



GP IIb/IIIa Inhibitors for Primary PCI in STEMI

(BRAVE 3, On-TIME 2, HORIZONS-AMI, MULTISTRATEGY, FINESSE)

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GP IIb/IIIa for PCI in STEMI



1. Are IIb/IIIa inhibitors equivalent for PCI in STEMI?
2. Is upstream use of IIb/IIIa inhibitors superior to downstream use?
3. Which is the actual role of IIb/IIIa inhibitors for PCI in STEMI?

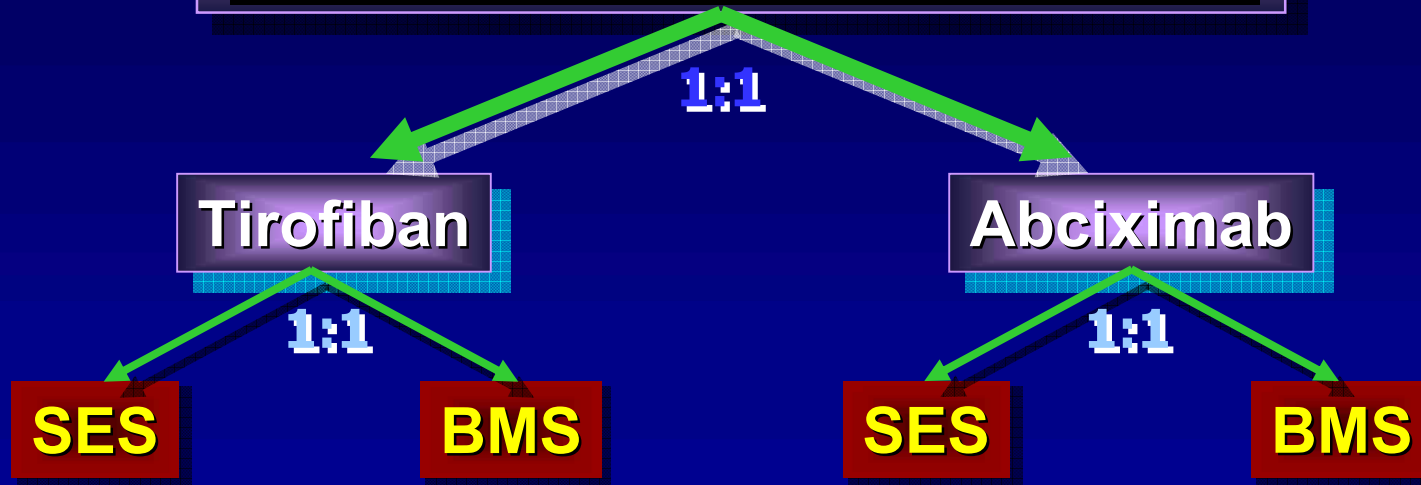
Tirofiban vs. Abciximab MULTISTRATEGY Trial



745 Randomized

STEMI all-comer Patients

**Aspirin + Clopidogrel + UFH
Before Arterial Sheath Insertion**



Coronary Angiography ± PCI

Stenting was the default strategy in pts
with a RVD ≥ 2.5 mm at visual estimation

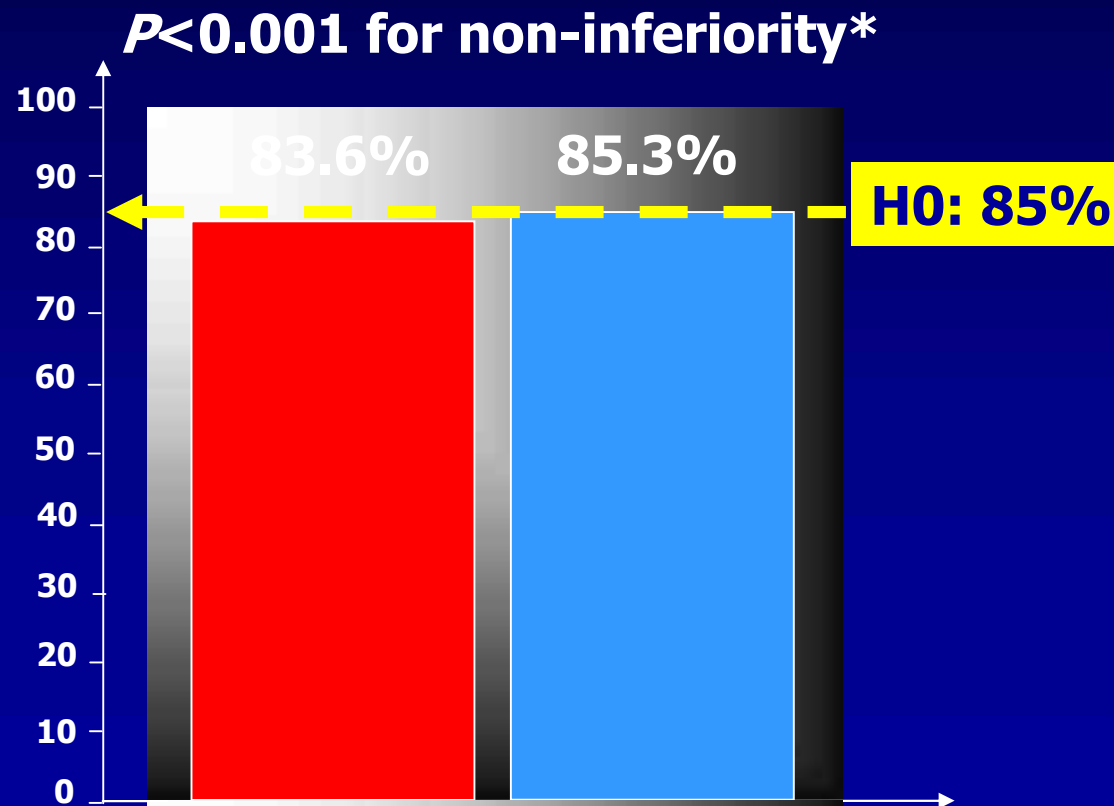
Tirofiban vs. Abciximab MULTISTRATEGY Trial



Primary Endpoint (Pharmacology aspect): $\geq 50\%$ Σ ST resolution within 90'

