

# Arrhythmias

*C. Linde (Stockholm, SE)*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - **Barcelona, Spain**



[www.worldcardio.org](http://www.worldcardio.org)

# Highlight session- Arrhythmias

- Prevention of TE and relapse in atrial fibrillation
- Survival after CRT
- Miscellaneous



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - **Barcelona, Spain**



[www.worldcardio.org](http://www.worldcardio.org)

# Antithrombotic therapy for patients with atrial fibrillation

## Classification of risk factors

Less validated or weak risk factors	Moderate	High
Female gender	<u>A</u> ge $\geq 75$ yrs	Previous <u>S</u> troke TIA or embolism
Age 65-74 yrs	<u>H</u> ypertension	Mitral stenosis
Coron art disease	<u>C</u> ongestive HF	Prosthetic valve
Thyrotoxicosis	<u>D</u> iabetes	
	<b>CHADS<sub>2</sub></b>	

### Highlight Session



World Congress of Cardiology 2006

2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

## Risk / benefit of Warfarin in 290 very old (median age 82 yrs) AF pts on Warfarin in relation to CHADS<sub>2</sub> score

CHADS <sub>2</sub> Score 0-6	Bleeding rate x100 pt/yrs	Numbers needed to treat Harm	Benefit
1 (14%)	1.5	51	58
2-3 (56%)	1.5	68	32
4-6 (30%)	3.4	29	16

- In CHADS<sub>2</sub> 1 the indication for oral anticoagulation is questionable
- In CHADS<sub>2</sub> 4-6 numbers needed to treat and harm is low and OAC should be individualised
- All others should be treated with oral anticoagulation

*B. Giusti, IT, 456*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain

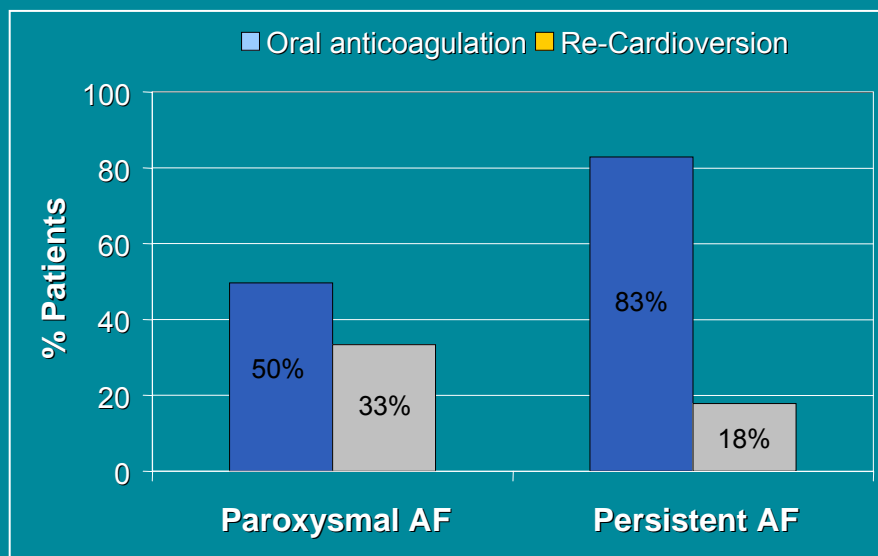
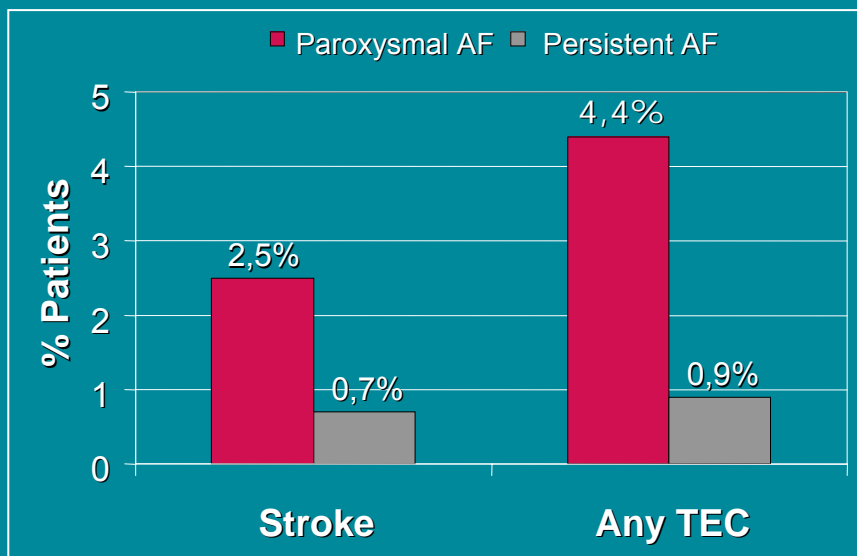


