

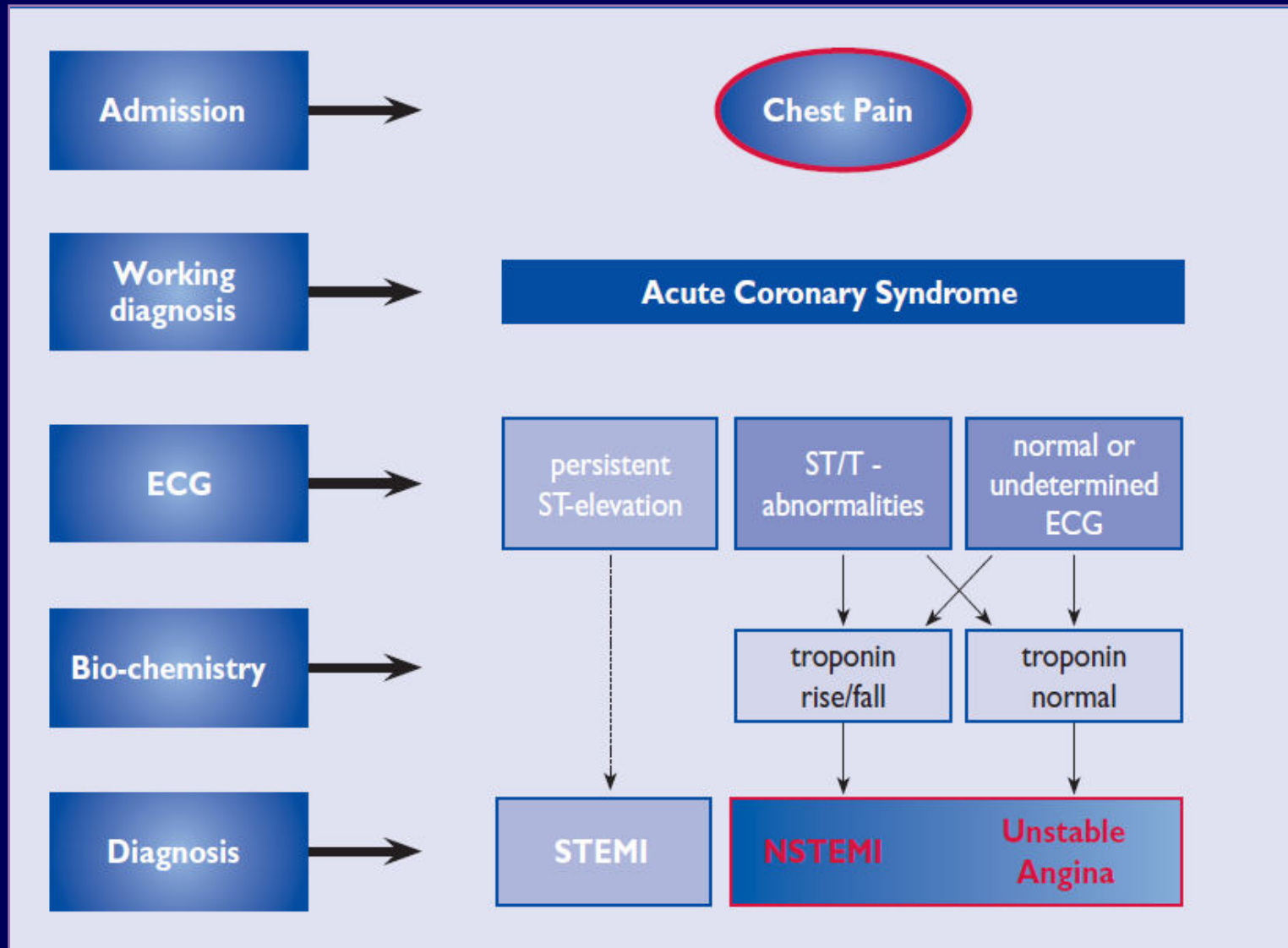


# ГОРЕЩИ ТОЧКИ В СЪВРЕМЕННОТО ЛЕЧЕНИЕ НА ПАЦИЕНТИТЕ С ОКС

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# Спектър на острия коронарен синдром

