

## Supplementary Online Content

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

**eTable 1. Programmed Implantable cardiac monitor variables**

<b>Detection</b>	<b>ECG Recording</b>	<b>Interval, ms (rate, bpm)</b>	<b>Duration</b>
Fast ventricular tachycardia	On	300 ms ( $\geq 200$ bpm)	12/16 beats
Ventricular tachycardia	On	330 ms ( $\geq 182$ bpm)	$\geq 16$ beats
Asystole	On		$\geq 4.5$ seconds
Bradycardia	On	2000 ms ( $\leq 30$ bpm)	4 beats
Atrial fibrillation Only	On		Episodes $\geq 20$ minutes
<b>Sensing</b>			
Sensitivity		0.05 mV (50 $\mu$ V)	
Blank after sense		70 ms	
Sensing threshold decay delay		100 ms	
<b>Detection enhancements</b>			
<i>Ventricular tachycardia detection</i>			
Stability	Off		
Onset	Off		
<i>Atrial tachycardia/fibrillation detection</i>			
Type	AF Only		
Atrial fibrillation detection	Balanced sensitivity		
Patient assistant setup	Off		

Atrial episode detection parameters programmed to atrial fibrillation detection only. Atrial fibrillation episodes saved on ECG were programmed to 20 minutes or longer and atrial fibrillation detection set to Balanced Sensitivity. Episodes of shorter duration than 20 minutes but lasting at least 2 minutes were counted as atrial fibrillation but without saved ECG tracing. An asystole was defined as  $\geq 4.5$  seconds and bradycardia as heart rate  $\leq 30$  beats per minute. bpm denotes beats per minute; ms denotes milliseconds; mV denotes millivolts

**eTable 2A: Primary end-point General Health and the remaining subscales of the Medical Outcomes Study 36-Item Short-Form Health Survey.**

SF 36 Subscales	Mean score (SD) Baseline		Mean score change Baseline to 12 months		Mean treatment difference	p-value
	Ablation N = 78	Medication N = 75	Ablation N = 78	Medication N = 75		
<b>General Health</b>	61.8 (20.2)	62.7 (19.4)	11.9 (7.7, 16.2)	3.1 (-0.9, 7.1)	8.9 (3.1, 14.7)	0.003
<b>Physical Functioning</b>	78.4 (17.6)	80.0 (17.9)	10.2 (6.4, 14.0)	4.1 (0.7, 7.5)	6.1 (1.1, 11.1)	0.02
<b>Mental Health</b>	75.3 (17.6)	75.9 (16.5)	6.1 (2.8, 9.3)	0.8 (-2.4, 3.9)	5.3 (0.8, 9.8)	0.02
<b>Bodily Pain</b>	78.0 (27.4)	77.1 (26.8)	5.7 (-0.9, 12.3)	3.8 (-1.8, 9.4)	1.9 (-6.7, 10.5)	0.66
<b>Role-Emotional</b>	73.1 (38.4)	77.3 (33.9)	17.9 (9.7, 26.2)	4.4 (-3.5, 12.4)	13.5 (2.1, 24.9)	0.02
<b>Role-Physical</b>	53.8 (40.1)	55.7 (40.6)	27.9 (18.3, 37.5)	10.7 (0.5, 20.9)	17.2 (3.3, 31.1)	0.02
<b>Social Functioning</b>	72.8 (25.1)	74.3 (25.7)	13.5 (7.5, 19.4)	6.3 (0.9, 11.8)	7.1 (-0.9, 15.2)	0.08
<b>Vitality</b>	54.4 (22.9)	55.1 (22.5)	14.0 (9.3, 18.6)	4.6 (0.5, 8.7)	9.4 (3.2, 15.6)	0.003

The table shows treatment differences between groups from baseline to 12 months follow-up, with p-values derived from t-tests. All subscales except for Bodily Pain and Social Functioning improved significantly more in the ablation group than in the antiarrhythmic medication group from baseline to 12 months. Figures are means with confidence intervals in brackets unless otherwise stated. SD = standard deviation. For each of the eight SF-36 scales, the scale ranged from 0 to 100 (higher scores indicating greater well-being).

