

Registry Study of Primary Prevention of SCD in China (POSCD-CHINA study)

-----Design and Baseline Data

[National 12th Five Year Plan Supporting Project. RMB 5.08 million(USD 820K)]

Dejia Huang¹, Wei Hua², Quan Fang³

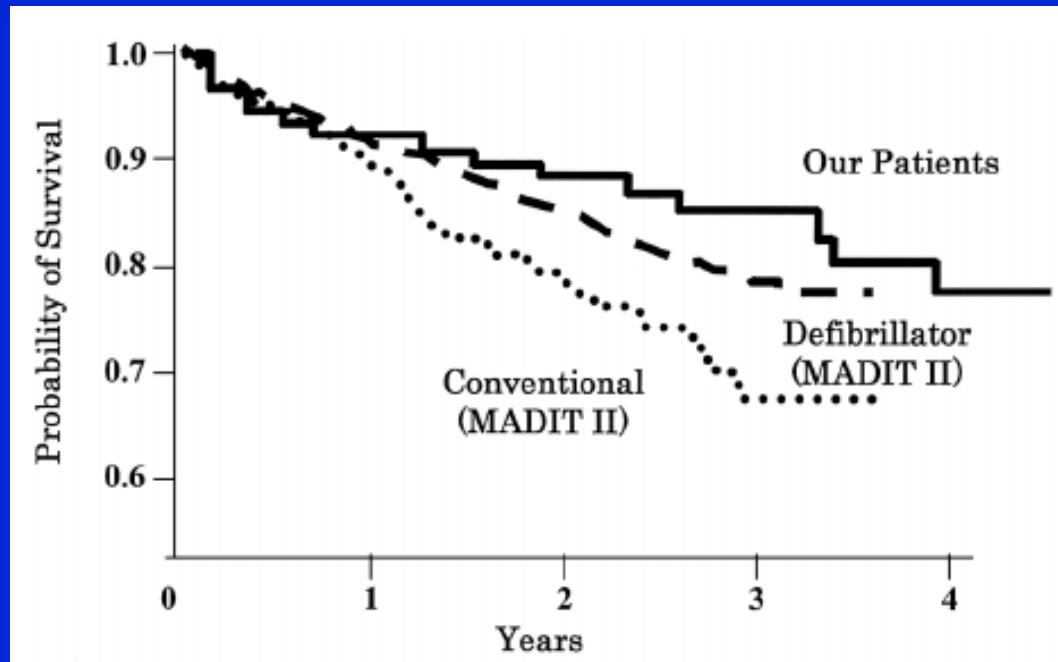
1. West China Hospital, Chengdu, Sichuan
2. Beijing Fu Wai Cardiovascular Hospital, Beijing
3. Beijing Union Hospital, Beijing

Background

- Very low implantation rate of ICD(CRTD) in China: 2.3 per 1 million.
- Ratio of PCI to ICD:

	Resource	PCI	ICD	PCI:ICD
US	2011, NCDR data	632,557	139,991	4.52:1
China	2013, National data	454,505	3,068 (CRTD)	148:1