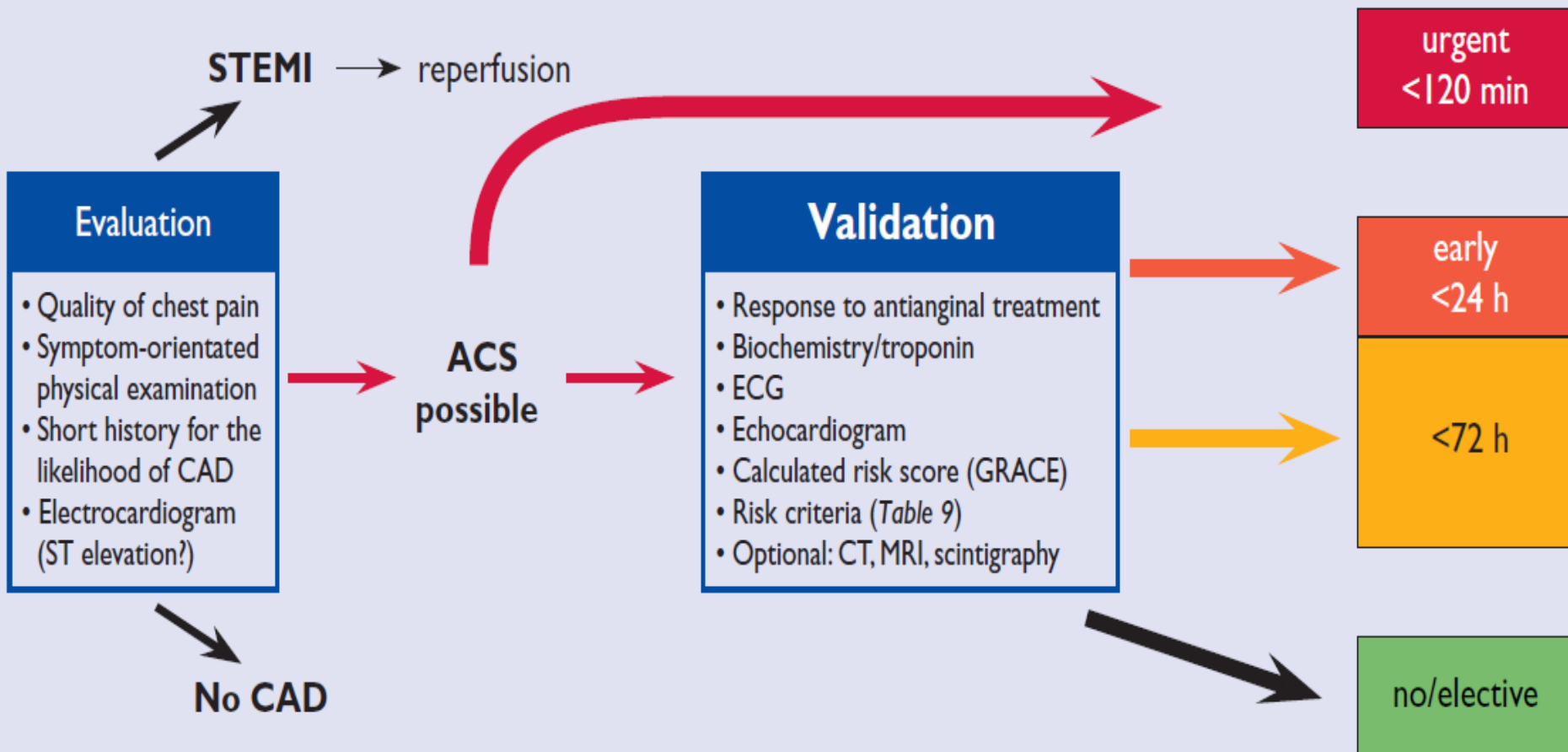


# Алгоритъм на поведение при ОКС

1. Clinical Evaluation

2. Diagnosis/Risk Assessment

3. Coronary angiography



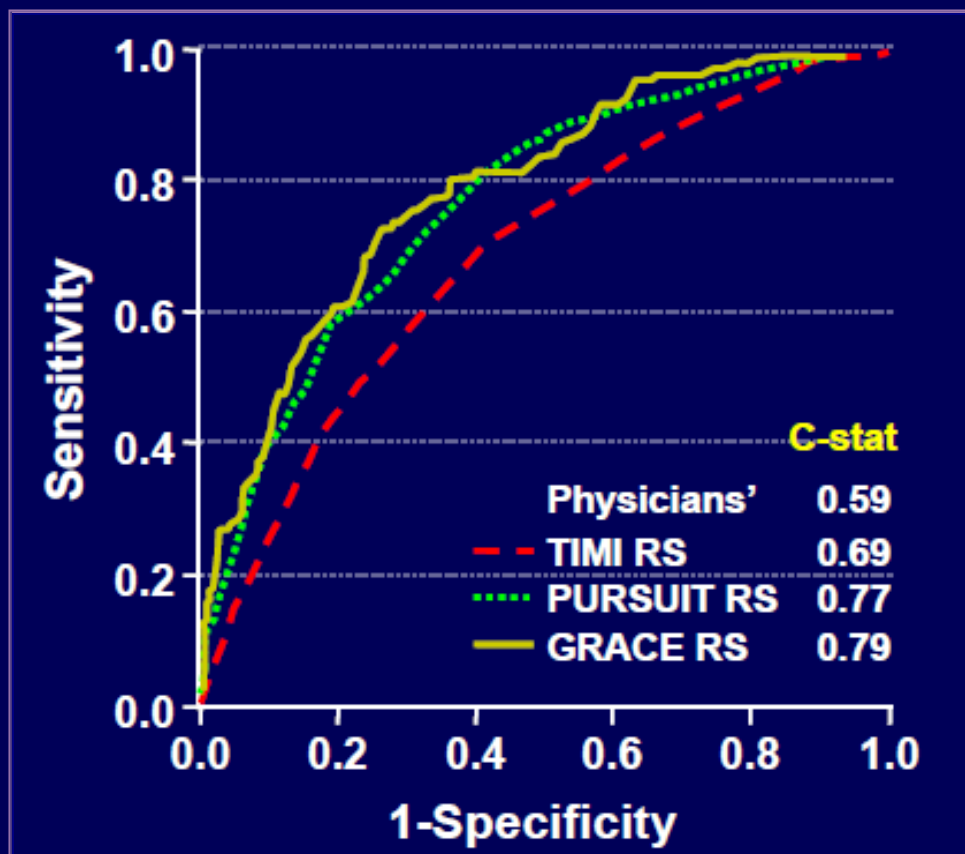
# Прогностична рискова оценка Клинична vs Рискови скорове

Канадски ОКС Регистър II (n=1728)

## Клинична оценка


- Преглед
- ЕКГ
- Биомаркери
- ЕхоКГ
- Коронарна анатомия

## Едногодишна смъртност



# Ранна рискована стратификация

## GRACE Risk Score



### ACS Risk Model

At Admission (in-hospital/to 6 months) | At Discharge (to 6 months)

Age

HR

SBP

Creat.

CHF

Cardiac arrest at admission

ST-segment deviation

Elevated cardiac enzymes/markers

Probability of	Death	Death or MI
In-hospital	<input type="text" value="--"/>	<input type="text" value="--"/>
To 6 months	<input type="text" value="--"/>	<input type="text" value="--"/>

[Calculator](#) | [Instructions](#) | [GRACE Info](#) | [References](#) | [Disclaimer](#)

Risk category (tertile)	GRACE risk score	In-hospital death (%)
Low	≤108	<1
Intermediate	109–140	1–3
High	>140	>3
Risk category (tertile)	GRACE risk score	Post-discharge to 6-month death (%)
Low	≤88	<3
Intermediate	89–118	3–8
High	>118	>8

# Рискова стратификация при дехоспитализацията

## GRACE Risk Score

**GRACE**  
Global Registry of Acute Coronary Events

### ACS Risk Model

At Admission (in-hospital/to 6 months) | At Discharge (to 6 months)

Age: 40-49

HR: 90-109

SBP: 100-119

Creat.: 2.0-3.99

Congestive heart failure

In-hospital PCI

In-hospital CABG

Past history of MI

ST-segment depression

Elevated cardiac enzymes/markers

Probability of Discharge to 6 months: 6%

Probability of Death or MI: 9%

SI Units | Reset

Calculator | Instructions | GRACE Info | References | Disclaimer

**Невъзможността да се проведе PCI добавя 14 точки в score**

# CRUSADE score of in-Hospital major bleeding

Predictor	Score
<b>Baseline haematocrit, %</b>	
< 31	9
31-33.9	7
34-36.9	3
37-39.9	2
≥ 40	0
<b>Creatinine clearance, mL/min</b>	
≤ 15	39
> 15-30	35
> 30-60	28
> 60-90	17
> 90-120	7
> 120	0

Predictor	Score
<b>Heart rate (b.p.m.)</b>	
≤ 70	0
71-80	1
81-90	3
91-100	6
101-110	8
111-120	10
≥ 121	11
<b>Sex</b>	
Male	0
Female	8
<b>Signs of CHF at presentation</b>	
No	0
Yes	7

