

## SUPPLEMENTARY DATA

### Supplementary tables.

<b>Table 1 of the supplementary data.</b> Adjusted <sup>1</sup> Cox proportional hazard regression analysis for 1-year outcomes using the Agatston method.				
	Low calcium score <sup>2</sup>	High calcium score <sup>2</sup>	HR (95%CI)P	<i>P</i>
All-cause mortality	87 (13.9)	70 (11.1)	0.86 (0.76-0.98)	.02
Stroke	22 (3.4)	23 (3.5)	1.03 (0.58-1.83)	.93
Pacemaker 1-year	56 (8.6)	74 (11.4)	1.41 (1.36-1.46)	<.001

HR, hazard ratio; CI, confidence interval.

<sup>1</sup>Sex (female), age, New York Heart Association functional class  $\geq$ III, hypertension, diabetes, dyslipidemia, peripheral artery disease, body mass index, coronary artery disease, percutaneous coronary intervention, myocardial infarction, coronary artery bypass graft, cancer, atrial fibrillation, N terminal pro-brain natriuretic peptide, creatinine clearance, aortic valve area, left ventricle ejection fraction, aortic insufficiency  $\geq$ II, mitral insufficiency  $\geq$ II, EuroScore I, high calcium score.

<sup>2</sup>Hounsfield units sex specified: low calcium score (women <2128, men <3369); high calcium score (women >2128, men >3369).

<b>Table 2 of the supplementary data.</b> Linear correlation between contrast-enhanced calcium volume and the gold standard noncontrast-enhanced CTA			
n = 1309	R	R <sup>2</sup>	<i>P</i>
Contrast-enhanced calcium volume mm <sup>3</sup> vs noncontrast-enhanced volume mm <sup>3</sup>	0.823	0.678	<.001
Contrast-enhanced calcium volume mm <sup>3</sup> vs Hounsfield units	0.825	0.680	<.001

CTA, computed tomography angiography; mm<sup>3</sup>, cubic millimeter.

<b>Table 3 of the supplementary data.</b> Agreement between contrast-enhanced calcium volume and the gold standard noncontrast-enhanced CTA				
n = 1309	Intraclass correlation	95%CI	<i>P</i>	Cronbach's $\alpha$
Contrast-enhanced calcium volume mm <sup>3</sup> vs noncontrast-enhanced volume mm <sup>3</sup>	0.794	0.77-0.813	<.001	0.886
Contrast-enhanced calcium volume mm <sup>3</sup> vs Hounsfield units	0.865	0.776-0.911	<.001	0.940

CTA, computed tomography angiography.

<b>Table 4 of the supplementary data.</b> Sex-specific calcium volume cutoff values based on median values obtained from contrast-enhanced CTA.				
	All	Men	Women	<i>P</i>
Calcium volume, mm <sup>3</sup>	782 [438; 1231]	1025 [678; 1550]	514 [292; 849]	<.001

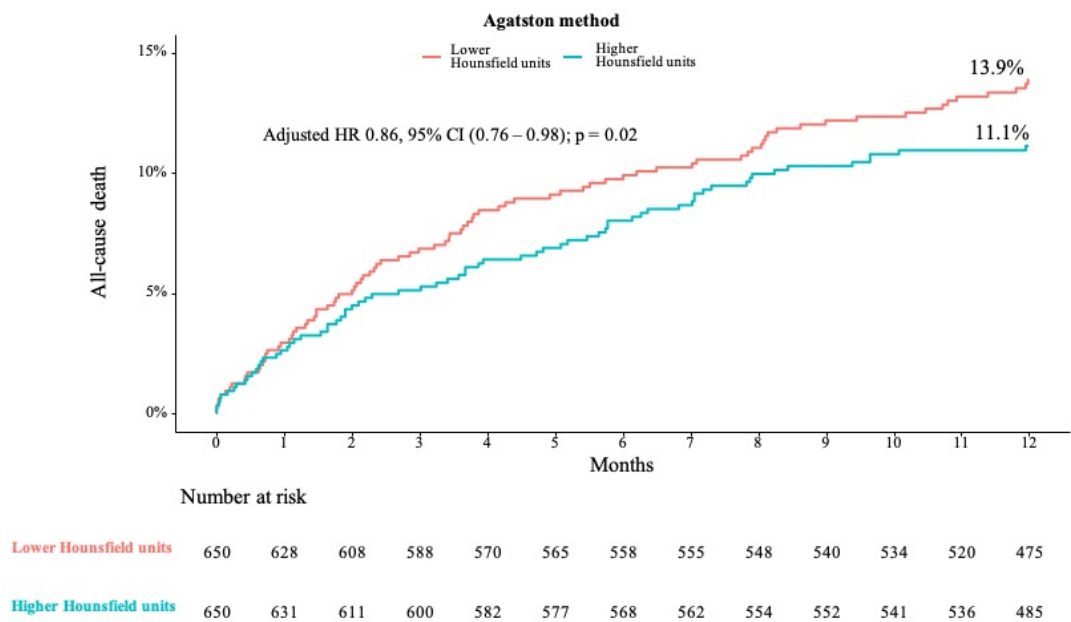
CTA, computed tomography angiography; mm<sup>3</sup>, cubic millimeters.

