



Periprocedural antithrombotic therapy during PCI: Lessons from ISAR-REACT 1,2,3,4 trials

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First ISAR Trial

517 Patients

Antiplatelet therapy

Anticoagulant therapy

257 Pts

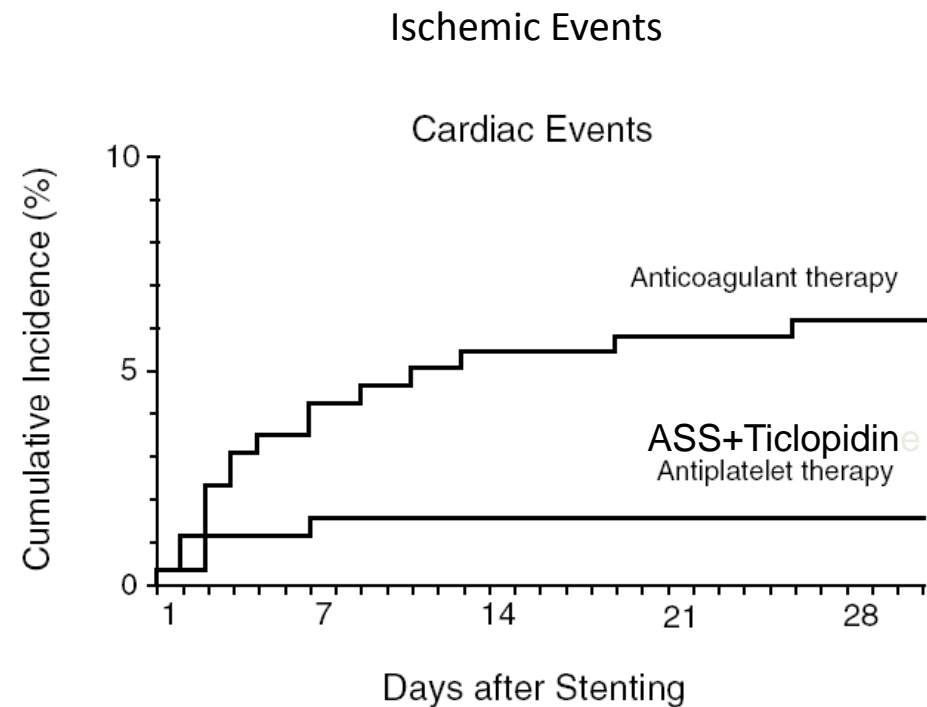
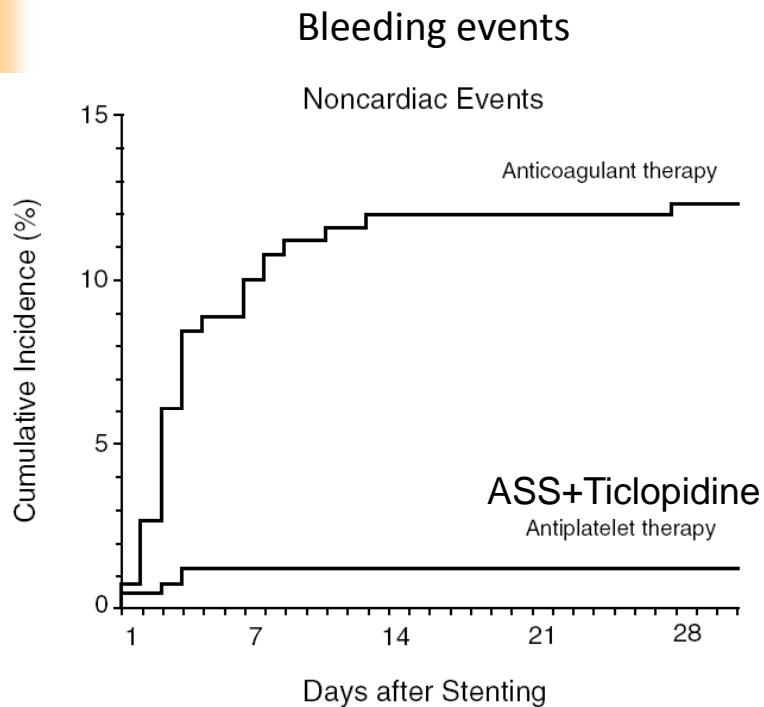
260 Pts

