

ARRHYTHMIAS

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Conflicts of Interest

none

DATA THAT MAY CHANGE DAILY PRACTICE...

- **Atrial fibrillation**
 - RF ablation
 - Cardiorespiratory fitness
 - OAC in real life
- **Devices**
 - Lead-less pacing/S-ICD
 - Devices / environment
 - CRT-D or CRT-P
 - Lead extraction

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ATRIAL FIBRILLATION THERAPY

How to stay in sinus rhythm

Long term results of RF-ablation compared to antiarrhythmic drugs in AF

Short term effect of RF AF ablation is superior to antiarrhythmic drugs (AAD) but long term results are few.

Method: In MANTRA PAF 294 pts with new px AF were randomised to RF-ablation or AAD as first line treatment and followed for 5 years by arrhythmia burden measured by 7 Day Holter recording.

Results:

○ Freedom from any AF:

- RFA group: 126/146 (86%)
- AAD group: 105/148 (71%)

p=0.001

-15%
absolute risk
reduction

First study to show that RF ablation is superior to AAD for rhythm control over 5 years.

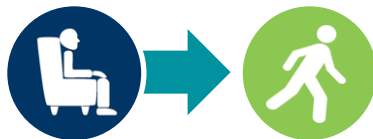
J.C. Nielsen (Aarhus, DK), FP 5777

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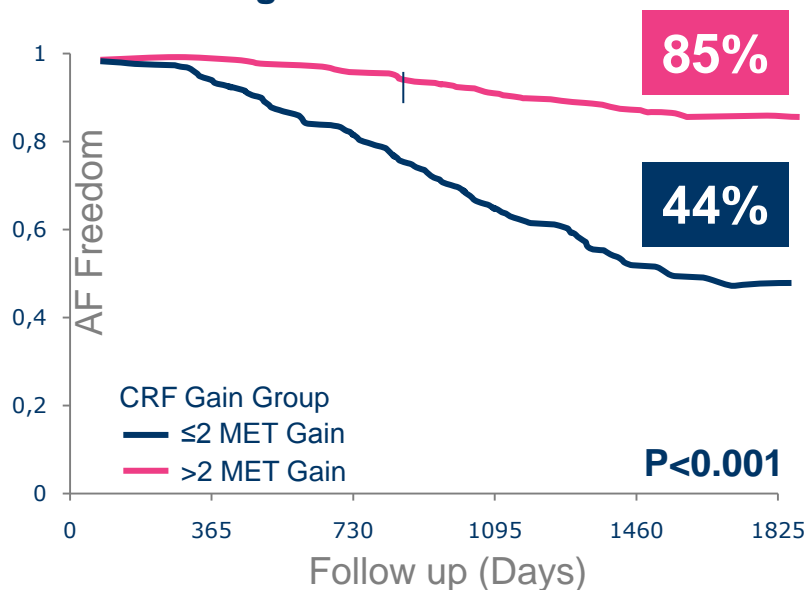