■ Abciximab ■ Tirofiban

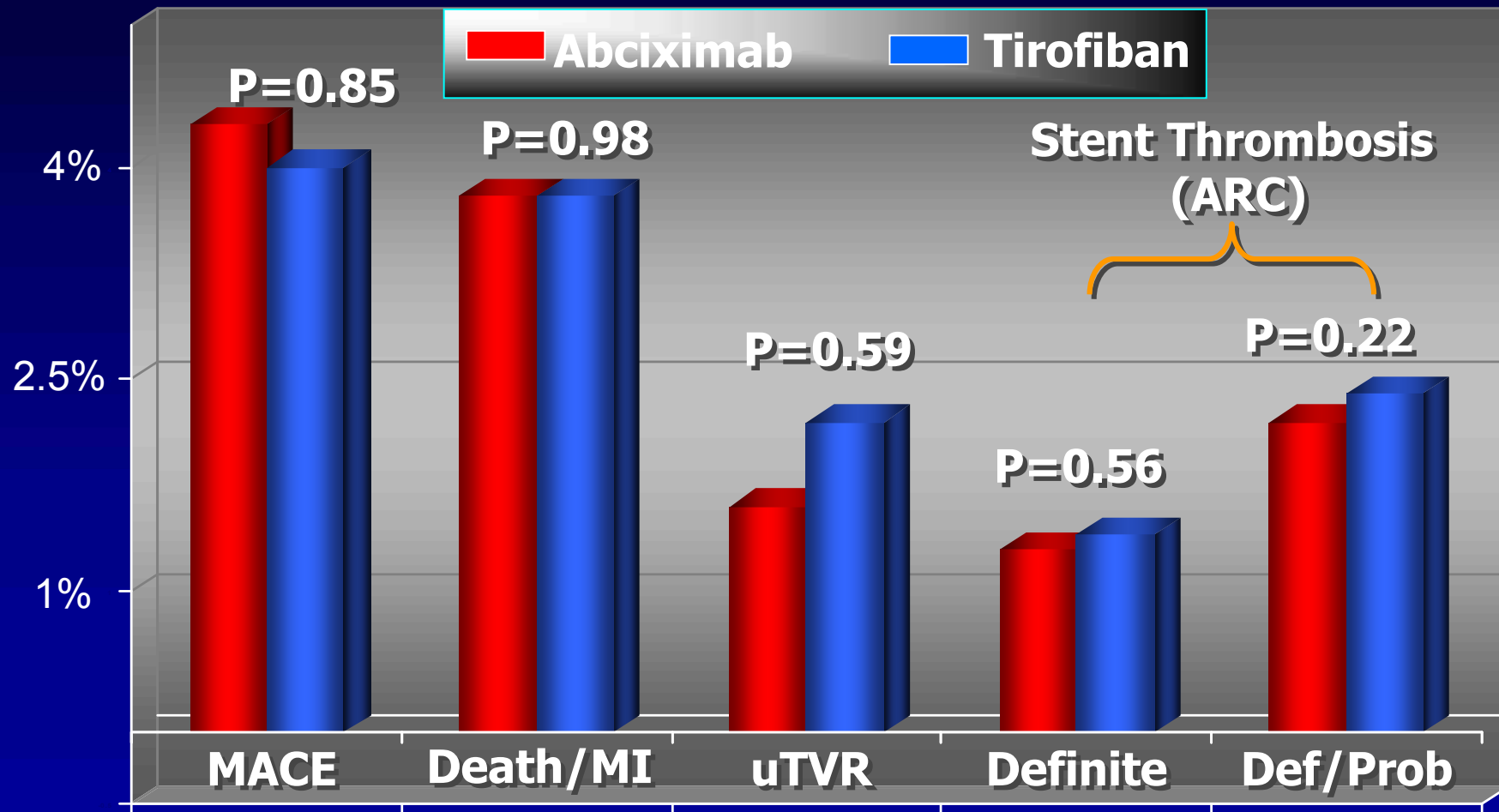
Non-inferiority basis



Tirofiban vs. Abciximab MULTISTRATEGY Trial



30-day outcomes





1. Are IIb/IIIa inhibitors equivalent for PCI in STEMI?

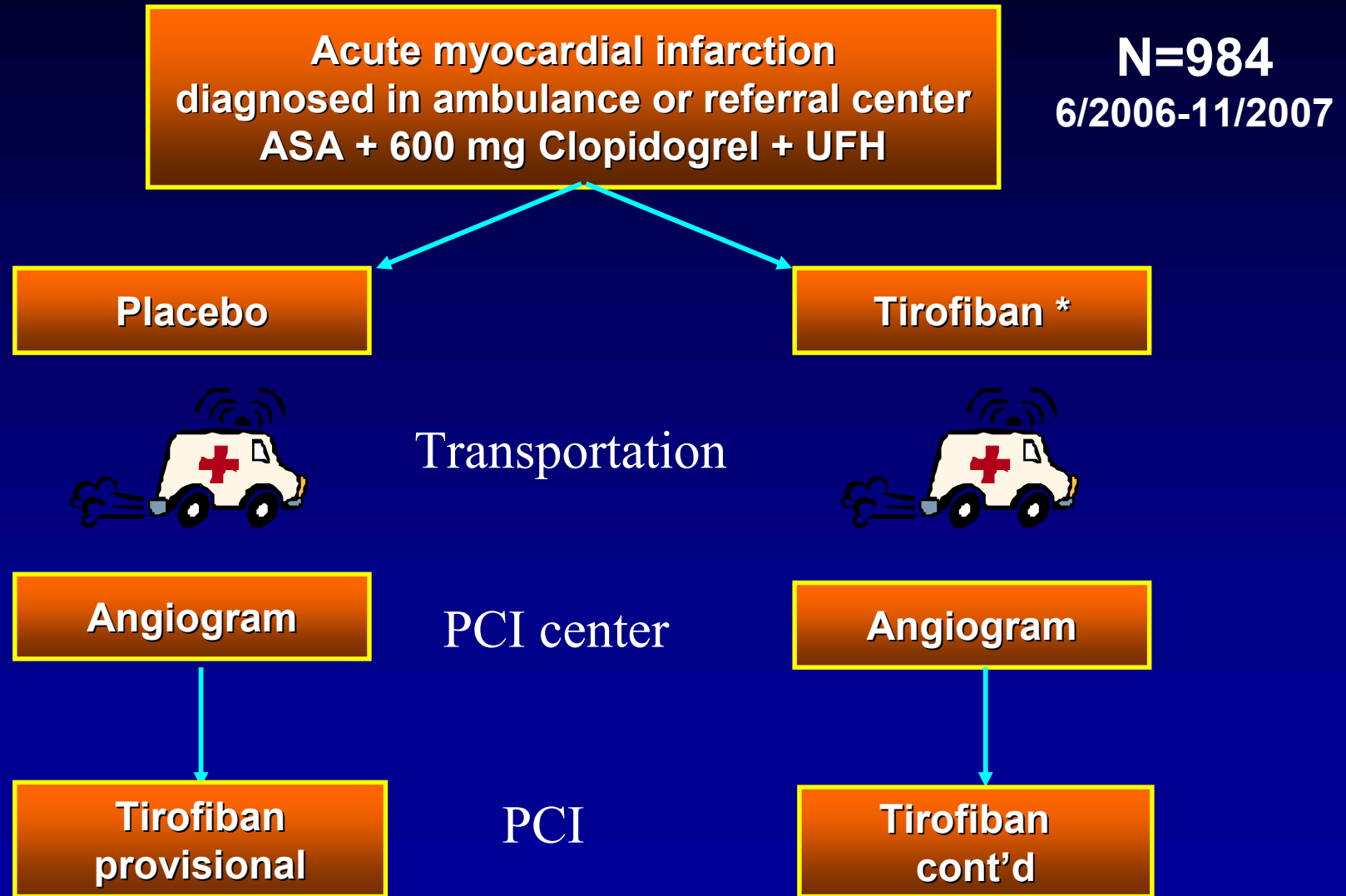
Available data suggest that 2 of the most commonly used IIb/IIIa inhibitors, abciximab and tirofiban, are equally effective for PCI in STEMI.

GP IIb/IIIa for PCI in STEMI



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Prehospital vs. Downstream Tirofiban On-TIME 2 Trial



