

## Supplementary Data

SUPPLEMENTARY TABLE 1. MAJOR ELECTROCARDIOGRAPHIC ABNORMALITIES BY MINNESOTA CODE CLASSIFICATION

<i>Category of abnormality</i>	<i>Description of abnormality</i>	<i>Code</i>	
Ventricular conduction defects	Ventricular conduction defect	mc_7	7.1
	Complete/intermittent left bundle branch block		7.2 7.4
	Complete/intermittent right bundle branch block		7.8
	Nonspecific intraventricular block		
	Complete/intermittent right bundle branch block with/left anterior hemiblock		
Myocardial infarction/ischemia	Major Q wave abnormalities [possible old myocardial infarction (MI)]	mc_1 (I,v,f)	1.1.x, 1.2.x
Myocardial infarction/ischemia	Minor Q,QS waves with ST,T abnormalities (possible old MI)	mc_1, mc_4, mc5 (I,f,v)	1.3.x and (4.1.x, 4.2, 5.1, 5.2)
Myocardial infarction/ischemia	Major isolated ST_T abnormalities	mc_4, mc_5 (I,f,v)	4.1.x, 4.2, 5.1, 5.2
Voltage criteria for left ventricular hypertrophy	Left ventricular hypertrophy	mc_3; mc_4, mc_5 (I,f,v)	3.1 and (4.1.x, 4.2, 5.1, 5.2)
Arrhythmias	Atrial fibrillation or flutter	mcr_83	8.3.1
Atrioventricular conduction defects	Major atrioventricular conduction abnormalities	mcr_62	6.2.x
		mcr_61	6.1.1
		mcr_86	8.6.1, 8.6.2
		mcr_64	6.4.1
Repolarization abnormalities	Major QT prolongation, QTl > = 116, codes not suppressed	qti, jti (use Qti if QRS ≤ 116 and jti if QRS > 120)	
Electronic pacing	Pacemaker	mcr_68	6.8.1
Arrhythmias	Other major arrhythmias	mcr_82	8.2.x
Arrhythmias	Intermittent atrial flutter or fibrillation	mcr_83	8.3.2,8.3.3
Arrhythmias	Supraventricular tachycardia	mcr_84	8.4.2

SUPPLEMENTARY TABLE 2. MINOR ELECTROCARDIOGRAPHIC ABNORMALITIES BY MINNESOTA CODE CLASSIFICATION

<i>Category of abnormality</i>	<i>Description of abnormality</i>	<i>Code</i>	
Myocardial infarction/ischemia	Minor isolated Q, QS waves	mc_1 (I,f,v)	1.3.x
Myocardial infarction/ischemia	Minor isolated ST, T abnormalities	mc_4, mc_5 (I,f,v)	4.3, 4.4, 5.3, 5.4
Voltage criteria for left ventricular hypertrophy	High R waves	mc_3	3.1, 3.2, 3.3, 3.4
Repolarization abnormalities	ST segment elevation, anterolateral site	mc_I92	9.2.1
Repolarization abnormalities	ST segment elevation, posterior site	mc_f92	9.2.1
Repolarization abnormalities	ST segment elevation, anterior site	mc_v92	9.2.1
Ventricular conduction defects	Incomplete bundle branch block		
	Incomplete right bundle branch block	mc_7	7.3
	Incomplete left bundle branch block	mc_7	7.6, 7.7
Repolarization abnormalities	Minor QT prolongation, QT <sub>i</sub> > = 112% but less than 116; codes not suppressed	qti, jti (use Qti if QRS < 116 and jti if QRS > 120)	
AV conduction defects	Short PR	mcr_65	6.5.1
QRS axis deviation	Left axis deviation	mc_2	2.1
QRS axis deviation	Right axis deviation	mc_2	2.2
Arrhythmias	Frequent ventricular premature beats	mcr_81	8.1.2, 8.1.3,
	Other minor abnormalities		
AV conduction defects	First degree AV block	mcr_63	6.3.1
Arrhythmias	Atrial ectopics, wandering pacemaker or both	mcr_81	8.1.1, 8.1.4, 8.1.5
Arrhythmias	Supraventricular rhythm	mcr_84	8.4.1
Arrhythmias	Marked sinus tachycardia	mcr_87	8.7.1
Arrhythmias	Marked sinus bradycardia	mcr_88	8.8.1
QRS voltage abnormalities	Low voltage QRS	mc_91	9.1.1
Atrial enlargement	Increased P-wave amplitude	mc_93	9.3.1

AV, atrioventricular conduction.

SUPPLEMENTARY TABLE 3. ADJUSTED ODDS RATIOS OF THE ASSOCIATIONS OF THE METABOLIC SYNDROME AND ITS COMPONENTS WITH MAJOR AND MINOR ELECTROCARDIOGRAPHIC ABNORMALITIES USING ASIAN-SPECIFIC CRITERIA FOR WAIST CIRCUMFERENCE

Risk factor	ECG abnormality	Model 1*		Model 2†	
		OR‡	95% CI	OR‡	95% CI
Metabolic syndrome	Major				
	Male	1.66	1.32-2.09		
	Female	1.88	1.47-2.42		
	Minor				
Hypertension	Male	1.02	0.87-1.21		
	Female	1.38	1.19-1.59		
	Major				
	Male	2.22	1.72-2.86	2.03	1.57-2.64
High triglyceride	Female	1.68	1.27-2.22	1.44	1.09-1.92
	Minor				
	Male	1.31	1.12-1.54	1.30	1.11-1.53
	Female	1.53	1.32-1.79	1.49	1.27-1.72
Central obesity	Major				
	Male	1.03	0.81-1.32	0.83	0.64-1.08
	Female	1.84	1.41-2.39	1.54	1.17-2.02
	Minor				
High FBG	Male	0.85	0.72-1.01	0.78	0.66-0.93
	Female	1.11	0.95-1.31	1.01	0.86-1.20
	Major	1.72	1.43-2.06	1.50	1.23-1.81
	Minor	1.23	1.10-1.37	1.17	1.04-1.32
Low HDL-C	Major	1.60	1.34-1.92	1.33	1.10-1.60
	Minor	1.19	1.06-1.35	1.11	0.98-1.26
Low HDL-C	Major	1.26	1.06-1.50	1.06	0.88-1.28
	Minor	1.03	0.93-1.15	1.00	0.89-1.13

‡Odds ratios were estimated using multinomial logistic regression with normal ECG as reference.

\*Model 1: Metabolic syndrome or its individual components, adjusted for age, gender and ethnicity. Metabolic syndrome, hypertension and high triglyceride are presented in subgroups of gender due to their significant interactions with gender at the 0.05% level.

†Model 2: All components of the metabolic syndrome concurrently adjusted for age, gender, ethnicity, interaction terms of "high triglyceride with gender" and "hypertension with gender".

HDL-C, high density lipoprotein-cholesterol; FBG, fasting blood glucose.