

Supplementary Online Content

Gasparini M, Proclemer A, Klersy C. Effect of Long-Detection Interval vs Standard-Detection Interval for Implantable Cardiovert-Defibrillators of Antitachycardia Pacing and Shock Delivery: The ADVANCE III Randomized Clinical Trial. *JAMA*. doi:10.1001/jama.2013.4598.

eFigure. All cause mortality in the two groups

eTable 1. Device programming

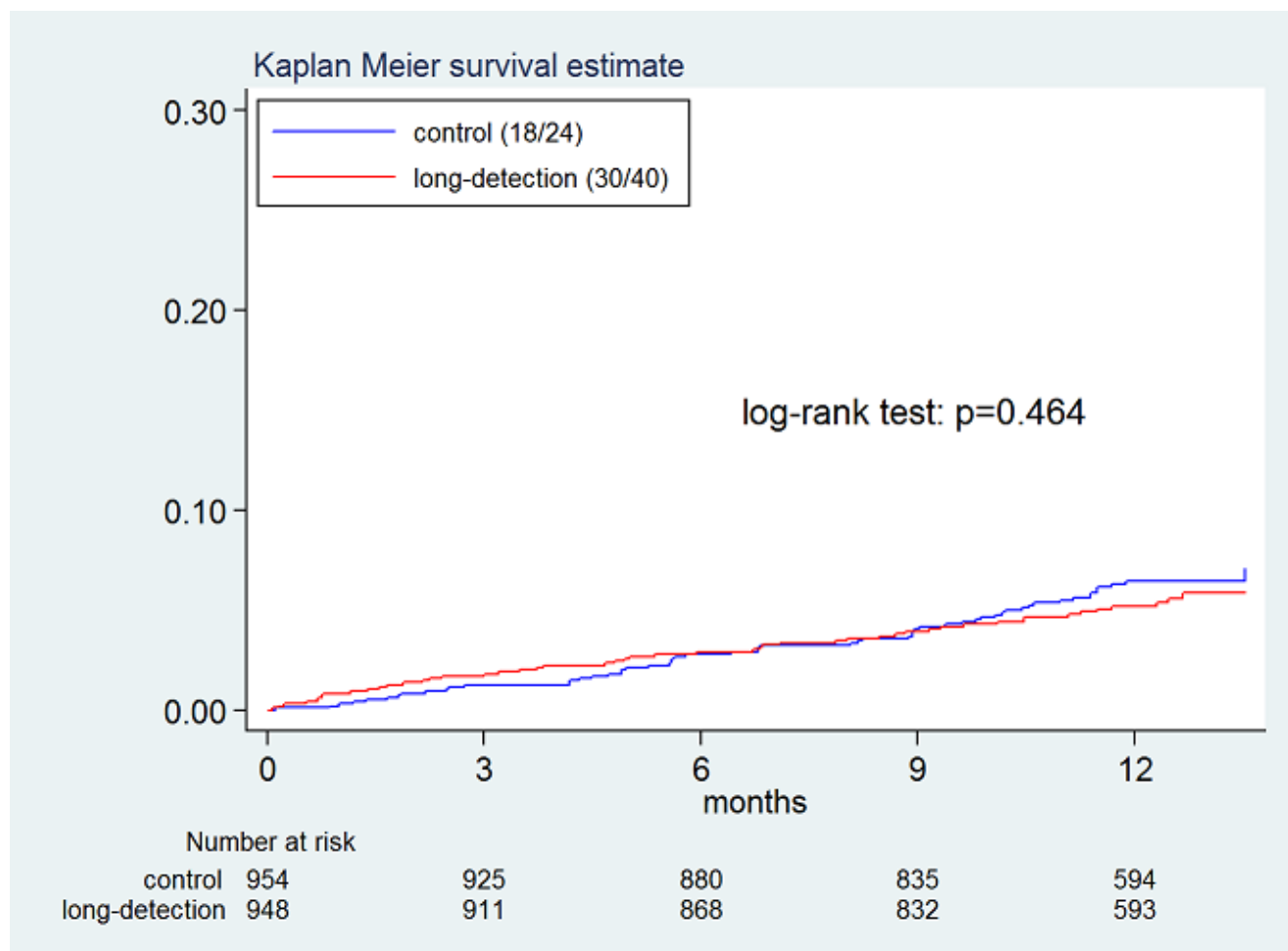
eTable 2. Hospitalizations according to intention-to-treat analysis