[www.worldcardio.org](http://www.worldcardio.org)

# Lessons from EuroHeart Survey on Atrial fibrillation in Px vs persistent atrial fibrillation

Stroke and TE in Px vs Persistent AF

OAC in Px vs Persistent AF



Euro Heart Survey Programme  
ESC Quality Assurance Programme to Improve Cardiac Care in Europe

*R. Nieuwlaat, NL, 3424*



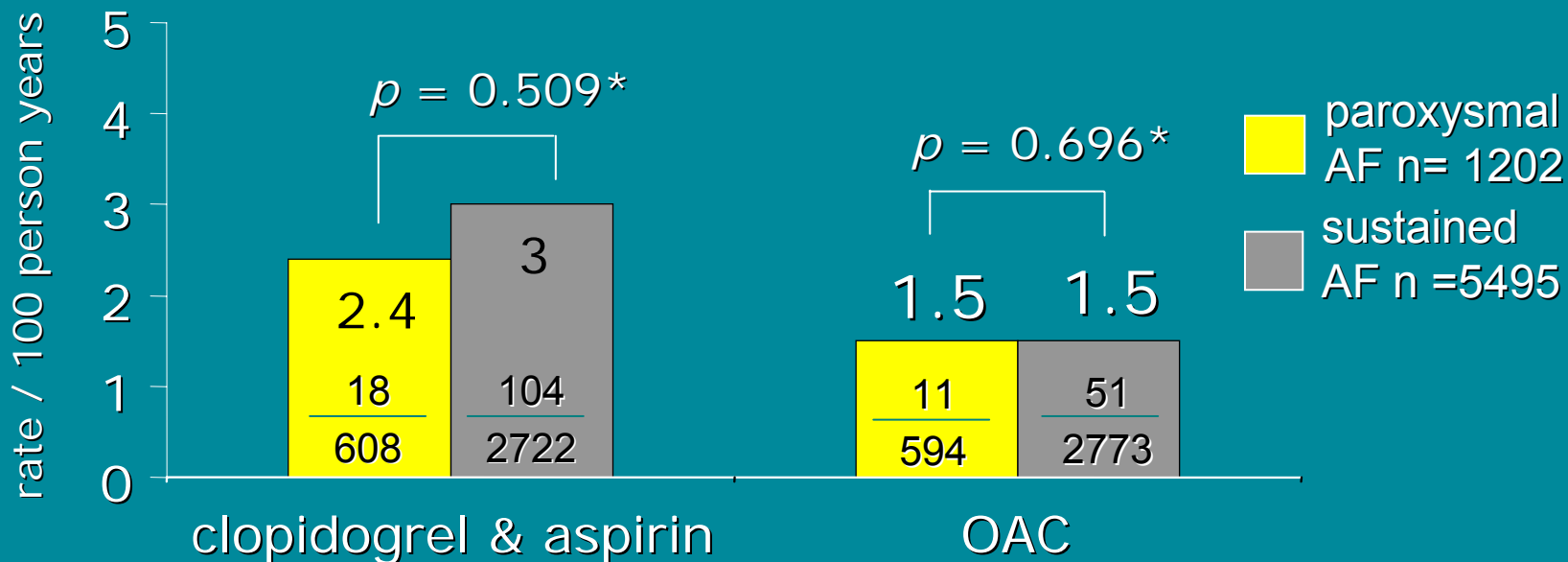
**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Stroke and TE in px versus sustained AF in relation to OAC versus clopidogrel + ASA an **ACTIVE W** substudy

