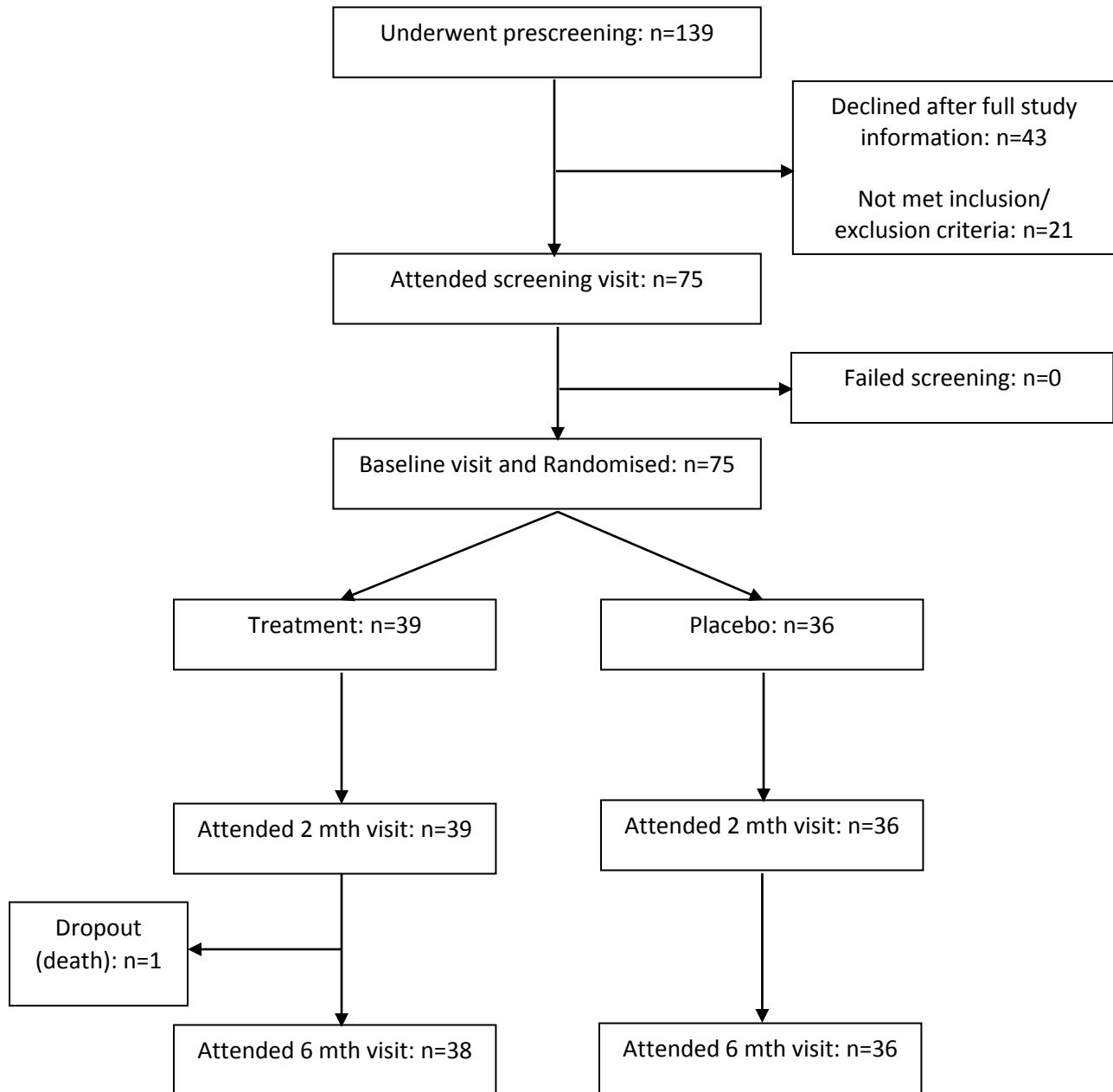


Participant flow



Baseline characteristics

	Intervention (n=39)	Placebo (n=36)
Age (years) (SD)	64.3 (9.8)	67.5 (10.6)
Male sex (%)	28/39 (72)	24/36 (67)
GRACE score (%) (SD)	9.3 (8.6)	9.8 (8.1)
Anterior infarction (%)	22/39 (56)	21/36 (58)
ST elevation infarction (%)	22/39 (56)	16/36 (44)
Successful reperfusion (thrombolysis, PCI or CABG) (%)	35/39 (90)	28/36 (78)
Any revascularisation (PCI or CABG) (%)	31/39 (79)	27/36 (75)
ACE inhibitor (%)	38/39 (97)	34/36 (94)
Statin (%)	38/39 (97)	35/36 (97)
Beta blocker (%)	34/39 (87)	29/36 (81)
Antiplatelet agents (%)	36/39 (92)	33/36 (92)
Hypertension (%)	23/39 (59)	19/36 (53)
Diabetes (%)	7/39 (18)	4/36 (11)
Chronic heart failure (%)	2/39 (5)	0/36 (0)
Baseline systolic BP (mmHg) (SD)	127.5 (21.3)	127.5 (18.9)
Baseline diastolic BP (mmHg) (SD)	71.6 (9.2)	71.8 (7.9)
Baseline Creatinine (umol/L) (SD)	84 (19)	90 (20)
Baseline adjusted calcium (mmol/L) (SD)	2.30 (0.07)	2.32 (0.08)
Baseline 25OHD level (nmol/L) (SD)	49 (20)	45 (16)
Baseline cholesterol (mmol/L) (SD)	3.6 (0.9)	3.6 (0.8)

Baseline Reactive Hyperemia Index (SD)	2.09 (0.73)	2.06 (0.55)
Median baseline BNP (pg/ml) (range)	36 (8 to 362)	46 (7 to 282)
Median baseline CRP (mg/L) (range)	1.5 (0.1 to 31.0)	0.9 (0 to 6.4)

All continuous variables are mean (SD) unless otherwise specified

25OHD: 25-hydroxyvitamin D. BNP: B-type natriuretic peptide. CRP: C-reactive protein. PCI: Percutaneous coronary intervention. CABG: Coronary artery bypass grafting

Outcome measures

		Vitamin D	Placebo	p
