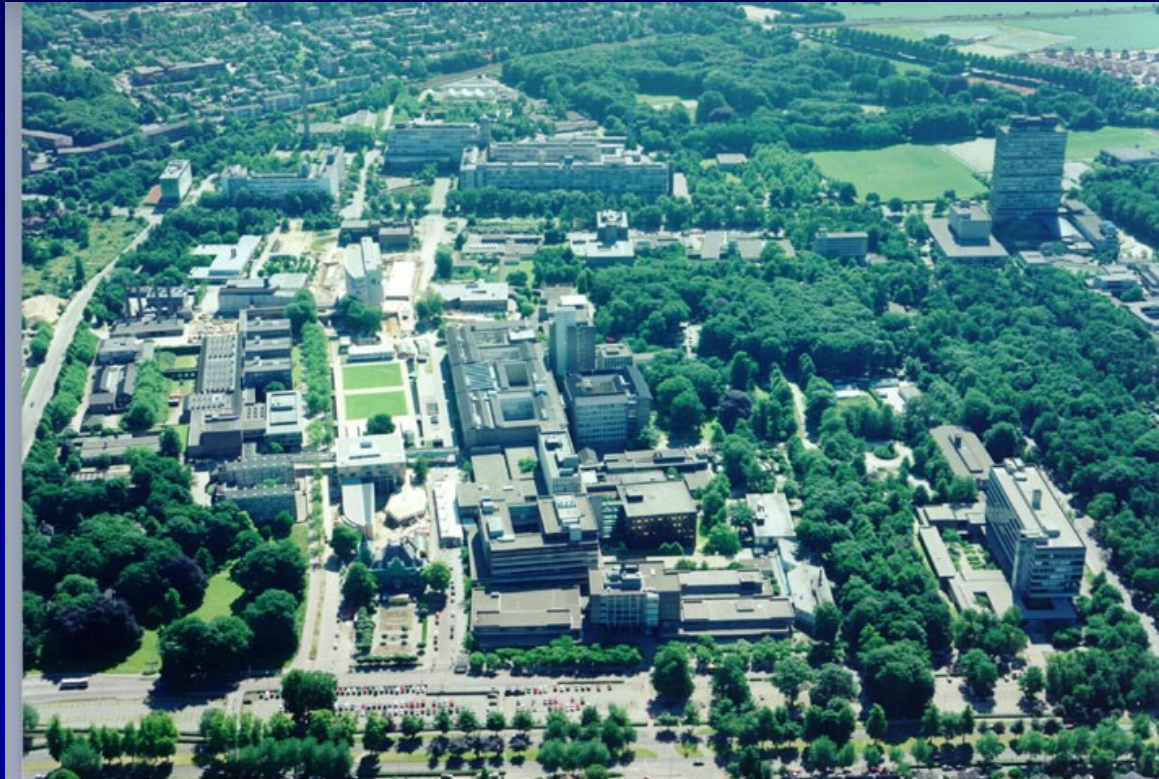


FIBRINOLYSIS: HOW AND WHO

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Fibrinolysis

- **Class I:**
 - In the absence of contraindications and if primary PCI cannot be performed within 90 min after first medical contact by an experienced team pharmacological reperfusion should be initiated as soon as possible (level A)