Stent

30-day FU

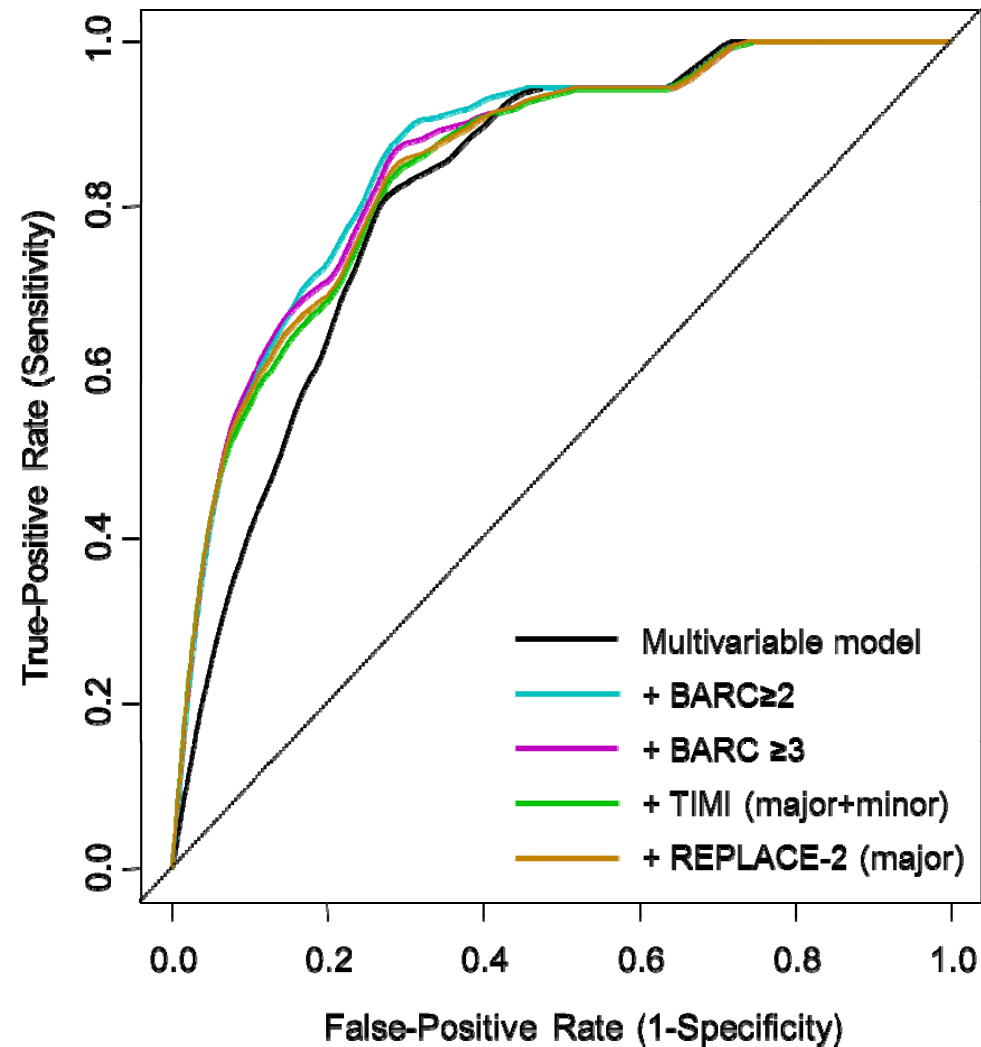
First ISAR Trial

Dual antiplatelet therapy vs. anticoagulant therapy



The Difficult Balance Between Antiischemic and Pro-Bleeding Effects

12,459 ISAR Patients

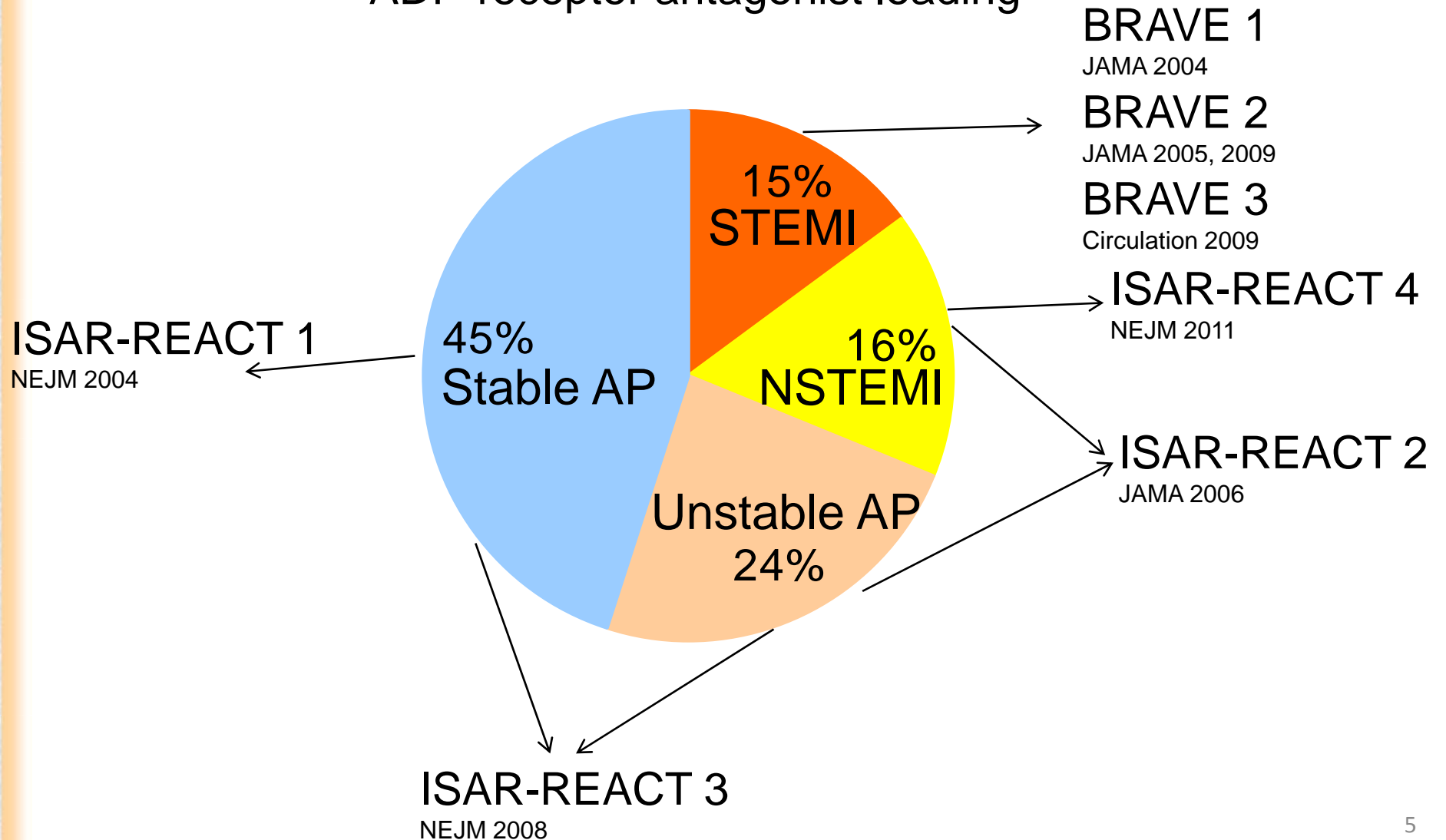


Adjunct antithrombotic therapy during PCI

10-Year Experience: ~20,000 pts with CAD and PCI