Prehospital vs. Downstream Tirofiban On-TIME 2 Trial



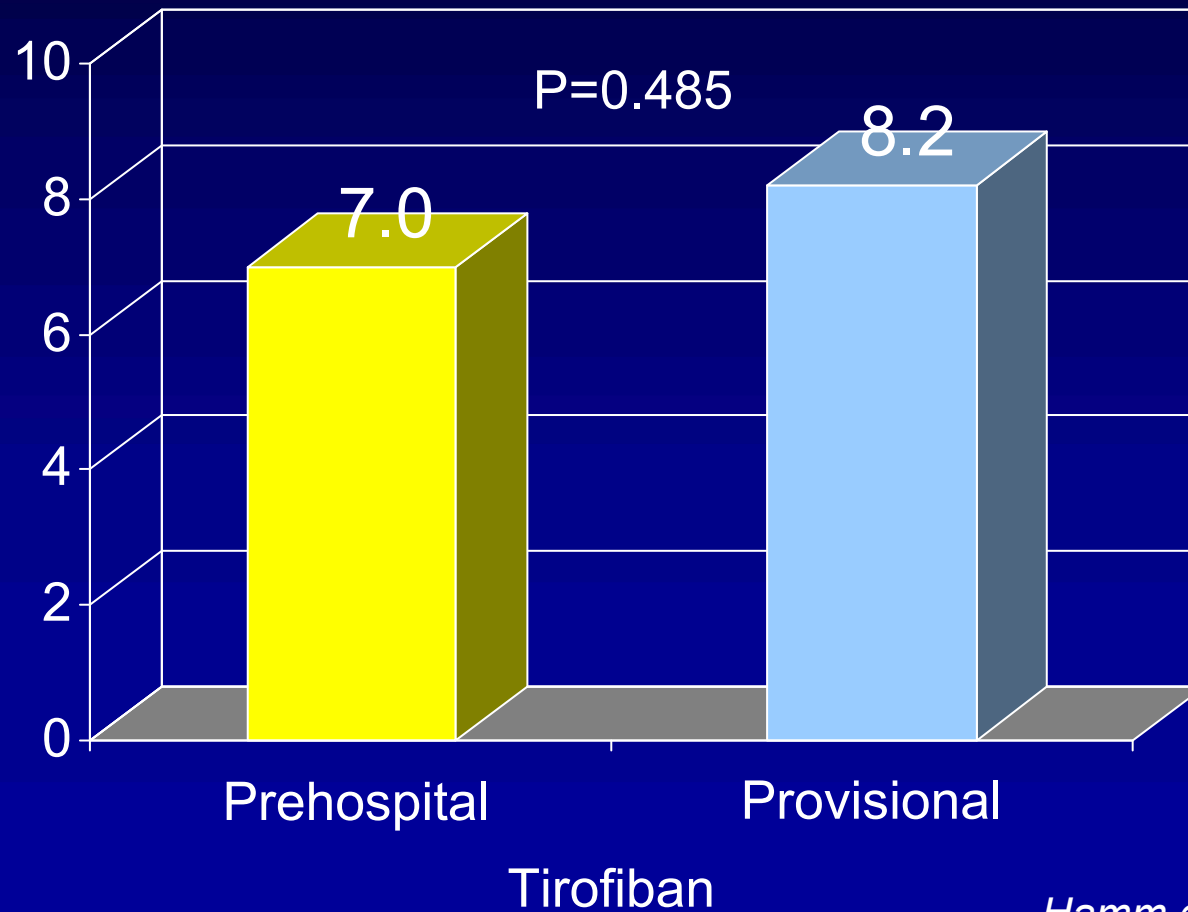
Primary endpoint: ST Resolution

mean \pm SD	Placebo	Tirofiban	p- value
Readable ECG	94.1%	95.5%	0.358
Residual ST - deviation (mm)	4.8 \pm 6.3	3.3 \pm 4.3	0.002
normal ECG	30.2%	37.3%	0.031
> 3 mm ST-deviation	44.3%	36.6%	0.026

Prehospital vs. Downstream Tirofiban On-TIME 2 Trial



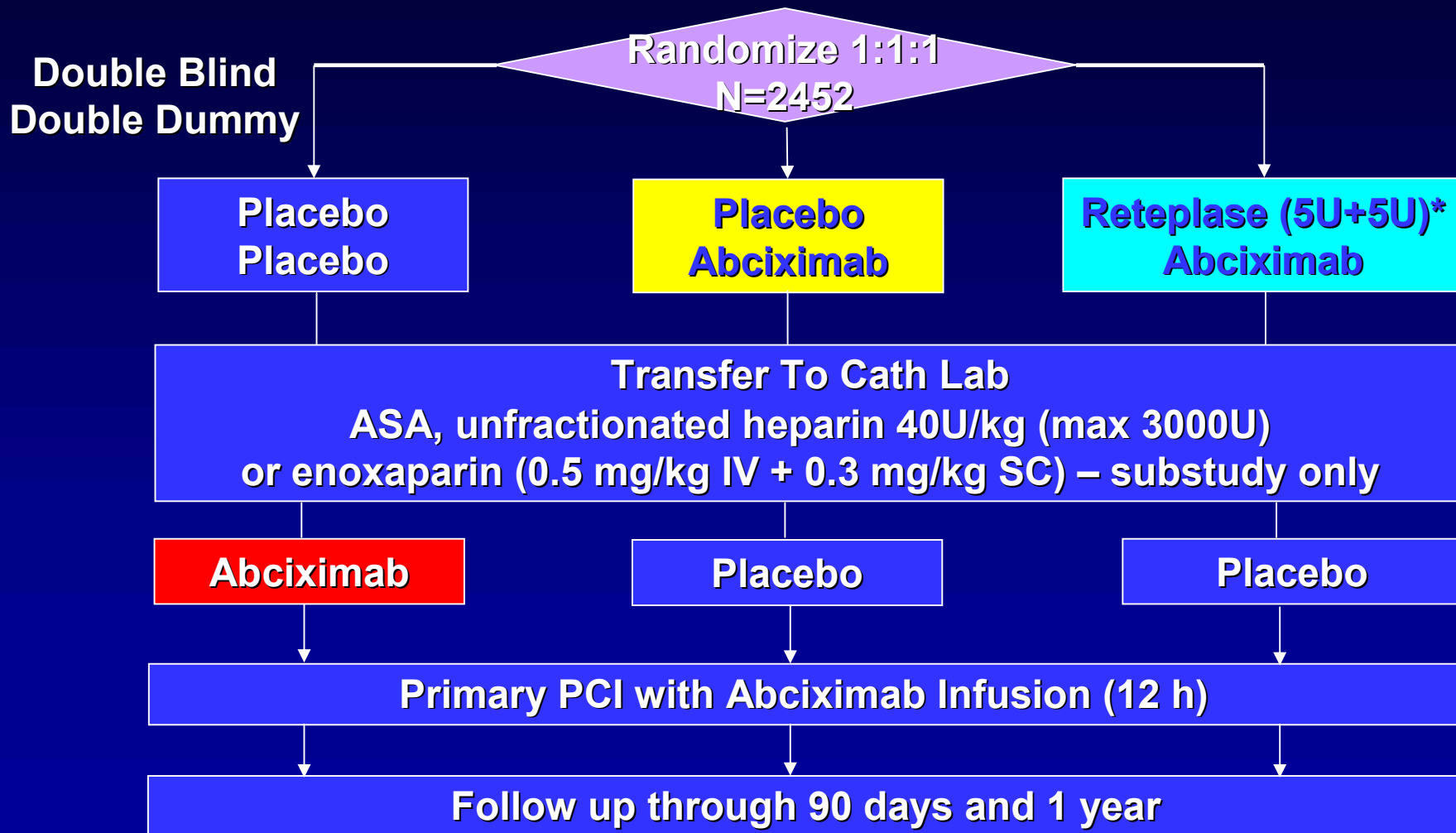
30-Day Clinical Outcomes
(Death/Recurrent MI, uTVR)



Upstream vs. Downstream Abciximab FINESSE Trial



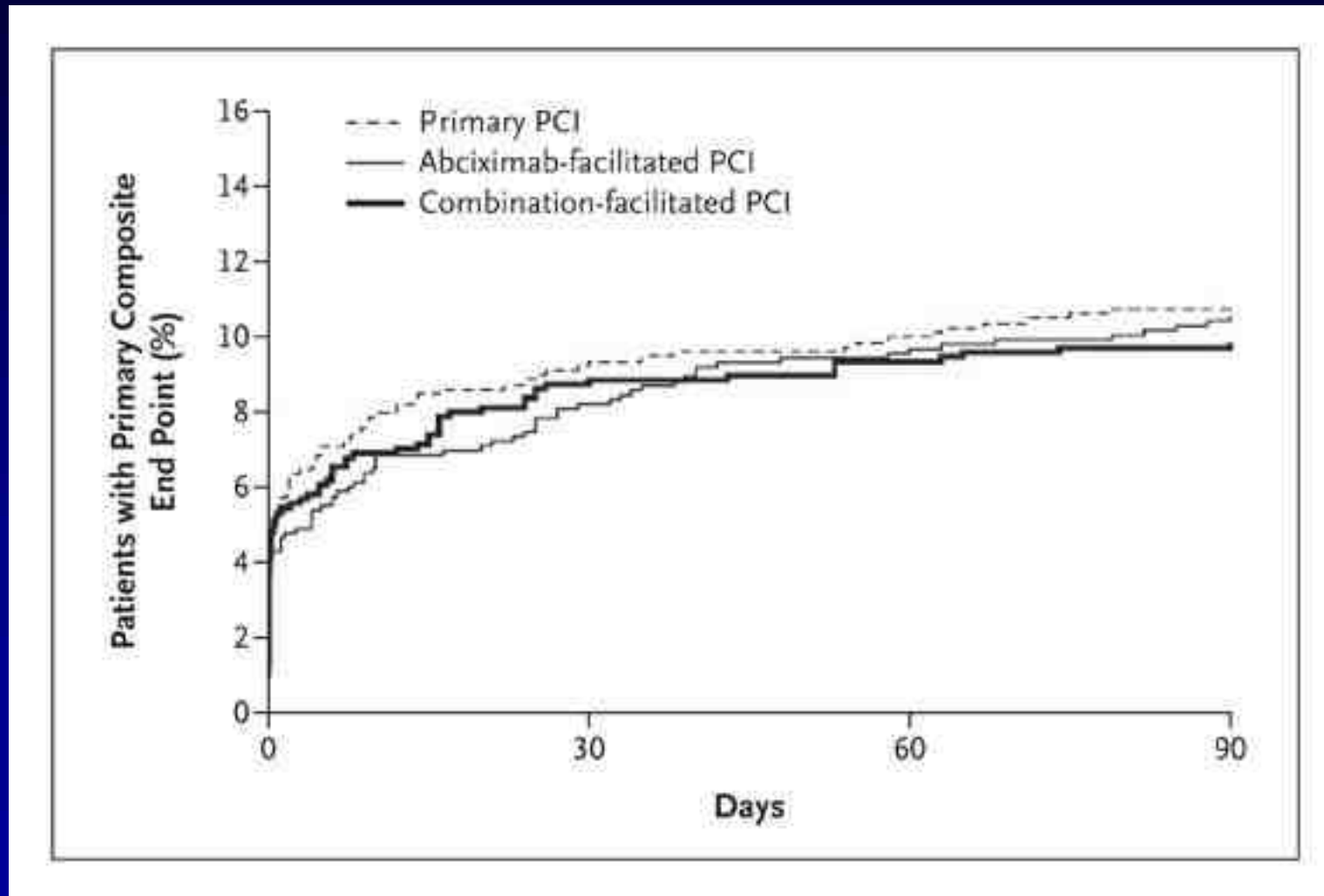
Acute ST Elevation MI (or New LBBB) within 6h pain onset