Controversial outcome using MADIT II Criteria in Asian patients

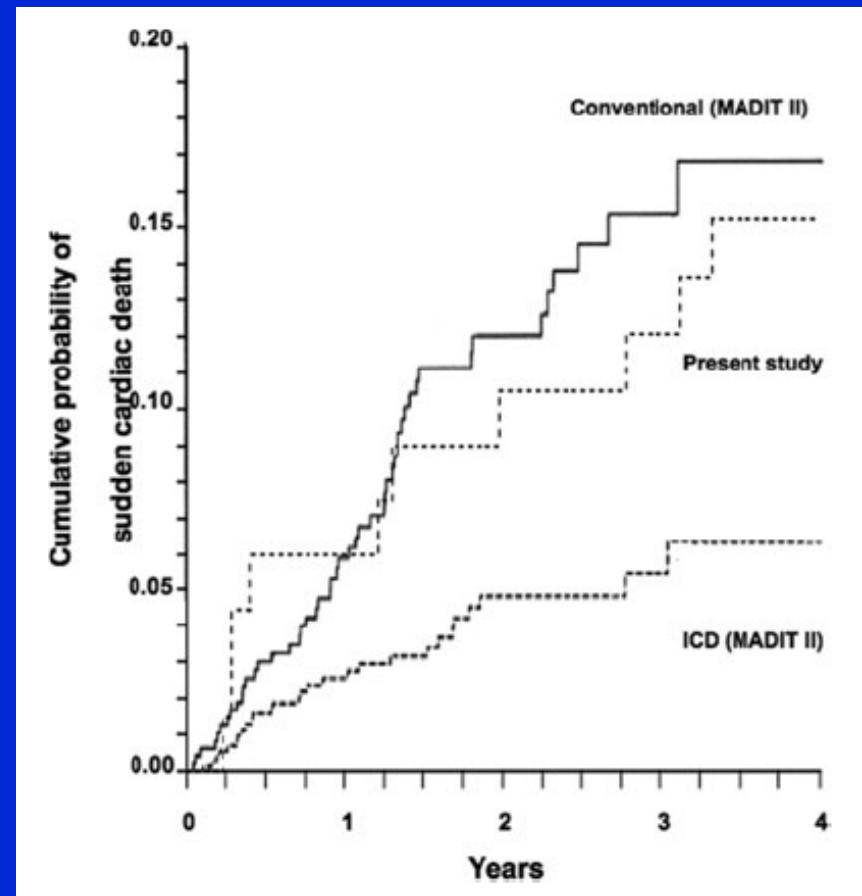


- Only 2 of 90 MADIT II-like patients died suddenly, 1 of whom might have been saved by an ICD
- Thus, it may be inappropriate to apply MADIT II criteria for ICD implantation to **Japanese patients**

--Tanno K, et al. Circ J 2005; 69: 19–22

Controversial outcome using MADIT II Criteria in Asian patients

- The risk of SCD in ***Chinese patients*** who fulfill the MADIT-II criteria is comparable with that of the original MADIT-II conventional group
- This suggests that prophylactic ICD therapy can provide a similar benefit, especially in patients with more advanced NYHA class



Aim of Study

- To investigate whether the risk of sudden cardiac arrest of Chinese patients with chronic heart failure in China is comparable to MADIT II patients.
- Compare the outcome of patients implanted with CRTD vs CRTP.