eTable 3. Comparison between Advance III and MADIT RIT

eAcknowledgements

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

eFigure 1 : all cause mortality in the two arms



eTable 1 : device programming

ICD Parameters	Control Arm	Long Detection Arm
Dual Chamber and CRT		
AF/Afl	ON	
Sinus Tachycardia OFF	ON	
Onset	OFF	
Other 1:1 SVT	OFF	
SVT Limit	300 ms	
Stability	OFF	
Single Chamber		
Wavelet	On, Match Threshold 70%	
Stability	50	
Onset	OFF	
All		
VF Detection	ON	ON
VFDI	320 ms	320 ms
VF NID (as randomized)	18/24	30/40
VF RNID	9/12	9/12
ATP	during charging	during charging
Deliver ATP if last R-R >-	200 ms	200 ms
Therapy type	Burst	Burst
Initial # of pulses	8	8
R-S1 Interval (%RR)	88%	88%
FVT Detection	OFF	OFF
VT Detection	OFF *	OFF *
VT Monitor	Monitor *	Monitor *
VTDI Monitor	400 ms *	400 ms *
VT NID Monitor	32 *	32 *
HR Timeout	OFF	OFF
AT/AF Detection	Monitor	Monitor
V-V minimum ATP int.	190 ms	190 ms

AF/Afl=atrial fibrillation/atrial flutter; SVT=supra ventricular tachycardia; VF= ventricular fibrillation; VFDI= ventricular fibrillation detection interval; NID= number of intervals to detect; ATP= anti tachycardia pacing; R-S1%= R-R interval percentage; FVT= fast ventricular tachycardia; VT= ventricular tachycardia; VTDI= ventricular tachycardia detection interval; HR= high rate;

eTable 2. Hospitalizations according to intention-to-treat analysis

	Exposure (pts/year)	Number of hospitalizations	Number of hospitalized patients	Hospitalization rate * 100 patients/year	IRR (95%CI)	p-value
Control arm	922	473	302	51.7 (47.2-56.4)	1	0.027
Long Detection	911	392	244	42.1 (38.1-46.4)	0.81 (0.68-0.98)	

Exposure time is measured as the number of patients per year; therapy rate is expressed as the number of events per patient-year; The incidence rate ratio (IRR) and 95%CI are reported as a measure of efficacy (IRR=rate interventional arm / rate control arm) and were tested by means of a negative binomial regression model.

eTable 3 : comparison between Advance III and MADIT RIT

	ADVANCE III	MADIT RIT
ENROLLED PATIENTS (pts per arm)	1902 (954/948)	1500 (514/500/486)
WITHDRAWN OR LOST TO F.U.	62 (3.2%)	168/1500 (11.2%)
PRIMARY PREVENTION (pts)	YES (1425)	YES (1500)
SECONDARY PREVENTION (pts)	YES (477)	NO
PATIENTS WITH HISTORY OF PERMANENT ATRIAL FIBRILLATION	YES	NO
ICD TYPE (VVI / DDD / CRTD)	YES / YES / YES	NO / YES / YES
CONTROL ARM DETECTION SETTING	PAINFREE II validated	Manufacturer “ out of the box”
CONTROL ARM WINDOW DETECTION	18/24 → 5.8-7.7 sec	1-2.5 sec
VT THERAPY ACTIVATION *	OFF	ON
PRIMARY END POINT	ALL ICD THERAPIES	FIRST INAPP. THERAPY
SYNCOPEs	ALL ARRHYTHMIC SYNCOPEs	ONLY FIRST SYNCOPE
QUALITY OF LIFE	YES	NO
HOSPITALIZATIONS	YES	NO

* for primary prevention

F.U.= follow up; VVI= single chamber; DDD= dual chamber; CRT= triple chamber; VT= ventricular tachycardia

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