Predictor	Score
<b>Prior vascular disease</b>	
No	0
Yes	6
<b>Diabetes mellitus</b>	
No	0
Yes	6
<b>Systolic blood pressure, mmHg</b>	
≤ 90	10
91-100	8
101-120	5
121-180	1
181-200	3
≥ 201	5

[www.crusadebleedingscore.org](http://www.crusadebleedingscore.org)

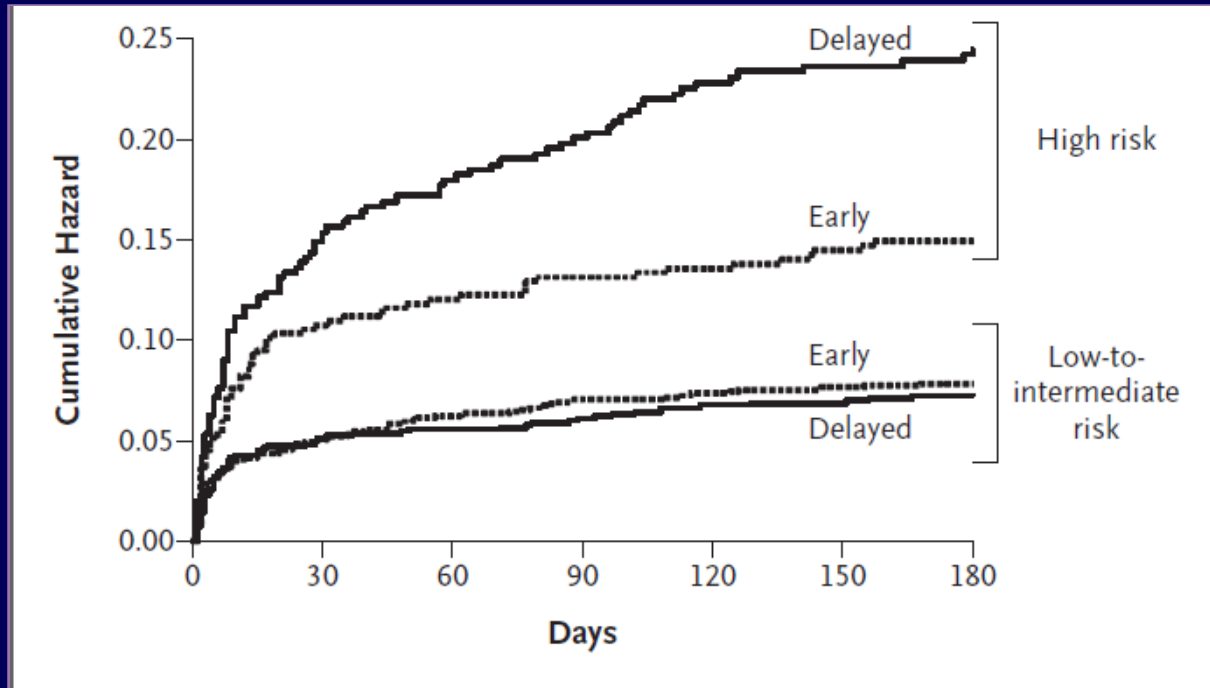
[www.escardio.org/guidelines](http://www.escardio.org/guidelines)

European Heart Journal (2011) 32:2999–3054  
doi:10.1093/eurheartj/ehr236





# Време на осъществяване на коронарната интервенция - TIMACS



GRACE > 140

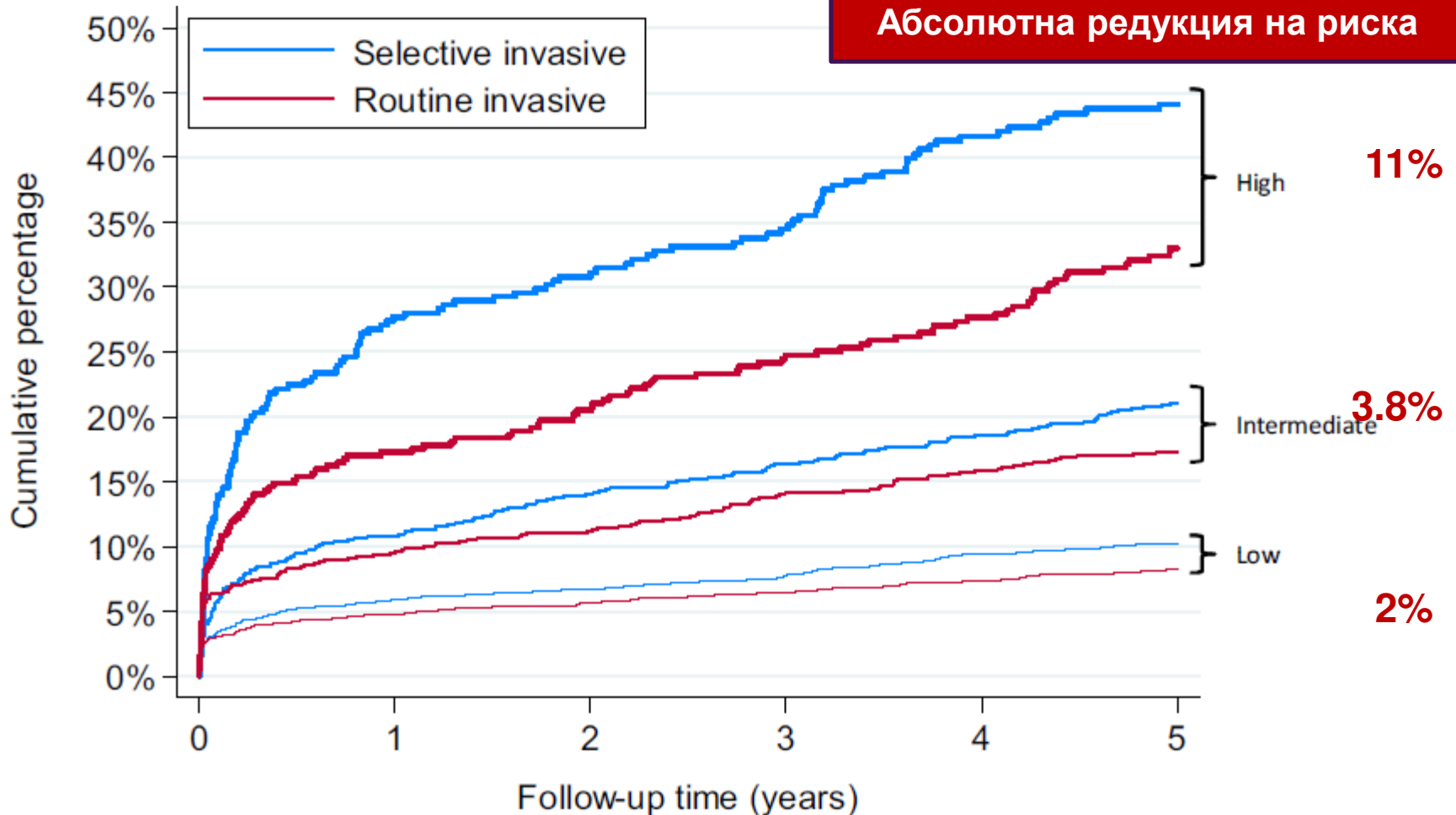
**Figure 3.** Kaplan–Meier Cumulative Risk of the Primary Outcome, Stratified According to GRACE Risk Score at Baseline.