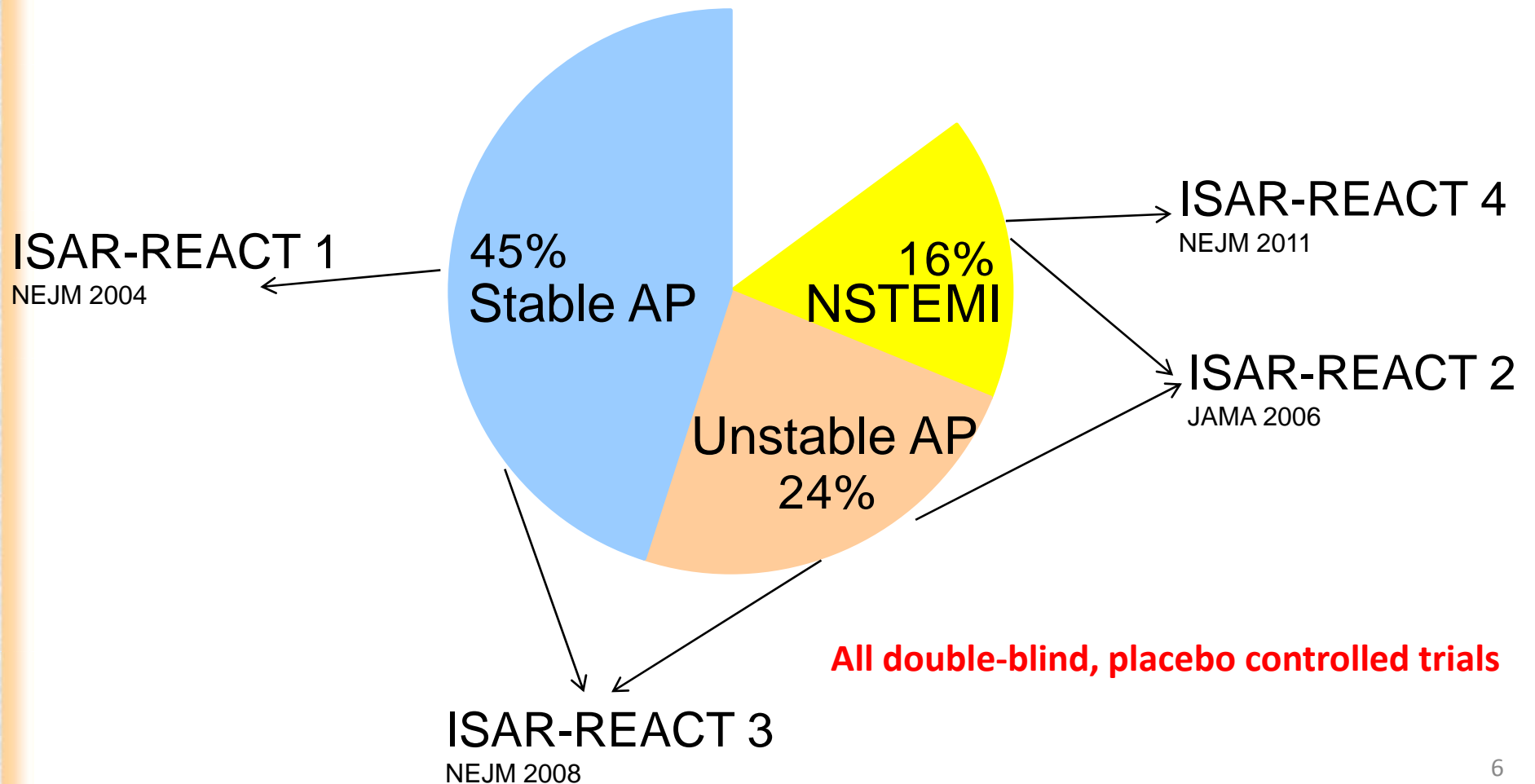
Ndrepepa et al, Cardiology 2009

ADP-receptor antagonist loading



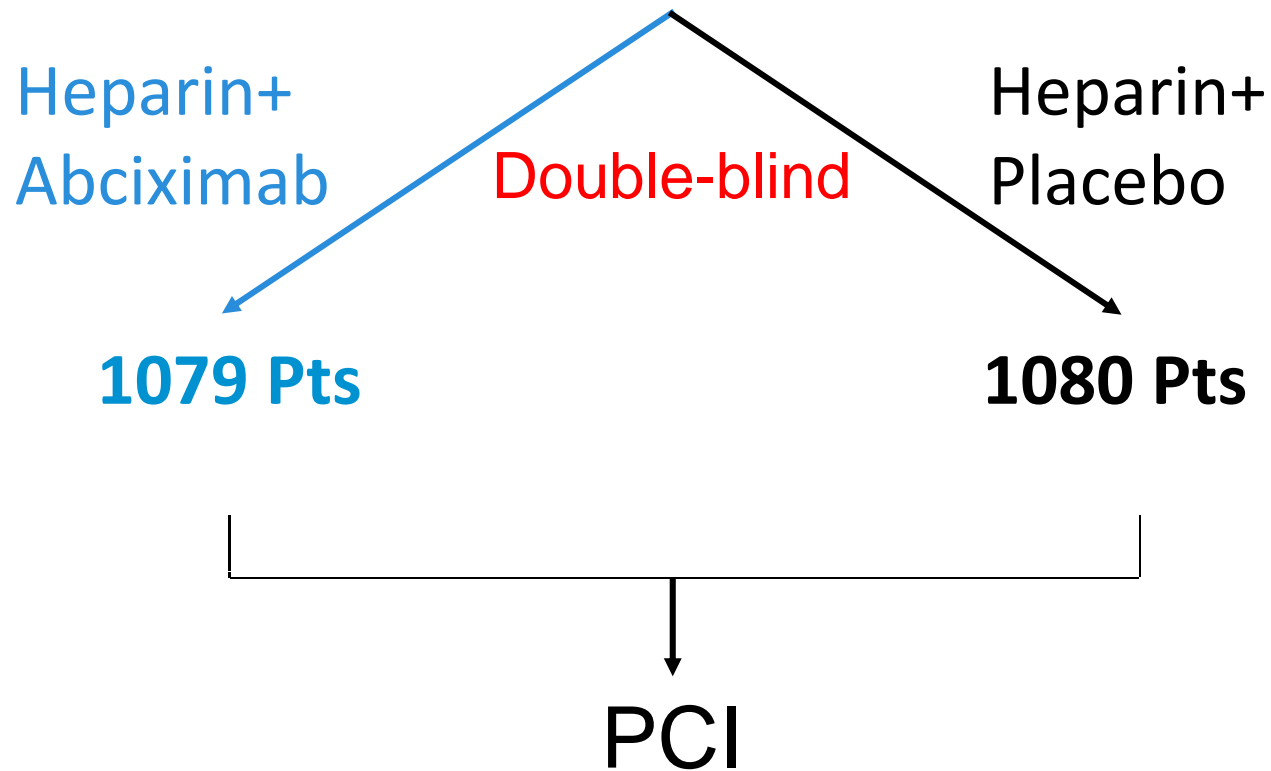
Adjunct antithrombotic therapy during PCI

ADP-receptor antagonist loading



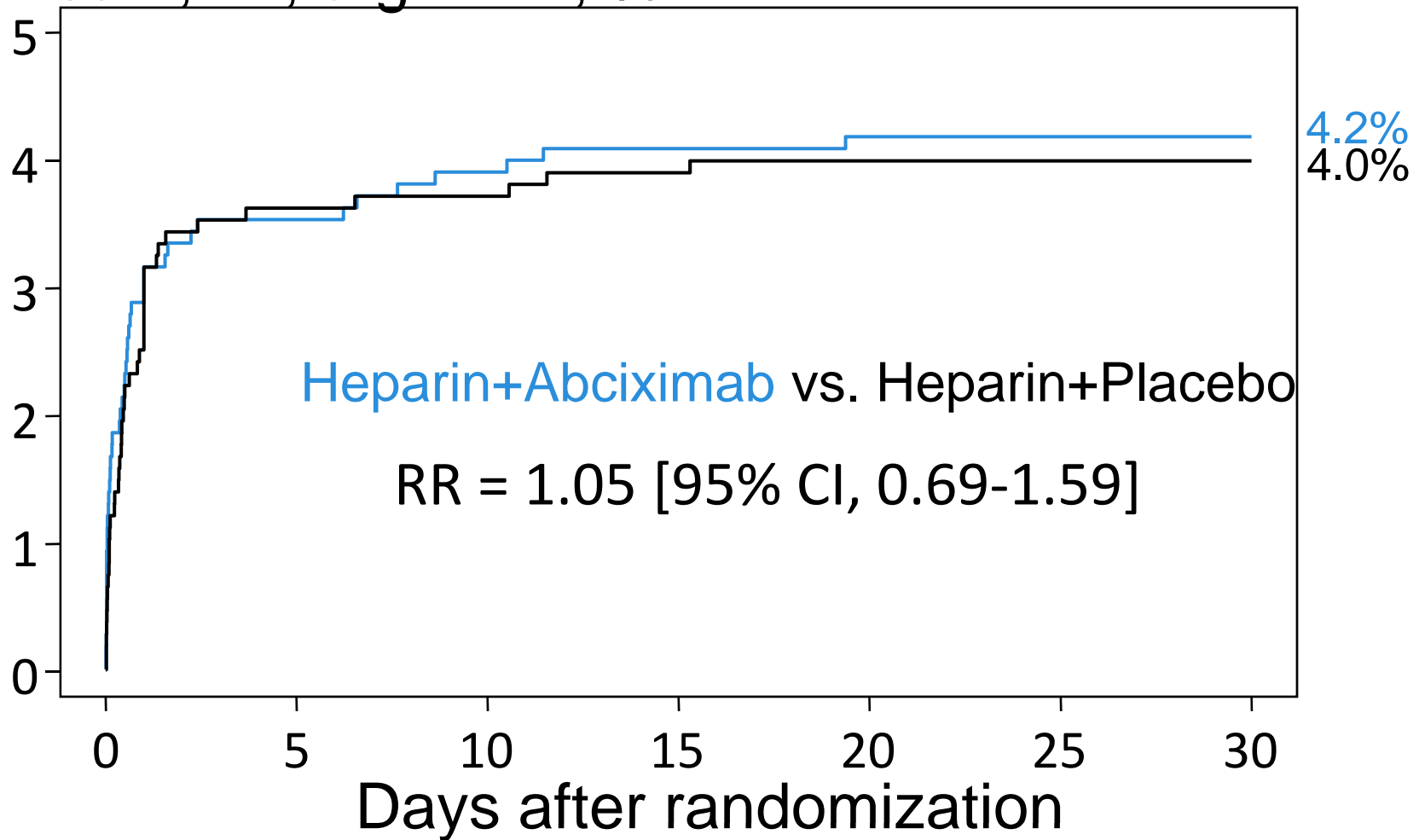
Stable Angina ISAR-REACT (1)

2159 Patients pre-treated
with 600 mg clopidogrel



Stable Angina ISAR-REACT (1)