EMERGENCY

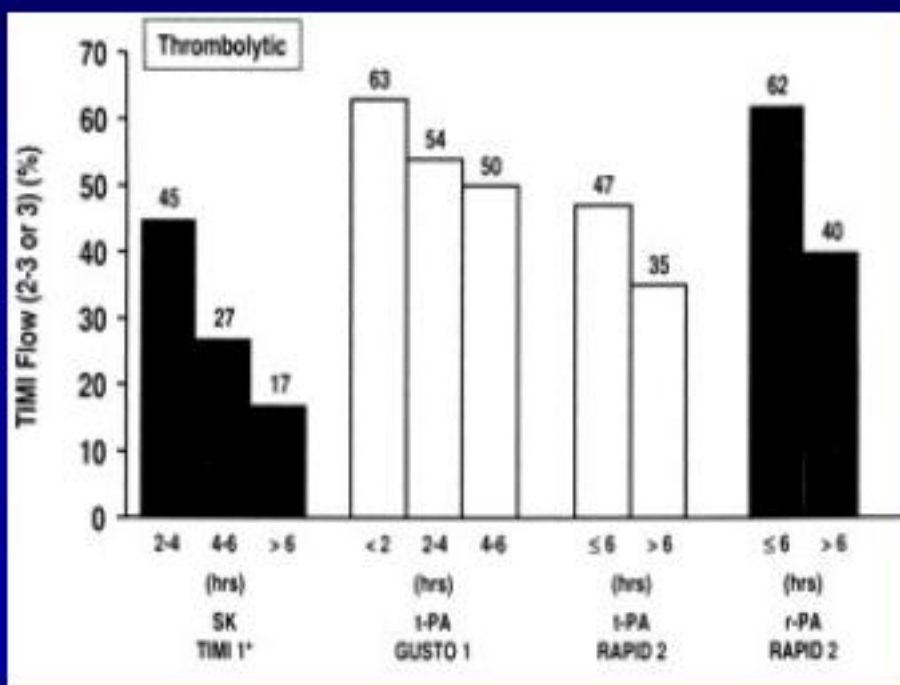


174 KM AHEAD

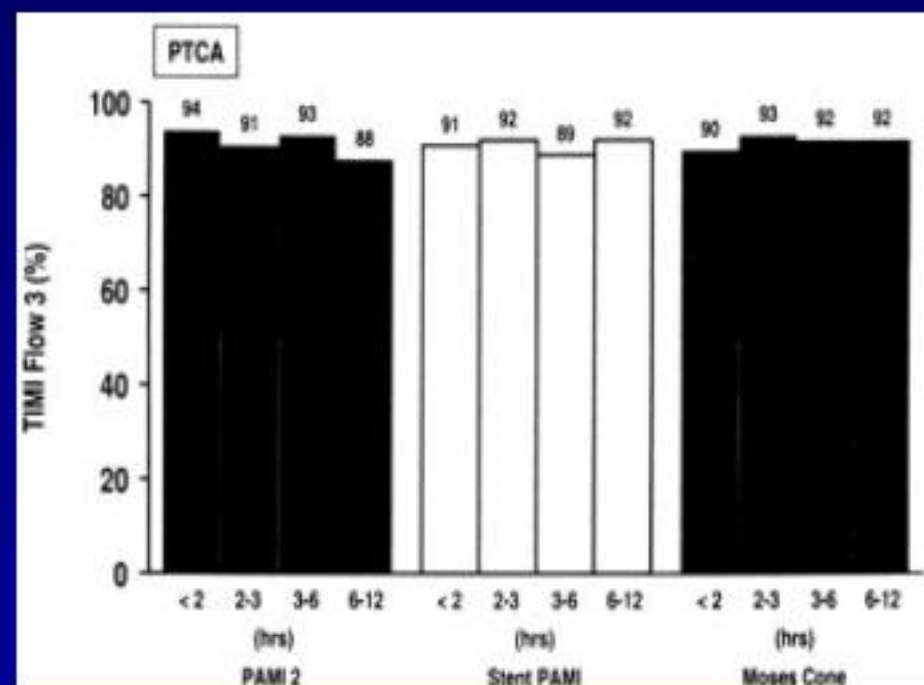


Effect of time to treatment on TIMI flow

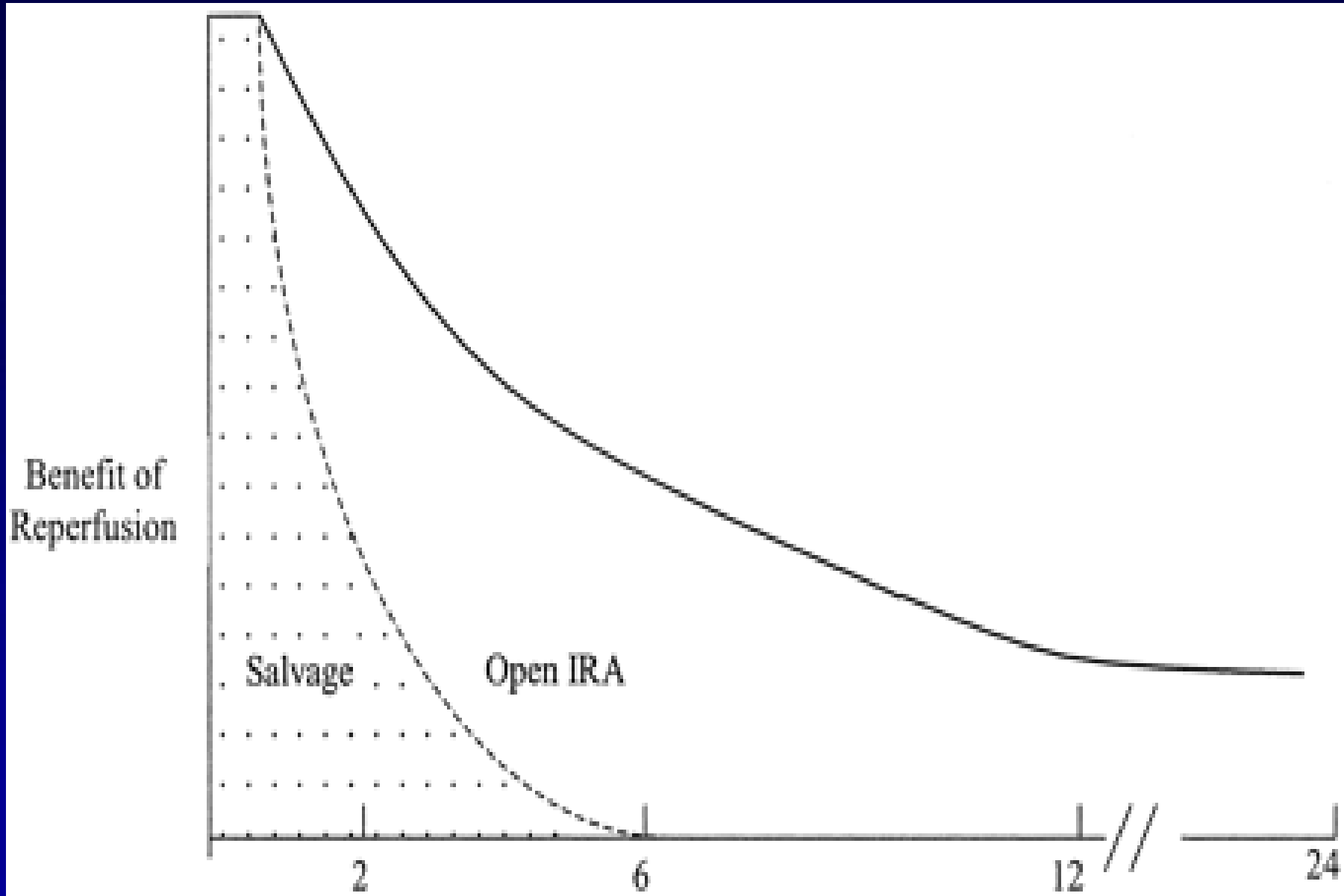
Fibrinolysis



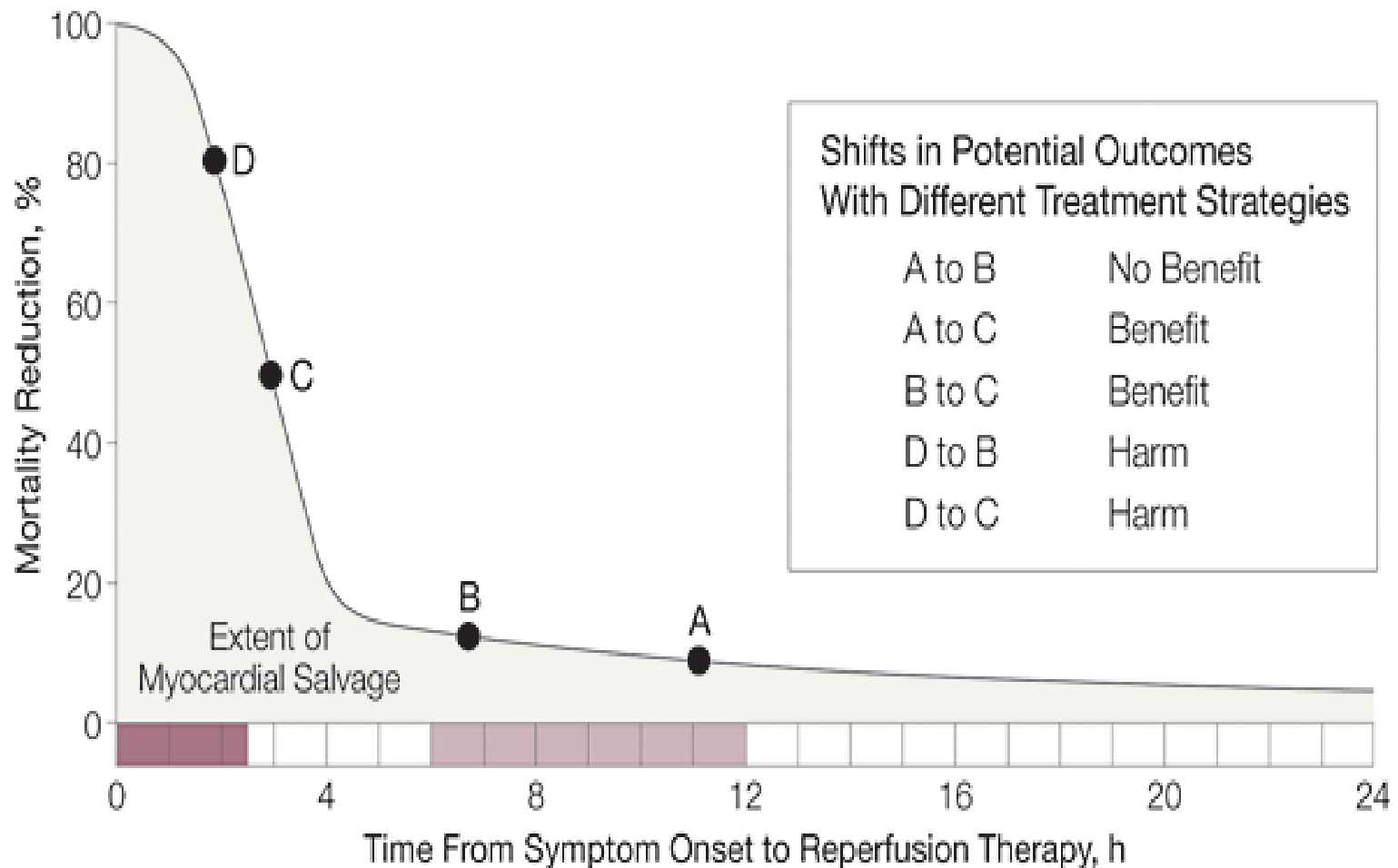