Incidence of stroke or non-CNS systemic embolism



Risk for stroke or TE is the same in parox and pers/perm AF  
 Oral anticoagulation is superior to combined antiplatelet therapy

*S. Hohnloser, DE, 2711*

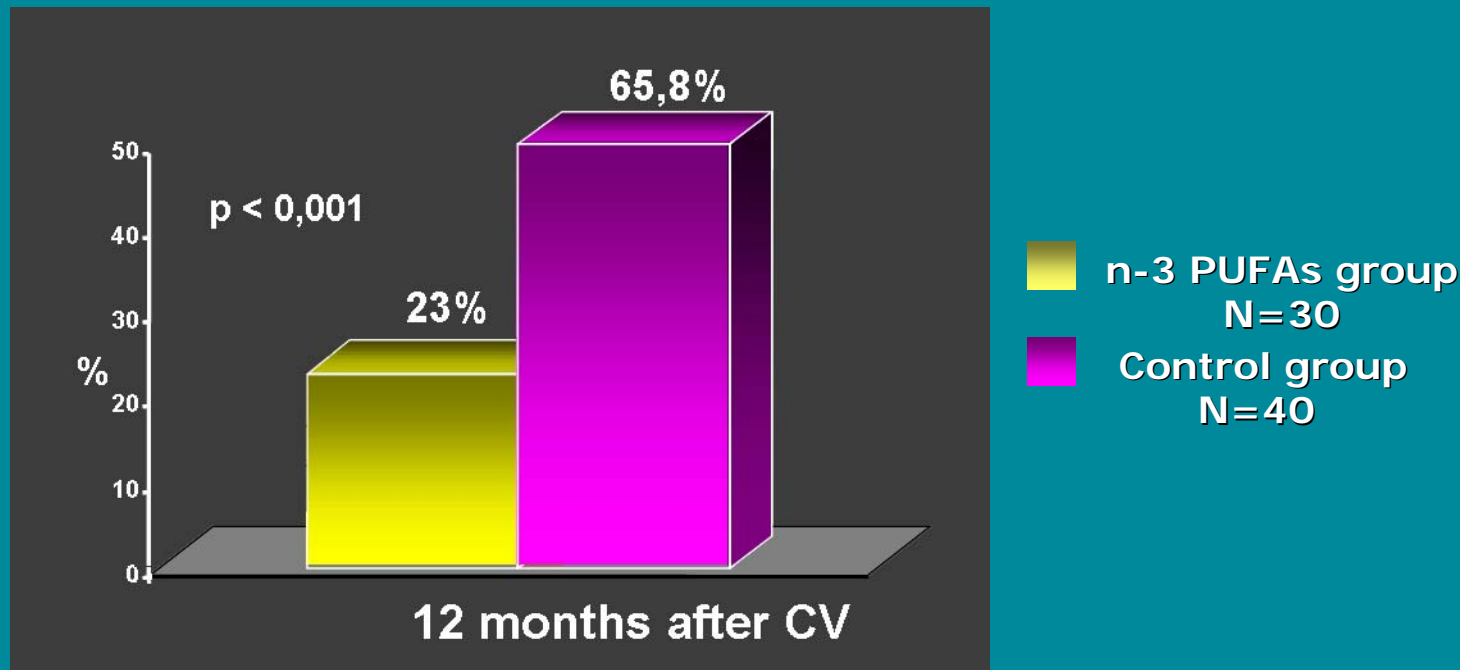


**Highlight Session**  
**World Congress of Cardiology 2006**  
 2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Randomised study on effects of PolyUnsaturated Fatty Acids n-3 (PUFA) in prophylaxis of AF relapse after electric cardioversion



PUFA n-3 on top of conventional treatment significantly reduced AF relapses after cardioversion

*S. Nodari, IT, 5161*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Highlight session- Arrhythmias

- Prevention of TE and relapse in atrial fibrillation
- Survival after CRT
- Miscellaneous



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Predictors of sudden cardiac deaths in HF pts in the **CARE-HF** extension study with FU of 36.4 months