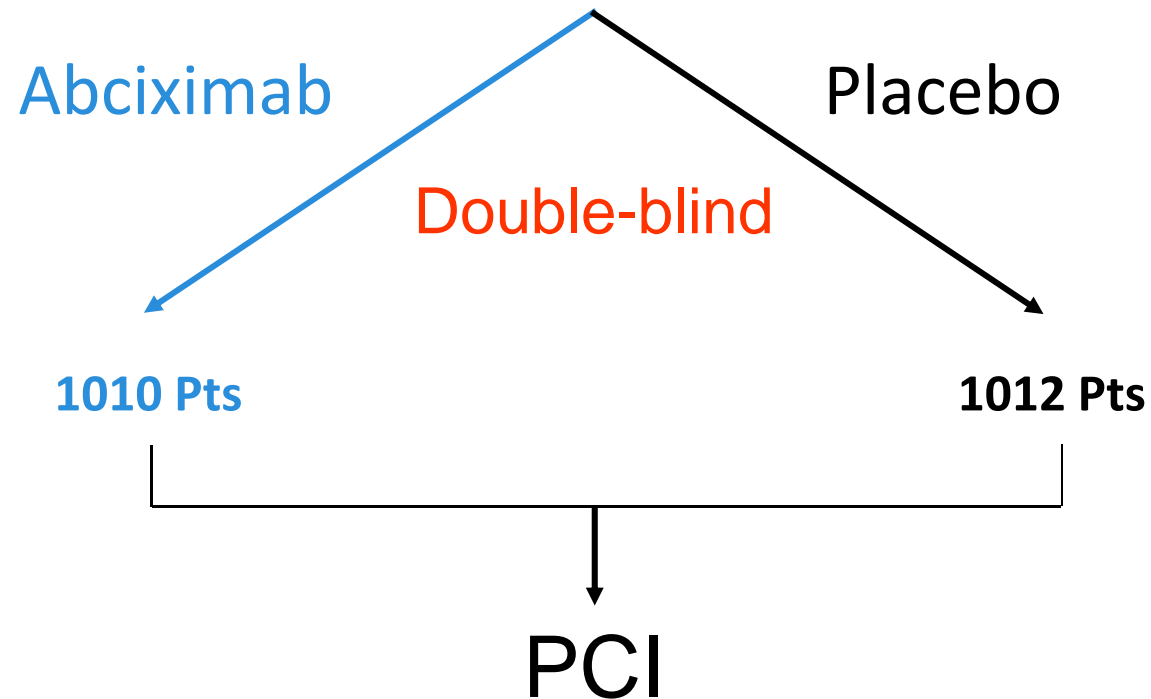
Death, MI, urg. TVR, %



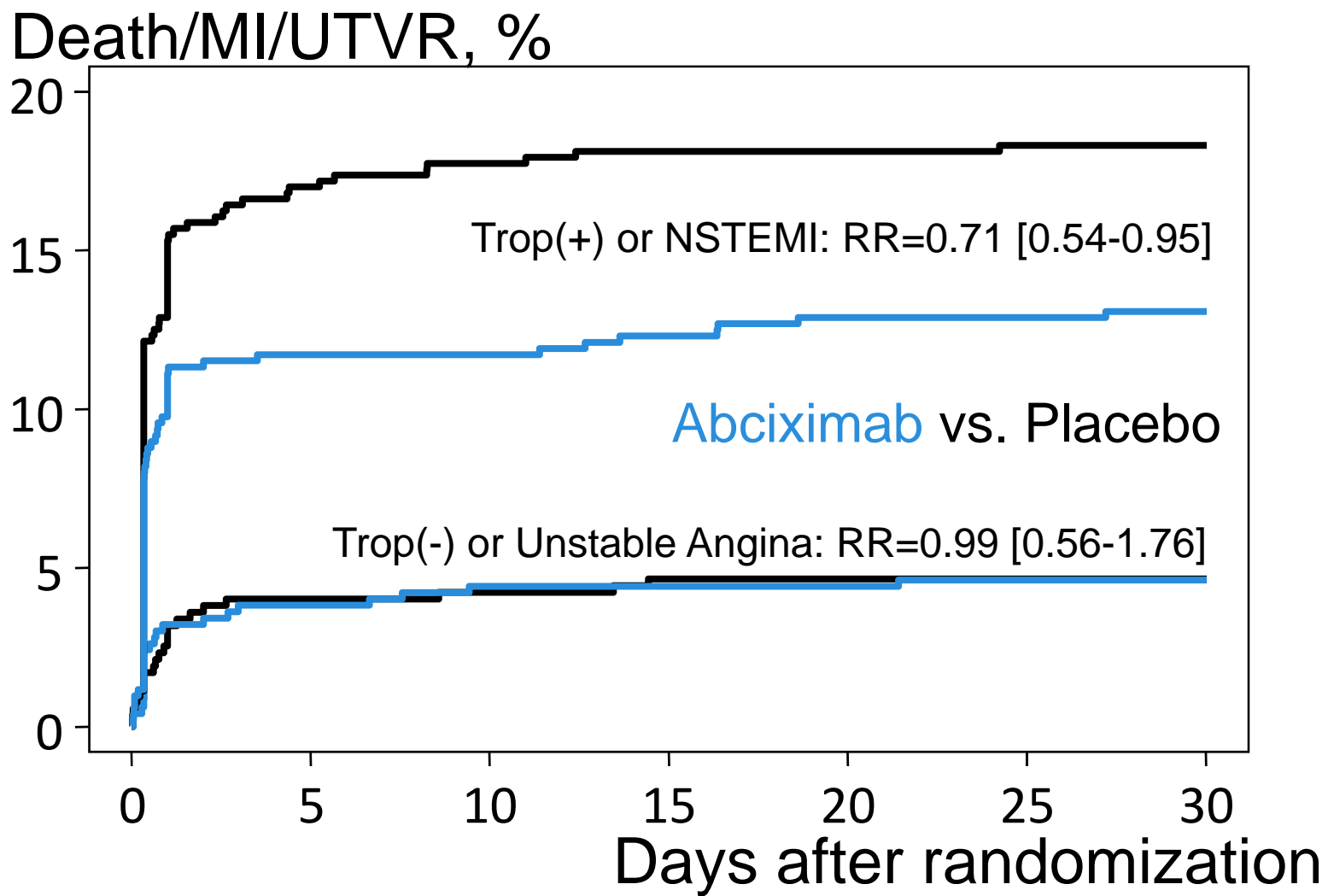
NSTE ACS

ISAR-REACT 2

2022 patients with high-risk ACS
Pre-treated with 600 mg clopidogrel

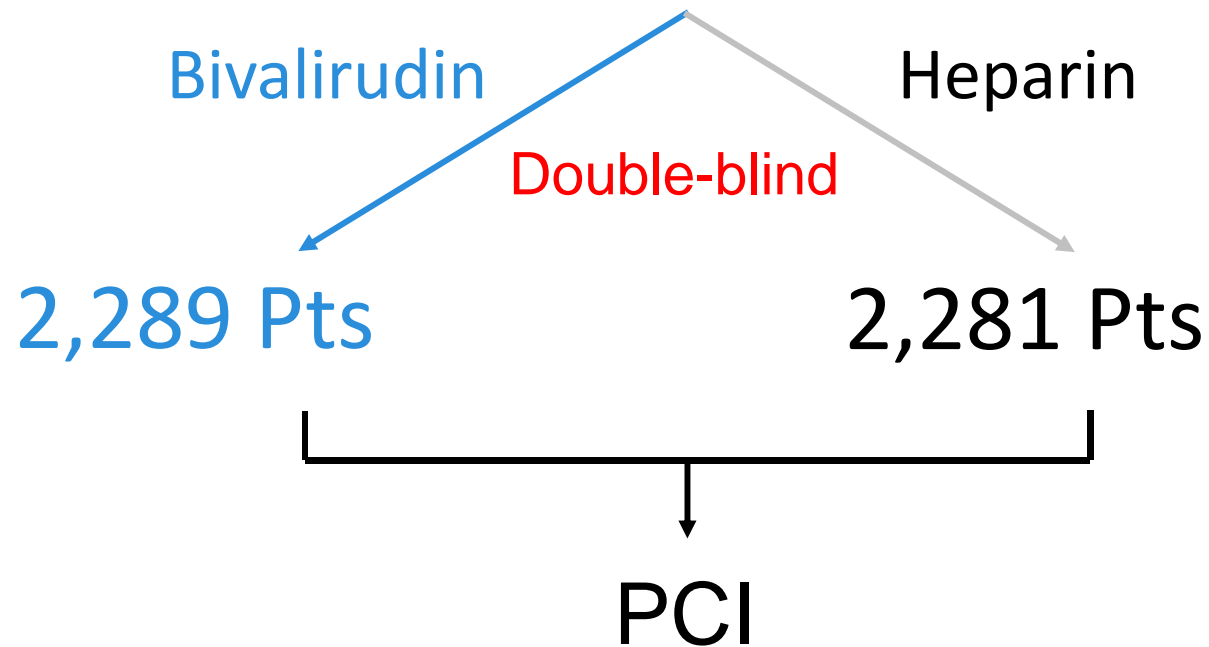


NSTE ACS ISAR-REACT 2