**LIFE STYLE
MATTERS**

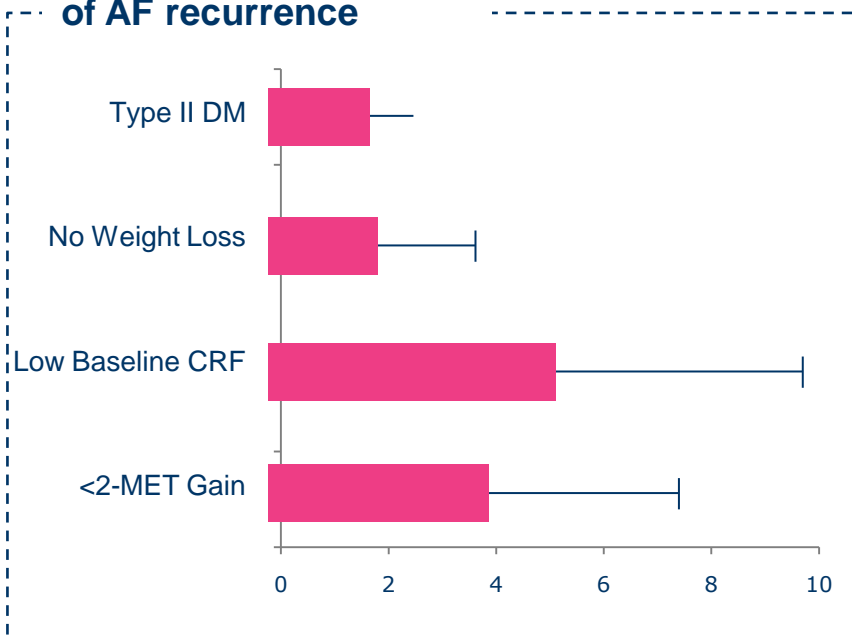
METHOD: AF RECURRENCE IN OBESE PTS TREATED WITH AAD+/OR ABLATION WAS COMPARED BY GAIN IN FITNESS (METS) AND BASELINE FITNESS LEVEL (CRF) OVER 4 YEARS



Total arrhythmia freedom
In those who gained > 2 METS or not



Multivariate predictors
of AF recurrence



85% of treated AF pts who gained >2 METs were free of AF at 4yr FU
Low CRF, no METS gain, DM II and no weight loss predicted recurrence

A. Elliott (Adelaide, AU), FP 1847

- **RFA ablation is superior to AAD to maintain sinus rhythm when given as first treatment**
- **Success of AF therapy depends on life style**
- **Life style modification should be part of AF therapy**

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RIVAROXABAN IN REAL LIFE

XANTUS: REAL-LIFE DATA ON ADVERSE EVENTS IN PATIENTS WITH NON-VALVULAR AF TREATED WITH RIVAROXABAN

Aim: To assess Rivaroxaban safety in unselected pts with nonvalvular AF

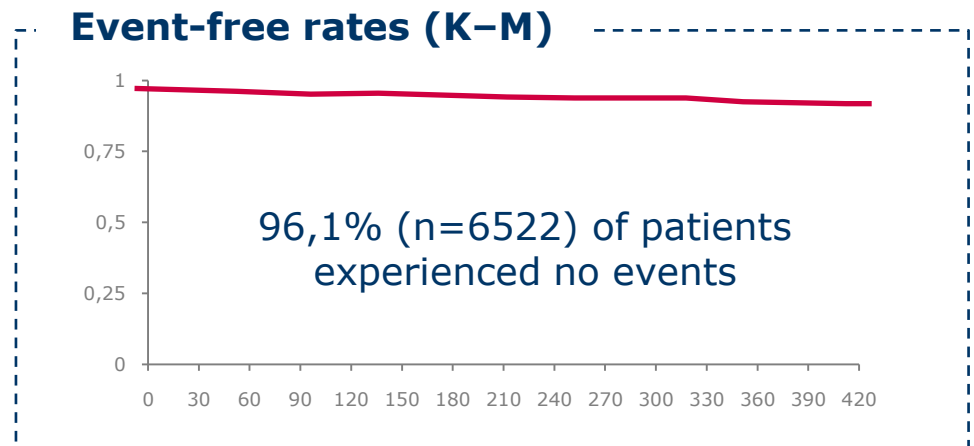
Method: Observational study with 1 year follow up