## Multivariate analysis

Parameter	HR (95% CI)		P
Mitral regurg at 3 months	1.82	(1.77-2.60)	0.0012
<b>CRT</b>	<b>0.56</b>	<b>(0.53-0.96)</b>	<b>0.035</b>

- Mitral regurgitation at 3 months increases the risk for SCD
- CRT decreases but does not abolish the risk for SCD in severe HF

*B. Uretsky, US, 372*

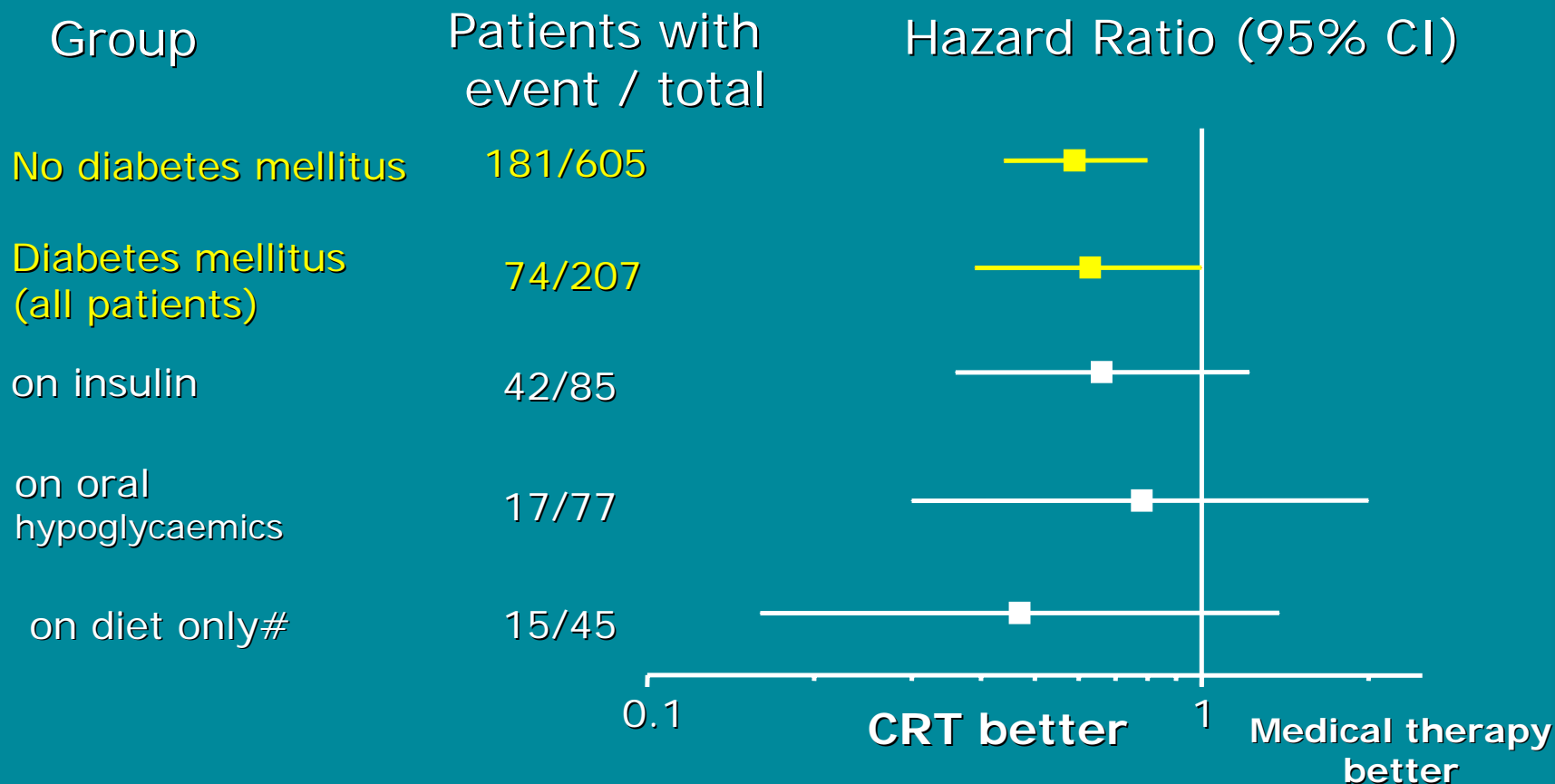


**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# CRT confers a greater benefit in diabetic pts in the CARE HF study



