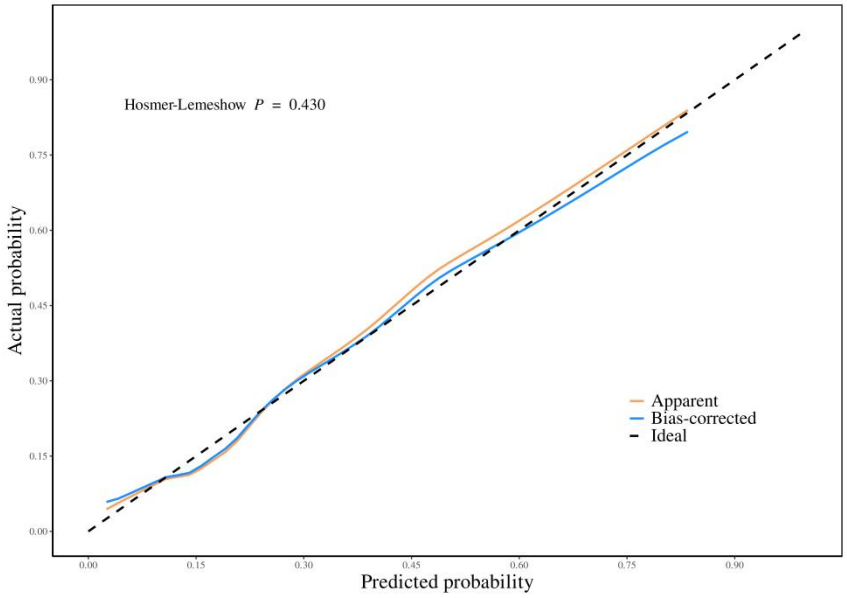


Figure S1. ROC curves analysis in the bootstrap bias-corrected (B=1000). Curves (sensitivity vs. specificity) show bias-corrected performance: SIRI AUC = 0.742 (95% CI, 0.705–0.780; blue), SHR AUC = 0.793 (0.752–0.833; red), and combined SHR+SIRI AUC = 0.846 (0.814–0.880; green). The 45° line denotes no discrimination. The combined model outperformed either biomarker alone.

Abbreviations: ROC: Receiver operating characteristic; SHR: Stress hyperglycemia ratio; SIRI: Systemic inflammation response index; CHD: Coronary heart disease.



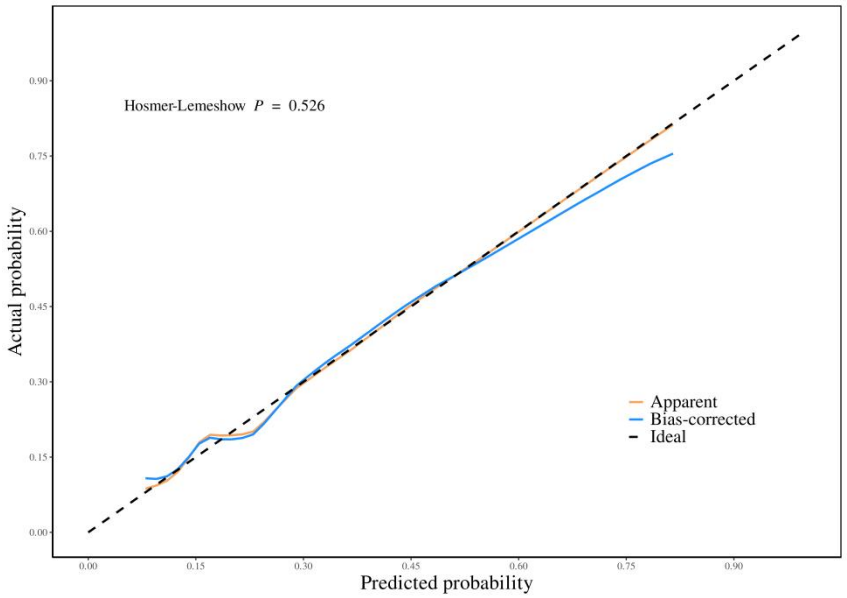


Figure S2. Calibration curves of logistic regression model. (A) Calibration curve of the original dataset; (B) Calibration curve for the bootstrap bias-corrected (B=1000).