Upstream vs. Downstream Abciximab FINESSE Trial



All cause death or recurrent MI





2. Is upstream use of IIb/IIIa inhibitors superior to downstream use?

Best of available evidence is not in support of the superiority of upstream use of IIb/IIIa inhibitors in patients undergoing PCI for STEMI.

Multivariate model of 1-year mortality in 10,455 patients with ACS:

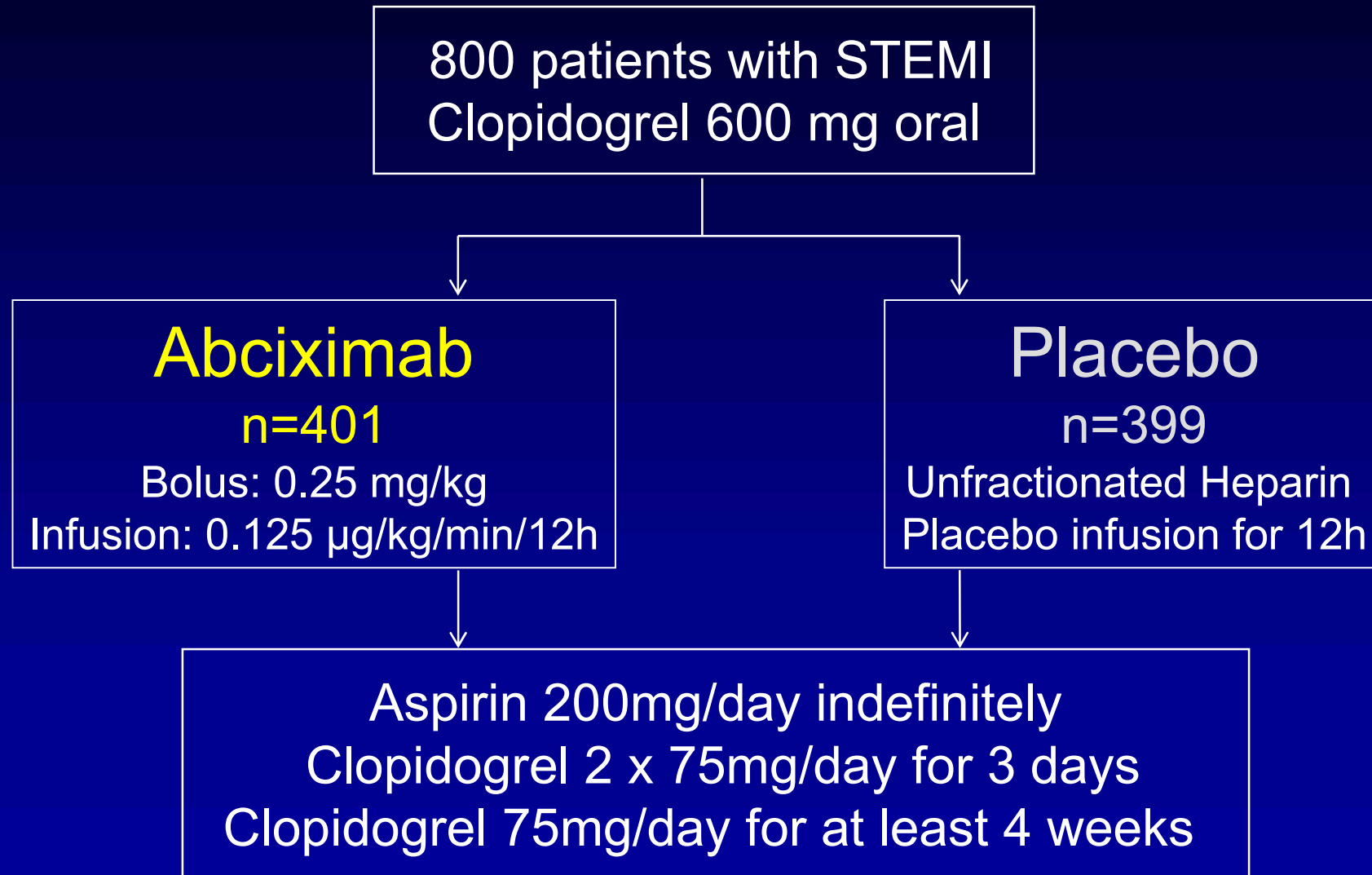
	<u>HR (95% CI)</u>
Baseline TIMI flow (1 grade increase):	1.08 (0.96 to 1.22)
Postproc. TIMI flow (1 grade increase):	0.60 (0.52 to 0.70)

Ndrepepa et al, JACC 2008



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Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial

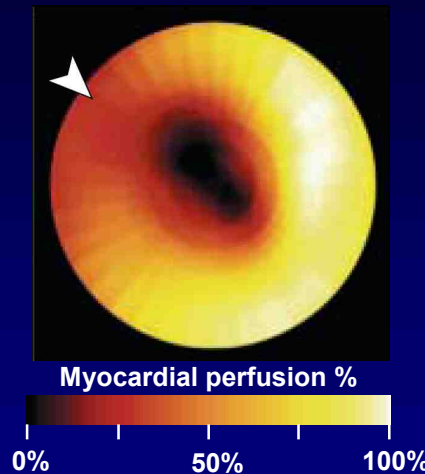


Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial



Primary endpoint:

- Final infarct size
(% of the left ventricle)

