האיגוד הקרדיולוגי בישראל
ISRAEL HEART SOCIETY

ACSIS 2013
NSTEMI / UA – management and outcomes

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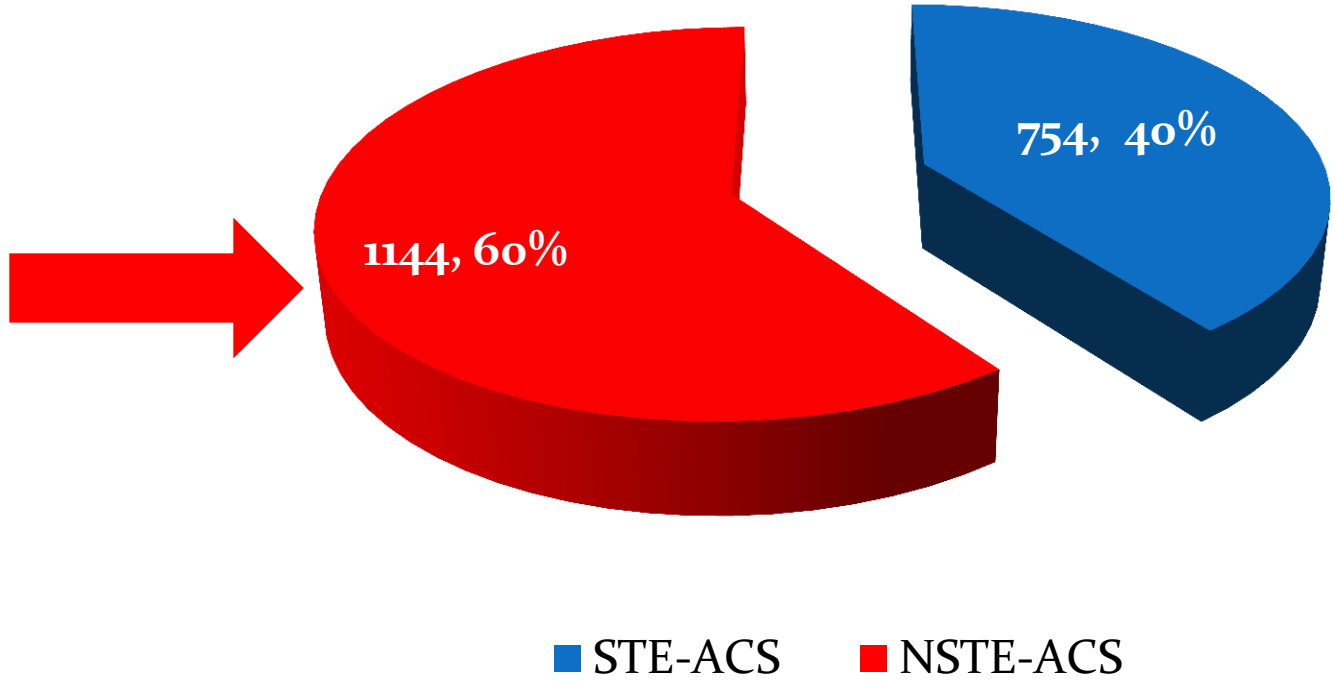
Acute Coronary Syndrome
Patient Distribution