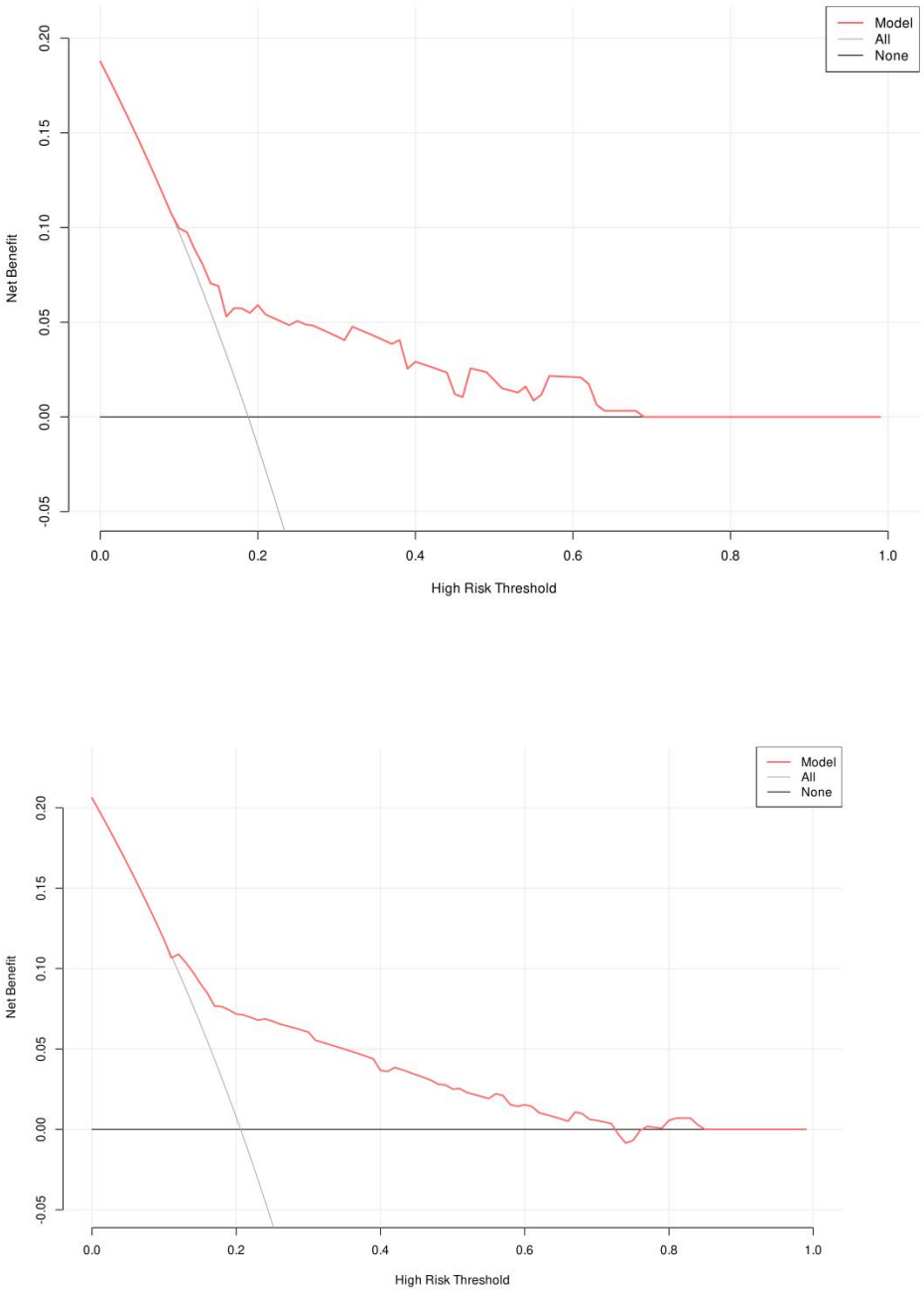


Figure S3. Net benefit curves for SHR combined with SIRI model. (A) Net benefit curves for the original dataset; (B) Net benefit curves for the bootstrap bias-corrected (B=1000). In both datasets, the model provides a positive net benefit across threshold probabilities of approximately 10%–70%, indicating clinical utility for risk-based decision-making compared with using no model. Abbreviations: SHR: Stress hyperglycemia ratio; SIRI: Systemic inflammation response index.