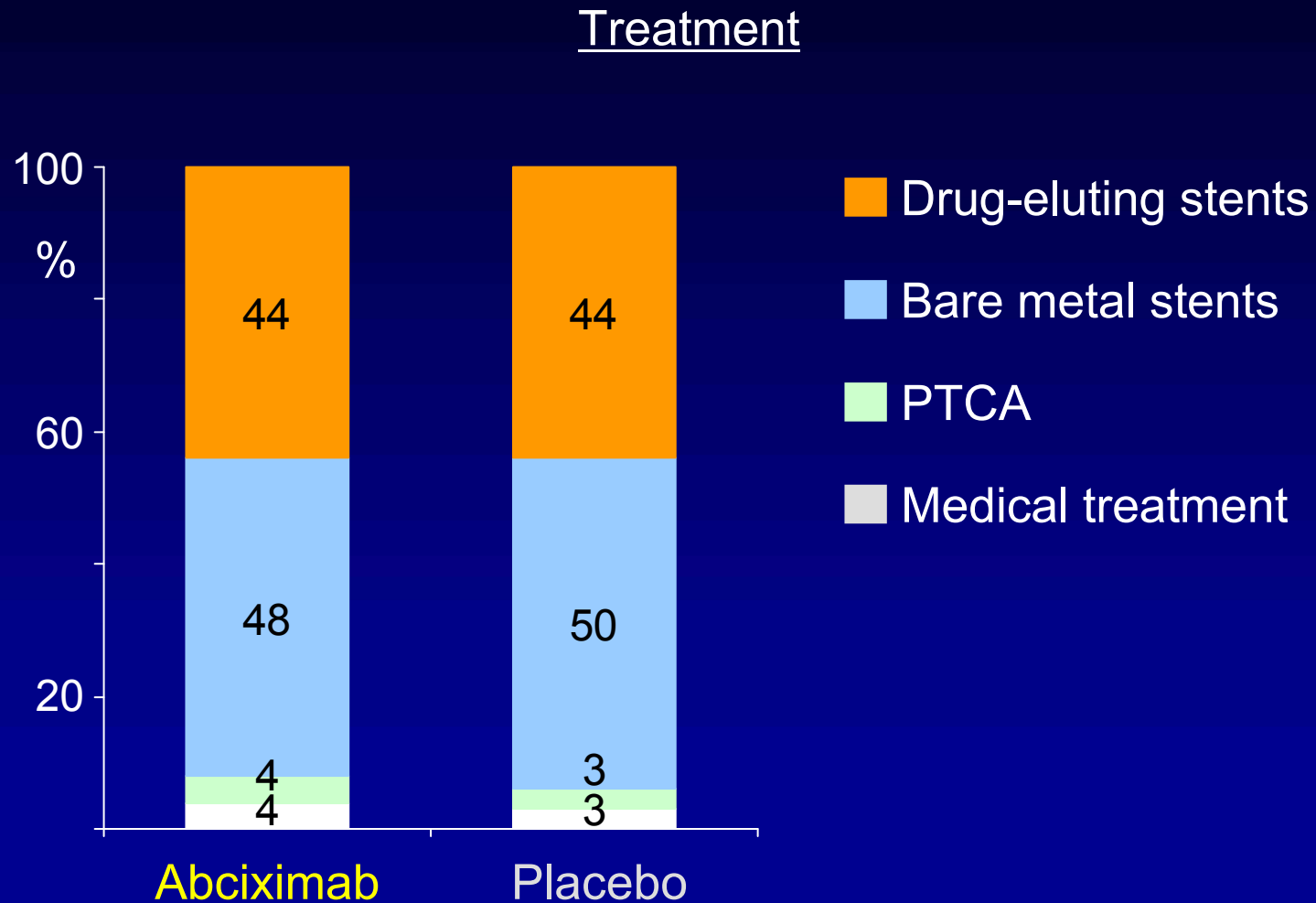


SPECT study
(5-7 days after
randomization)

Secondary endpoints:

- Death
- Myocardial reinfarction
- Urgent revascularization
- Stroke
- Major and minor bleeding (TIMI criteria)
- Profound thrombocytopenia

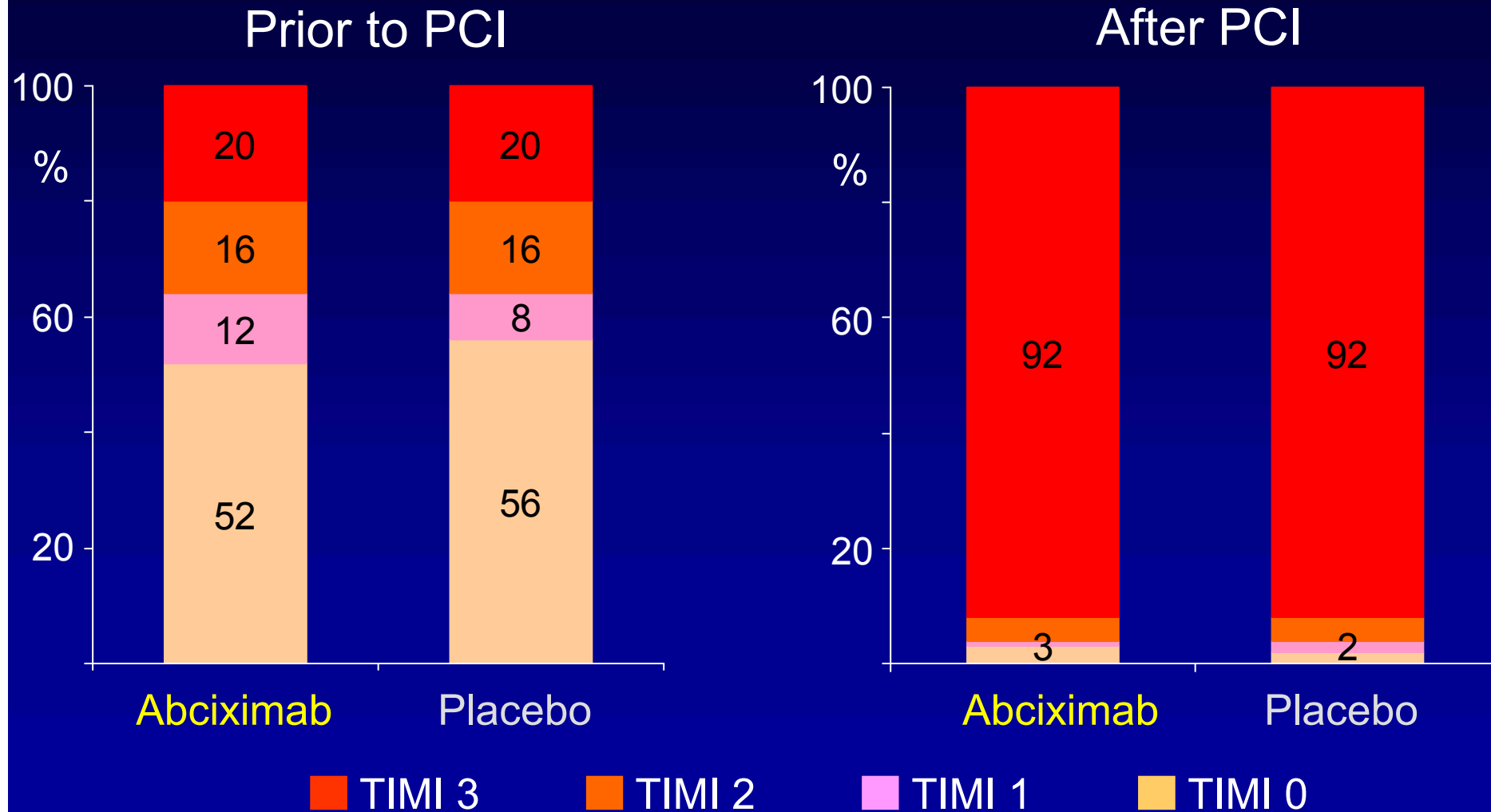
Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial



Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial



TIMI Flow

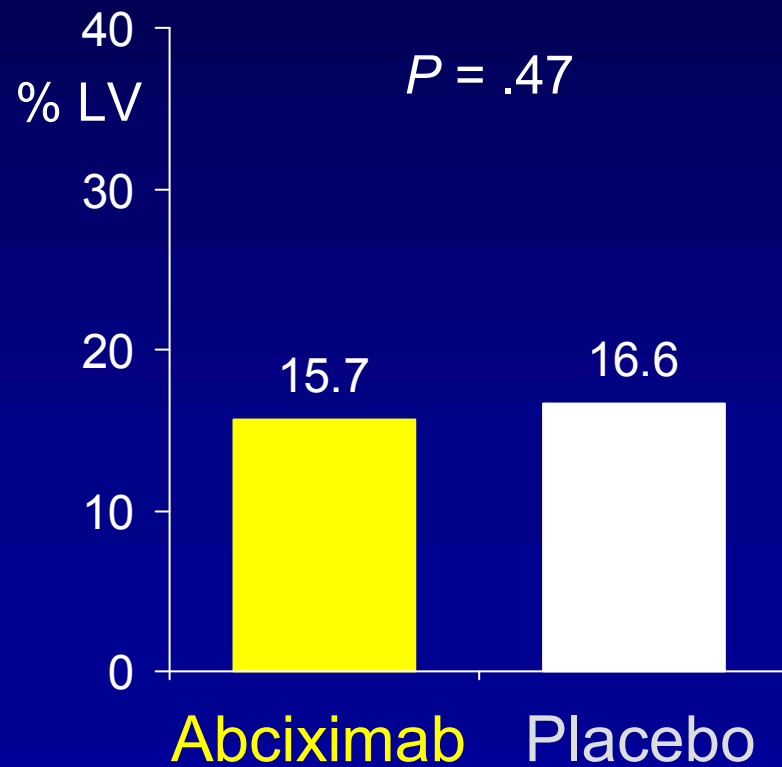


Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial

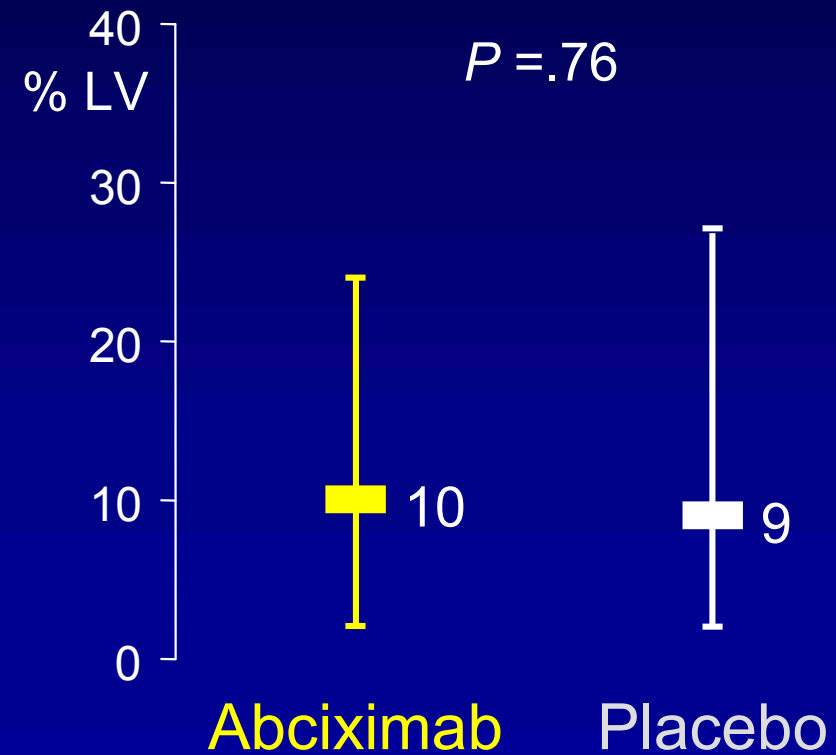


Primary Endpoint

Final infarct size
Mean



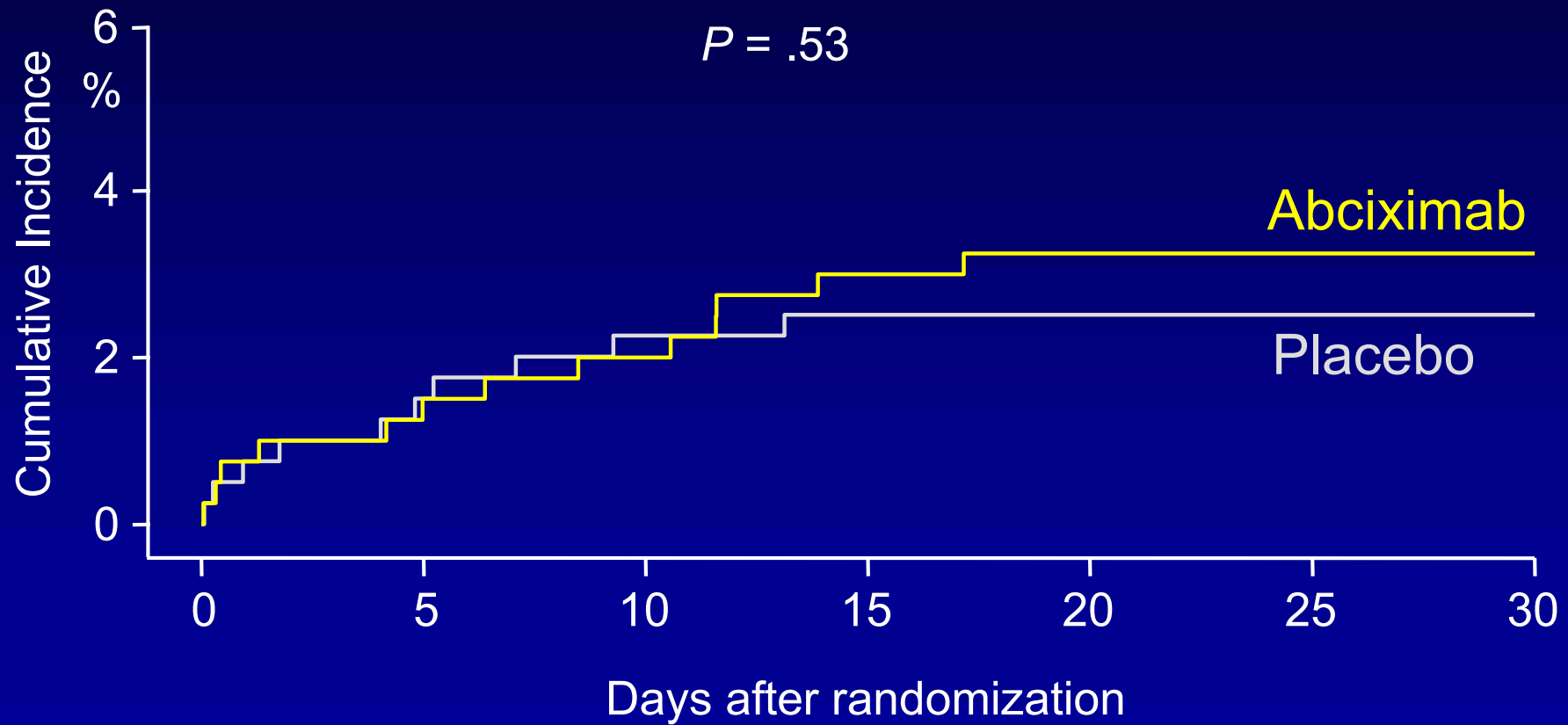
Final infarct size
Median [25th; 75th percentile]



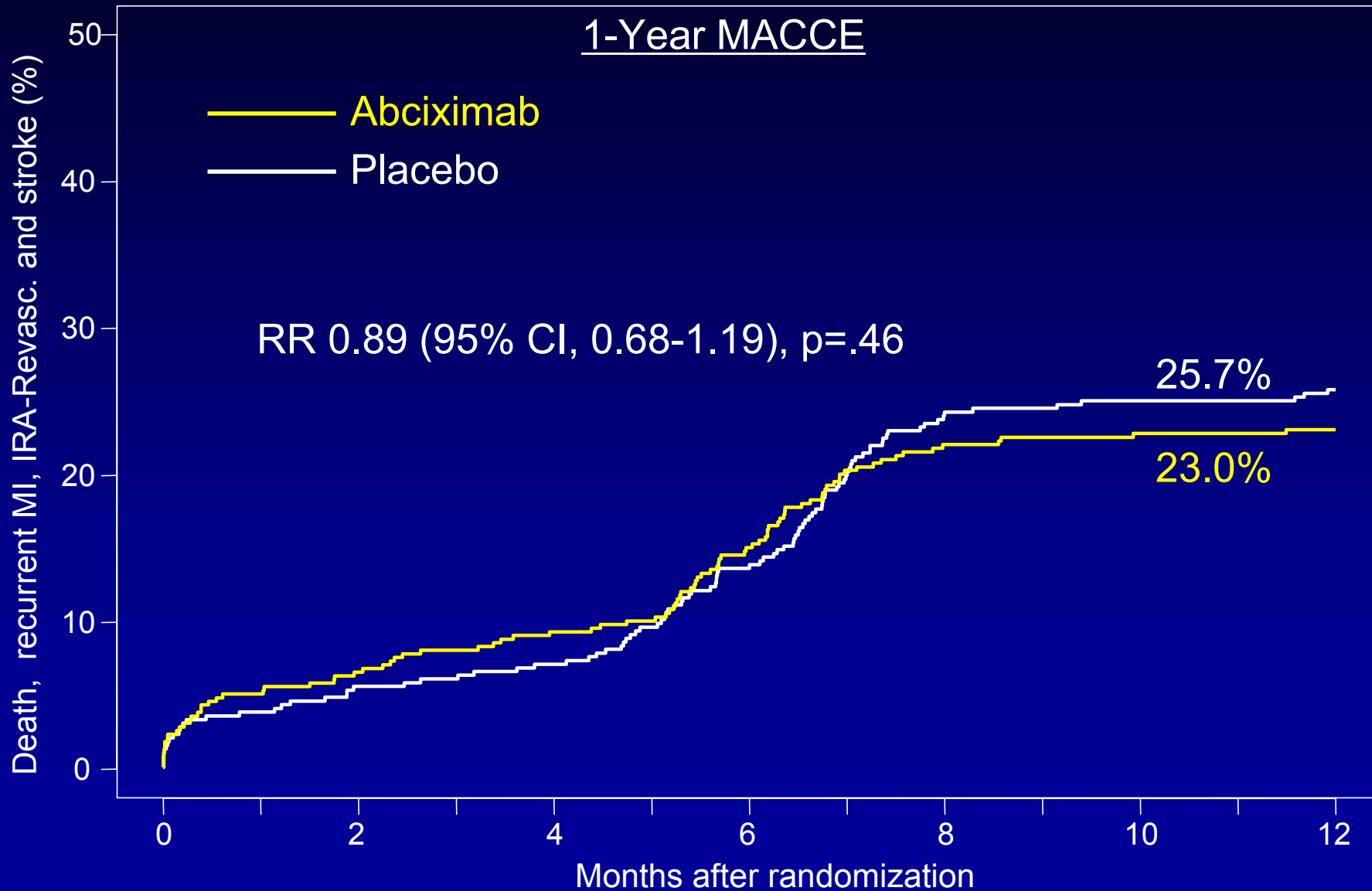
Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial



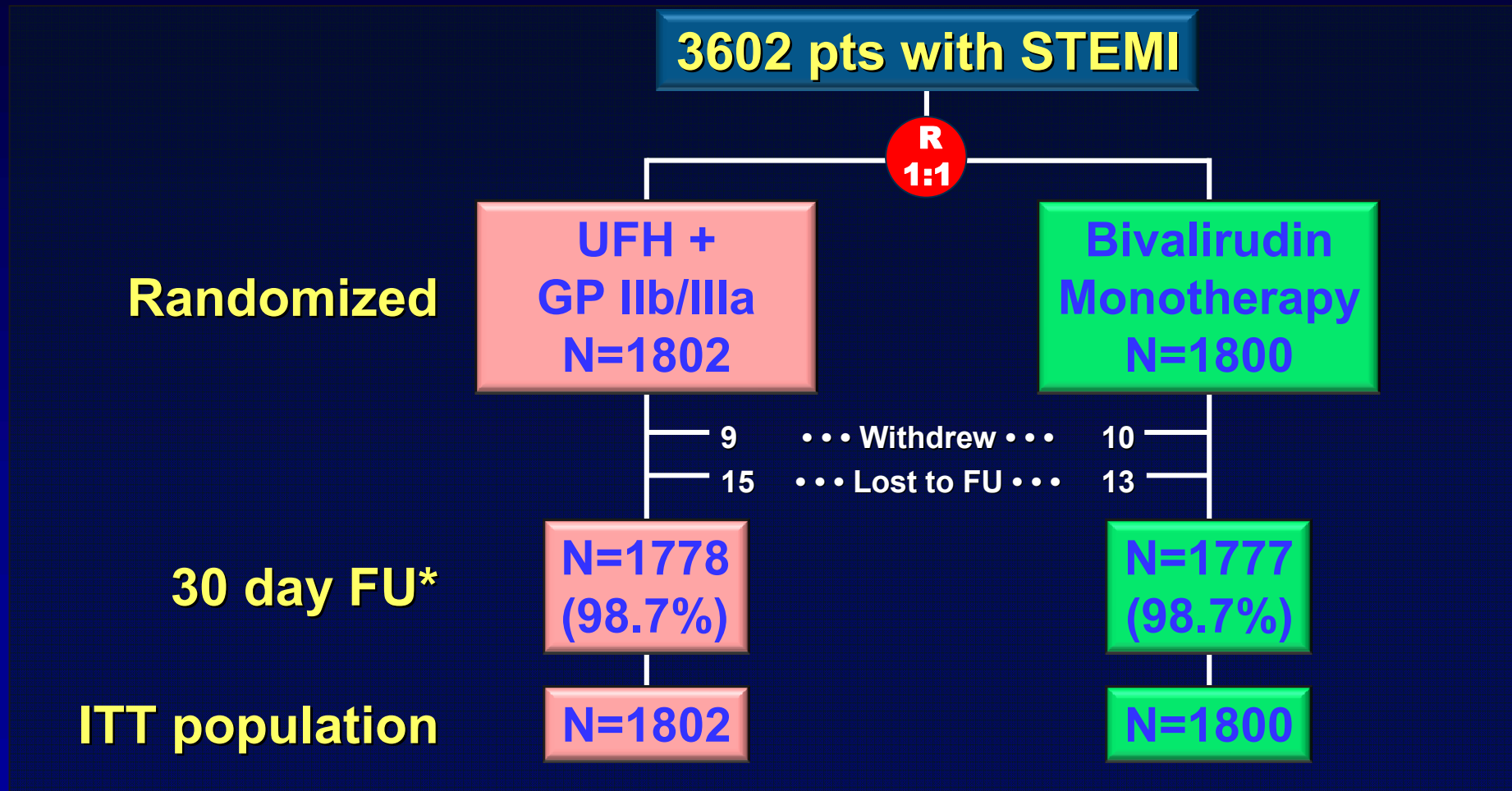
30-day Mortality



Abciximab After 600 mg of Clopidogrel BRAVE 3 Trial



Abciximab+UFH vs Bivalirudin HORIZONS AMI Trial



Abciximab+UFH vs Bivalirudin HORIZONS AMI Trial



2 primary endpoints at 30 days:

1) Net Adverse Clinical Events

(All-cause death, reinfarction, stroke, TVR, major bleeding)

and

2) Major Bleeding (non CABG)

Abciximab+UFH vs Bivalirudin HORIZONS AMI Trial

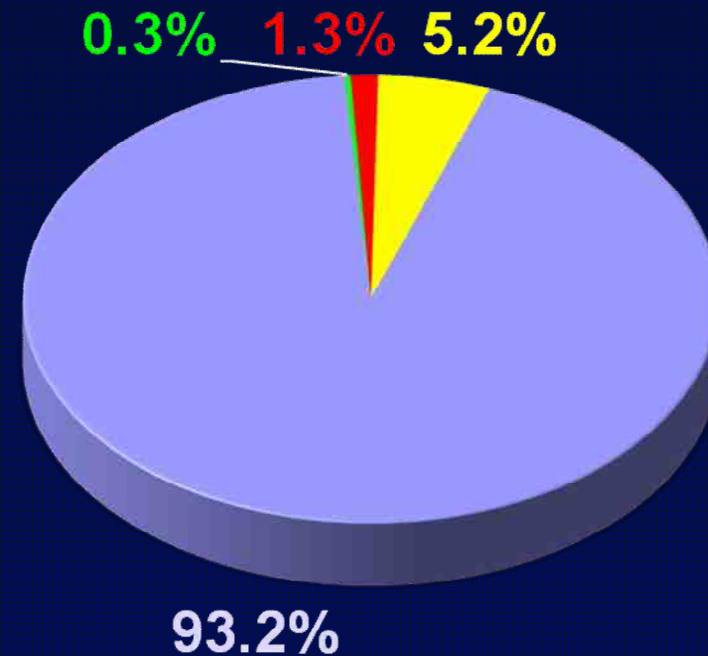
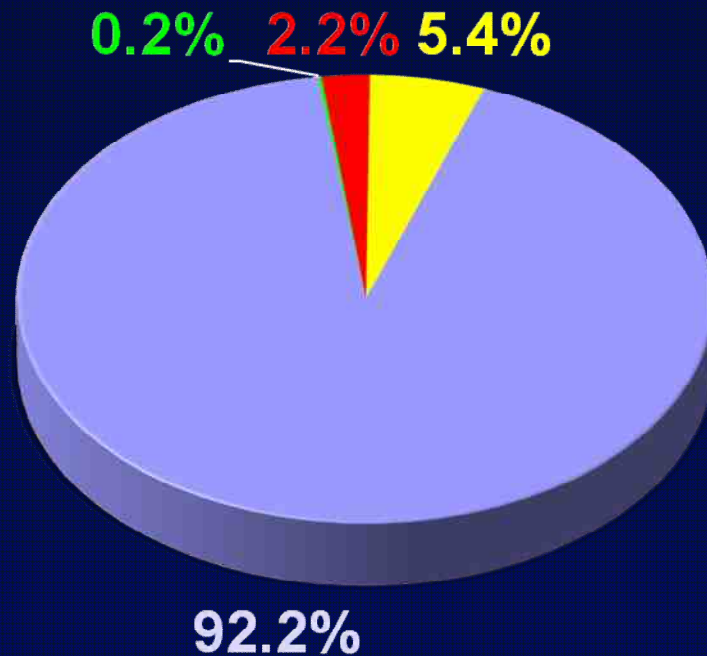