Primary PCI



Grines CL et al. *Circulation* 2003;107:2538-2542



Giugliano RP, Braunwald E. Circulation 2003;108:2828-2830



■ Critical Time-Dependent Period
Goal: Myocardial Salvage

■ Time-Independent Period
Goal: Open Infarct-Related Artery

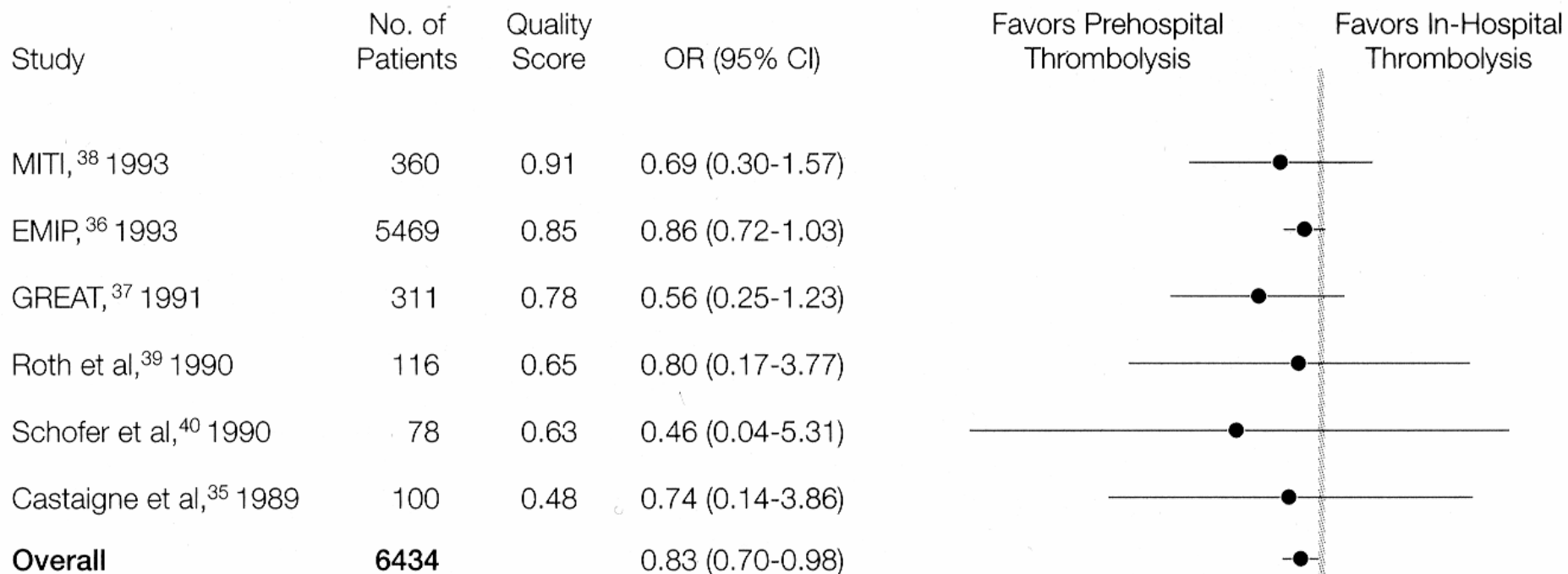
Gersh BJ. JAMA 2005;293:979-986



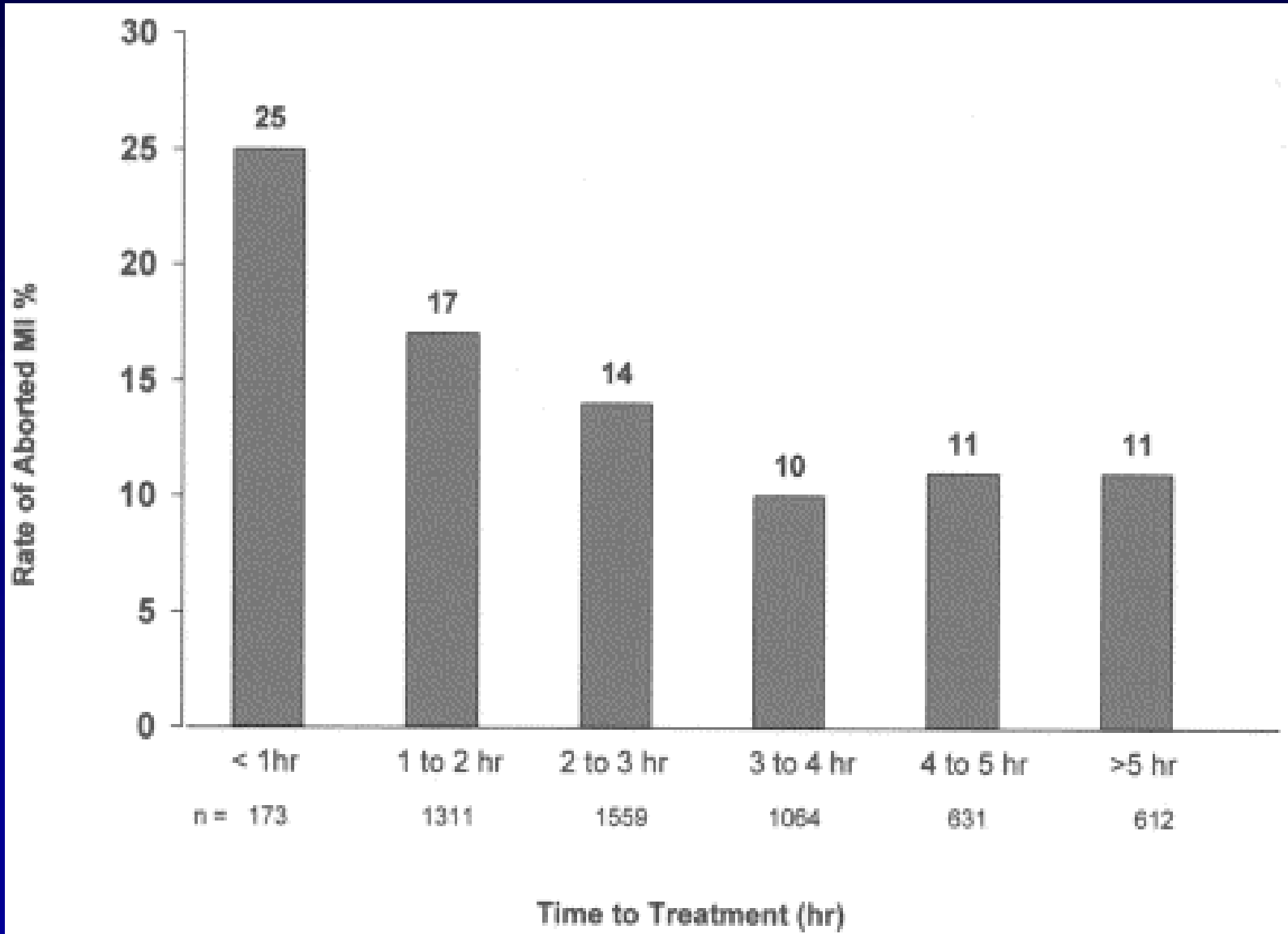
Hartcentrum

A

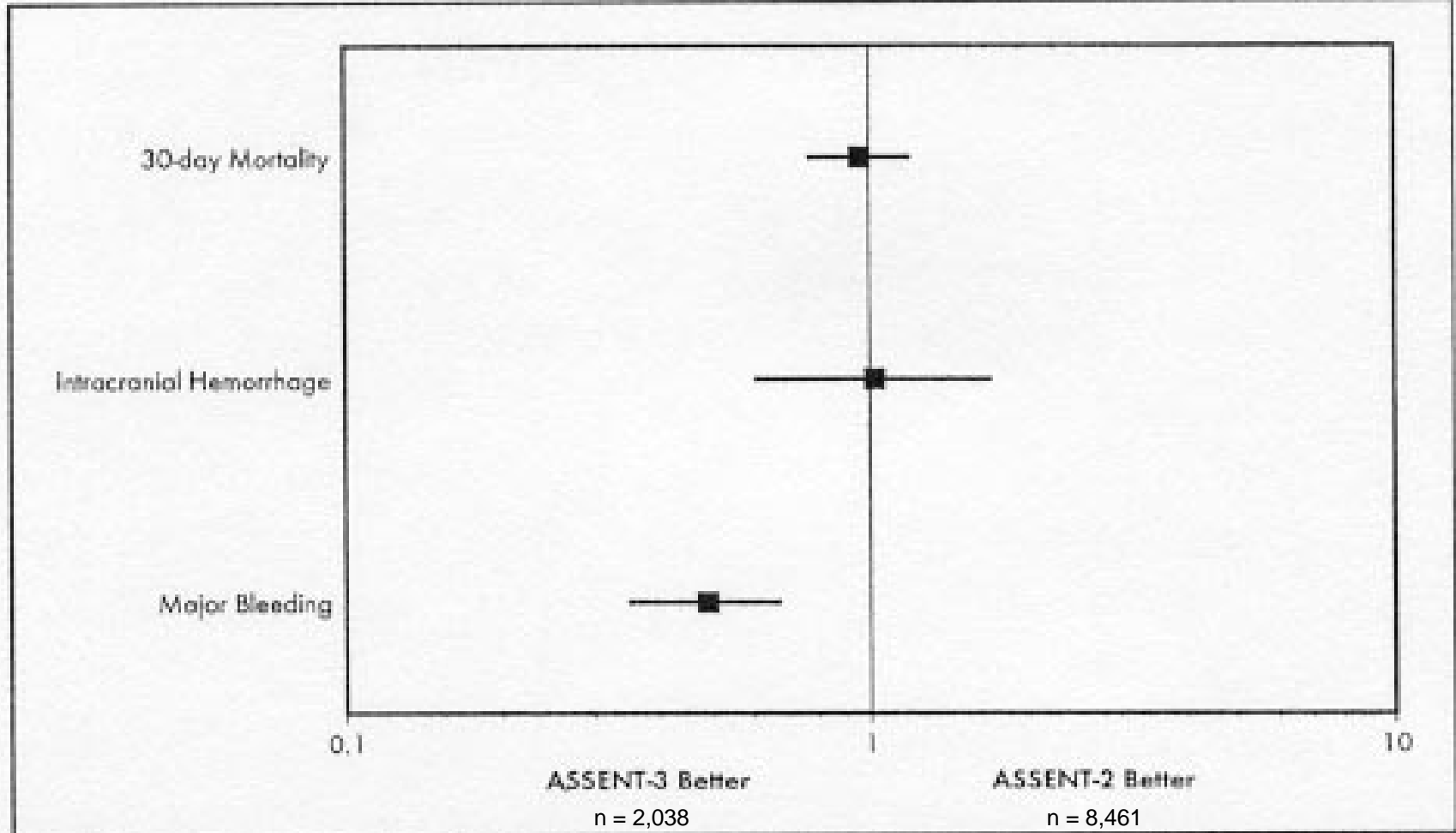
All Trials



Morrison LJ. JAMA 2000; 283:2686-2692