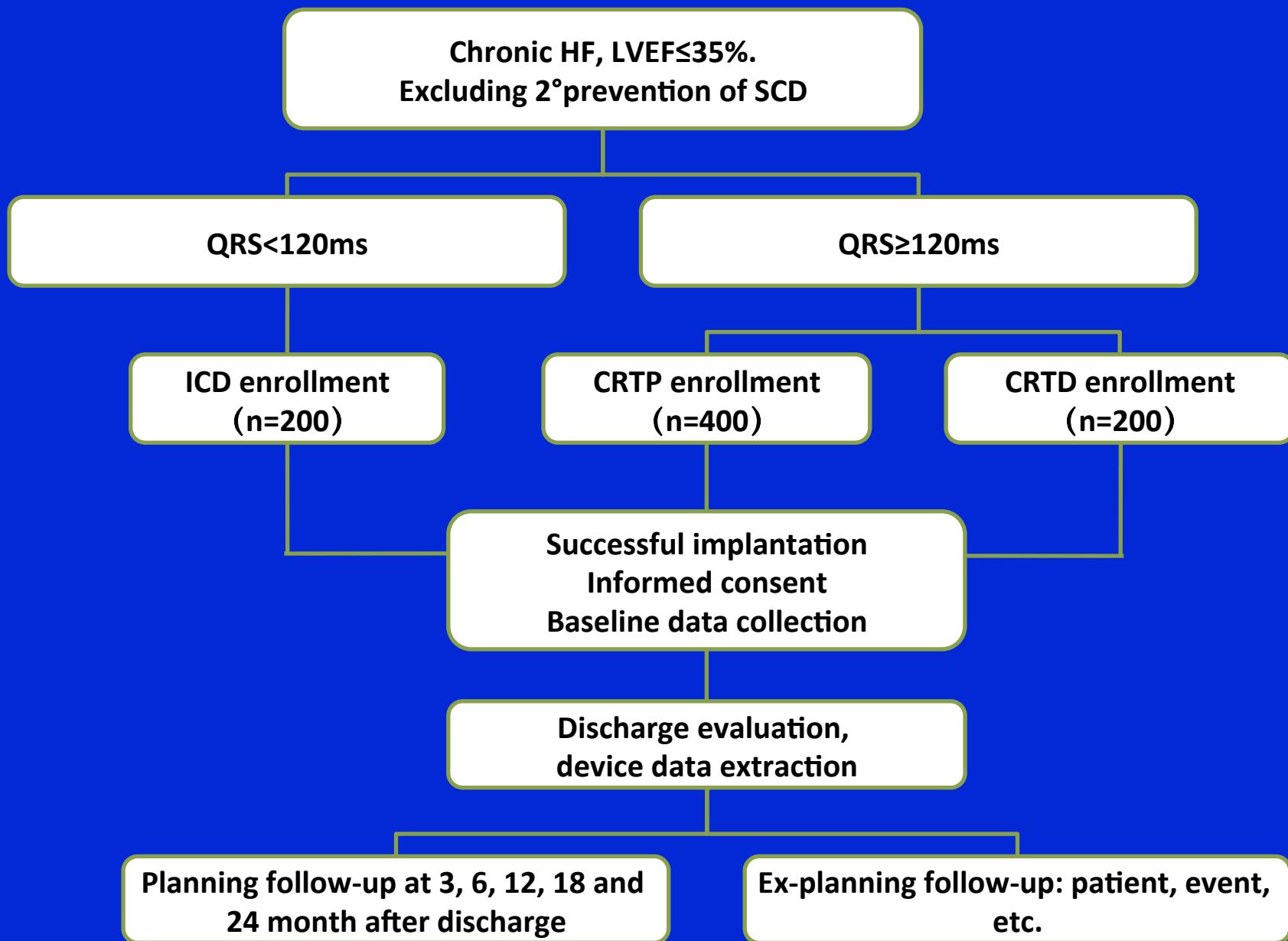
Study Design

- Prospective, multicenter, registry study
- Consecutive patients who satisfied guideline criteria for ICD/CRTD implantation (I or IIa) as primary prevention of SCD and complete implantation.

Study Design

- Enrollment: 2 years (May, 2012). ICD 200, CRTD 200 and CRTP 400.
- Follow-up: 2 years (at least):at 3, 6, 12, 18 and 24 month after discharge
- Data collection: Clinical, lab and device data at baseline and follow-up.

Study Flow Diagram



Endpoints

- *Primary*: All cause mortality and hospitalization.
- *Secondary*: Sudden death, cardiovascular mortality, score of quality of life, NYHA functional class, atrial fibrillation, ventricular arrhythmias, ATP therapy and shock.