**eTable 2B: Post-hoc sensitivity analysis of General Health and the remaining subscales of the Medical Outcomes Study 36-Item Short-Form Health Survey using repeated measurements model.**

SF 36 Subscales	Ablation Month 12 Estimate (95%CI)	Drug Month 12 Estimate (95%CI)	Treatment difference Ablation-Drug	p- valu e
<b>General Health</b>	74.5 (69.7, 79.2)	65.9 (61.1, 70.7)	8.6 (1.8, 15.4)	0.01
<b>Physical Functioning</b>	89.3 (85.6, 93.0)	84.5 (80.8, 88.3)	4.7 (-0.5, 9.9)	0.07
<b>Mental Health</b>	82.1 (78.6, 85.5)	76.9 (73.4, 80.4)	5.2 (0.2, 10.1)	0.04
<b>Bodily Pain</b>	84.5 (78.7, 90.2)	80.8 (74.9, 86.7)	3.7 (-4.7, 12.0)	0.39
<b>Role-Emotional</b>	93.3 (86.7, 100.0)	84.4 (77.6, 91.2)	9.0 (0.6, 17.3)	0.04
<b>Role-Physical</b>	82.8 (74.1, 91.5)	66.8 (58.0, 75.5)	16.0 (3.6, 28.5)	0.01
<b>Social Functioning</b>	87.6 (82.5, 92.7)	81.9 (76.8, 87.1)	5.7 (-1.3, 12.6)	0.11
<b>Vitality</b>	69.6 (64.8, 74.3)	59.8 (54.9, 64.6)	9.8 (2.9, 16.7)	0.00 6

Result from repeated measurements model including treatment group, visit and visit\*treatment with as fixed effects, patient within site as a random effect and site as repeated effect with multiple imputation for missing values.

The table shows model-based treatment differences between groups at 12 months follow-up. All subscales except for Physical Functioning, Bodily Pain, and Social Functioning improved significantly more in the ablation group than in the antiarrhythmic medication group during follow-up at 12 months. CI = confidence intervals. For each of the eight SF-36 scales, the scale ranged from 0 to 100 (higher scores indicating greater well-being). Month 6 is also included in the repeated measurements model.

**eTable 2C: Post-hoc sensitivity analysis of General Health and the remaining subscales of the Medical Outcomes Study 36-Item Short-Form Health Survey using Analysis of covariance.**

<b>SF 36 Subscales</b>	<b>Treatment difference Ablation-Drug Month 12 Estimate (95%CI)</b>	<b>p-value</b>
<b>General Health</b>	8.9 (3.3, 14.4)	0.002
<b>Physical Functioning</b>	5.5 (1.1, 9.9)	0.02
<b>Mental Health</b>	5.4 (1.4, 9.4)	0.008
<b>Bodily Pain</b>	3.3 (-4.3, 10.9)	0.40
<b>Role-Emotional</b>	9.8 (1.7, 17.8)	0.02
<b>Role-Physical</b>	16.8 (5.0, 28.5)	0.005
<b>Social Functioning</b>	6.1 (-0.3, 12.5)	0.06
<b>Vitality</b>	9.8 (4.3, 15.4)	<0.001

Result from ANCOVA analysis with model-based difference between treatments in change from baseline to month 12, adjusted for baseline value with multiple imputation for missing data.

The table shows treatment differences between groups from baseline to 12 months follow-up. All subscales except for Bodily Pain and Social Functioning improved significantly more in the ablation group than in the antiarrhythmic medication group during 12 months. CI = confidence intervals. For each of the eight SF-36 scales, the scale ranged from 0 to 100 (higher scores indicating greater well-being).

**eTable 3. Post-hoc explorative analysis of General Health improvement and its association to reduction in atrial fibrillation burden by randomized treatment.**

Source	DF	Type III SS	Mean Square	F Value	Pr > F
No of Antiarrhythmic Drugs	1	20.683934	20.683934	0.05	0.82
Randomization	1	629.176970	629.176970	1.53	0.22
Atrial fibrillation burden %	1	4744.054719	4744.054719	11.54	P<0.001

The table shows General Health improvement and its association to reduction in atrial fibrillation burden, randomized treatment and withdrawal of number of antiarrhythmic drugs tested, respectively, during the first 12 months. The Analysis of covariance (ANCOVA) showed that the improvement in General Health score was statistically significantly related to reduction in atrial fibrillation burden ( $p<0.001$ ) as measured by the implantable cardiac monitoring while the effect of randomized treatment diminished ( $p=0.22$ ) as did the effect of antiarrhythmic medication ( $p=0.82$ ).

### eFigure. Post-hoc analysis of freedom from a composite of first clinical events

The composite of first clinical events related to atrial fibrillation was significantly lower in patients allocated to ablation than in those allocated to antiarrhythmic medication. These first events were cardioversion, cardiovascular related hospitalization, re-ablation and change of antiarrhythmic drug, from start of treatment until 12 months follow-up. Events were not counted during the first 90 days blanking period.