Patients who had a risk score of more than 140 on the Global Registry of Acute Coronary Events (GRACE) scale (high risk) benefited more from early intervention than did patients with a score of 140 or less (low-to-intermediate risk) with respect to the composite primary outcome of death, myocardial infarction, or stroke.

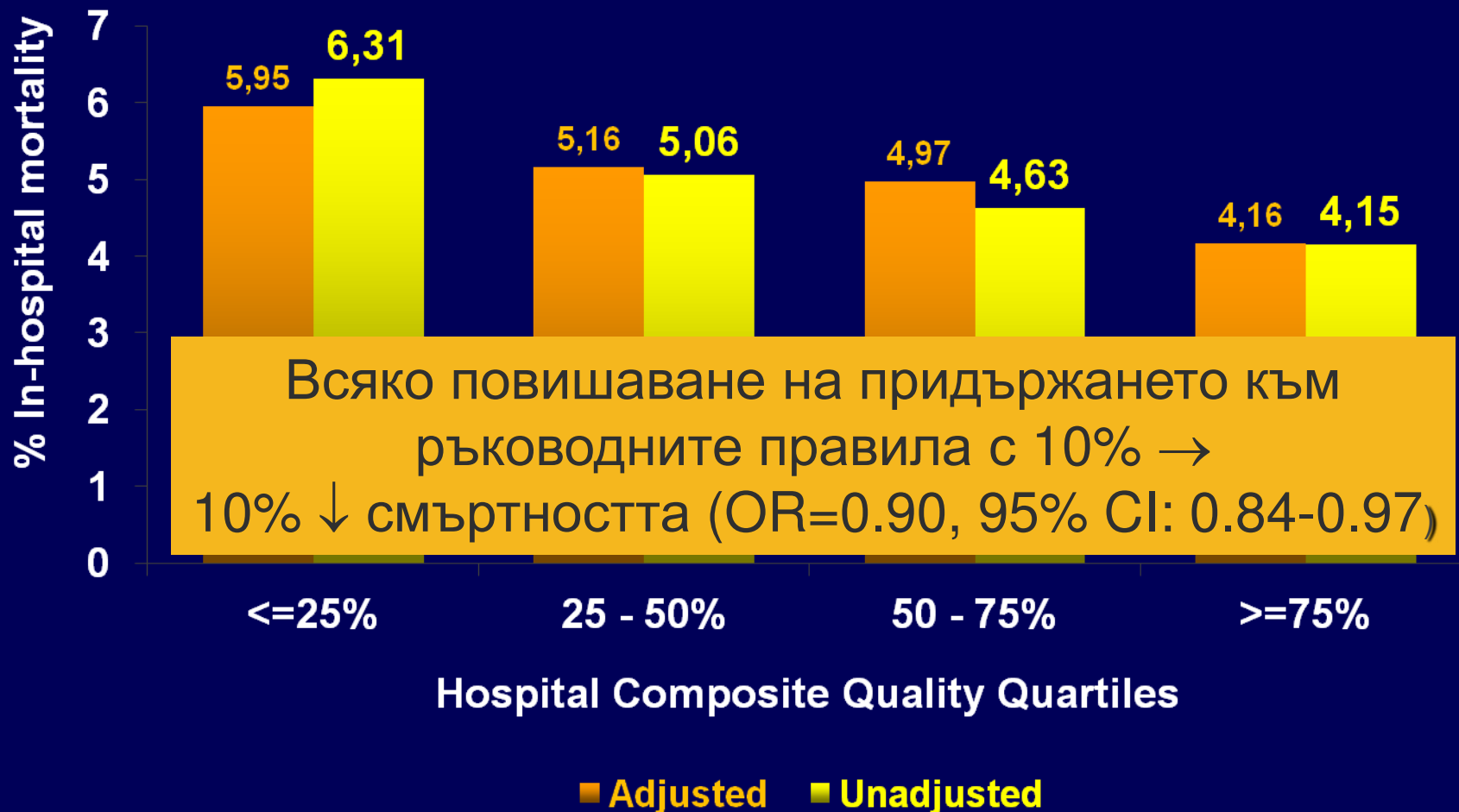
# Long-Term Outcome of a Routine Versus Selective Invasive Strategy in Patients With Non-ST-Segment Elevation Acute Coronary Syndrome