Stable and unstable angina ISAR-REACT 3

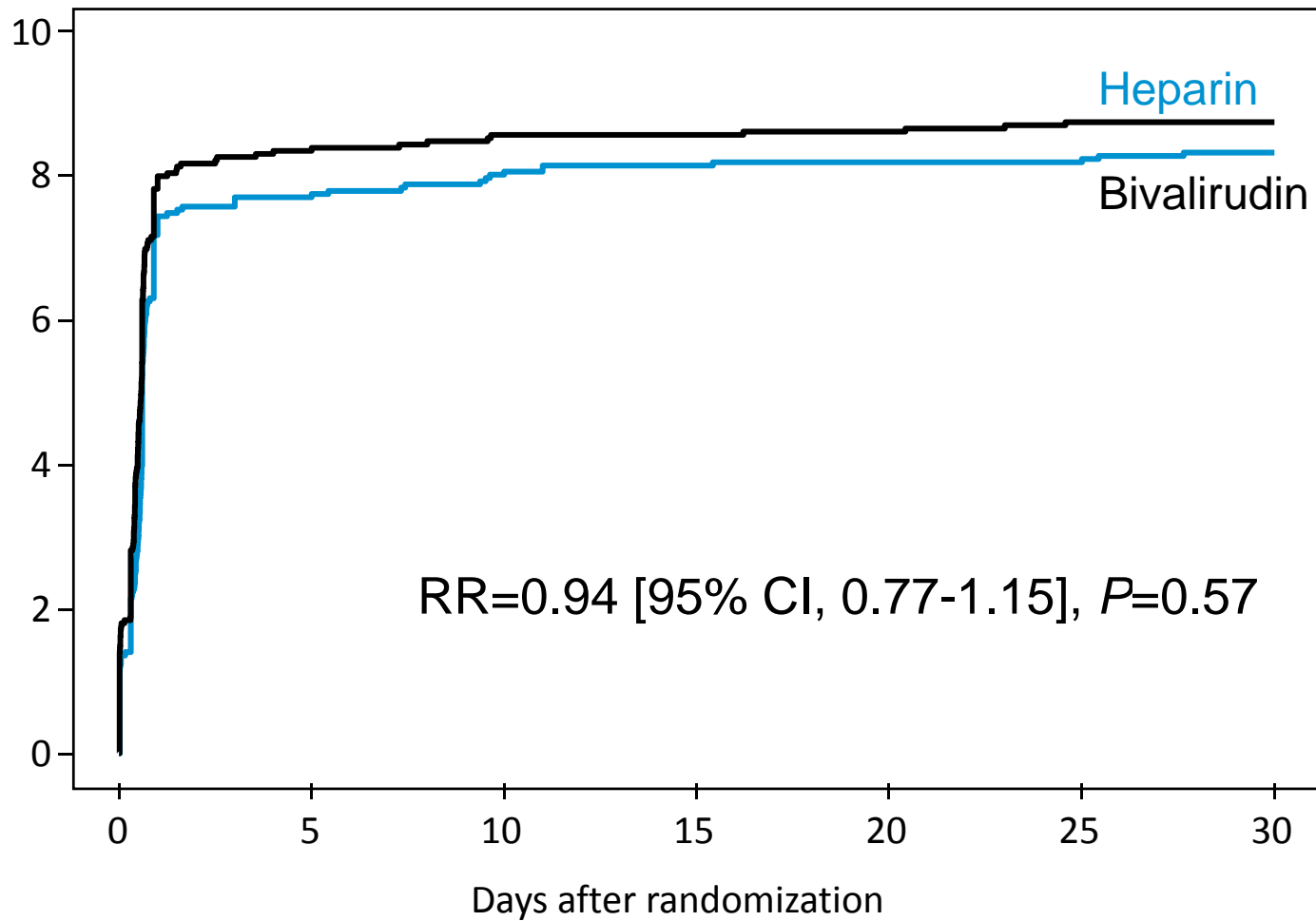
4,570 Patients pre-treated
with 600 mg clopidogrel



Stable and unstable angina

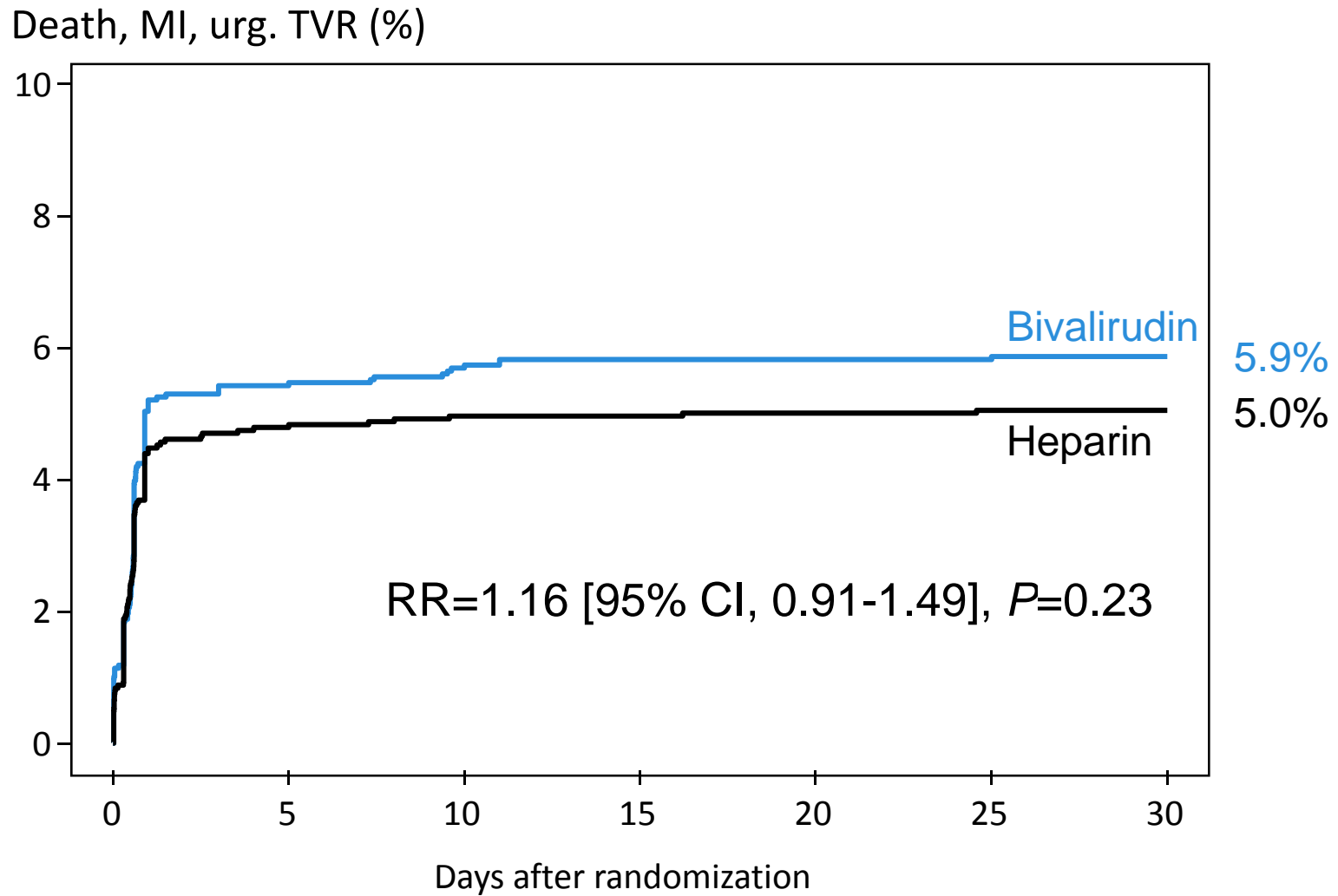
ISAR-REACT 3

Death, MI, urg. TVR, major bleeding (%)