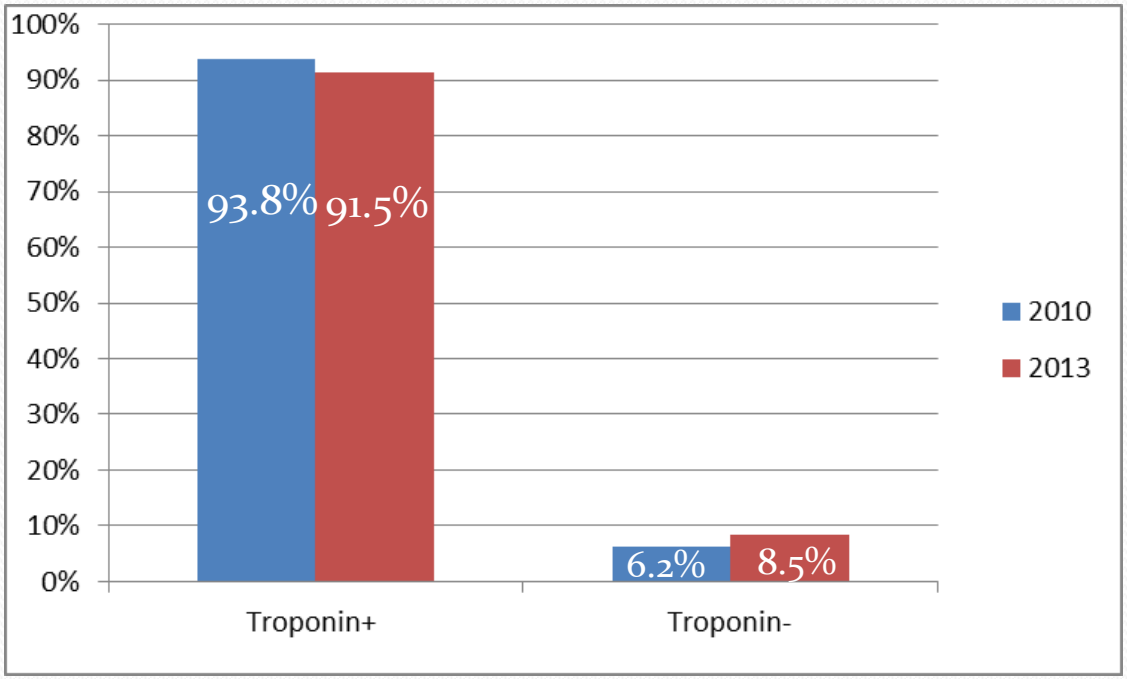
ACSIS 2013

ACSIS 2013

Non ST elevation ACS

2010 – n=997

2013 – n=1144



NSTEMI UA

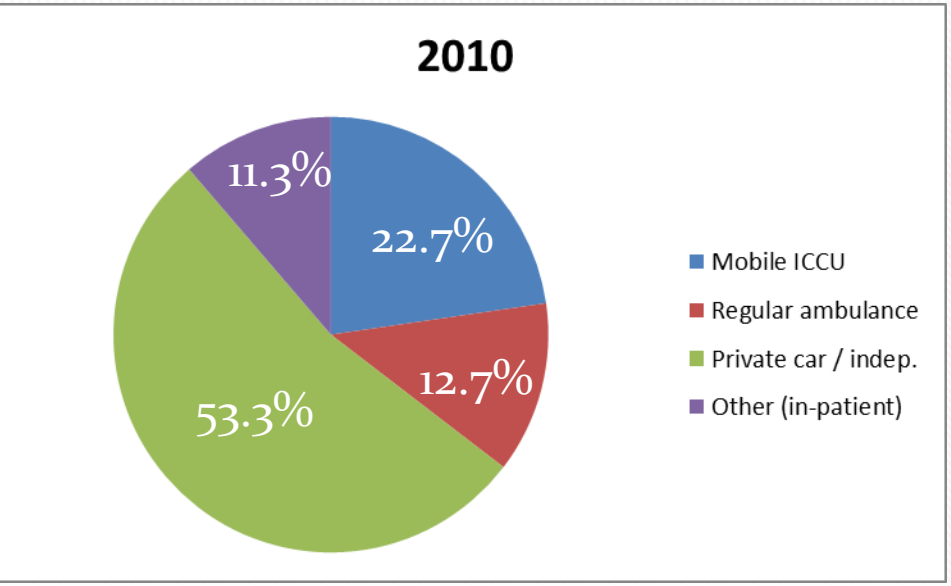
ACSIS 2010 vs. 2013 clinical characteristics