Taher T. J Am Coll Cardiol 2004;44:38-44

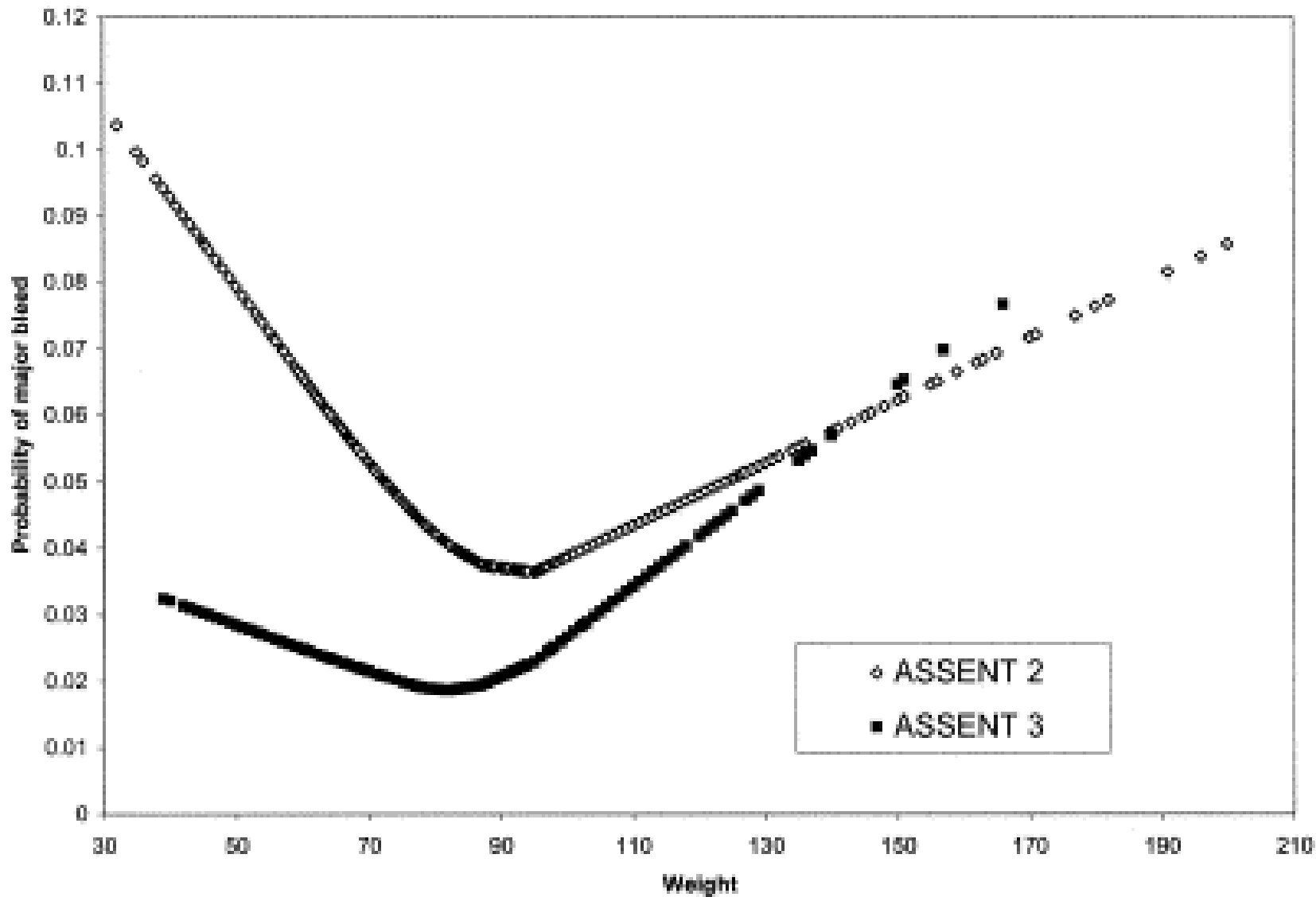


HEPARIN

bolus 60 U/kg
 max 4,000 U
 12 U/kg, max 1,000U/h

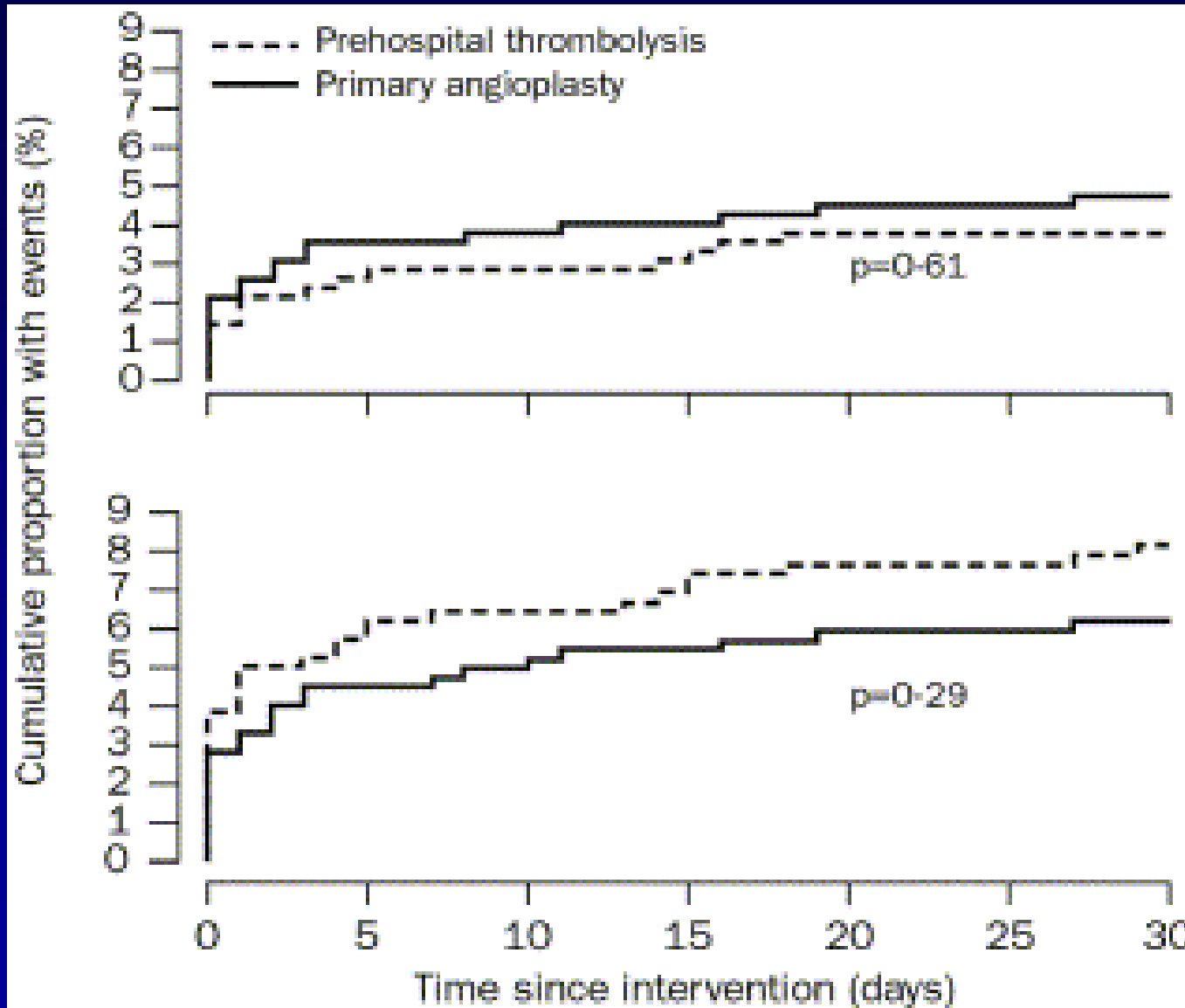
< 67kg: bolus 4,000U, 800U/h
 > 67kg: bolus 5,000U, 1,000U/h

