Supplementary Online Content

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

eTable 1. Number of Events and Event-Rates According to Coronary Artery Calcium Burden and Obstructive Coronary Artery Disease

CAC and obstructive CAD status	Prevalence, n (%)	Number of events MI + death, n (%)		Event-rates per 1000 person-years MI + death (95%CI)
All				
CAC=0, no obstruc. CAD	12046 (51)	218 (28)		4.07 (3.56-4.64)
CAC=0, + obstruc. CAD	725 (3)	23 (3)		7.11 (4.72-10.69)
CAC>0, no obstruc. CAD	6670 (28)	270 (35)		9.53 (8.46-10.74)
CAC>0, + obstruc. CAD	4318 (18)	263 (34)		15.00 (13.27-16.90)
Age ≥ 60 years				
CAC=0, no obstruc. CAD	3130 (32)	93 (18)		6.79 (5.54-8.32)
CAC=0, + obstruc. CAD	226 (2)	10 (2)		9.64 (5.19-17.91)
CAC>0, no obstruc. CAD	3821 (39)	210 (41)		13.17 (11.50-15.07)
CAC>0, + obstruc. CAD	2701 (27)	199 (39)		18.27 (15.90-20.99)
Age <60 years				
CAC=0, no obstruc. CAD	8916 (64)	125 (48)		3.13 (2.63-3.73)
CAC=0, + obstruc. CAD	499 (4)	13 (5)		5.91 (3.43-10.18)
CAC>0, no obstruc. CAD	2849 (21)	60 (23)		4.84 (3.76-6.24)
CAC>0, + obstruc. CAD	1617 (12)	64 (24)		9.60 (7.52-12.27)

CAC= coronary artery calcium; obstruc= obstructive; CAD= coronary artery disease, MI= myocardial infarction

eTable 2. Number of MI and MI Event-Rates According to Coronary Artery Calcium Burden and Obstructive Coronary Artery Disease

			Number of events		Event-rates per 1000 person-years
CAC and obstructive CAD status		**Prevalence, n (%)**	**MI, n (%)**		**MI (95%CI)**
All					
CAC=0, no obstruc. CAD		12046 (51)	60 (27)		1.12 (0.87-1.44)
CAC=0, + obstruc. CAD		725 (3)	11 (5)		3.41 (1.89-6.16)
CAC>0, no obstruc. CAD		6670 (28)	55 (24)		1.94 (1.49-2.52)
CAC>0, + obstruc. CAD		4318 (18)	97 (43)		5.58 (4.57-6.80)
Age ≥ 60 years					
CAC=0, no obstruc. CAD		3130 (32)	15 (13)		1.10 (0.66-1.82)
CAC=0, + obstruc. CAD		226 (2)	4 (3)		3.86 (1.44-10.27)
CAC>0, no obstruc. CAD		3821 (39)	38 (32)		2.38 (1.73-3.28)
CAC>0, + obstruc. CAD		2701 (27)	61 (52)		5.66 (4.40-7.28)
Age <60 years					
CAC=0, no obstruc. CAD		8916 (64)	45 (43)		1.12 (0.84-1.51)
CAC=0, + obstruc. CAD		499 (4)	7 (7)		3.20 (1.52-6.71)
CAC>0, no obstruc. CAD		2849 (21)	17 (16)		1.37 (0.85-2.20)
CAC>0, + obstruc. CAD		1617 (12)	36 (34)		5.45 (3.92-7.55)

CAC= coronary artery calcium; obstruc= obstructive; CAD= coronary artery disease, MI= myocardial infarction

eTable 3. Number of Deaths and Mortality-Rates According to Coronary Artery Calcium Burden and Obstructive Coronary Artery Disease

CAC and obstructive CAD status		Prevalence, n (%)	Number of events		Event-rates per 1000 person-years
			Deaths, n (%)		Mortality (95%CI)
All					
CAC=0, no obstruc. CAD		12046 (51)	158 (28)		2.94 (2.51-3.44)
CAC=0, + obstruc. CAD		725 (3)	12 (2)		3.68 (2.09-6.49)
CAC>0, no obstruc. CAD		6670 (28)	220 (39)		7.72 (6.76-8.81)
CAC>0, + obstruc. CAD		4318 (18)	172(31)		9.65 (8.30-11.20)
Age ≥ 60 years					
CAC=0, no obstruc. CAD		3130 (32)	78 (19)		5.67 (4.54-7.08)
CAC=0, + obstruc. CAD		226 (2)	6 (2)		5.77 (2.59-12.85)
CAC>0, no obstruc. CAD		3821 (39)	176 (44)		10.95 (9.45-12.70)
CAC>0, + obstruc. CAD		2701 (27)	142 (35)		12.84 (10.88-15.13)
Age <60 years					
CAC=0, no obstruc. CAD		8916 (64)	80 (50)		2.00 (1.61-2.49)
CAC=0, + obstruc. CAD		499 (4)	6 (4)		2.71 (1.21-6.02)
CAC>0, no obstruc. CAD		2849 (21)	44 (28)		3.54 (2.64-4.75)
CAC>0, + obstruc. CAD		1617 (12)	30 (19)		4.43 (3.10-6.34)