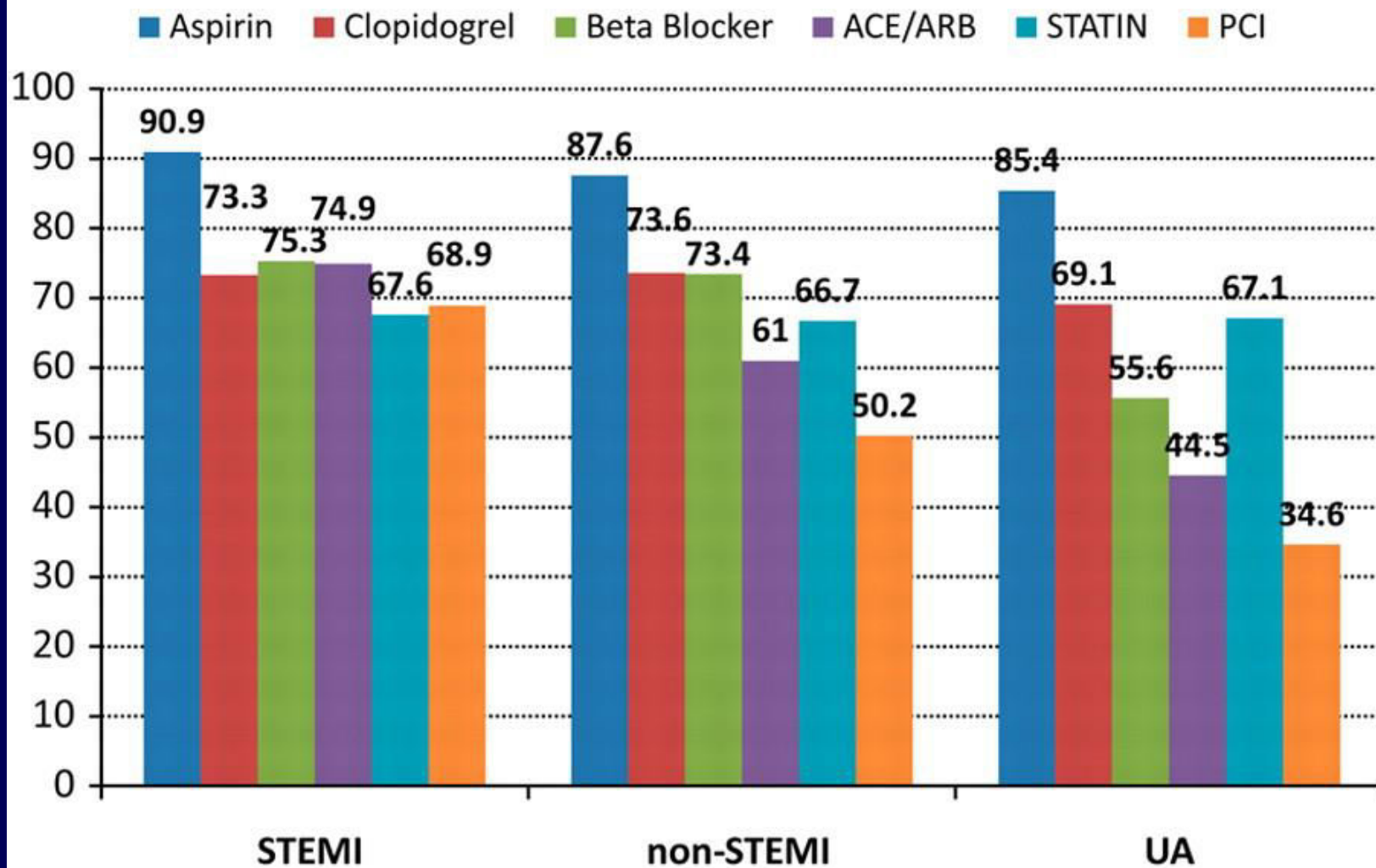
A Meta-Analysis of Individual Patient Data

Абсолютна редукция на риска



# Връзка между степен на придържане към препоръките и риск от смърт



**A****Medications and PCI (by hospital discharge)**

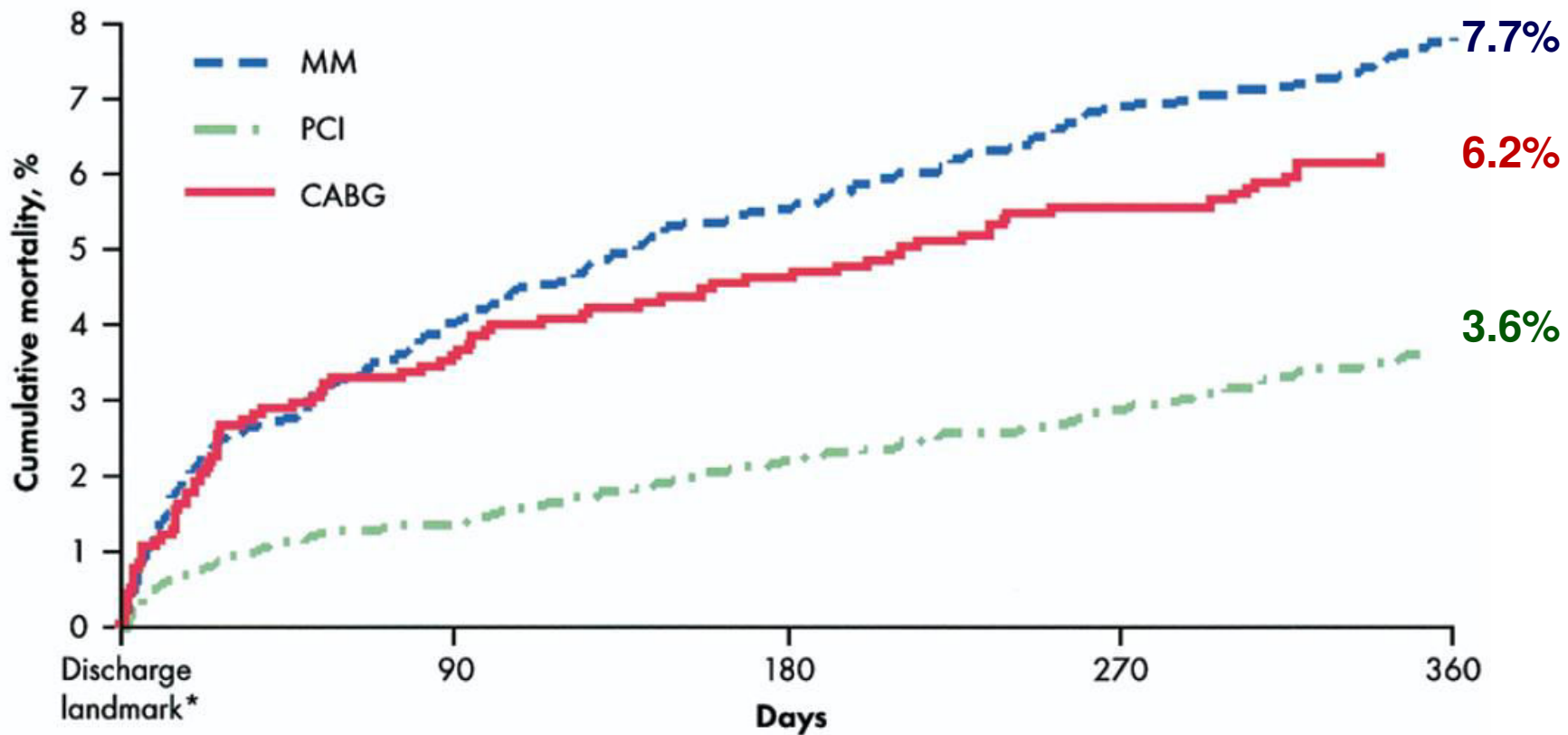
# Предиктори за избор на медикаментозна стратегия