Curtis JP. Am J Cardiol 2004;94:279-283



Curtis JP. Am J Cardiol 2004;94:279-283

CAPTIM

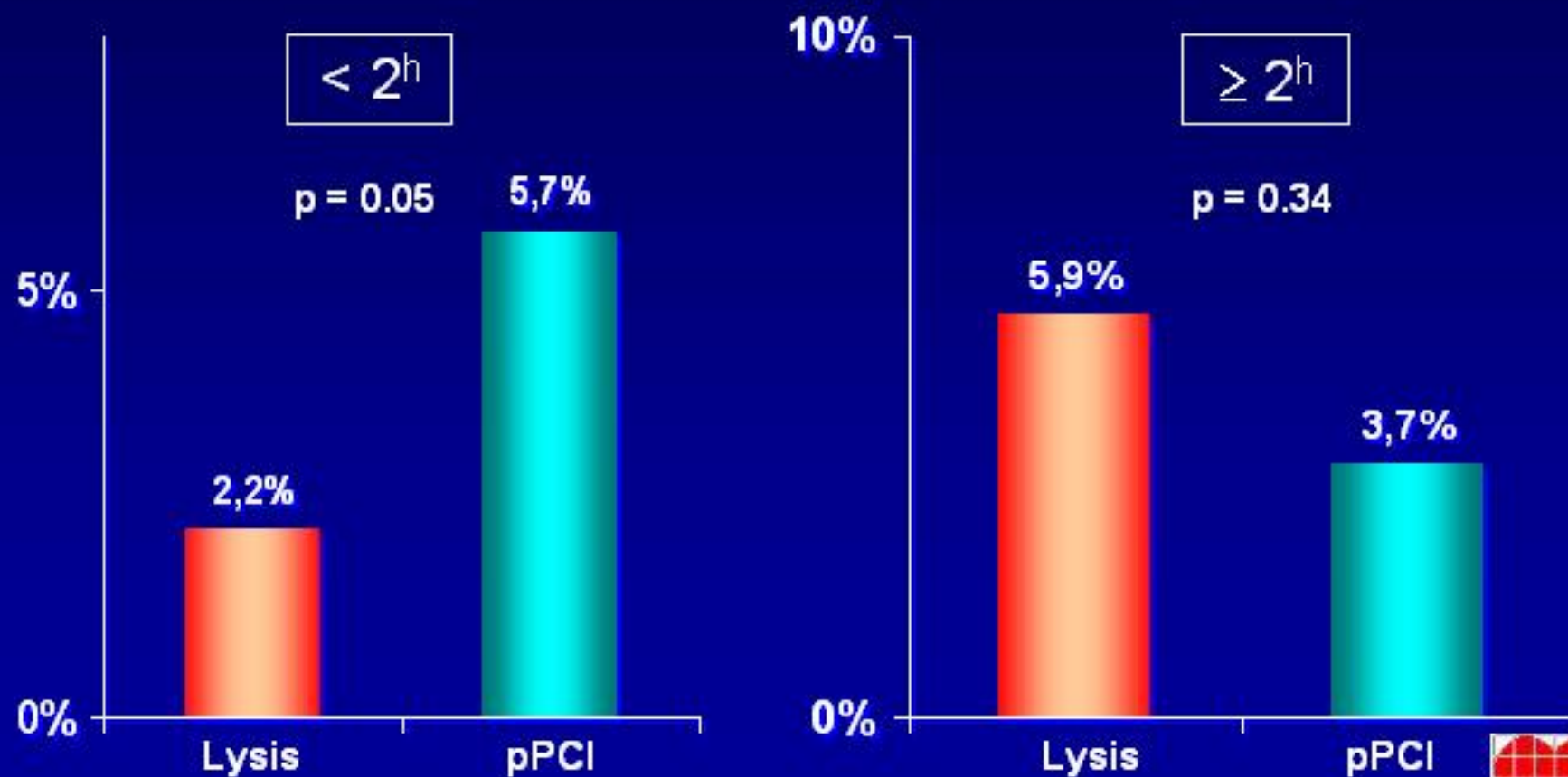


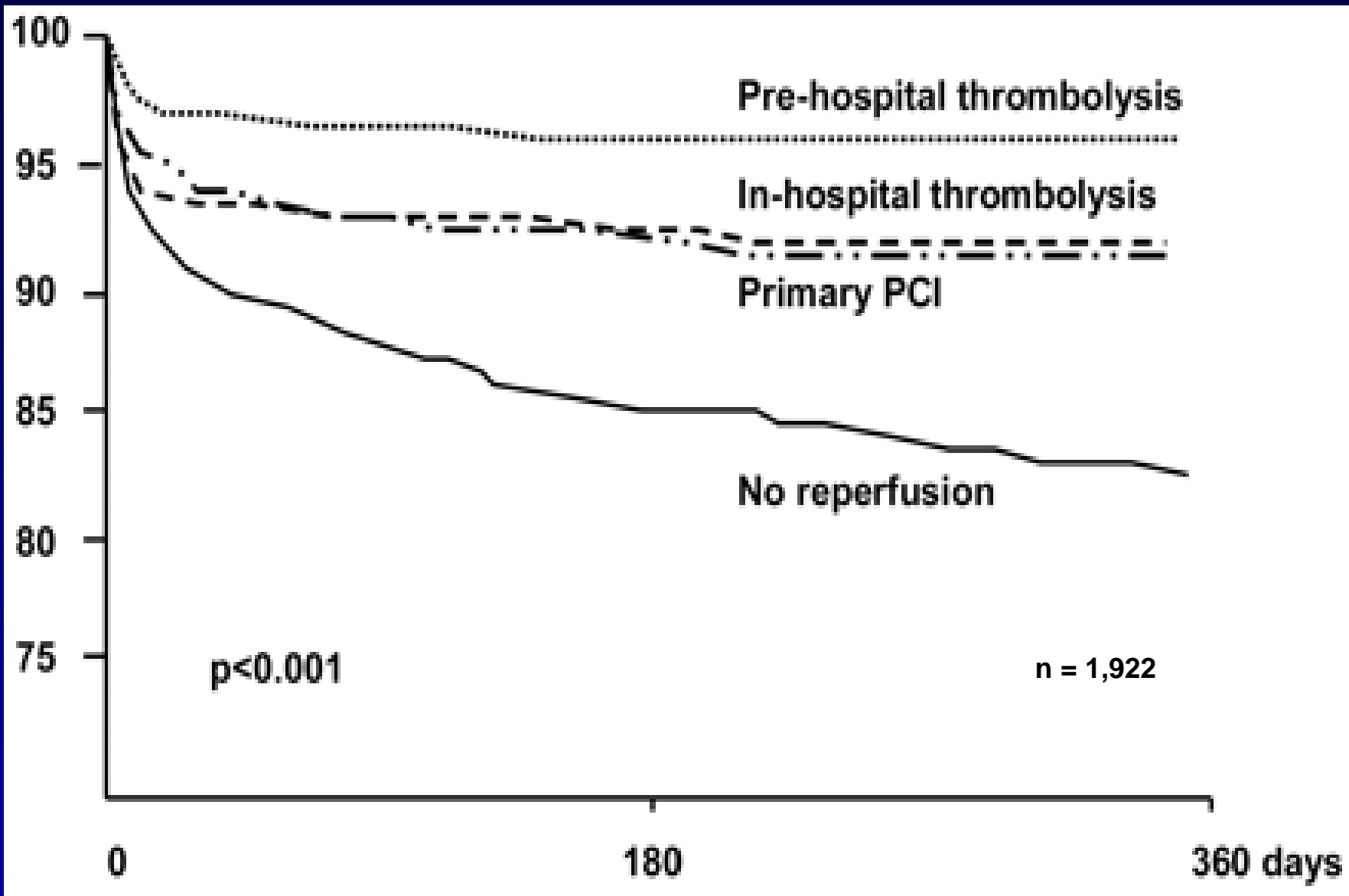
death

*death, reMI,
stroke*

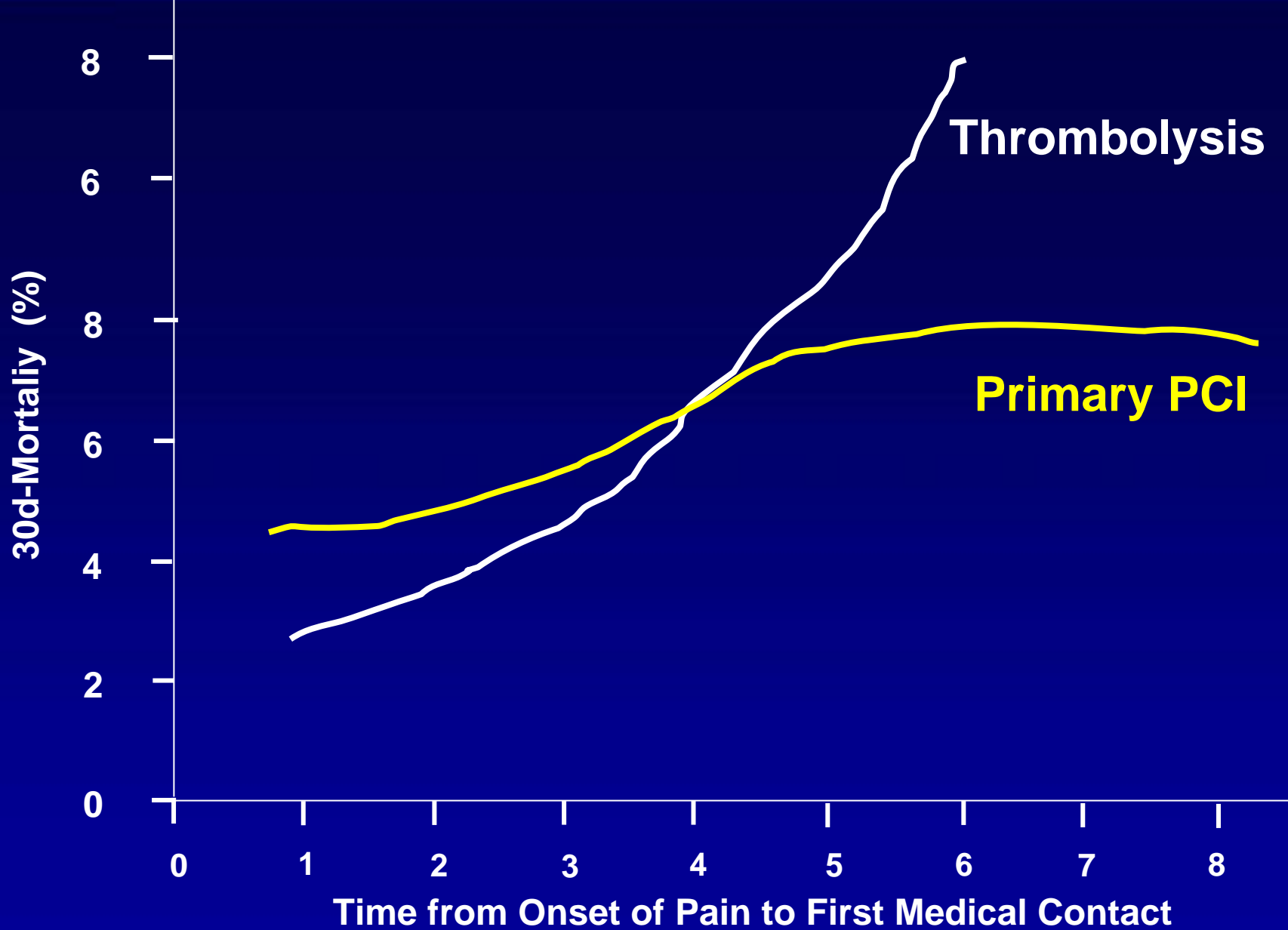


Time to randomisation and one-year mortality in CAPTIM



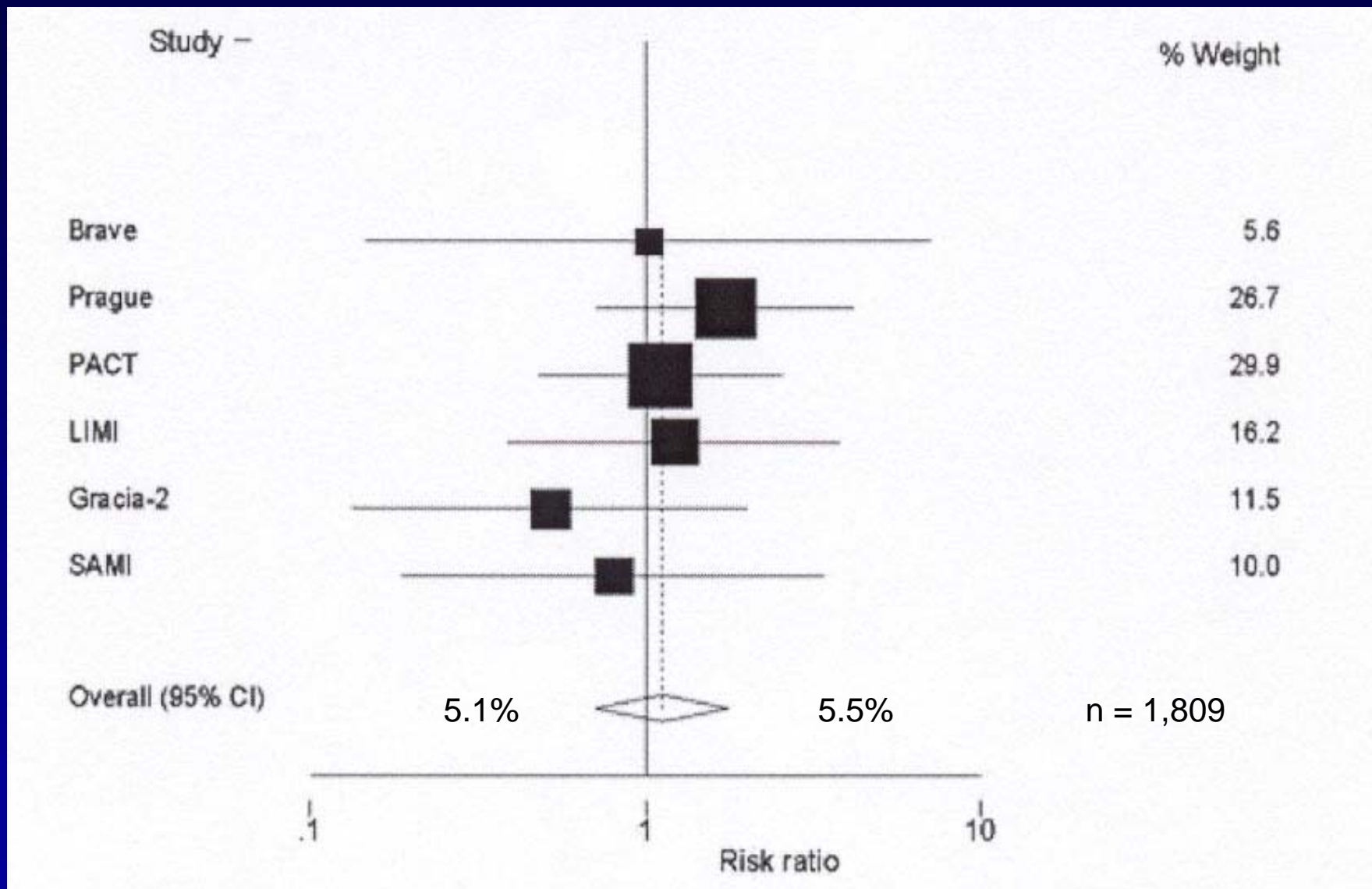


USIC. Circulation 2004;110:1909-1915



Huber K. Eur Heart J 2005 in press

SHORT TERM MORTALITY AFTER FACILITATED PCI

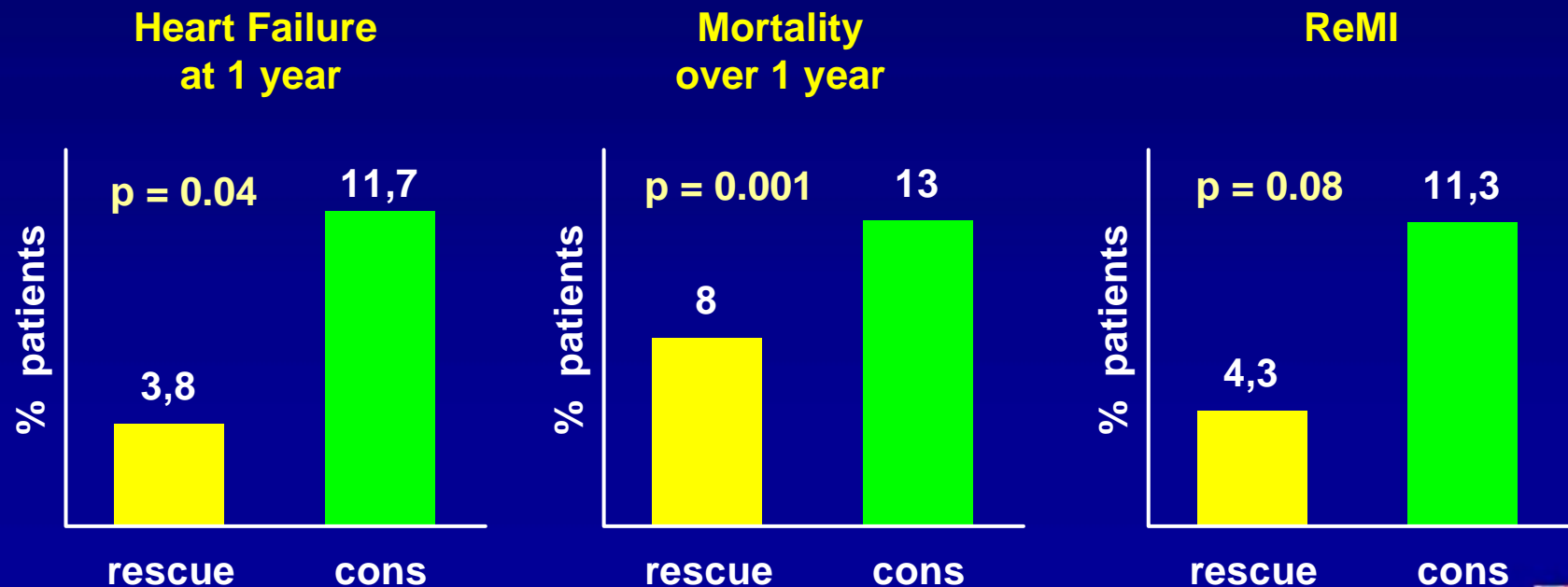


Tsai TT. J Am Coll Cardiol 2005;45:Suppl A:243A

Rescue PCI – Meta-analysis

- 9 randomized controlled trials (n = 1456)
- 4 contemporary registries (n = 977)

PCI after failed thrombolysis (TIMI 0 or 1)
vs conservative treatment



Ellis et al. Am Heart J 2000;139:1046-1053

REACT

30 days	rescue PCI (n=144)	rescue Tx (n=142)	none (n=141)
death/reMI/stroke*	22 (15.3%)**	44 (31.0%)	42 (29.8%)
death	9 (6.3%***)	18 (12.7%)	18 (12.8%)
reinfarction	4 (2.8%)	18 (12.7%)	14 (9.9%)
stroke	3 (2.1%)	4 (2.8%)	4 (2.8%)
major bleeding	27 (18.7%)**	7 (4.9%)	7 (4.9%)