http://poscd.edc-china.com.cn/login.jsp



张万年逝世



theheart



慢性心力衰竭



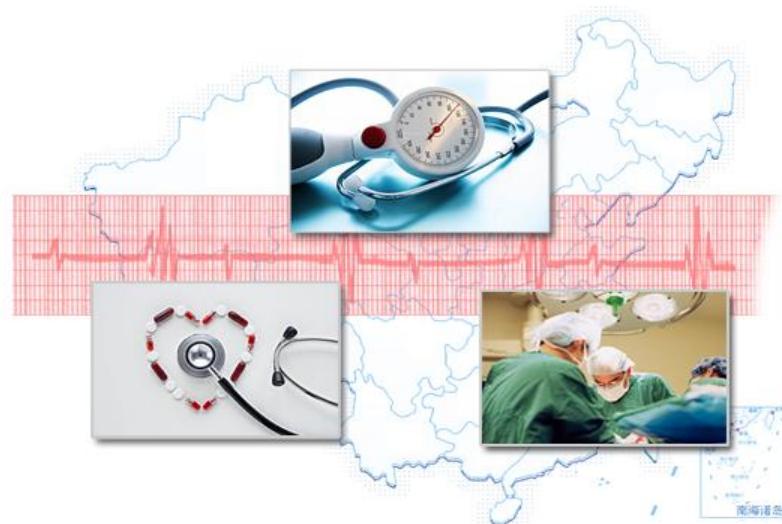
慢性心力衰竭患者心脏性猝死的一级预防

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POSCD-CHINA

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今天是：2015/01/15 星期四



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提示：如果你对本系统有疑问，请访问[帮助手册](#)

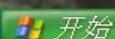
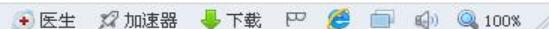
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技术支持：北京美华医信科技有限公司

0个点评

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慢性心力衰竭患者...

Microsoft Excel ...

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10:58

Baseline Data

- First enrollment: May 1, 2012
- Last enrollment: July 15, 2013
- 1,170 patients were assessed
- Total enrollment: 959 patients
 - LVEF>35%: 114 patients
 - QRS <120ms in CRTD/CRTP: 64 patients
 - Satisfied enrollment criteria: 782 patients

Hospital	ICD	CRTD	CRTP	Total	Drop out
安徽省立医院	8	63	21	92	
中国医学科学院阜外医院	14	32	19	65	
四川大学华西医院	21	16	14	51	
上海中山医院	12	32	6	50	
第四军医大学西京医院	3	36	7	46	1
南京大学医学院附属鼓楼医院	7	16	12	35	
江苏省人民医院	3	13	16	32	
沈阳军区总医院	16	9	6	31	
新疆医科大学第一附属医院	2	18	10	30	
武汉亚洲心脏病医院	3	6	19	28	1
华中科技大学附属协和医院	0	14	11	25	
温州医学院附一院	15	6	1	22	
西安交通大学第一附属医院	0	12	8	20	
上海交通大学附属瑞金医院	3	17	0	20	
青岛医学院附属医院	5	4	10	19	
哈尔滨医科大学附属第一医院	0	11	7	18	
第三军医大学附属西南医院	0	1	17	18	
中山大学附属第二医院	14	4	0	18	
昆明医学院第二附属医院	5	8	4	17	
昆明医学院第一附属医院	4	8	3	15	
北京协和医院	10	4	1	15	
温州医学院附二院	2	9	4	15	
兰州军区总医院	1	2	11	14	
南昌大学第二附属医院	2	1	11	14	
成都市第二人民医院	0	7	6	13	
镇江市第一人民医院	6	0	7	13	
福建省立医院	5	5	2	12	
哈尔滨医科大学附属第二医院	1	7	3	11	
吉林大学附属第一医院	2	7	2	11	

Hospital	ICD	CRTD	CRTP	Total	Drop out
广东省人民医院	2	5	3	10	
成都市第三人民医院	0	5	5	10	
第四军医大学唐都医院	0	2	8	10	
中山大学附属第一医院	5	5	0	10	
卫生部北京医院	7	2	0	9	
北京中国人民解放军总医院	4	5	0	9	
南方医院	1	4	4	9	
南京军区总医院	3	2	4	9	
兰州大学第一医院	1	2	5	8	
天津医科大学第二附属医院	5	1	2	8	1
浙江大学医学院附属第一医院	7	1	0	8	
中国医科大学第一附属医院	2	2	3	7	2
天津胸科医院	2	5	0	7	
武汉大学人民医院	0	2	5	7	
大连医科大学附属第一医院	2	5	0	7	
江苏省苏北人民医院	2	0	5	7	
上海交通大学附属第一人民医院	3	2	1	6	
中国人民解放军白求恩国际和平医院	2	2	2	6	
中山市人民医院	3	2	1	6	
珠江医院	3	2	0	5	
上海长海医院	0	5	0	5	
吉林大学附属第二医院	2	1	2	5	
北京朝阳医院	2	2	0	4	
天津泰达国际心血管病医院	4	0	0	4	
泸州医学院附属医院	0	3	1	4	
云南省第一人民医院(昆华医院)	2	2	0	4	3
浙江大学医学院附属第二医院	2	0	0	2	
浙江医院	1	1	0	2	
宁夏医科大学附属第一医院	0	0	1	1	