**Table 4. Independent Predictors of Conservative Medical Management**

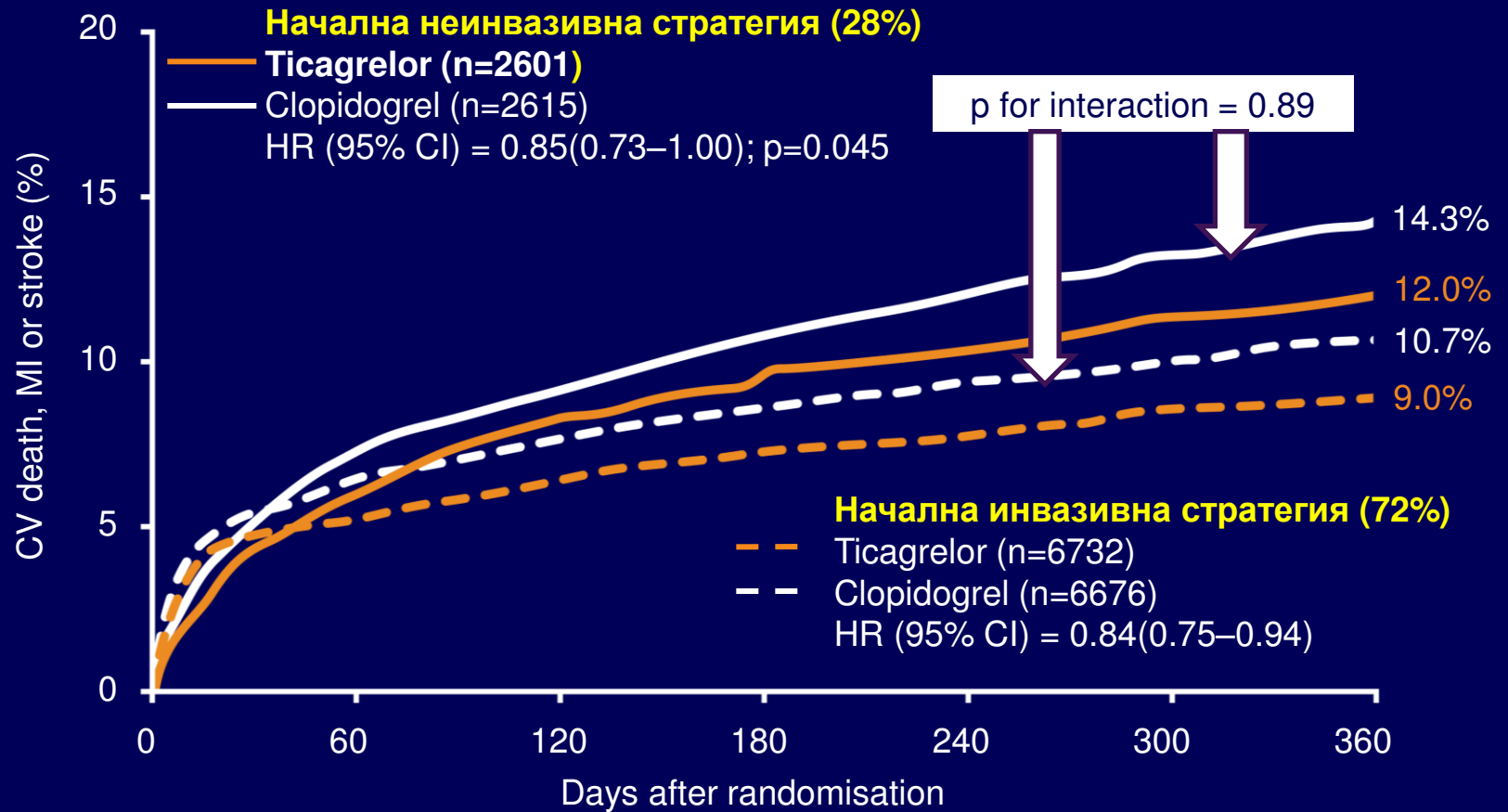
Predictor	Odds Ratio
History of prior CABG	1.44
Body weight per 10 kg decrease	1.10
MI from randomization to time of catheterization	0.21
3-vessel disease	1.33
Non-U.S. site	1.69
History of prior heart failure	1.48
Time from symptom onset to presentation (per hour increase)	1.01
Black race	1.42
Killip class II–IV	1.33
History of prior MI	1.22
Diabetes mellitus	1.15
Age (per 10-yr increase)	1.07