Primary outcome: major bleeding, death and Stroke /SE

6785 pts

Mean CHADS score 2

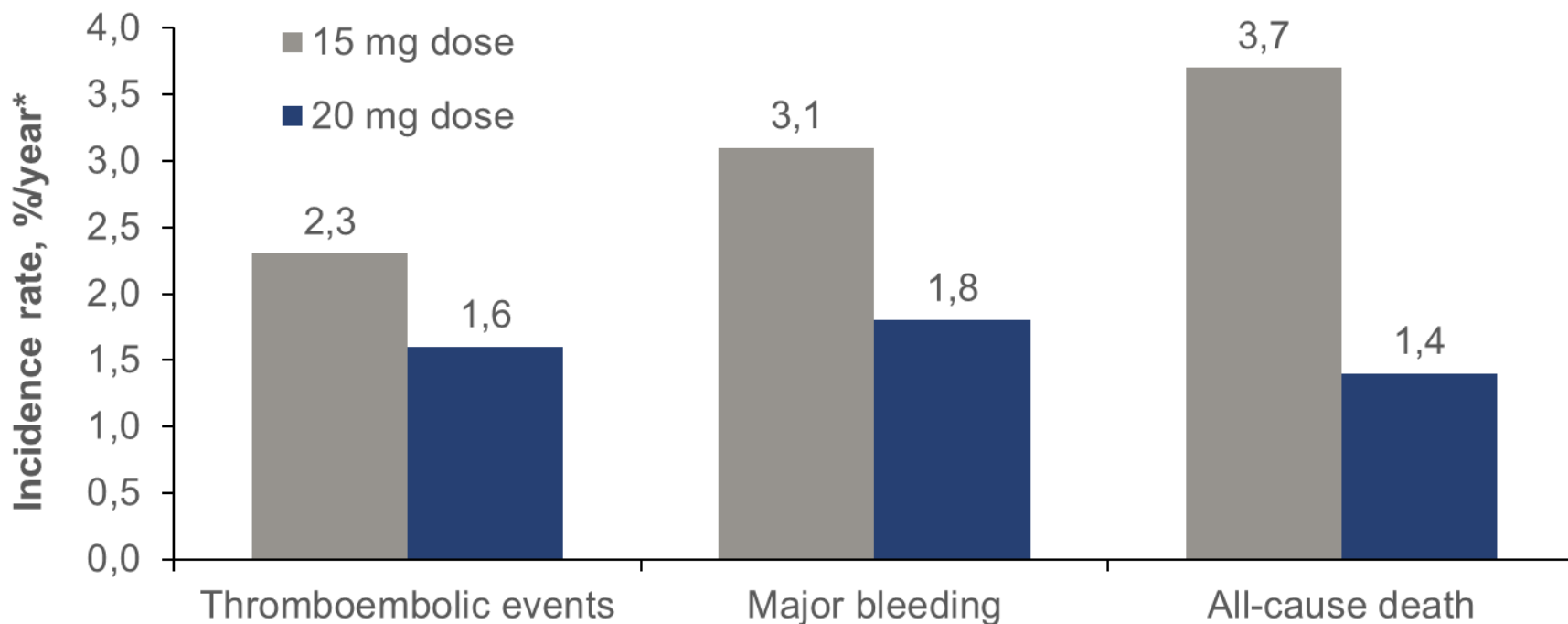
80% of patients were still on rivaroxaban after 1 year



A.J. CAMM (London, UK), FP 5072

XANTUS: Outcomes According to Dosing (20/15 mg od)

- Major bleeding, all-cause death and thromboembolic events (stroke/SE/TIA/MI) occurred at higher incidence rates for the 15 mg od versus the 20 mg od dose