Urumqi

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Lhasa

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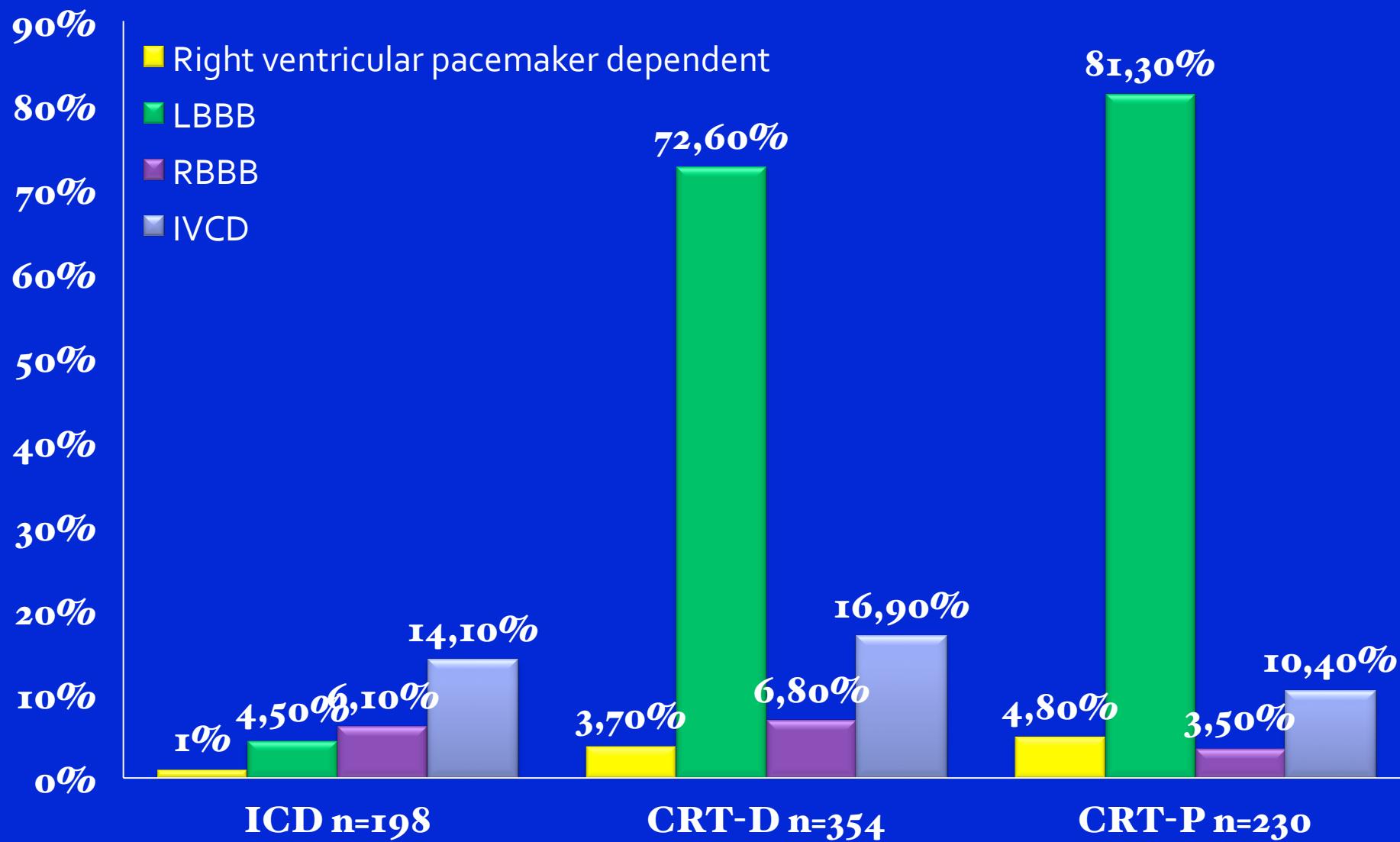
Taiwan