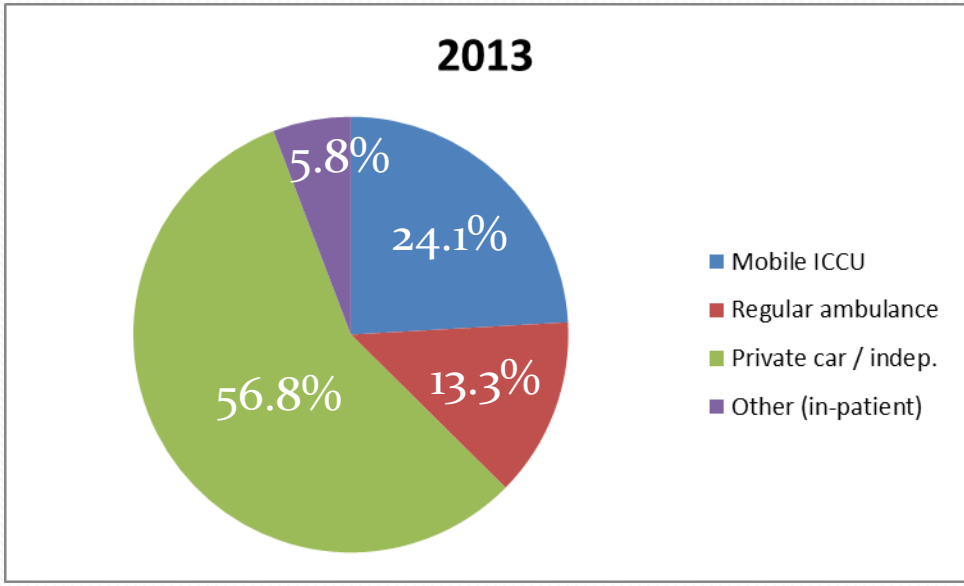
	2010	2013	P value
Age	65.3±12	65.3±13	0.9
Women	24%	26.3%	0.2
Diabetes	42.4%	43.1%	0.7
HTN	74.1%	71.9%	0.25
Dyslipidemia	79.3%	80.5%	0.5
Current smoker	31.8%	33.2%	0.5
Past smoker	27.6%	22.9%	0.01
Prior MI	39.7%	36.9%	0.2
Prior PCI	41.9%	42.1%	0.9
Prior CABG	14.3%	12.8%	0.3
CRF	16.6%	16.2%	0.8
PVD	9.4%	8%	0.25
h/o Stroke	10.5%	8.7%	0.2

ACSIS 2010 vs. 2013 prior treatment

	2010 (n=997)	2013 (n=1144)	P value
ASA	60.2%	58.5%	0.4
Clopidogrel	17.8%	18.2%	0.8
Oral anticoagulant	4.2%	5.1%	0.4
Statins	63%	60.5%	0.25
Beta blockers	48.5%	46.3%	0.3
ACE Inhibitors	41.1%	33.5%	0.0003
ARBs	11.2%	16.4%	0.0006