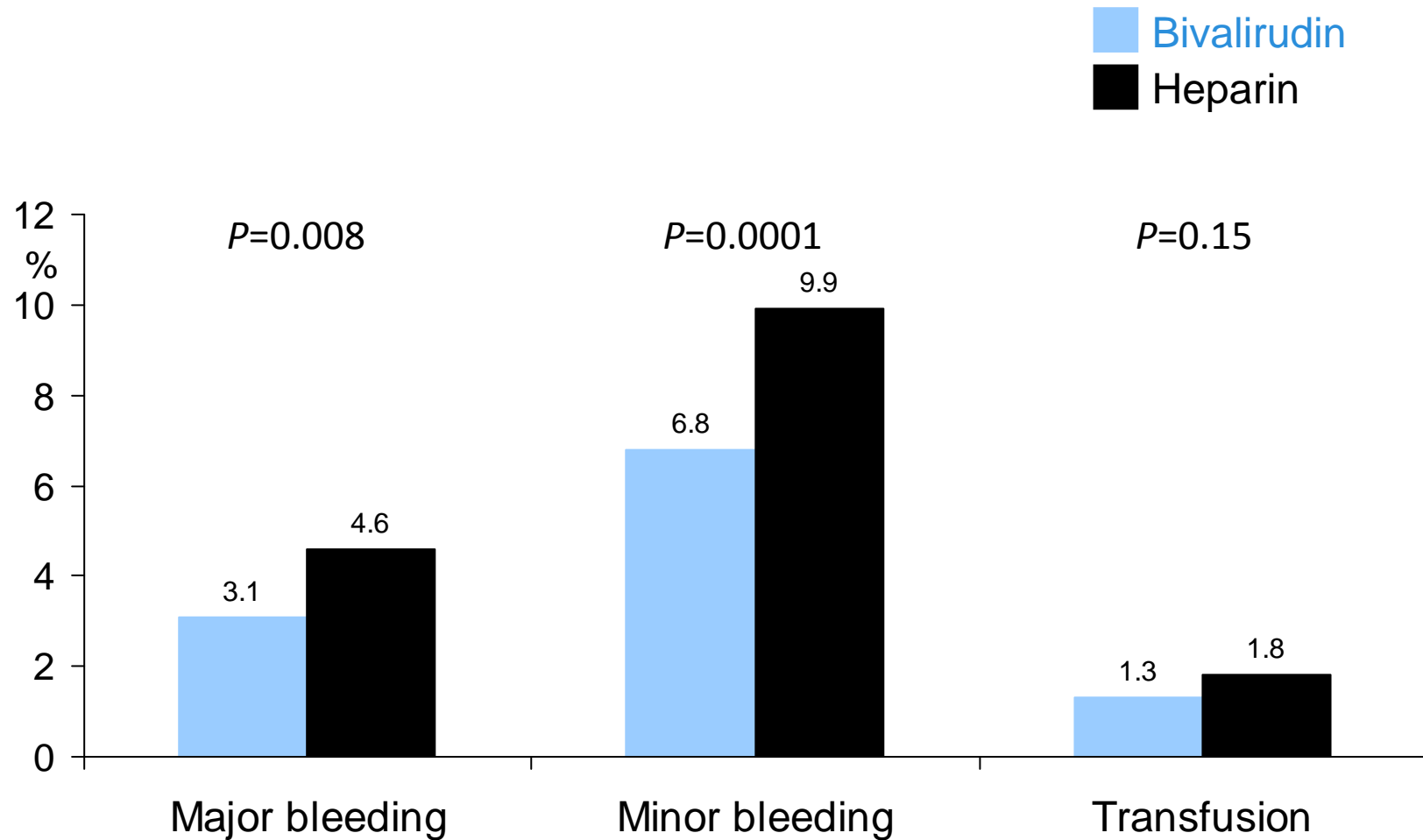


Stable and unstable angina

ISAR-REACT 3

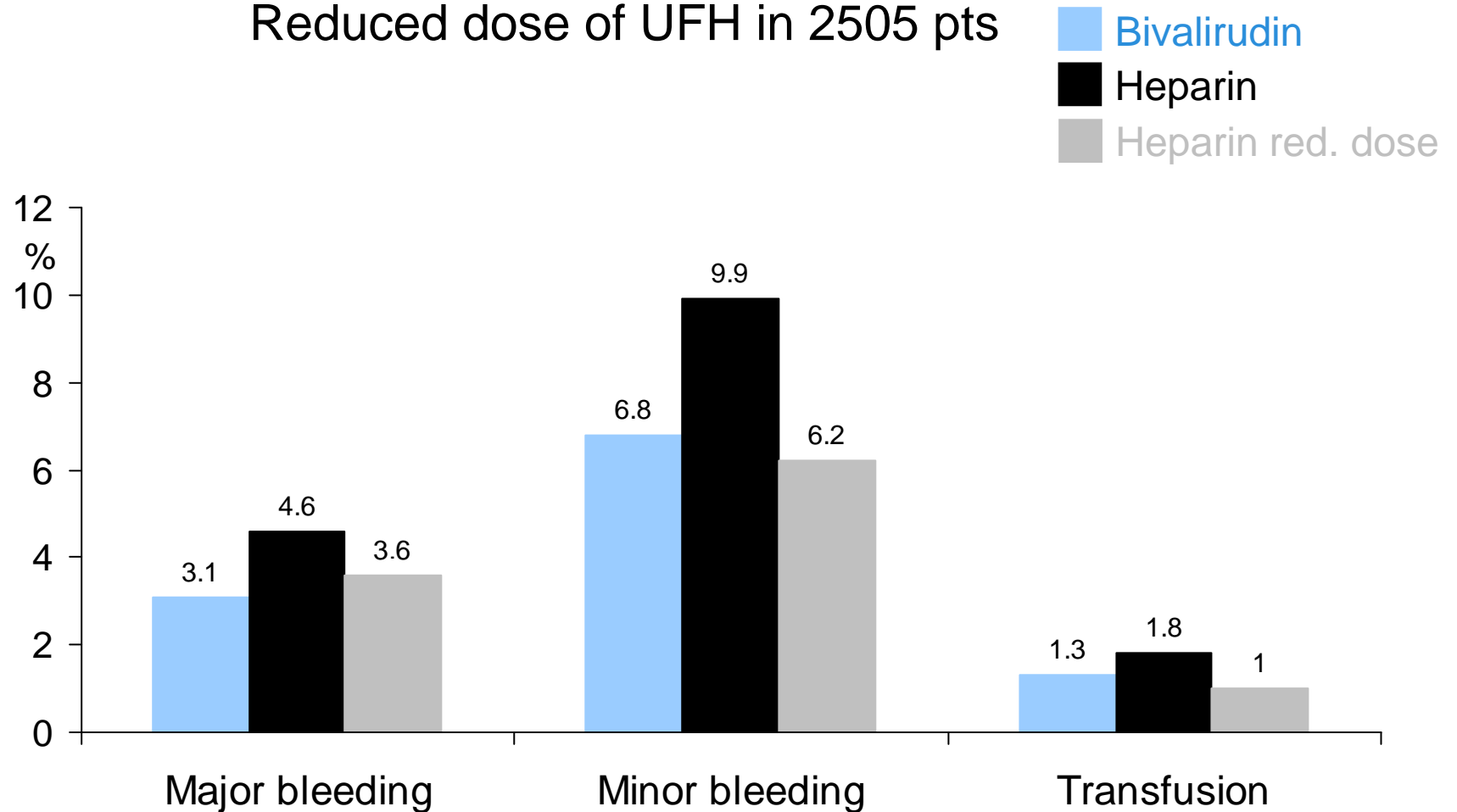


Stable and unstable angina ISAR-REACT 3



Stable and unstable angina ISAR-REACT 3&3A

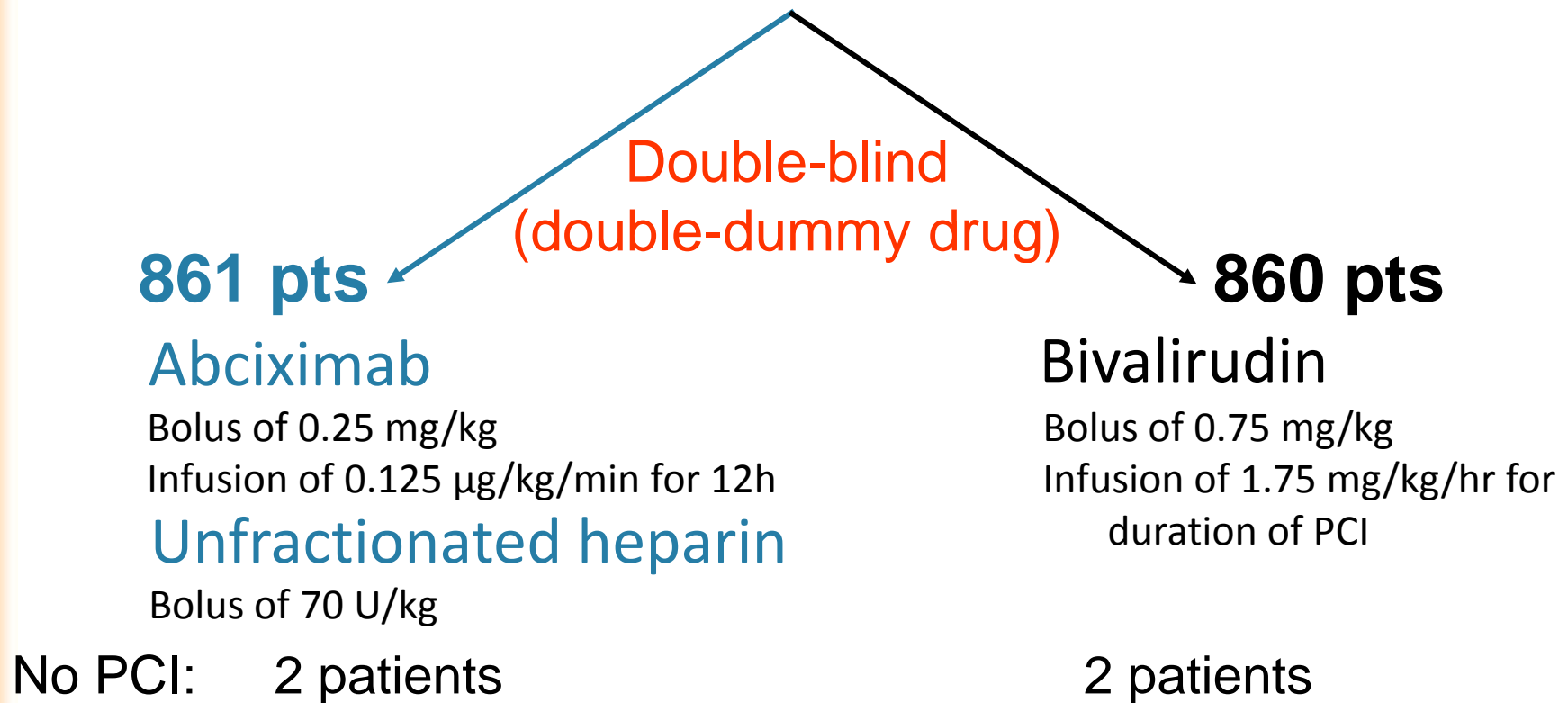
Reduced dose of UFH in 2505 pts



ISAR-REACT 4

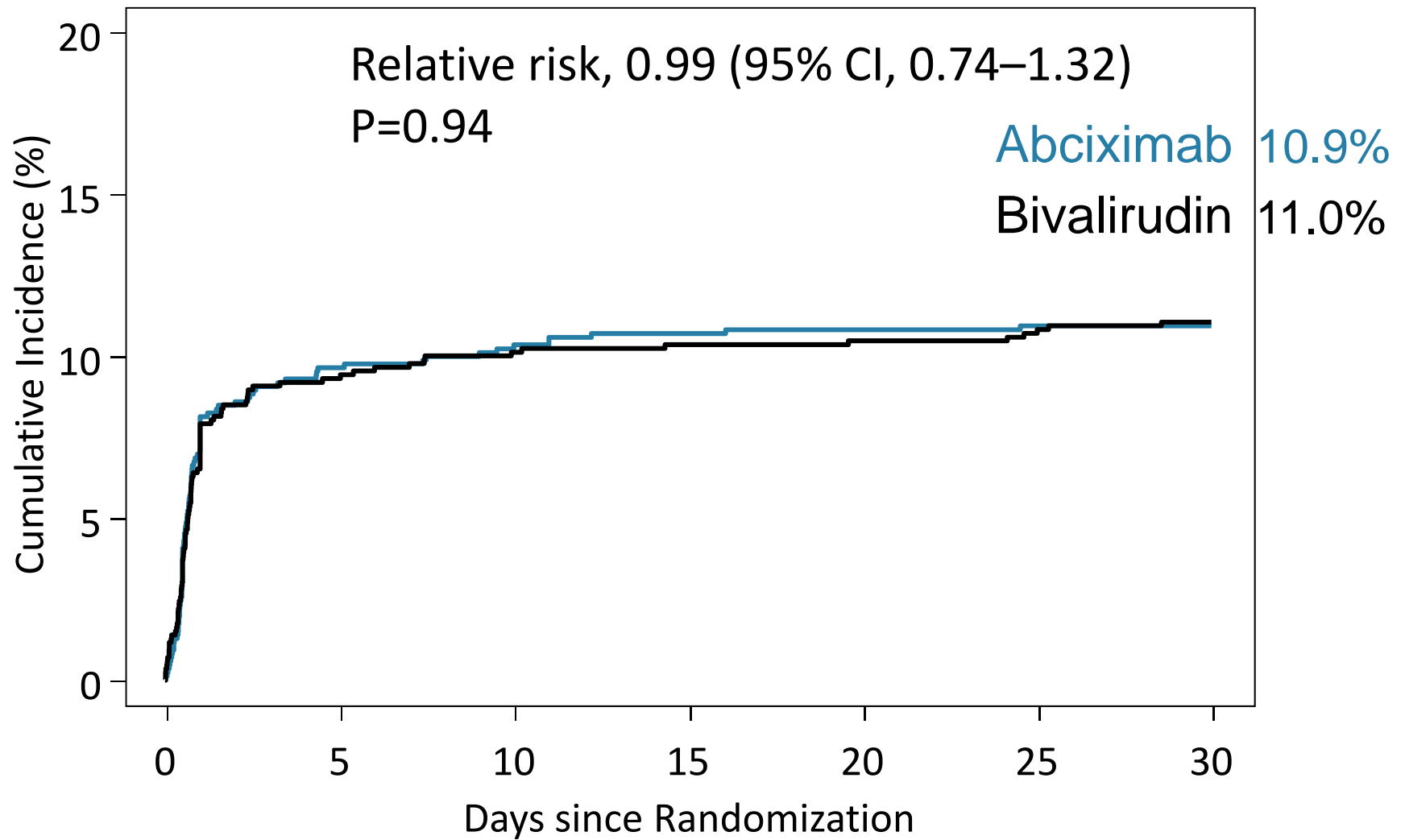