CAC= coronary artery calcium; obstruc= obstructive; CAD= coronary artery disease, MI= myocardial infarction

eTable 4. Post-CTA Statin and Aspirin Use in Those With CAC=0 Stratified by Absence or Presence of Obstructive CAD

Post-CTA medication	CAC=0 and no obstructive CAD	CAC=0 + obstructive CAD
Statin use, %	26	65
Aspirin use, %	14	48

Statin and aspirin use was defined as at least one prescription post-CTA

eTable 5. Number of Events and Event-Rates According to Coronary Artery Calcium Burden and Obstructive Coronary Artery Disease (Also Including Events Within the First 90 Days)

		Number of events		Event-rates per 1000 person-years
CAC and obstructive CAD status	Prevalence, n (%)	MI + death, n (%)		MI + death (95%CI)
All				
CAC=0, no obstruc. CAD	12046 (51)	228 (28)		4.24 (3.73-4.83)
CAC=0, + obstruc. CAD	725 (3)	25 (3)		7.67 (5.19-11.36)
CAC>0, no obstruc. CAD	6670 (28)	275 (35)		9.65 (8.57-10.90)
CAC>0, + obstruc. CAD	4318 (18)	310 (34)		17.40 (15.55-19.43)
Age ≥ 60 years				
CAC=0, no obstruc. CAD	3130 (32)	96 (18)		6.98 (5.72-8.53)
CAC=0, + obstruc. CAD	226 (2)	10 (2)		9.64 (5.19-17.91)
CAC>0, no obstruc. CAD	3821 (39)	214 (41)		13.32 (11.65-15.23)
CAC>0, + obstruc. CAD	2701 (27)	231 (39)		20.88 (18.35-23.76)
Age <60 years				
CAC=0, no obstruc. CAD	8916 (64)	132 (48)		3.30 (2.78-3.92)
CAC=0, + obstruc. CAD	499 (4)	15 (5)		6.76 (4.07-11.21)
CAC>0, no obstruc. CAD	2849 (21)	61 (23)		4.91 (3.82-6.30)
CAC>0, + obstruc. CAD	1617 (12)	79 (24)		11.67 (9.36-14.55)

CAC= coronary artery calcium; obstruc= obstructive; CAD= coronary artery disease, MI= myocardial infarction

eTable 6. Hazard Ratios for Myocardial Infarction and Death During Follow-up According to the Presence of Obstructive CAD Among Patients With CAC=0 (Also Including Events Within the First 90 Days)

		MI and death	
		Model 1	Model 2
CAC=0, all			
No or non-obstruc. CAD		Ref	Ref
Obstruc. CAD		1.62 (1.08-2.45)	1.62 (1.06-2.44)
CAC=0, age ≥60			
No or non-obstruc. CAD		Ref	Ref
Obstruc. CAD		1.29 (0.67-2.48)	1.31 (0.68-2.53)
CAC=0, age <60			
No or non-obstruc. CAD		Ref	Ref
Obstruc. CAD		1.97 (1.15-3.38)	1.92 (1.12-3.29)

CAC= coronary artery calcium; Obstruc = obstructive; CAD= Coronary artery disease;