ACSIS 2010 vs. 2013 mode of transport to the hospital



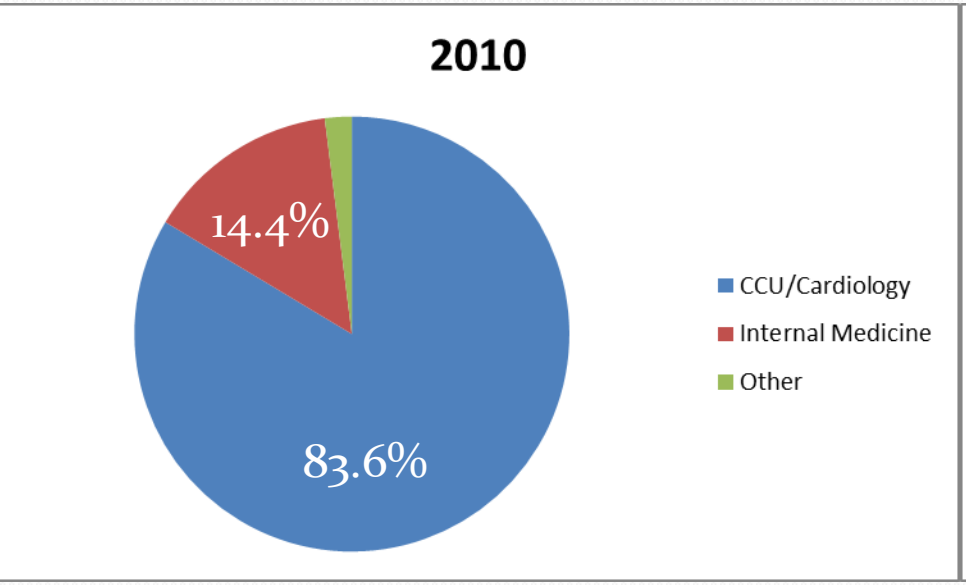


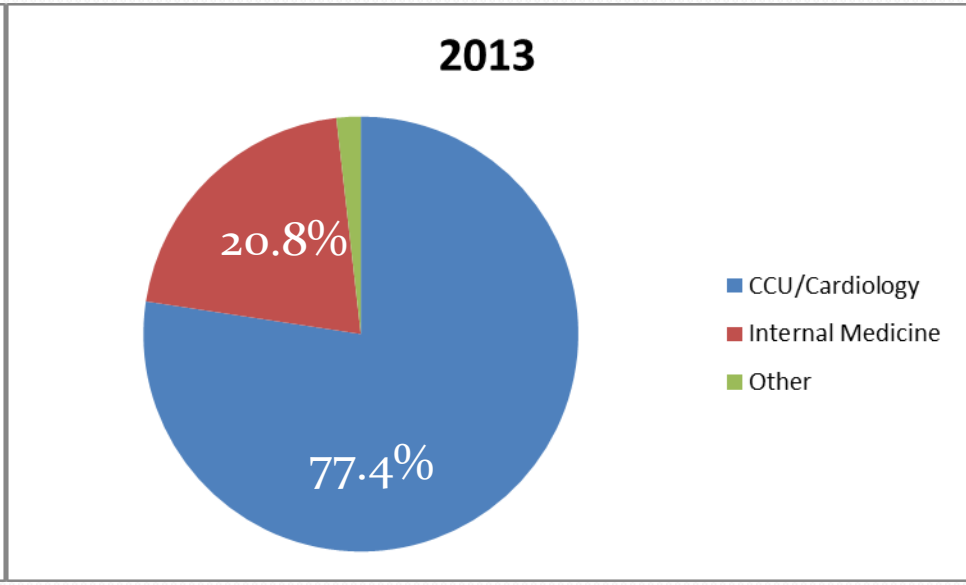
N=997

N=1144

P<0.0001

