

Supplementary Online Content

Marston NA, Bonaca MP, Jarolim P, et al. Clinical application of high-sensitivity troponin testing in the atherosclerotic cardiovascular disease framework of the current cholesterol guidelines. *JAMA Cardiol*. Published online August 5, 2020.
doi:10.1001/jamacardio.2020.2981

eTable 1. Baseline Characteristics in the Biomarker Cohort Compared to the Overall Trial Population

eTable 2A. Cardiovascular End Points Stratified by Baseline ASCVD Group

eTable 2B. Cardiovascular End Points Stratified by Baseline hsTnI

eTable 3. Cardiovascular End Points Stratified by Baseline ASCVD Group and hsTnI Level (ng/L)

eTable 4. Measures of Reclassification and Discrimination Improvement

eTable 5. Reclassification and Event Rates With hsTnI

eFigure 1. KM Rates for Primary End Point by hsTnI Category (>6 and ≤6 ng/L)

eFigure 2. Adjusted HR for the Primary End Point, MI, All-Cause Mortality, and Stroke Stratified by hsTnI Level

eFigure 3. Cardiovascular and Coronary Heart Death, MI, and Stroke by hsTnI Level (ng/L)

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Baseline Characteristics in the Biomarker Cohort compared to the Overall Trial Population

	Overall Trial (N=21162)	Biomarker Cohort (N=8635)
Demographics		
Age (yrs) median (IQR)	65 (59, 71)	65 (58, 71)
Age >= 65 y	54.5	53.0
Female	23.9	23.4
Medical History		
Prior MI	100	100
Hx of PAD	5.4	6.5
Prior Coronary Revascularization	84.1	93.8
Diabetes Mellitus	32.2	29.8
Hypertension	77.5	78.3
Current Smoker	16.7	18.6
ApoB >=90 mg/dl despite statin	25.8	23.7
Prior CHF	20.0	15.4
Laboratory Values		
eGFR <60 mL/min/1.73m ²	23.2	23.3

Data are presented as percentages unless otherwise stated.

eTable 2A. Cardiovascular Endpoints Stratified by Baseline ASCVD Group

	Lower Risk ASCVD (N=1846)	Very-High Risk ASCVD (N=6789)	Log-Rank P-value
Endpoint	KM Failure Rate	KM Failure Rate	
Primary Endpoint	5.0%	8.8%	<0.0001
CV Death	0.9%	2.2%	<0.0001
MI	3.7%	6.0%	<0.0001
Stroke	0.6%	1.7%	0.0003
CHD Death	0.4%	1.3%	0.0007
All-Cause Death	1.6%	5.6%	<0.0001

CV, cardiovascular; CHD, coronary heart disease

eTable 2B. Cardiovascular Endpoints Stratified by Baseline hsTnl

	hsTnl <2 (N=920)	hsTnl 2-6 (N=5028)	hsTnl >6 (N=2687)	P-Trend
Endpoint	KM Failure Rate	KM Failure Rate	KM Failure Rate	
Primary Endpoint	2.8%	6.0%	13.5%	<0.0001
CV Death	0.0%	1.2%	4.1%	<0.0001
MI	2.5%	4.3%	8.7%	<0.0001
Stroke	0.3%	1.0%	2.8%	<0.0001
CHD Death	0.0%	0.6%	2.3%	<0.0001
All-Cause Death	0.8%	3.0%	6.8%	<0.0001

CV, cardiovascular; CHD, coronary heart disease

eTable 3. Cardiovascular Endpoints Stratified by Baseline ASCVD Group and hsTnI Level (ng/L)

Endpoint	Lower Risk ASCVD			Very-High Risk ASCVD		
	hsTnI ≤6 (N=1429)	hsTnI >6 (N=417)	P-value	hsTnI <2 (N=614)	hsTnI ≥2 (N=6175)	P-value
	KM Rate	KM Rate		KM Rate	KM Rate	
Primary Endpoint	3.8%	9.1%	<.0001	2.7%	9.4%	<.0001
CV Death	0.7%	1.7%	.0033	0%	2.4%	<.0001
MI	2.8%	6.9%	<.0001	2.2%	6.3%	<.0001
Stroke	0.6%	0.6%	0.055	0.5%	1.8%	<.0001
CHD Death	0.4%	0.2%	0.10	0.0%	2.4%	<.0001
All-Cause Mortality	1.6%	1.9%	0.002	0.7%	5.0%	<.0001

CV, cardiovascular; CHD, coronary heart disease

eTable 4. Measures of Reclassification and Discrimination Improvement

The Addition of hsTnl to Guideline-derived Clinical ASCVD Risk		
Net Reclassification Index (NRI) (at event rate)	0.15 (0.10-0.21)*	<0.0001[^]
Integrated Discrimination Improvement (IDI) Index	0.03 (0.03-0.04)	