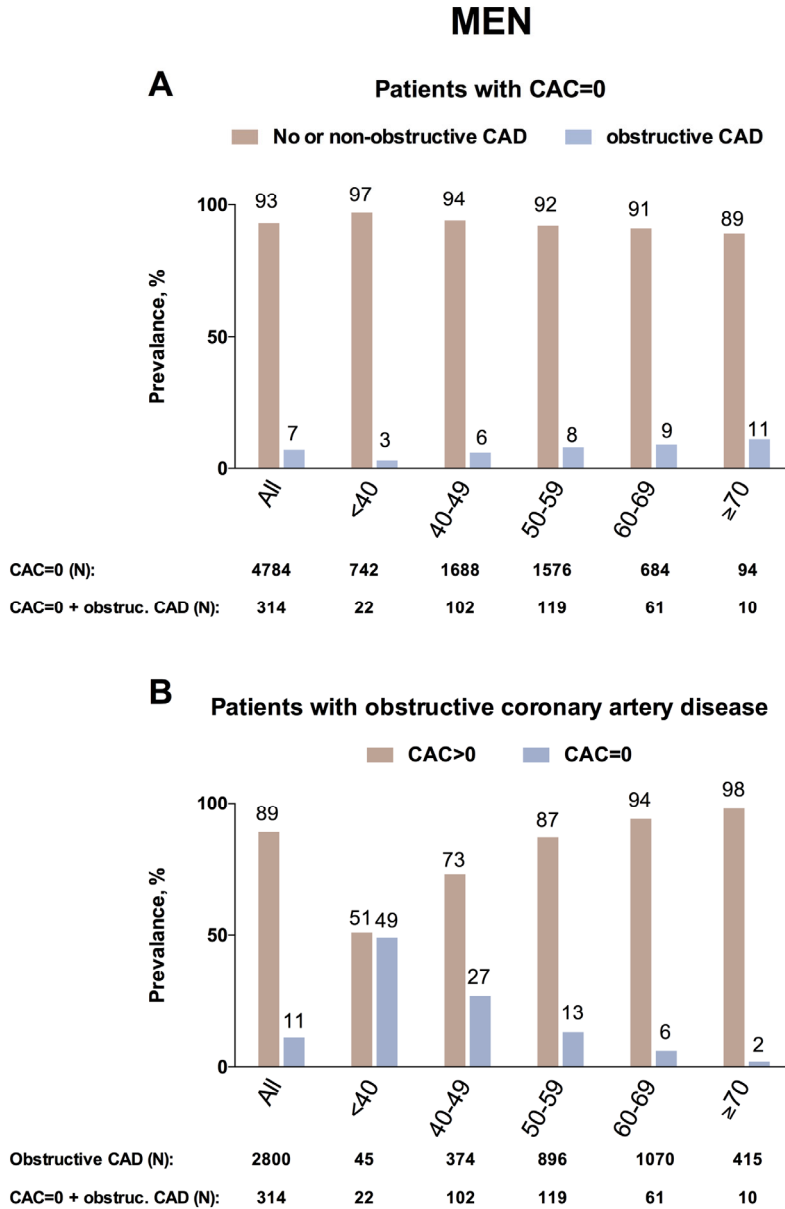MI= myocardial infarction; Ref = reference

Model 1: Adjusted for age and sex

Model 2: Adjusted for age, sex, smoking status, diabetes and symptom characteristics

eFigure 1. Absence of Coronary Artery Calcification and Obstructive Coronary Artery Disease in Men
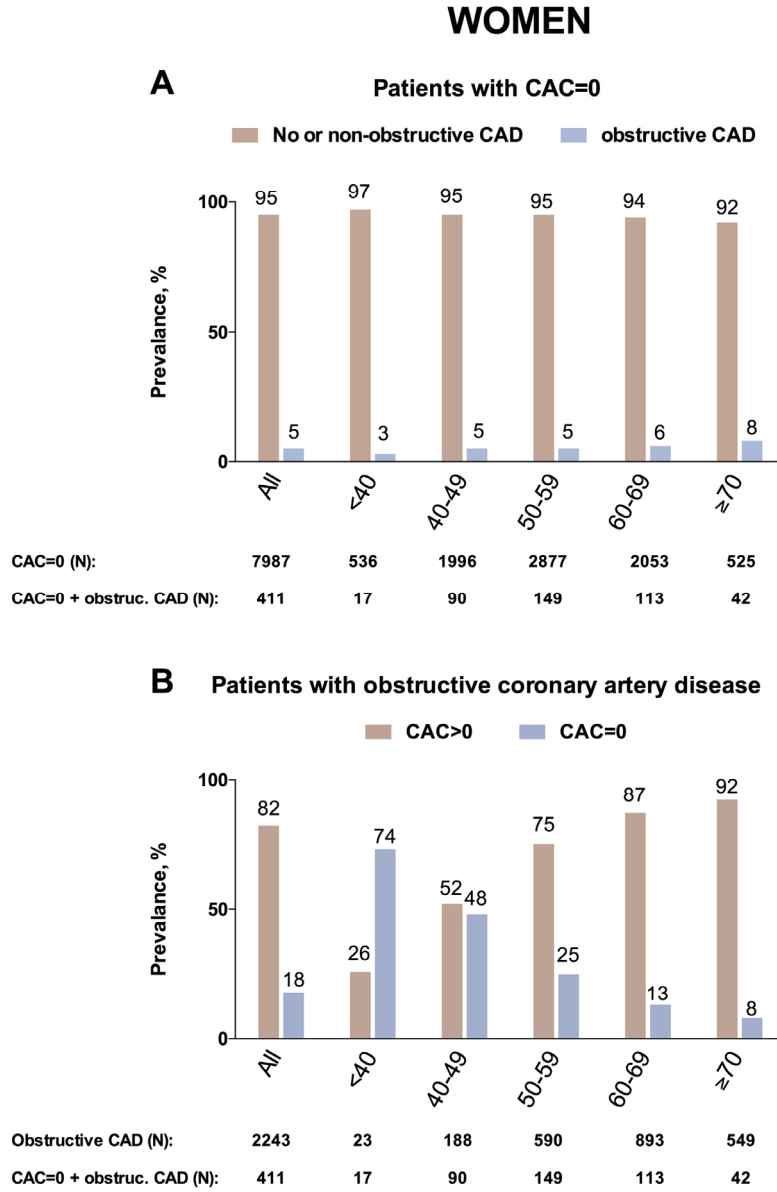
A: Prevalence of obstructive coronary artery disease among male patients with CAC=0. B: Prevalence of CAC=0 among male patients with obstructive CAD.