ACSIS 2010 vs. 2013 hospital ward



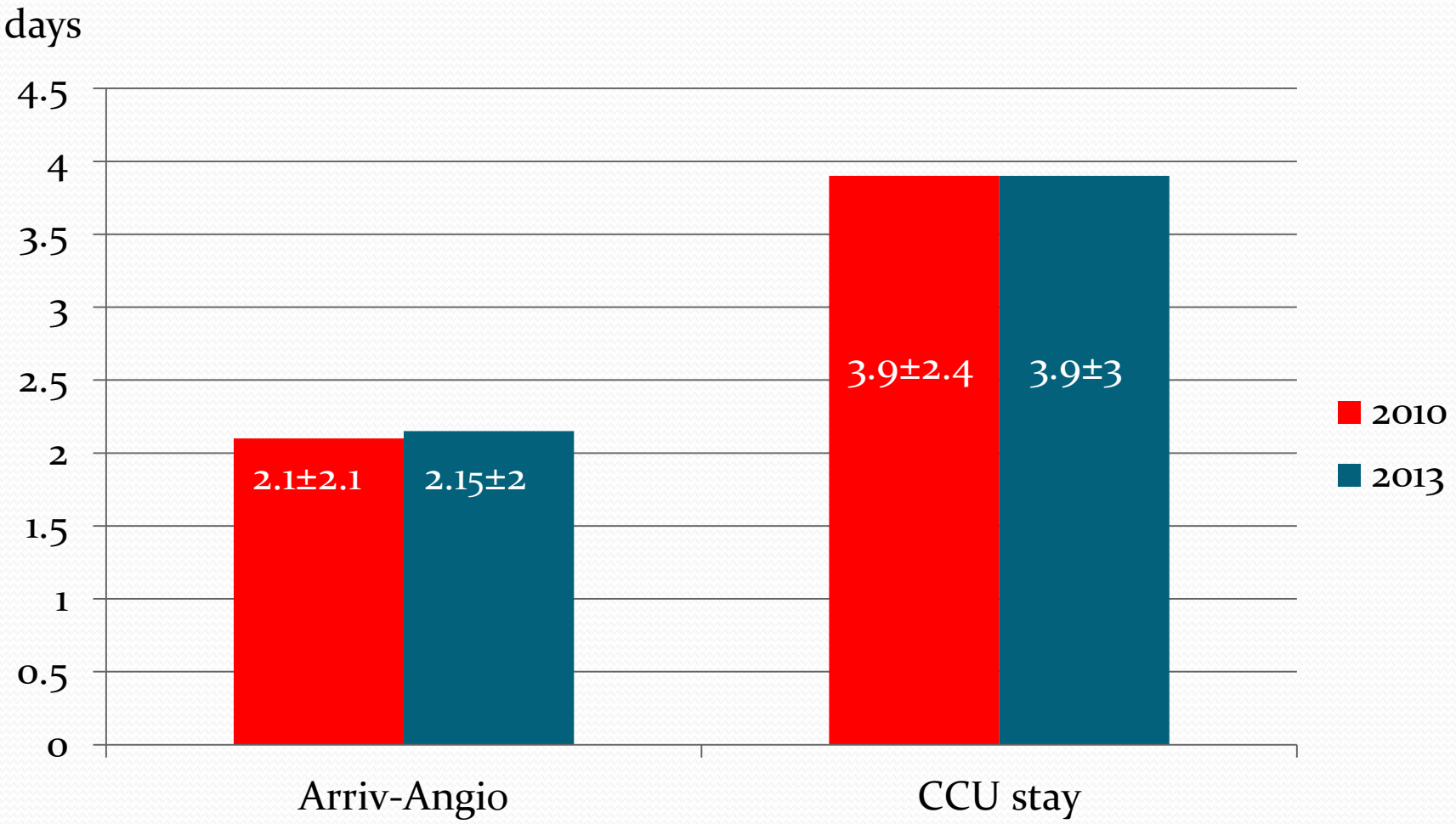


N=997

N=1144

P=0.0006

ACSIS 2010 vs. 2013 time intervals



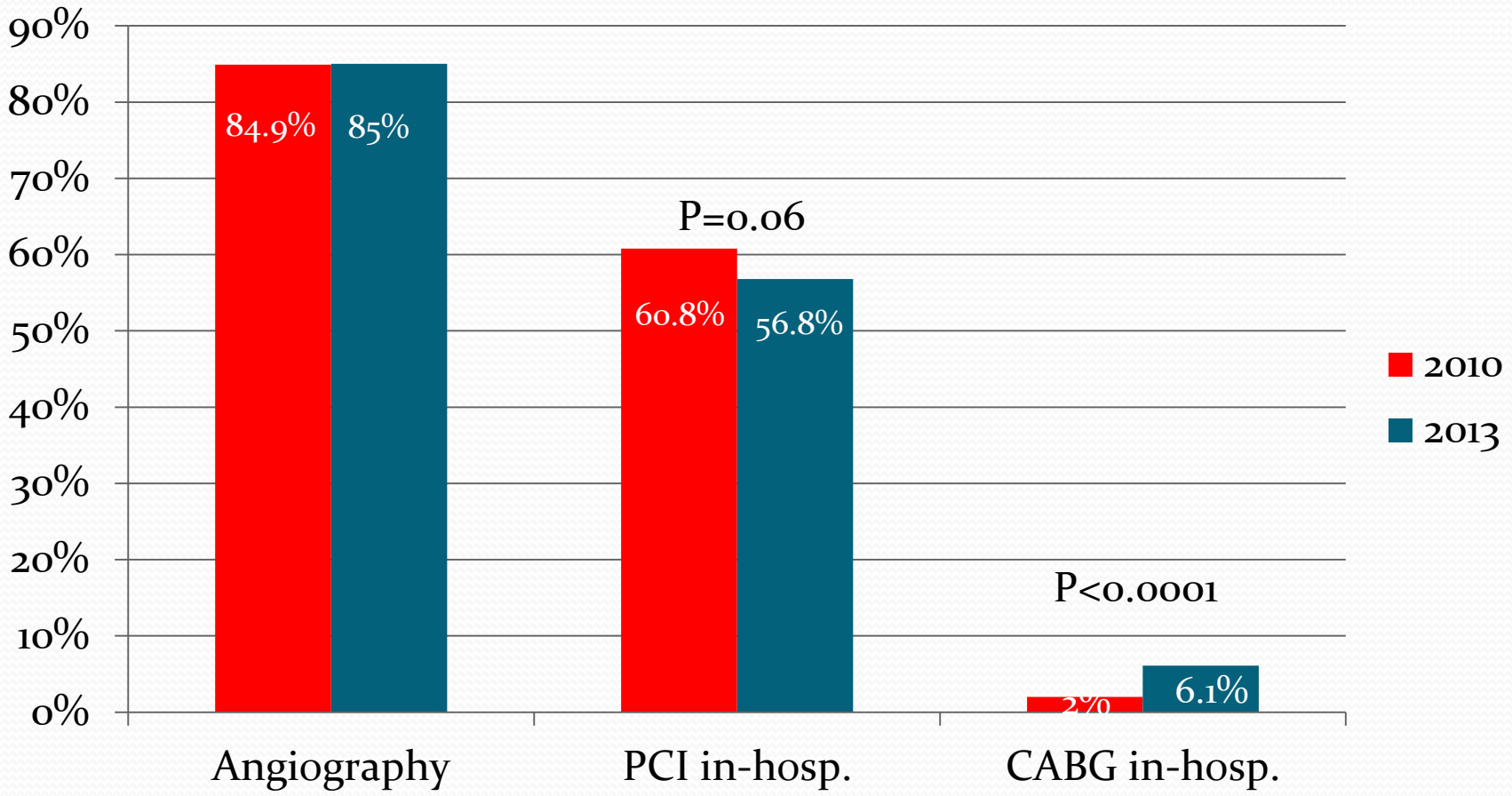
(85% of pts underwent angio)

ACSIS 2010 vs. 2013 arrival to angio

	2010	2013
Mean (hrs)	50±50.2	51.5±48.7
Median (hrs)	37.3	37.6

(at both time periods 85% of pts underwent angio)