Trial flow-chart

1,721 Pts with NSTEMI
Pre-treated with 600 mg of clopidogrel

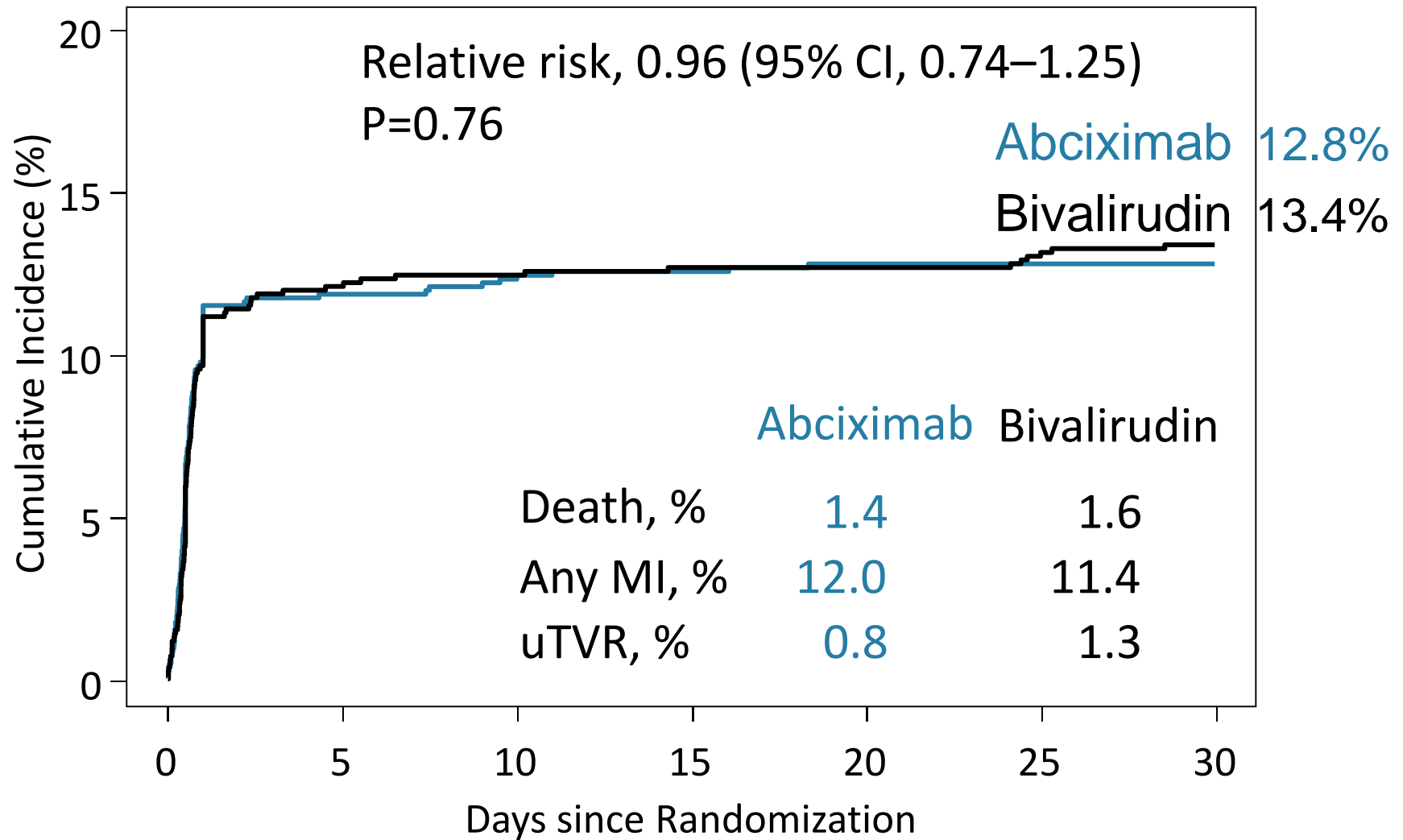


IR4: Primary endpoint

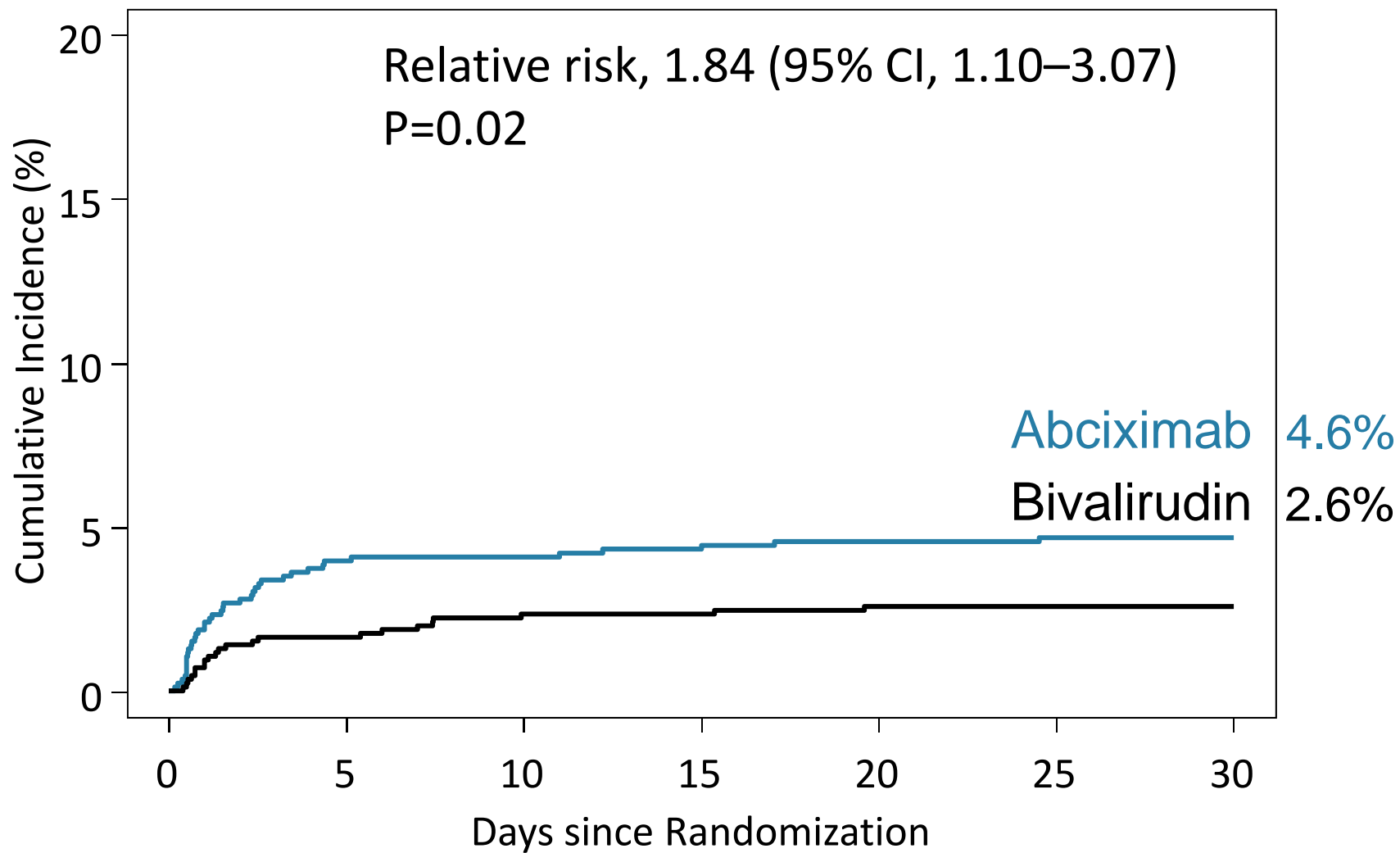
Death, large MI, uTVR, major bleeding



IR4: Secondary efficacy endpoint Death, any MI, uTVR



IR4: Secondary safety endpoint Major bleeding



Major lessons from ISAR-REACT 1,2,3&4 trials

- Early administration of an effective ADP-receptor antagonist is of key importance in improving the results of PCI
- Heparin without IIb/IIIa inhibitors is the most cost-effective anticoagulant during elective PCI
- Bivalirudin is highly effective and the safest anticoagulant for PCI in patients with NSTEMI