WOMEN

A   **Patients with CAC=0**

| CAC=0 (N): | 7987 | 536 | 1996 | 2877 | 2053 | 525 |
| CAC=0 + obstruc. CAD (N): | 411 | 17 | 90 | 149 | 113 | 42 |

B   **Patients with obstructive coronary artery disease**

| Obstructive CAD (N): | 2243 | 23 | 188 | 590 | 893 | 549 |
| CAC=0 + obstruc. CAD (N): | 411 | 17 | 90 | 149 | 113 | 42 |

eFigure 3. Calibration of Logistic Risk Prediction Models

A: Model based on age, sex, smoking status, diabetes and symptom characteristics. B: Model based on the variables in A as well as information on presence or absence of CAC=0.
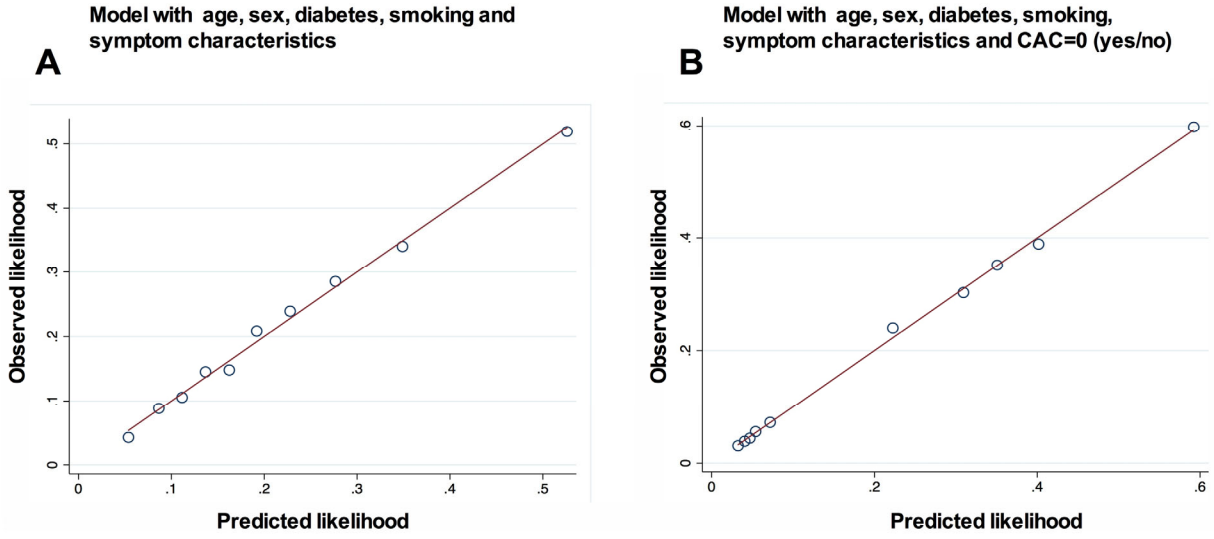
eFigure 4. Diagnostic Likelihood Ratio of a Coronary Artery Calcium Score of Zero for the Likelihood of Obstructive Coronary Artery Disease

The diagnostic likelihood ratio of CAC=0 shows how posttest risk changes when CAC=0 is considered together with a clinical model containing age, sex, smoking status, diabetes and symptom characteristics. The DLR of CAC=0 is not the same for all patients at a given age, but also depends on his/her distribution of risk factors. Each dot therefore represents the DLR of individual patients in the Western Denmark Heart Registry.

Diagnostic likelihood ratio of CAC=0 to rule out obstructive CAD