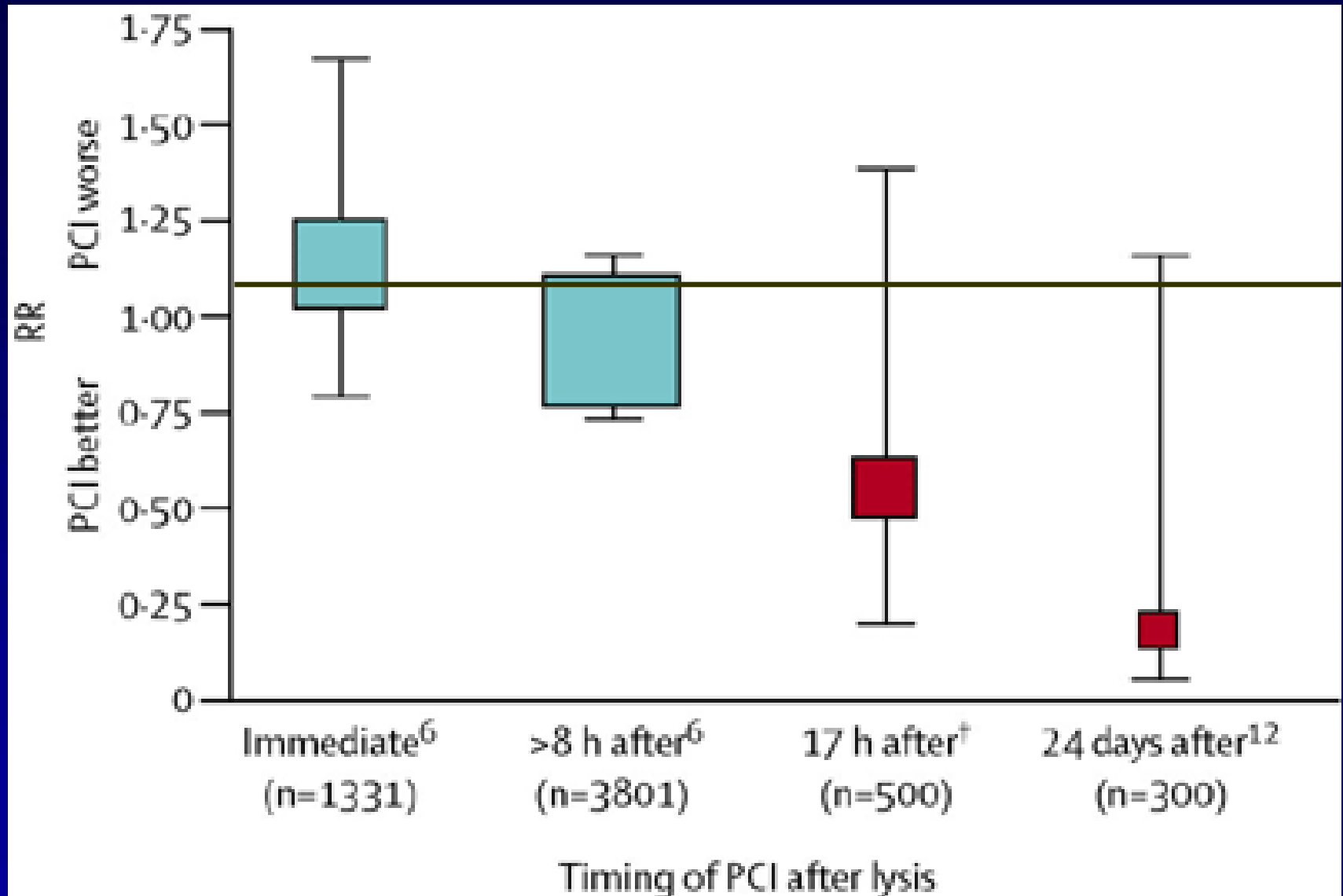
* primary endpoint

** p= 0.0009 vs no rescue PCI

*** p= 0.07 vs no rescue PCI

Gershlick AH. Presented AHA 2004

1-year mortality after tPA lysis combined w or w/o PCI



Verheugt FWA. Lyse now, stent later. *Lancet* 2004;364:1014-1015

CAPITAL-AMI

6 mo F/U	TNK-tPA + angioplasty (n=86)	TNK-tPA alone (n=84)	p
death/reMI/reisch/stroke*	10 (11.6%)	20 (24.4%)	0.04
death	3 (3.5%)	3 (3.7%)	1.00
reinfarction	5 (5.8%)	12 (14.6%)	0.07
stroke	1 (1.2%)	1 (1.2%)	1.00
major bleeding in-hosp	7 (8.1%)	6 (7.1%)	1.00

* primary endpoint

J Am Coll Cardiol 2005;46:417-424

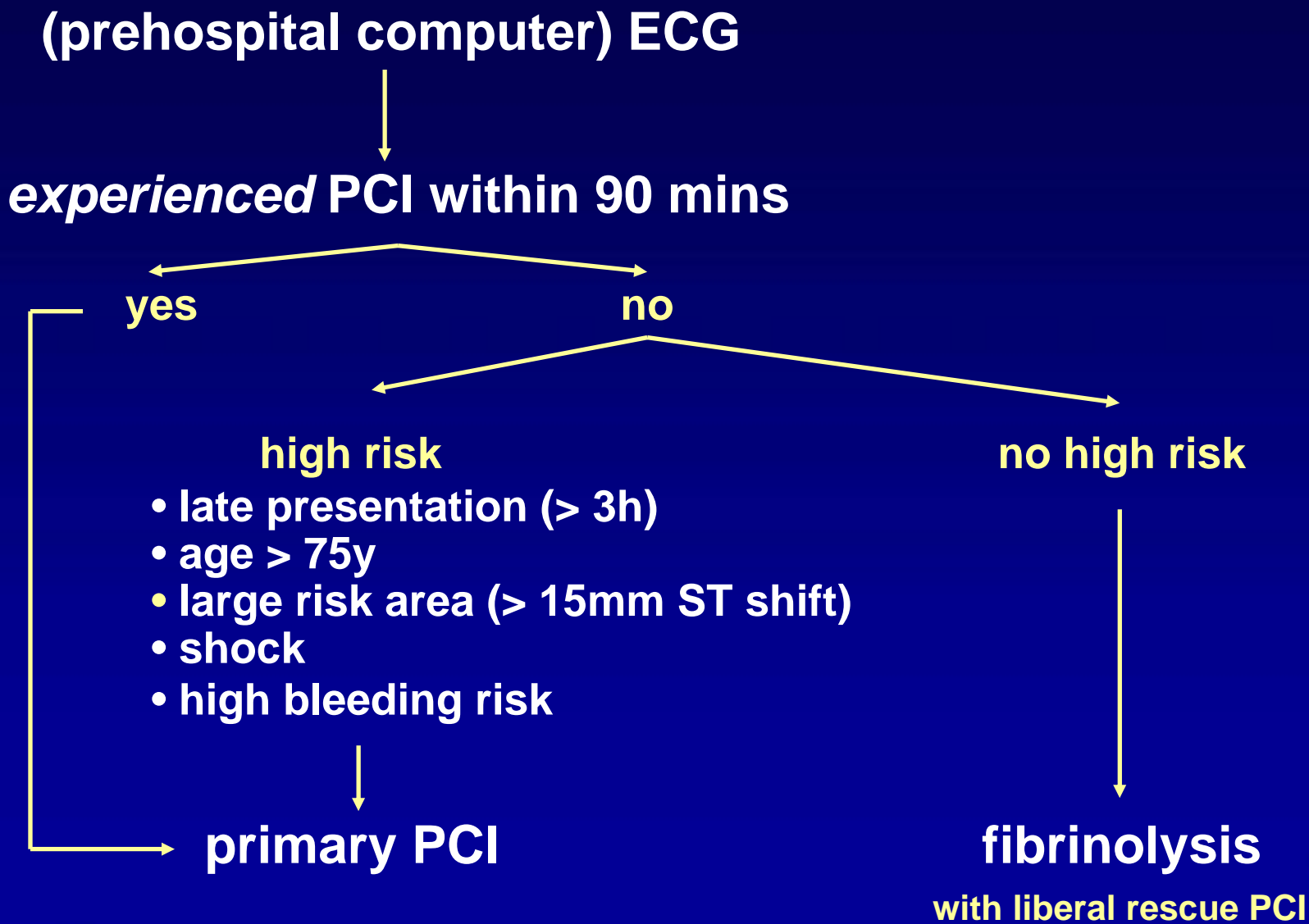


THROMBOLYSIS: HOW AND WHO

Prerequisites for *optimal* fibrinolysis:

- prehospital bolus administration
- unfractionated heparin bolus 60U/kg (max 4,000 U)
- liberal use of rescue PCI
- no routine PCI immediately

THROMBOLYSIS: HOW AND WHO



OPTIMAL REPERFUSION THERAPY 2005

Fibrinolysis is the preferred treatment in patients:

- **> 90 minutes away from experienced PCI**
- **presenting < 3 hours of symptom onset**
- **aged < 75 years**
- **with area at risk < 15mm ST shift**
- **without shock**
- **without major bleeding risk**

All others: primary PCI