# Едногодишна смъртност след дехоспитализацията

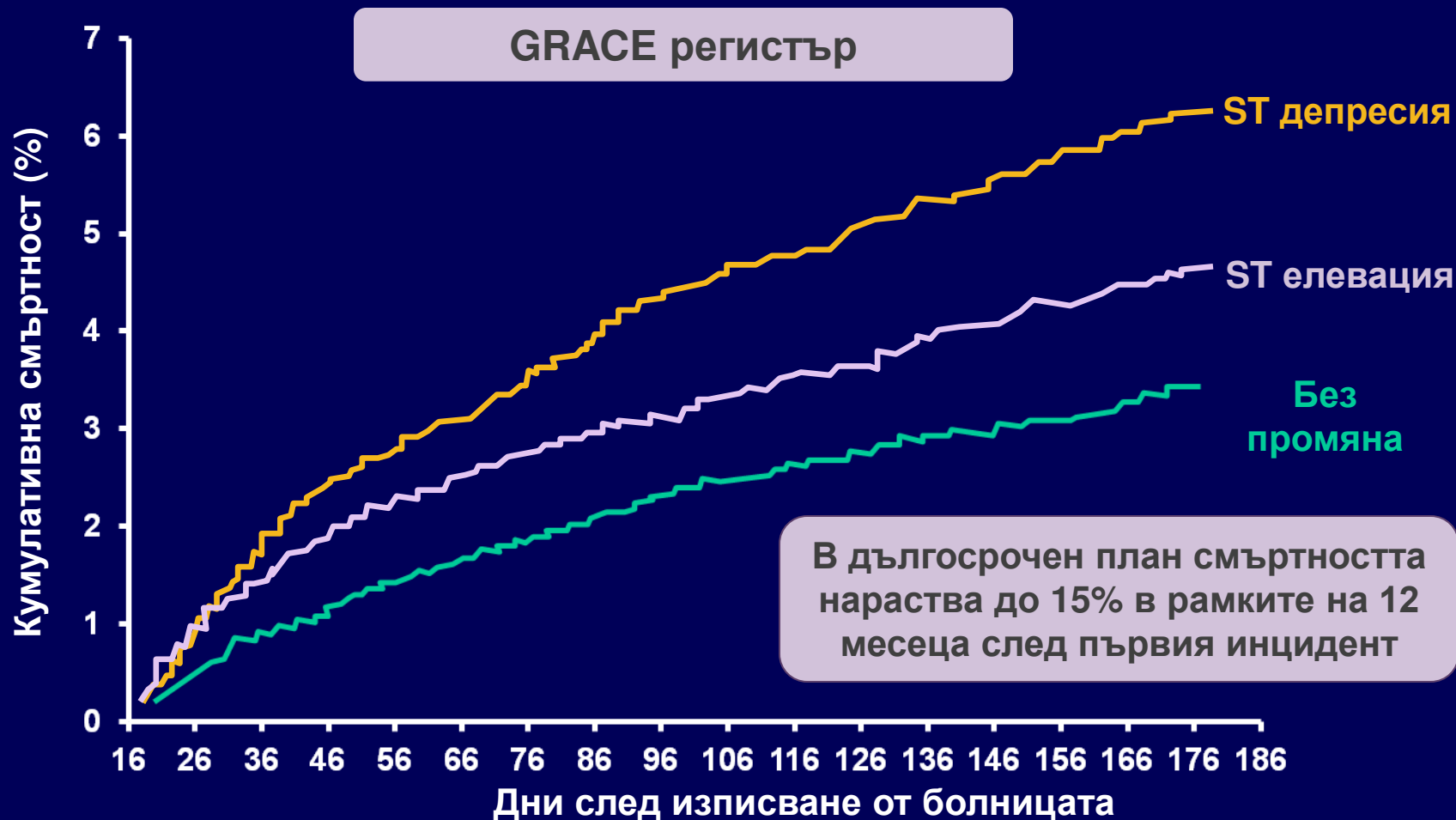
B



# Първична крайна точка в PLATO в зависимост от типа приложена стратегия



# Независимо от клиничната изява на ОКС, смъртността след изписване от болница остава твърде висока...



Резултатите се основават на данните от Global Registry of Acute Coronary Events (GRACE)

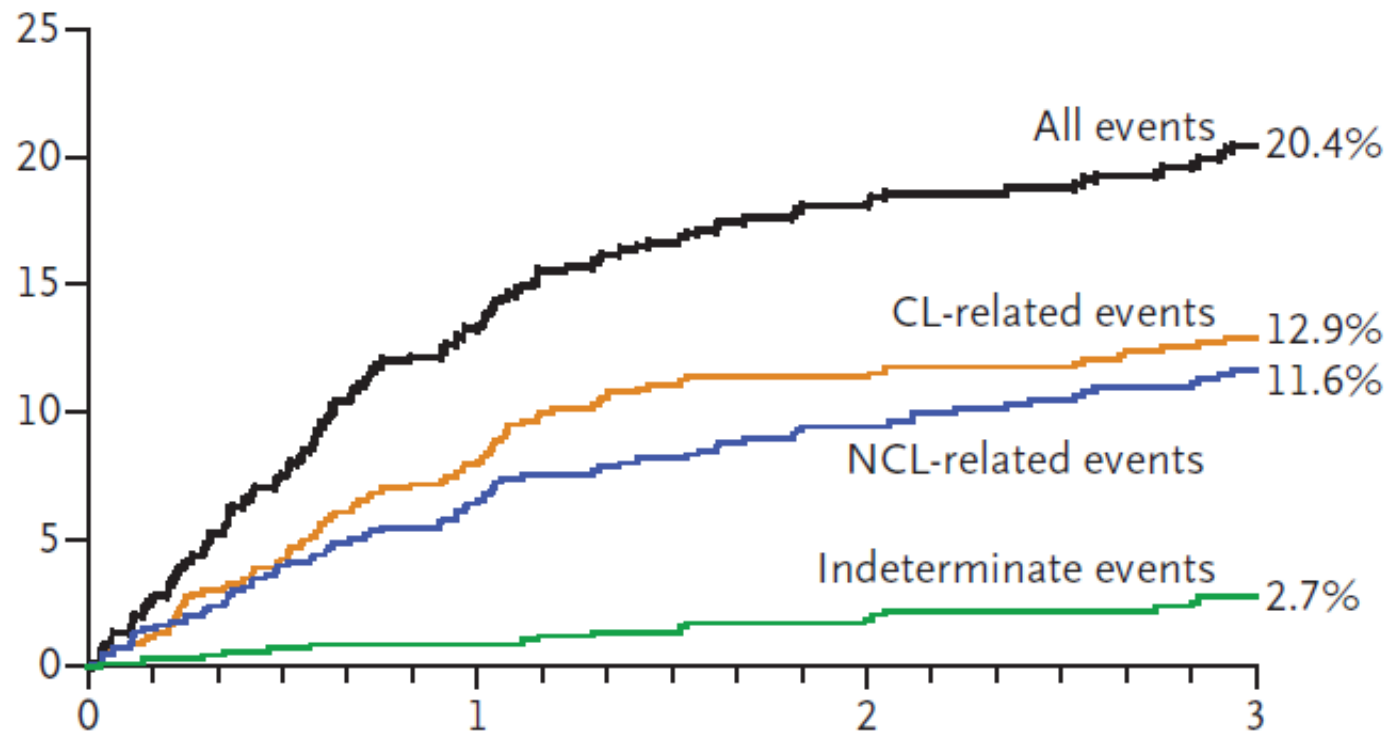
Fox KAA, et al. *Nat Clin Pract Cardiovasc Med.* 2008;5:580–589.