<b>Table 5 of the supplementary data.</b> Univariate analysis using sex-specific calcium volume				
	Low calcium volume*	High calcium volume*	HR (95%CI)	<i>P</i>
All-cause 30-d mortality	31 (1.9)	29 (1.7)	0.94 (0.82-1.07)	.31
All-cause 1-year mortality	188 (12.1)	138 (8.8)	0.73 (0.59-0.89)	.002
Stroke, 30-d	26 (1.6)	29 (1.8)	1.07 (0.80-1.44)	.63
Stroke, 1-y	44 (2.8)	43 (2.7)	0.99 (0.89-1.11)	.89
Pacemaker, 30-d	130 (7.8)	147 (8.9)	1.11 (0.95-1.29)	.18
Pacemaker, 1-y	148 (9.0)	163 (9.9)	1.10 (0.84-1.44)	.47
More than moderate aortic/paravalvular insufficiency, 30-d	12 (1.0)	19 (1.5)	1.59 (0.76-3.28)	.20
More than moderate aortic/paravalvular insufficiency, 1-y	11 (1.6)	22 (3.1)	1.89 (0.91-3.94)	.82

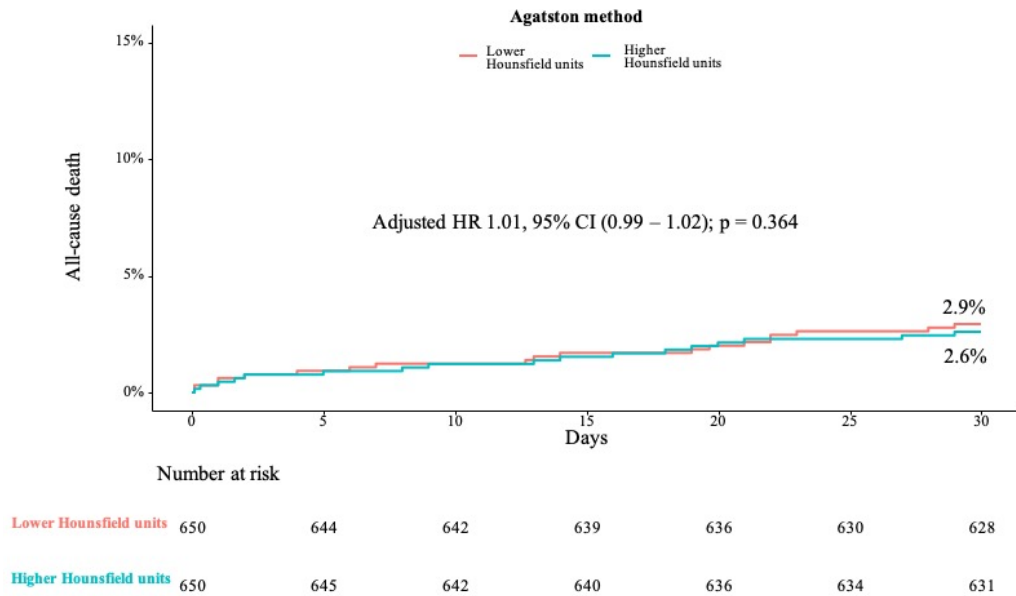
\*Calcium volume sex specified: low (women <514mm<sup>3</sup>, men <1025mm<sup>3</sup>); high (women >514mm<sup>3</sup>, men >1025mm<sup>3</sup>).