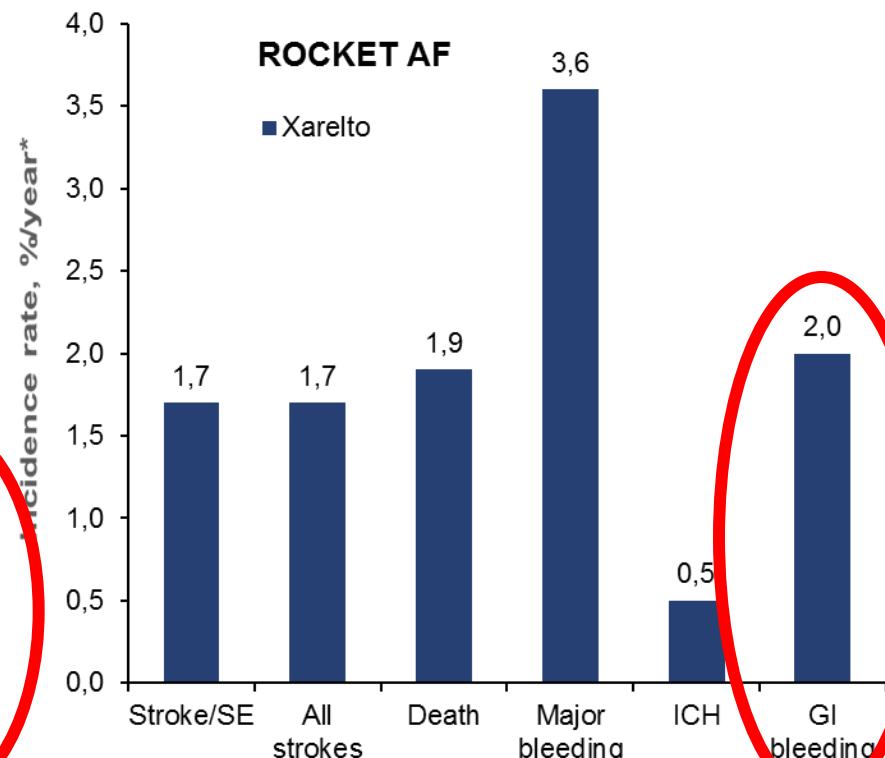
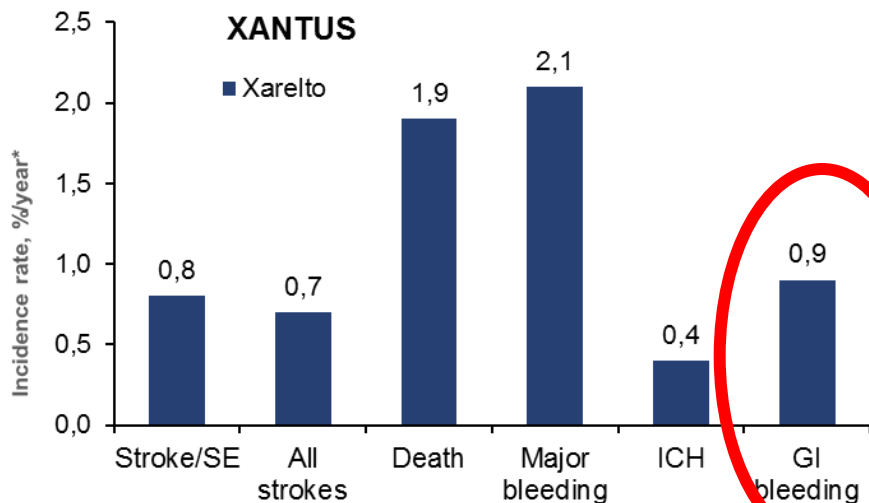


*Events per 100 patient-years

Camm AJ *et al*, *Eur Heart J* 2015; doi: 10.1093/eurheartj/ehv466;

Comparison of Main Outcomes: XANTUS versus ROCKET AF

	CHADS ₂	Prior stroke#
ROCKET AF ¹	3.5	55%
XANTUS ²	2.0	19%



#Includes prior stroke, SE or TIA; *Events per 100 patient-years

CONCLUSIONS

- ✓ **First large prospective study describing use of rivaroxaban in a broad non-valvular AF patient population (patients at lower overall risk than in ROCKET AF)**
- ✓ **Rates of stroke and major bleeding with rivaroxaban were low in routine clinical practice**

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LEAD LESS PACING SUBCUTANEOUS-ICD