*U. Hoppe, DE , 1219*

## Highlight Session

World Congress of Cardiology 2006

2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# 4 year survival in AF pts undergoing CRT treatment

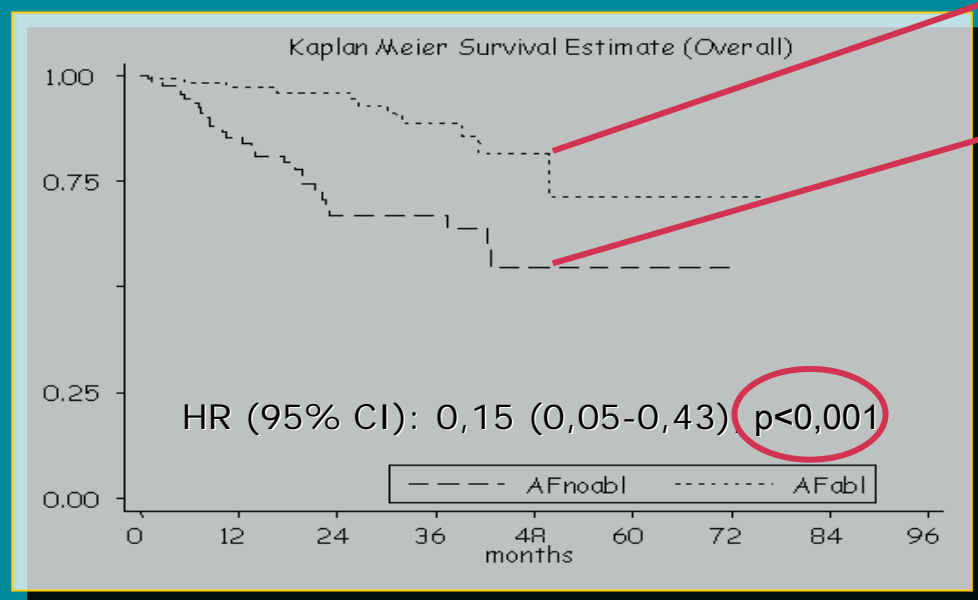
## The importance of AV junction ablation

Multicenter observational study of CRT in 243 in AF

AF **no** ablation n=125

AVJ ablation n=118

### Overall mortality



AFabl: 4,3%/yr

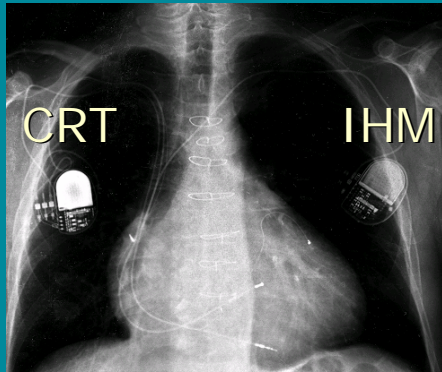
AF**no**abl: 15,2%/yr

- AVJ ablation significantly reduces long-term mortality in AF patients undergoing CRT