ACSIS 2010 vs. 2013 angiography + PCI



ACSIS comparison of PCI vs non-PCI pts 2013

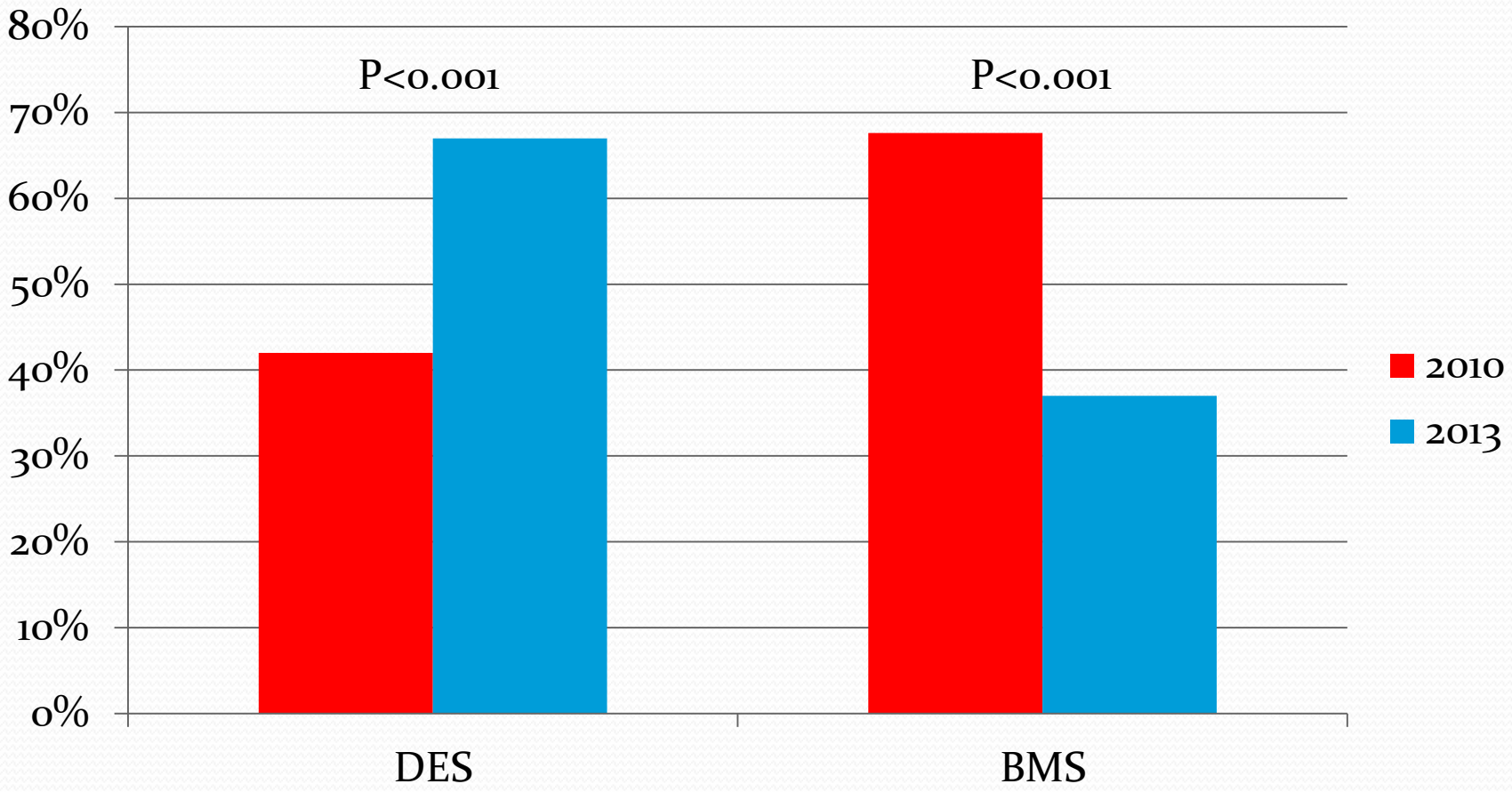
	No PCI (n=494)	PCI (n=650)	P value
Age	66.9±13	64.2±12	0.0003
Women	29.8%	23.7%	0.02
Diabetes	46.2%	40.8%	0.07
HTN	75.5%	69.2%	0.02
Prior MI	39.9%	34.6%	0.06
Prior CHF	15.6%	8%	<0.0001
Prior CABG	14.6%	11.4%	0.1
CRF	20.4%	12.9%	0.0006
PVD	9.9%	6.6%	0.04
Prior Atr. Fibrillation	12%	7.1%	0.005
h/o Stroke	9.7%	8%	0.3

ACSIS 2010 vs. 2013 Angio + PCI details

	2010 (n=997)	2013 (n=1144)	P value
1 vessel disease	24.3%	28.3%	0.02
Multi-vessel disease	62.5%	65.1%	
Bivalirudin	4.7%	2.5%	0.02
Heparin	95.3%	97.5%	0.02
GP IIb/IIIa inhibitors	**18.3%**	**10.8%**	**0.0001**
Any stent	90.3%	91.4%	0.5
DES	**41.9%**	**67.1%**	**<0.0001**
BMS	**67.6%**	**37%**	**<0.0001**

Very few Mguard stents used (<1%) , and very few aspirations performed (<1%) at both times