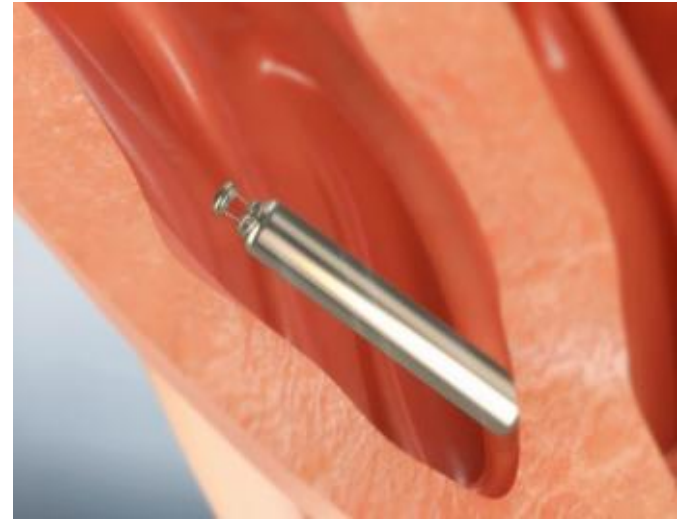
LEADLESS PACING - 6 MONTH SAFETY AND EFFICACY

○ Method:

- 300 patients got leadless pacing in observational study
- Serious adverse device events SADE
- Efficacy

○ Results:

- Implantation success rate 96 %
- Freedom from SADE 93 %
- Pacing performance good
- Estimated battery longevity 15 yrs



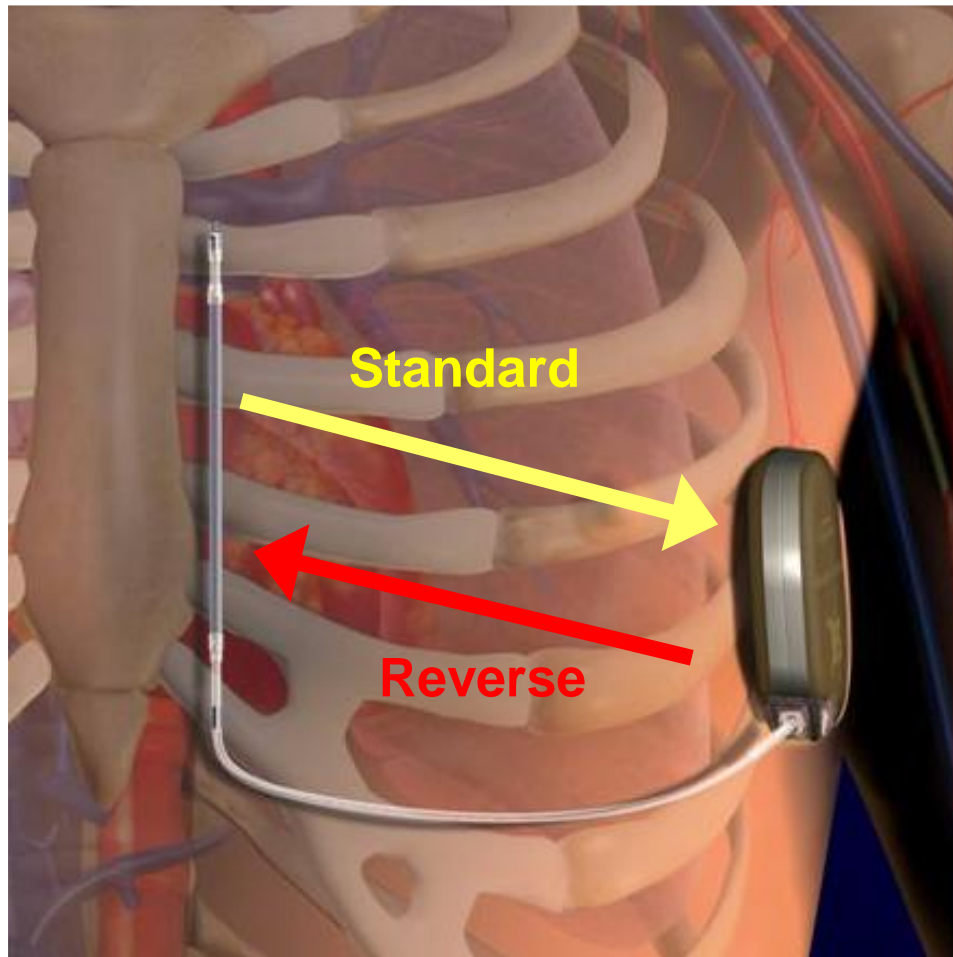
○ Main drawback:

- Single chamber device
- How to manage battery depletion?????????????
- Large introducer 18Fr
- Risk of vascular complications
- Major complication risk higher than in Danish pacemaker registry: 6.5% vs 3.3%!