Haikou

Baseline Demographics

	ICD group	CRT-D group	CRT-P group
No. of patients	N = 198	N = 354	N = 230
Sex			
Male	163 (82.3%)	264 (74.6%)	127 (55.2%)
Female	35 (16.7%)	90 (15.4%)	103 (44.8%)
Age	63.6±5.3	62.0±26.8	62.2±13.7
Ischemic	81 (40.9%)	100 (28.2%)	43 (18.7%)
Non-ischemic	117 (59.1%)	254 (71.8%)	187 (81.3%)
Body mass index	24.0±1.9	23.6±0.9	23.0±1.1
Systolic blood pressure	121.4±4.2	117.0±35.4	117.6±19.8
Diastolic blood pressure	76.1±0	73.9±5.7	73.8±10.6
Heart rate	78.7±9.2	77.1±19.1	78.9±4.2
Sinus rhythm	159 (80.3%)	305 (86.2%)	195 (84.8%)
LBBB	9 (4.5%)	258 (72.9%)	187 (81.3%)
QRS (ms)	107.7±5.7	158.3±25.5	163.6±19.8
LVEF(%)	28.8±9.2	27.4±4.0	28.2±9.9

QRS Morphology



Comorbidity

	ICD group N=198	CRT-D group N=354	CRT-P group N=230
Hypertension, %	42.4%	34.7%	31.7%
Diabetes, %	24.2%	13.6%	17.0%
Stroke, %	7.1%	1.7%	2.2%
hyperlipidemia, %	7.6%	5.1%	1.7%
COPD, %	5.6%	3.1%	1.3%
Chronic renal dysfunction, %	9.1%	4.5%	6.1%

PCI or CABG therapy for patients with ischemic heart disease

	ICD group N=198		CRT-D group N=354		CRT-P group N=230	
	n	%	n	%	n	%
Ischemic heart disease	81	40.9%	100	28.2%	43	18.7%
PCI	43	53.1%	33	33.0%	11	25.6%
CABG	7	8.6%	9	9.0%	1	2.3%

Drug therapy at baseline

	ICD group N=198	CRT-D group N=354	CRT-P group N=230	IMPROVE-HF study CRT group n=533
β-receptor blocker	158(79.8%)	308(87.0%)	201(87.4%)	85.2%
ACEI/ARB	156(78.8%)	284(80.2%)	190(82.6%)	78.2%
Spirolactone	154(77.8%)	268(75.7%)	132(57.4%)	37.9%
Digoxin	86(43.4%)	182(51.4%)	112(48.7%)	50.1%
Diuretic	161(81.3%)	295(83.3%)	189(82.2%)	84.1%
Anti-platelet Drugs	78(39.4%)	87(24.6%)	63(27.4%)	/
Warfarin	23(11.6%)	16(4.5%)	11(4.8%)	/
Statins	86(43.4%)	97(27.4%)	72(31.3%)	/
CCB (Amlodipine or Felodipine)	17(8.6%)	9(2.5%)	8(3.5%)	/
Amiodarone	49(24.7%)	81(22.9%)	29(12.6%)	/
Other anti-arrhythmic drugs (Mexiletine, etc.)	1(0.5%)	3(0.8%)	/	/

**Thanks to all investigators
of 58 hospitals in this project!**

Thank you!