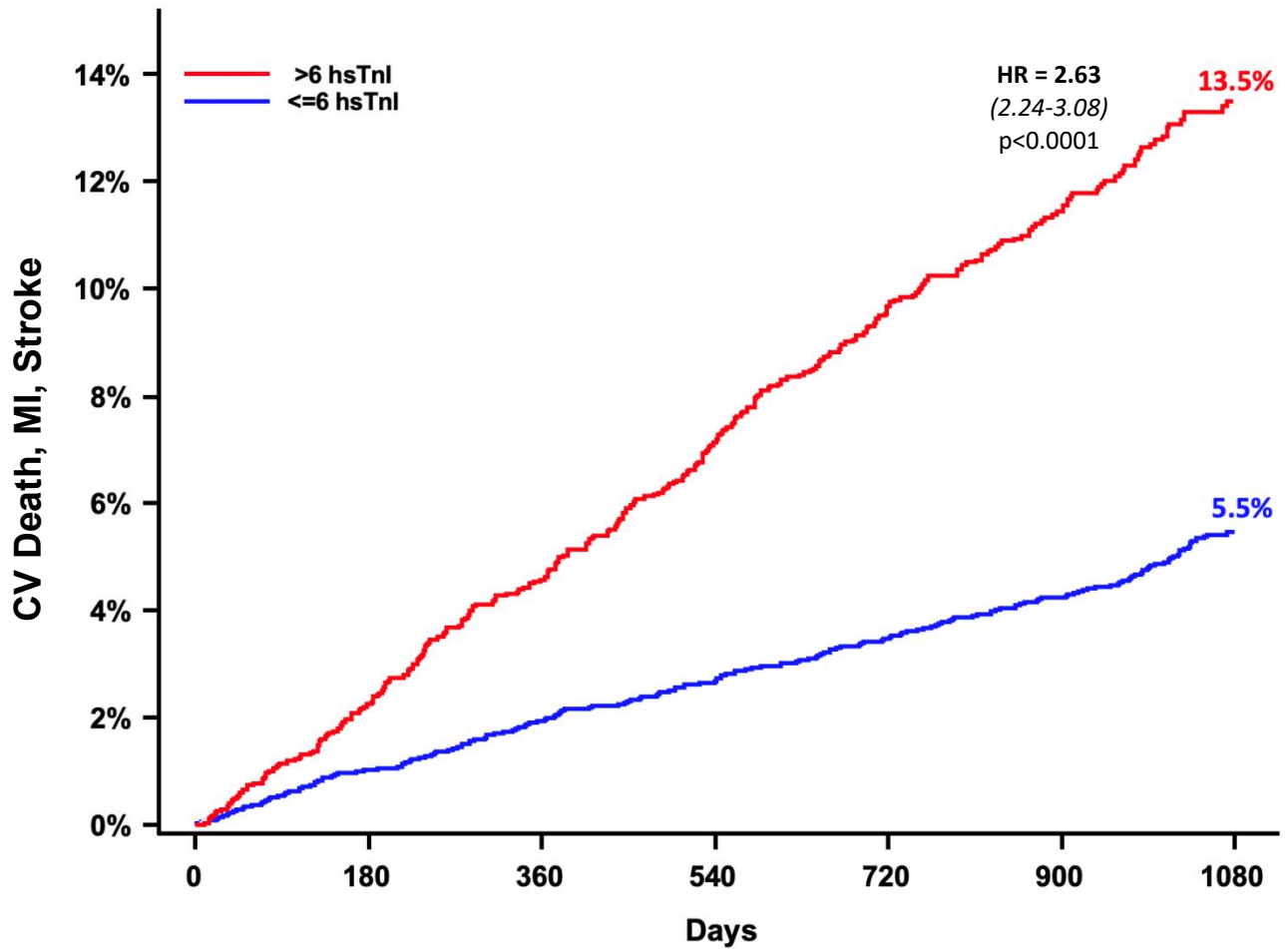
[^]Likelihood ratio test for the difference between models with ASCVD risk groups only and ASCVD risk groups plus hsTnl

* 95% Confidence interval is based on bootstrap resampling

eTable 5. Reclassification and Event Rates with hsTnI

Guideline Derived ASCVD Risk	3-Year KM Rate (N)			% Reclassified with addition of hsTn
	Overall	Concordant Troponin	Discordant Troponin	
Very High	8.8% (6,789)	9.4% (6,175)	2.7% (614)	9.0%
Lower	5.0% (1,846)	3.8% (1,429)	9.1% (417)	22.6%