Lead less pacing is promising for some pts indicated for VVIR

Reddy V et al, NEJM 2015 on line

Subcutaneous Cardioverter-Defibrillator (S-ICD)



4.3.2 Subcutaneous implantable cardioverter defibrillator

Subcutaneous defibrillator

Recommendations	Class ^a	Level ^b	Ref. ^c
Subcutaneous defibrillators should be considered as an alternative to transvenous defibrillators in patients with an indication for an ICD when pacing therapy for bradycardia support, cardiac resynchronization or antitachycardia pacing is not needed.	IIa	C	157, 158
The subcutaneous ICD may be considered as a useful alternative to the transvenous ICD system when venous access is difficult, after the removal of a transvenous ICD for infections or in young patients with a long-term need for ICD therapy.	IIb	C	This panel of experts

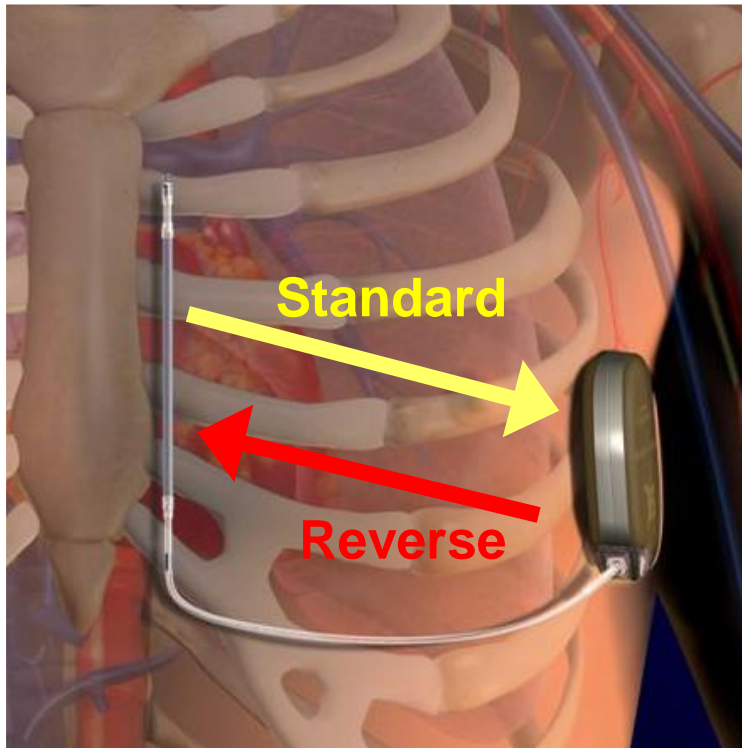
ICD = implantable cardioverter defibrillator.

^aClass of recommendation.

^bLevel of evidence.

^cReference(s) supporting recommendations.