Treatment

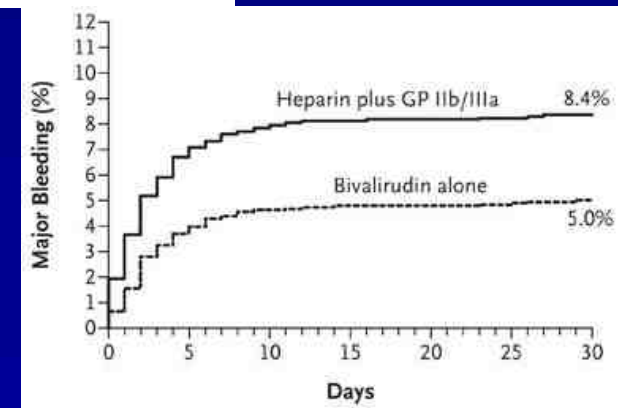
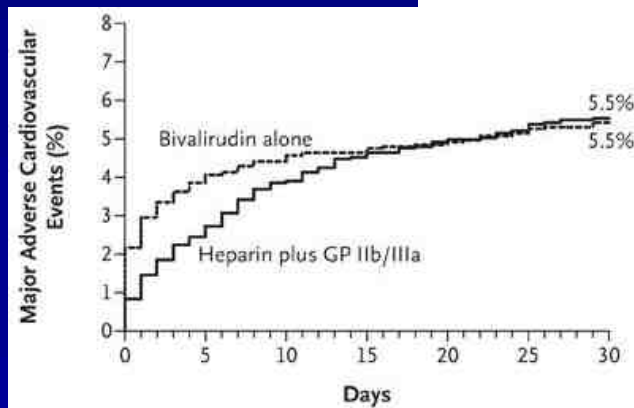
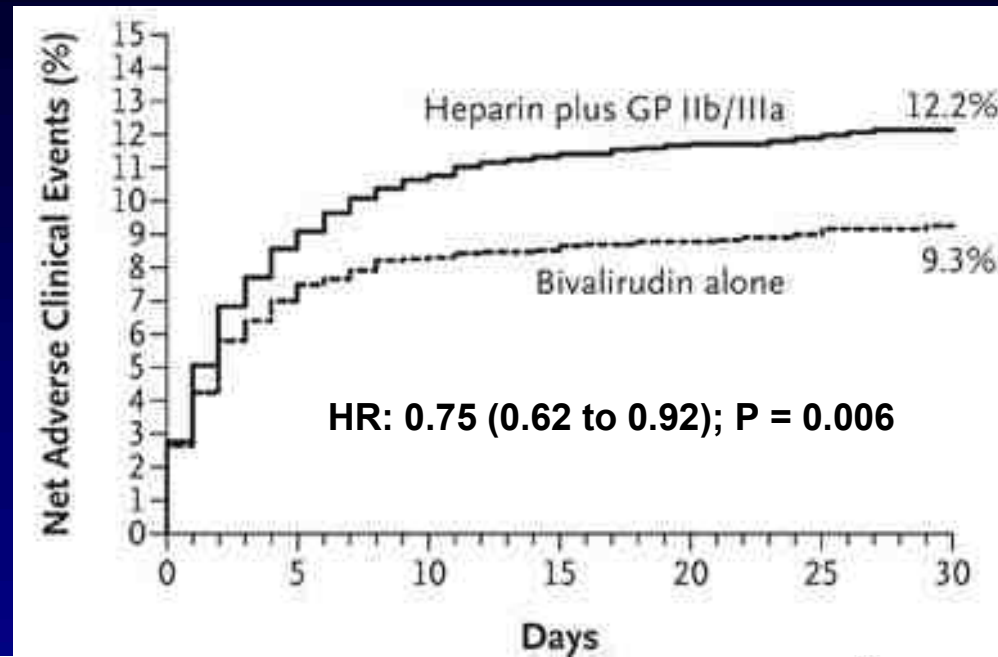
UFH + GP IIb/IIIa
N=1802

Bivalirudin Monotherapy
N=1800

Primary PCI Deferred PCI CABG Medical Rx



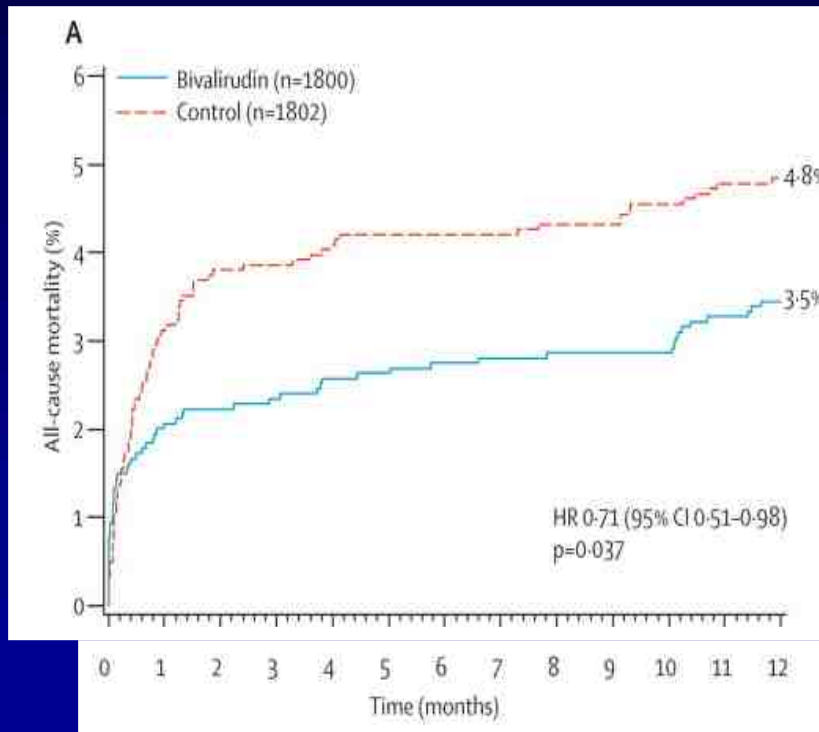
Abciximab+UFH vs Bivalirudin HORIZONS AMI Trial



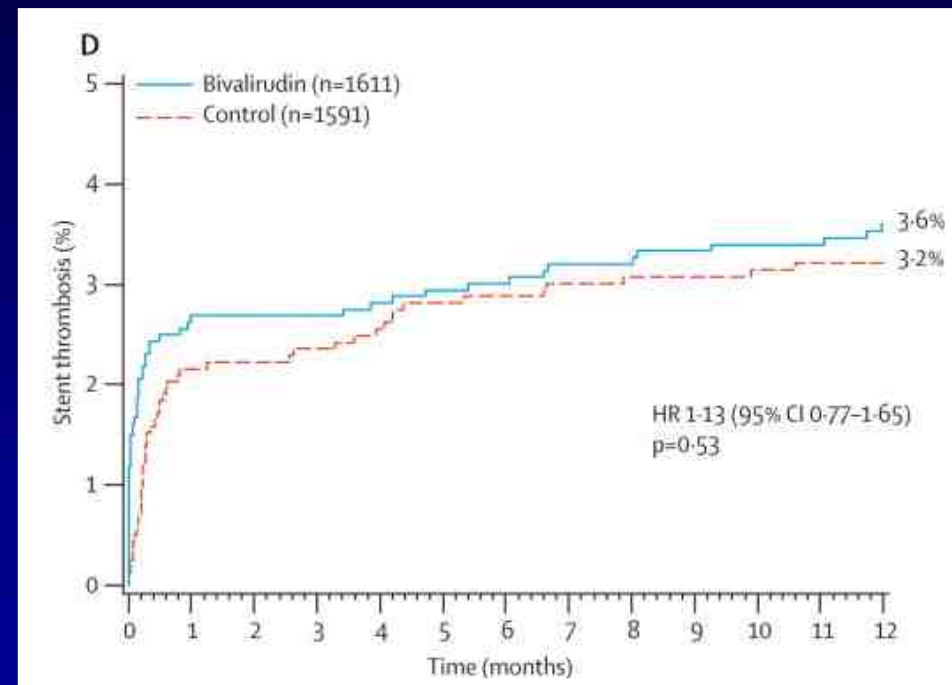
Abciximab+UFH vs Bivalirudin HORIZONS AMI Trial



All-cause Mortality



Stent thrombosis (Def. or Prob.)





3. Which is the actual role of IIb/IIIa inhibitors for PCI in STEMI?

In the era of effective pretreatment with thienopyridines, administration of IIb/IIIa inhibitors provides no additional benefits in patients undergoing PCI for STEMI.