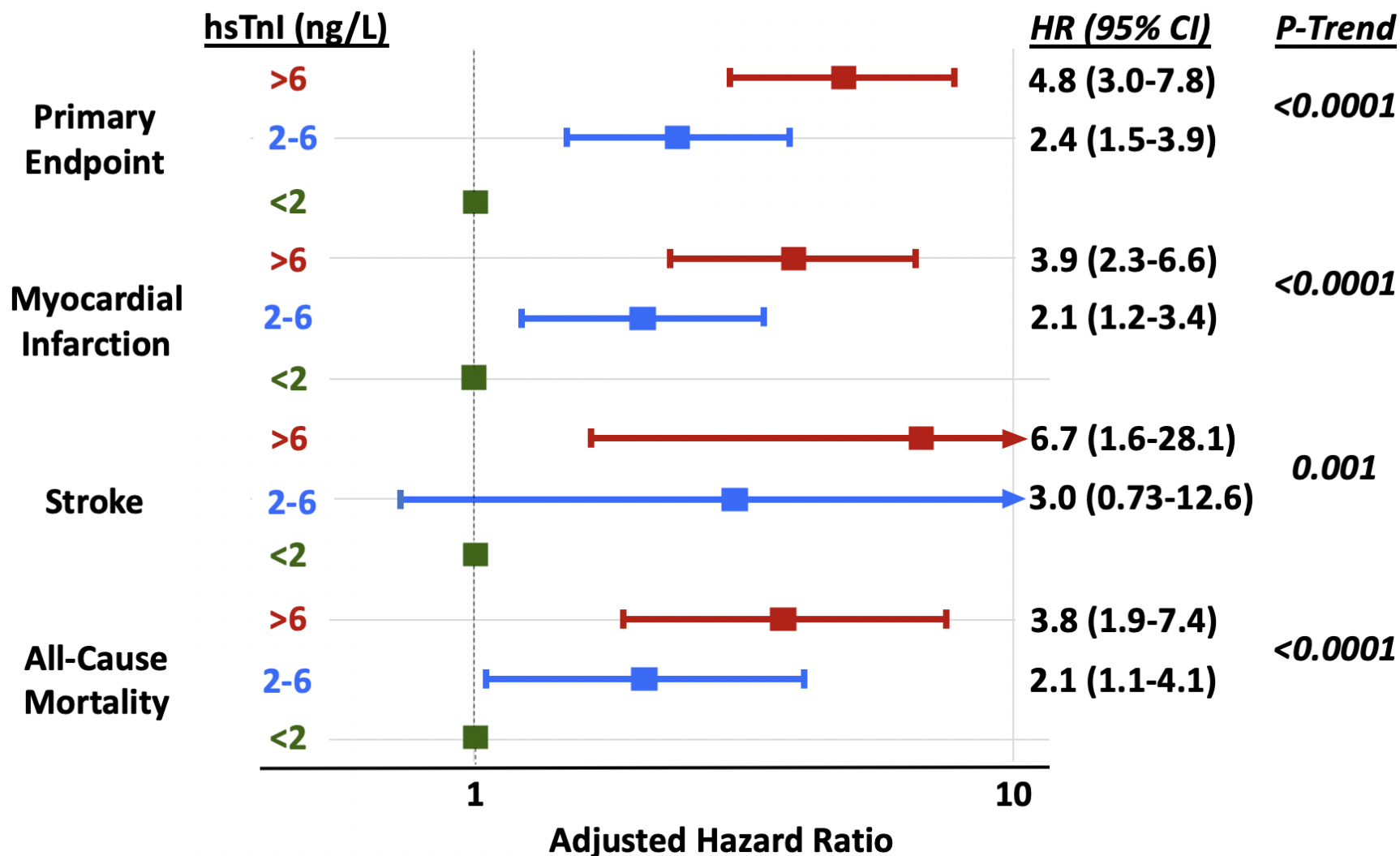
eFigure 1. KM Rates for Primary Endpoint by hsTnI category (>6 and ≤6 ng/L)



Number at risk:

≤6	5948	5852	5781	5570	4798	3663	2008
>6	2687	2604	2529	2392	2068	1567	828

eFigure 2. Adjusted HR for the Primary Endpoint, MI, All-Cause Mortality, and Stroke stratified by hsTnI Level



Adjusted for age, sex, diabetes, smoking, hypertension, apoB, stroke, CABG, peripheral artery disease, history of heart failure, and eGFR

eFigure 3. Cardiovascular and Coronary Heart Death, MI, and Stroke by hsTnI Level (ng/L)