FUTURE PERSPECTIVES



Results open up for future possibilities of more pacing modes and combinations with SQ ICD

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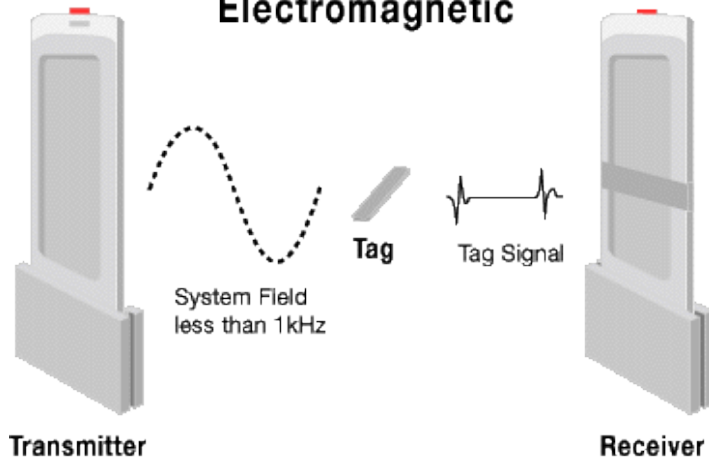


DEVICES AND THE ENVIRONMENT

ENVIRONMENTAL EFFECTS ON PTS WITH PM AND ICDS



Electromagnetic



C. LECLERCQ (Rennes, FR), H. BURRI (Geneva, CH), C.K. CHING (Singapore, SG), M. AMIN (Arad, BH), FP 292-293-294-295

ENVIRONMENTAL EFFECTS ON PTS WITH PM AND ICDS

○ Risk of interaction is low

- Household appliances Safe if no technical problem/grounding
- Cellular phones 15 cm distance
- Electronic security systems ... dont linger, dont lean
- Ear-phones 3 cm distance
- Portable media players safe ... safe but may interfere with checkup



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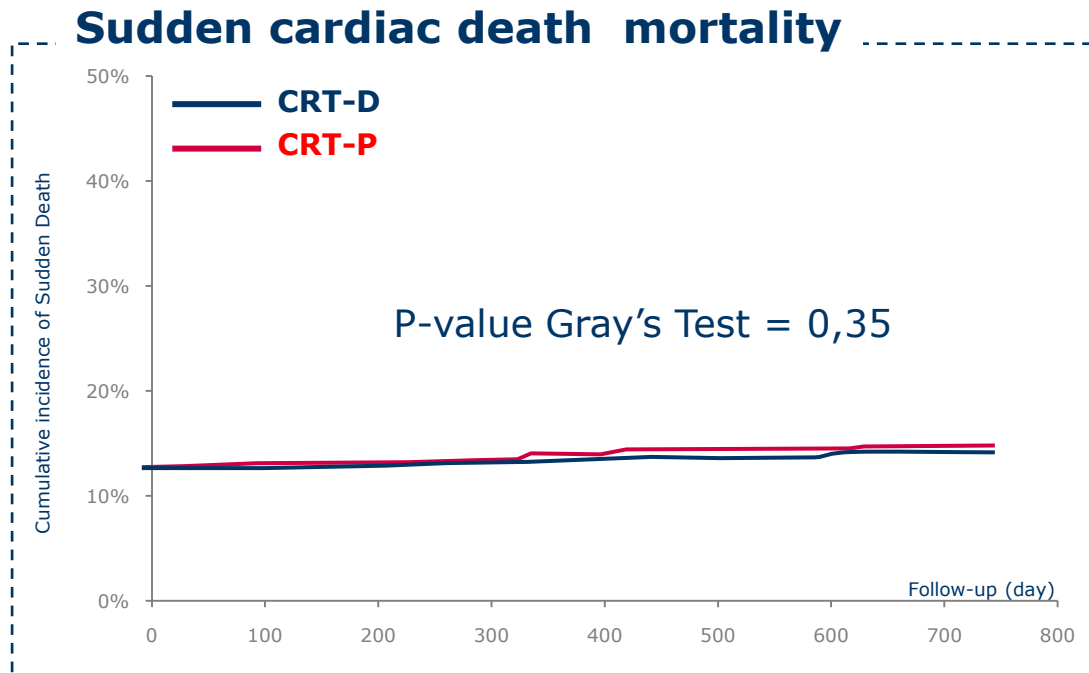
CRT-P OR CRT-D