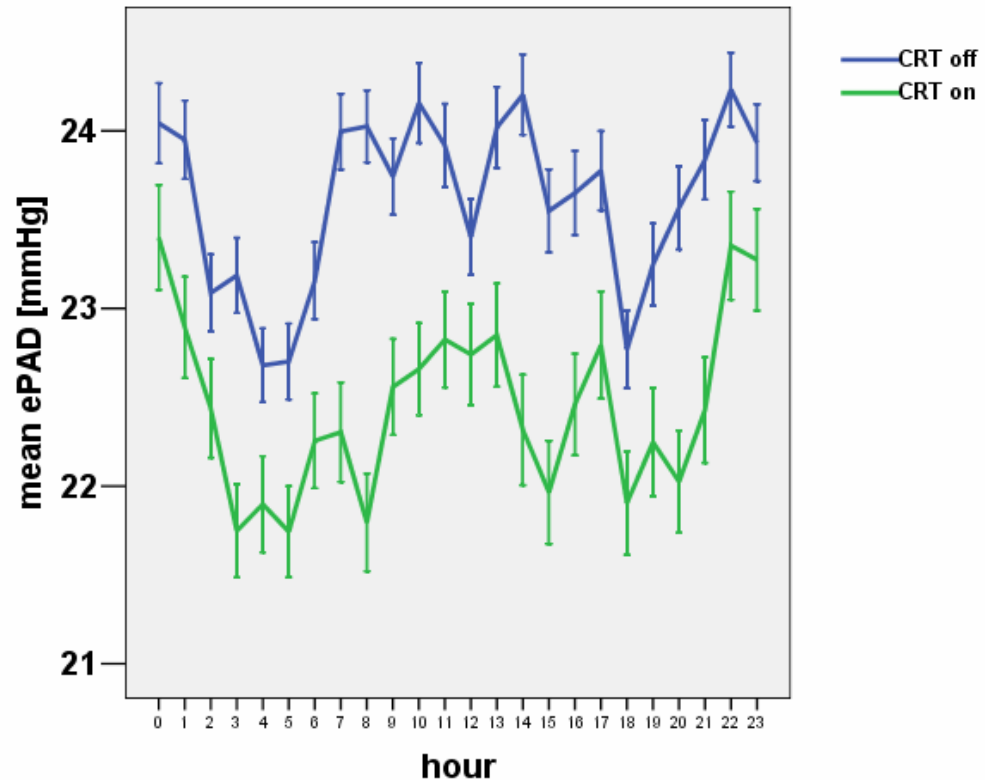
*M. Gasparini, IT , 368*

# Continuous ambulatory response to CRT in pts with heart failure

Circadian mean ePAD (n=10)



Heart rate  
Syst RV pressure  
Diast RV pressure  
RV pulse pressure  
ePAD  
pos  $dP/dt_{max}$   
neg  $dP/dt_{max}$   
Activity



CRT reduces ambulatory central pressures

*F. Braunschweig, SE, 371*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Effects of CRT on cellular and molecular mechanisms in pts with advanced heart failure

- Aim: to assess if reverse interstitial remodelling is related to CRT
- Myocardial biopsies during CRT OFF and ON for
- 6 months each in 12 pts

	CRT OFF 6 months	CRT ON 6 months	Stat sign
Collagen volume	25.6 %	18.5%	p< 0.05
TNF expression	10	3.8	p< 0.05
Apoptotic index	2010	1390	p< 0.05
Capillary density	1750	2050	p< 0.05

- CRT reduces interstitial remodelling

*C. D'Ascia, IT, 1217*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Highlight session- Arrhythmias

- Prevention of TE and relapse in atrial fibrillation
- Survival after CRT
- Miscellaneous



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# Impact of antibiotic prophylaxis on infections after cardiac device implantation, the PEOPLE multicentre trial

Prospective study to assess risk factors of PM and ICD infections  
44 centres, 6134 implants , follow up 12 months

	Antibiotics n=5427 (88.5 %)	Not antibiotics n=707 (11.5 %)
Infections	33 <b>0.61 %</b>	9 <b>1.29%</b>
Adjusted RR	0.35 (95% CI 0.14-0.88)	p=0.03

- Antibiotic prophylaxis in PM or ICD surgery reduces the risk of infection

*D. Klug, FR, 1227*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)

# How long should the waiting time be following RFA abolition of AV accessory pathway conduction

The risk for AP conduction recurrence after 10 min assessed in Retrospective study of 439 radiofrequency ablation of AV accessory pathways in 419 pts

left AP	right AP	superior/perihis/medioseptal AP
0.4 %	1.4 %	3.8 %

- 10 minutes waiting time is enough after radiofrequency ablation of most cases of accessory pathways

*J. Merino, ES, 441*



**Highlight Session**  
**World Congress of Cardiology 2006**  
2-6 September - Barcelona, Spain



[www.worldcardio.org](http://www.worldcardio.org)