<i>Primary outcome</i>				
Reactive Hyperemia Index (units) (SD)	0 v 2 mths 0 v 6 mths	0.03 (0.58) -0.18 (0.64)	-0.10 (0.53) -0.07 (0.57)	0.34 0.40
<i>Secondary outcomes</i>				
25OHD (nmol/L) (SD)	0 v 2 mths 0 v 6 mths	7 (16) 13 (24)	0 (10) 1 (23)	0.03 0.04
Systolic BP (mmHg) (SD)	0 v 2 mths 0 v 6 mths	-2.0 (12.4) 1.4 (13.5)	-1.0 (14.1) 2.3 (14.9)	0.73 0.79
Diastolic BP (mmHg) (SD)	0 v 2 mths 0 v 6 mths	0.4 (5.7) 2.0 (8.2)	-1.2 (6.4) 0.8 (8.8)	0.23 0.54
Thrombomodulin (U/L) (SD)	0 v 2 mths 0 v 6 mths	0.22 (0.60) 0.24 (0.90)	-0.14 (0.99) -0.04 (0.85)	0.06 0.17
C-reactive protein (mg/L) (SD)	0 v 2 mths 0 v 6 mths	-0.9 (4.2) -1.3 (5.4)	0.8 (5.2) 2.0 (6.8)	0.11 0.03
E-Selectin (U/L) (SD)	0 v 2 mths 0 v 6 mths	1.1 (5.4) 2.7 (5.9)	2.1 (5.5) 1.6 (5.7)	0.44 0.42
Von Willebrand Factor (U/L) (SD)	0 v 2 mths 0 v 6 mths	-9.8 (85.9) 6.3 (88.2)	7.6 (50.1) 12.4 (88.1)	0.29 0.77
TNF-alpha (U/L)	0 v 2 mths 0 v 6 mths	0.50 (1.27) 0.49 (1.38)	-0.13 (1.90) 0.44 (4.06)	0.09 0.95
BNP (pg/ml)	0 v 2 mths 0 v 6 mths	3.3 (41.1) 1.6 (26.9)	-5.8 (58.3) -7.5 (67.8)	0.44 0.49
Corrected QT interval (ms)	0 v 2 mths 0 v 6 mths	0.9 (33.7) -2.8 (17.6)	-4.1 (18.0) 2.8 (23.7)	0.43 0.26
QT dispersion (ms)	0 v 2 mths 0 v 6 mths	-1.7 (12.6) -1.8 (12.1)	-2.5 (10.0) 0.7 (13.2)	0.76 0.41

TNF: Tumour necrosis factor. BNP: B-type natriuretic peptide. 25OHD: 25-hydroxyvitamin D

Adverse events

	Vitamin D	Placebo
Cardiovascular	5	4
Musculoskeletal	2	3
Urological	1	0
Infection	3	7
Other adverse events	2	4
Calcium >2.65 mmol/L	1	0
Creatinine rise of >20%	4	1
TOTAL	18	19
Death	1	0