**Figure 1 of the supplementary data.** 1-year Kaplan-Meier mortality curve using the Agatston method.

Comparison between lower Hounsfield units (salmon-color line) and higher Hounsfield units (green line). 95%CI, 95% confidence interval; HR, hazard ratio.

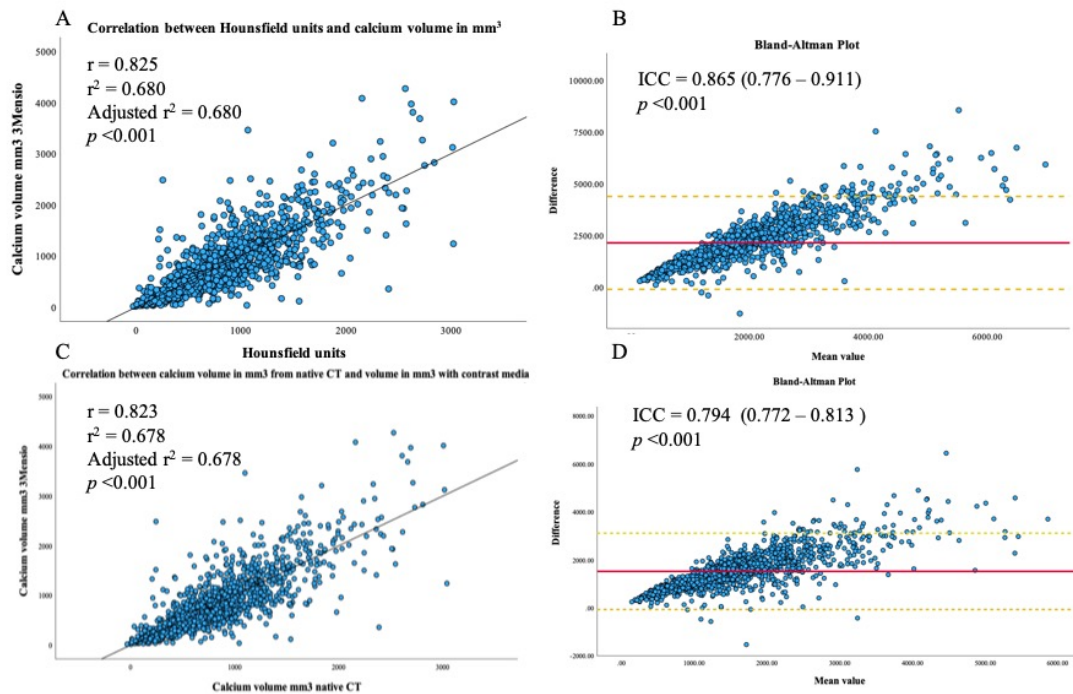


**Figure 2 of the supplementary data.** Thirty-day Kaplan-Meier analysis using the Agatston method. Comparison of patients with lower Hounsfield units (salmon-color line) and higher Hounsfield units (green line) and mortality at 30 days. 95%CI, 95% confidence interval; HR, hazard ratio.



**Figure 3 of the supplementary data.** Computed tomography angiography (angio-CT) correlation analysis.

A) Correlation between noncontrast-enhanced (Hounsfield units) and contrast-enhance (calcium volume in mm<sup>3</sup>) angio-CT ; B) Bland-Altman analysis and intraclass correlation coefficient (with absolute agreement) between noncontrast-enhanced (Hounsfield units) and contrast-enhance (calcium volume in mm<sup>3</sup>) angio-CT; C) Correlation between noncontrast-enhanced (calcium volume in mm<sup>3</sup>) and contrast-enhance (calcium volume in mm<sup>3</sup>) angio-CT; D) Bland-Altman analysis and intraclass correlation coefficient (with absolute agreement) between noncontrast-enhanced (calcium volume in mm<sup>3</sup>) and contrast-enhanced (calcium volume in mm<sup>3</sup>) angio-CT.



**Figure 4 of the supplementary data.** Time-dependent hazard ratio of mortality in patients with high calcium volume in the aortic valve.