ACSIS 2010 vs. 2013 stent choice



ACSIS angio/PCI according to gender **2013**

	Females (n=301)	**Males** (n=843)	**P value**
Coronary angio	81.7%	84.8%	0.2
PCI	**51.2%**	**58.8%**	**0.02**
CABG in-hosp.	6%	6.2%	0.9
DES* BMS*	64.8% 28.8%	61.7% 32.8%	0.6

* Some of the stent data are missing

ACSIS 2010 vs. 2013 discharge treatment

	2010 (n=997)	2013 (n=1144)	P value
ASA	95.8%	93.8%	0.04
Clopidogrel	80.2%	54.4%	<0.0001
Oral anticoagulant	4.2%	5.1%	0.4
Statins	95.7%	92.2%	0.001
Beta blockers	80.6%	76%	0.01
ACE Inhibitors	67.9%	56.4%	<0.0001
ARBs	11.2%	16.4%	0.0006

ACSIS 2010 vs. 2013 in-hospital outcomes

	2010 (n=997)	2013 (n=1144)	P value
CHF	7%	6.2%	0.4
Pulmonary Edema	5.5%	5.1%	0.6
New Atrial Fibrillation	3.6%	3.7%	0.9
Cardiogenic shock	1.8%	1.4%	0.5
Re-MI	1.1%	1%	0.9
Post MI angina	2.2%	2%	0.8
Acute Renal Failure	6.1%	4.4%	0.07
TIMI Major Bleeding	**2.3%**	**1.1%**	**0.035**
Mortality	2.7%	2%	0.3

ACSIS in-hospital outcomes according to gender 2013

	Females (n=301)	Males (n=843)	P value
Re-MI	1%	1.1%	0.9
Stent thrombosis	0.3%	0.2%	0.8
CHF	6.7%	6.1%	0.7
New atrial fibrillation	4.3%	3.4%	0.5
Stroke	**1.3%**	**0.2%**	**0.024**
Acute renal failure	5%	4.2%	0.5
TIMI major bleeding	1.3%	1.1%	0.7
TIMI minor bleeding	3%	2.8%	0.9

ACSIS 2010 vs. 2013 30-day outcomes

	2010 (n=997)	2013 (n=1144)	P value
Re-MI	1.6%	1.1%	0.3
Re-MI / UA	**3.1%**	**1.5%**	**0.04**
Stent thrombosis	0.2%	0.4%	0.4
Re-hosp. for PCI	**5.4%**	**2.2%**	**0.001**
CABG	8.5%	7.5%	0.3
Mortality	3.8%	3.5%	0.7

CONCLUSIONS – ACSIS NSTEMI

1. Clinical characteristics of pts with NSTEMI unchanged over the past 3 yrs
2. Decrease in use of GP IIb/IIIa inhibitors and bivalirudin during PCI from 2010 to 2013
3. Increase in use of DES (almost 70%) along with decrease in use of BMS from 2010 to 2013
4. Increase in in-hospital CABG without change in 30-day CABG rates

European Heart Journal (2011) **32**, 2970–2988
doi:10.1093/eurheartj/ehr151

CLINICAL RESEARCH

Safety of clopidogrel being continued until the time of coronary artery bypass grafting in patients with acute coronary syndrome: a meta-analysis of 34 studies

- In patients with ACS undergoing CABG no significant differences between cont. clopidogrel until surgery (or in proximity to) and d/c before surgery in mortality, post-op MI or stroke
- Conclusions: "While results of additional studies are awaited, we suggest ACS patients requiring urgent CABG proceed with surgery without delay for a clopidogrel-free period"

Nijjer et al, EHJ 2011

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2. Decrease in use of GP IIb/IIIa inhibitors and bivalirudin during PCI from 2010 to 2013
3. Increase in use of DES along with decrease in use of BMS from 2010 to 2013
4. Increase in in-hospital CABG without change in 30-day CABG rates
5. Decrease in in-hospital major bleeding rates (↑radial?), and in 30 day Re-PCI rates from 2010 to 2013

THANK YOU