CERTITUDE REGISTRY: OBJECTIVES, STUDY POPULATION AND RESULTS

Aim was to study if CRT-P pts would benefit from concomitant ICD

Method: analysing causes of death in CRT-P and CRT-D pts with regard to if they were sudden, non-sudden, cardiovascular or non-cardiovascular

Patients 535 implanted with CRT-P and 1170 with CRT-D by French doctors choice and followed 4 yrs



J.Y. Le Heuzay (Paris, FR), FP 4844

- **CRT-P recipients were older and sicker and had twice the mortality of CRT-D patients.**
- **Excess mortality was related to HF and non CV causes and not to sudden cardiac death**
- **CRT-P is still an option in heart failure treatment**

J.Y. Le Heuzay (Paris, FR), FP 4844

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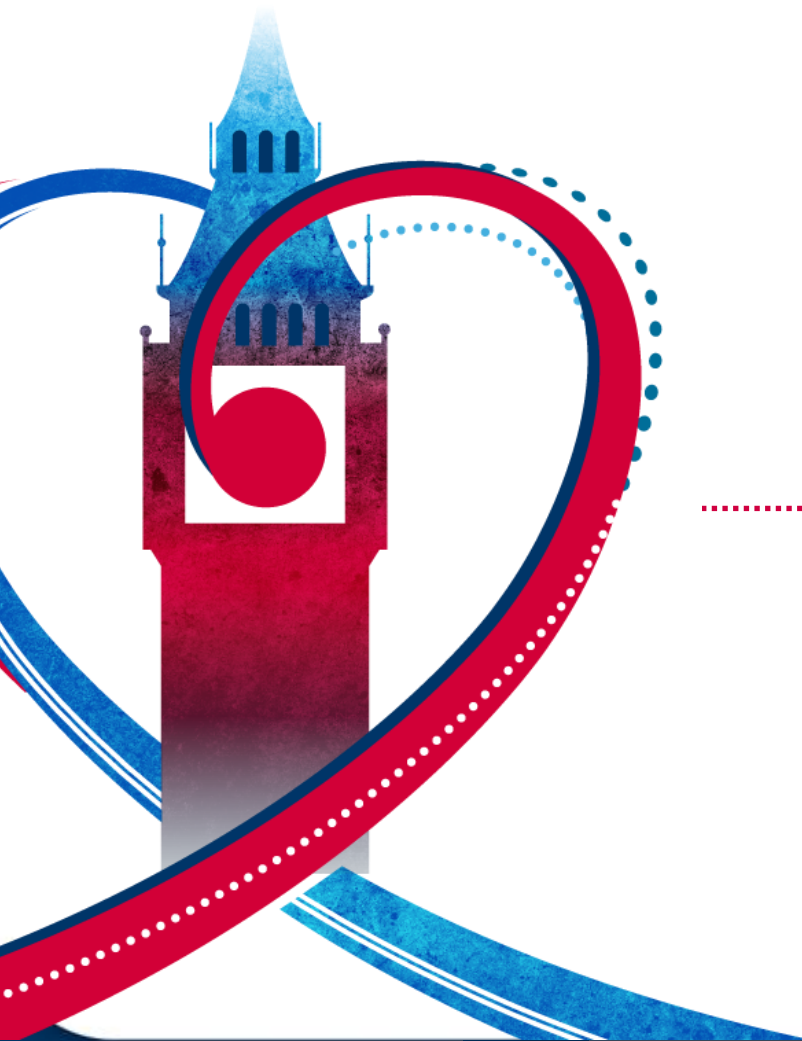


LEAD EXTRACTION ***IS IT SAFE?***

ELECTRa (EUROPEAN LEAD EXTRACTION CONTROLLED REGISTRY) : 12 MONTH RESULTS

- **Lead extraction is « safe » with 12 months mortality of 6.7%**
- **After 1 yr about 1/5 of ELECTRa pts pts were never reimplemented....**
- **Lead extraction is a chance to reconsider indication for device therapy**

M.G. Bongiorni (Pisa, IT), FP 5783



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Conflicts of Interest

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