Tang EW, et al. *Am Heart J.* 2007;153:29–35

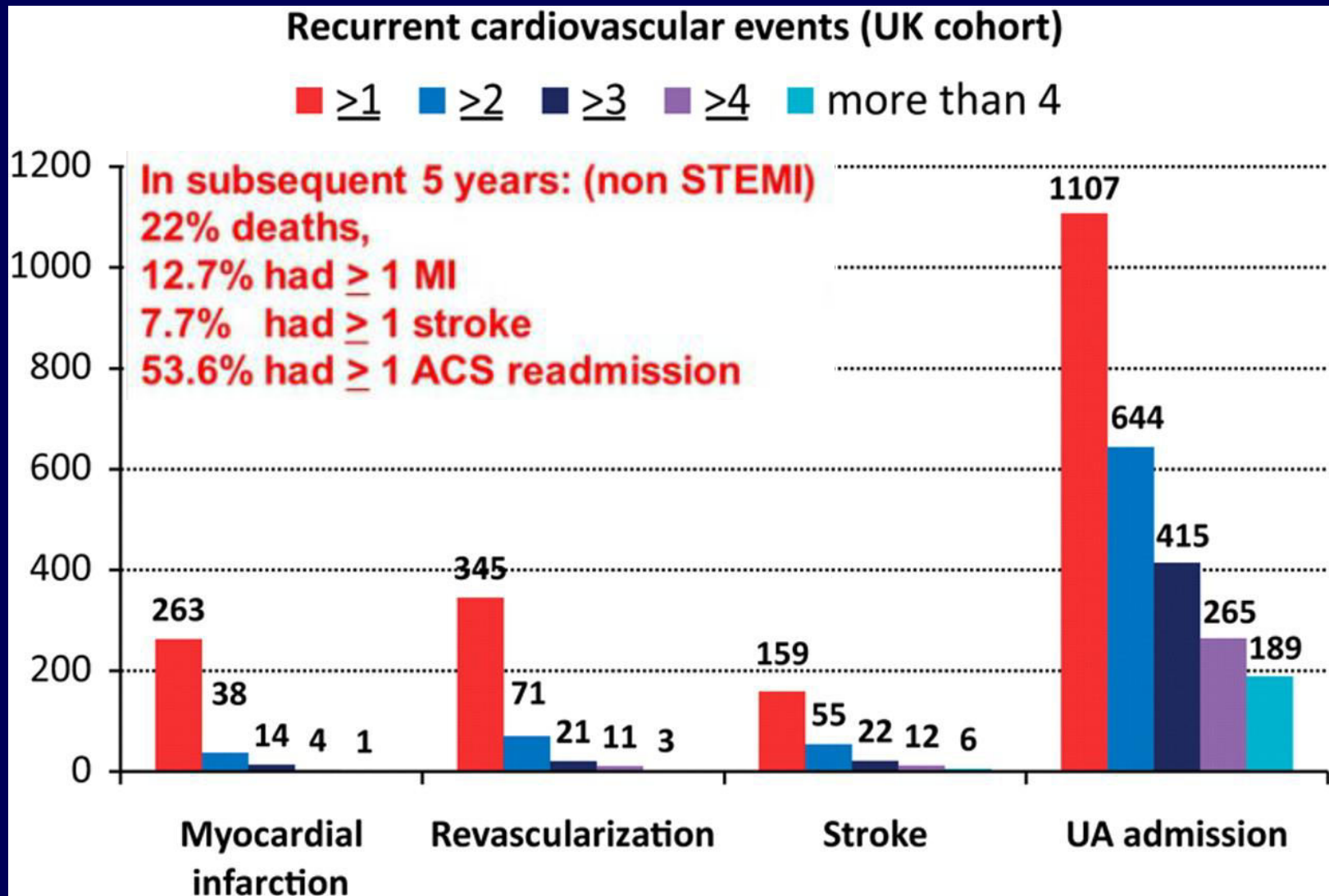


# A Prospective Natural-History Study of Coronary Atherosclerosis

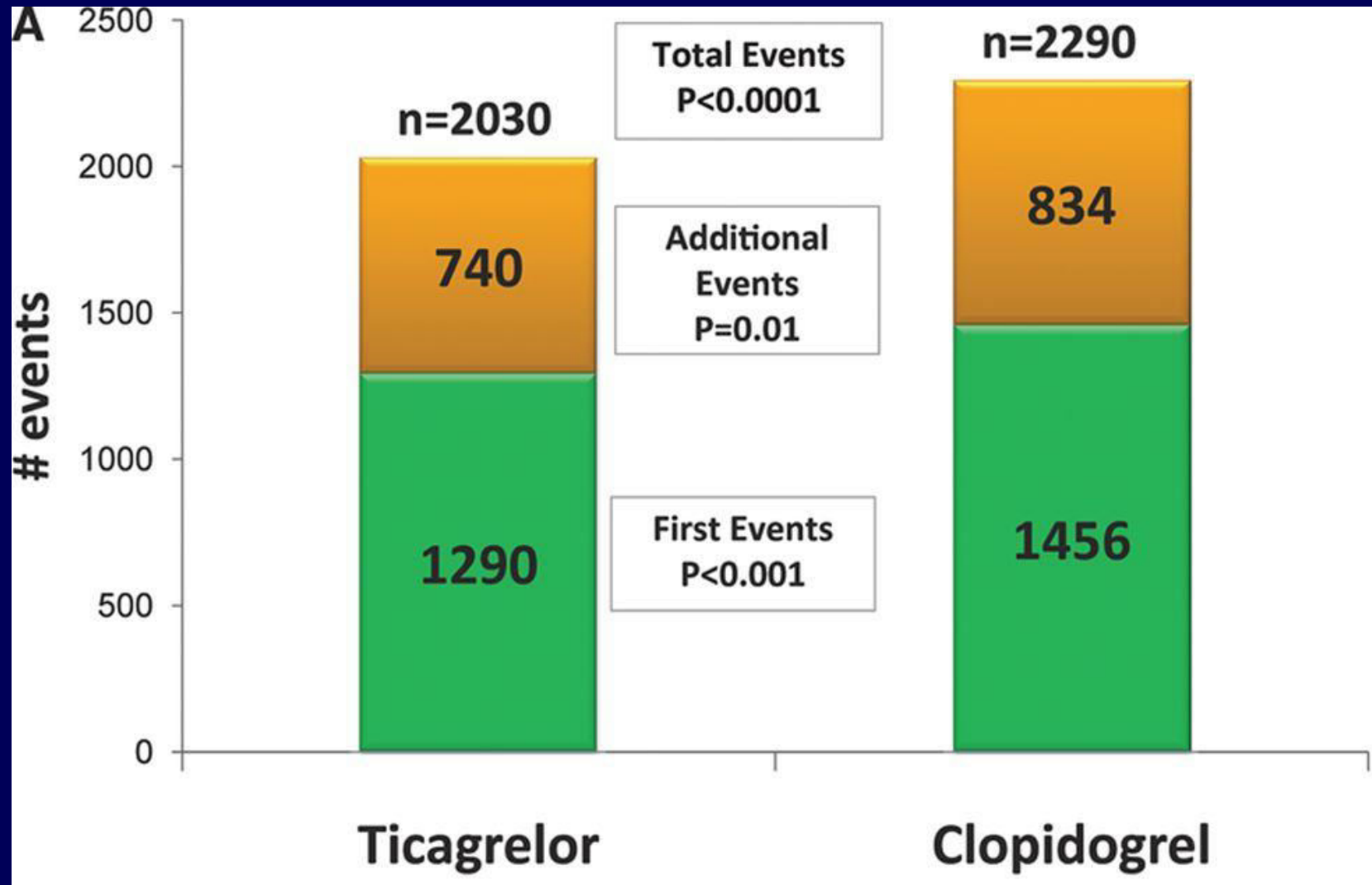
Gregg W. Stone, M.D., Akiko Maehara, M.D., Alexandra J. Lansky, M.D., Bernard de Bruyne, M.D., Ecaterina Cristea, M.D., Gary S. Mintz, M.D., Roxana Mehran, M.D., John McPherson, M.D., Naim Farhat, M.D., Steven P. Marso, M.D., Helen Parise, Sc.D., Barry Templin, M.B.A., Roseann White, M.A., Zhen Zhang, Ph.D., and Patrick W. Serruys, M.D., Ph.D., for the PROSPECT Investigators\*



# Рекурентни сърдечно-съдови инциденти в хода на проследяването



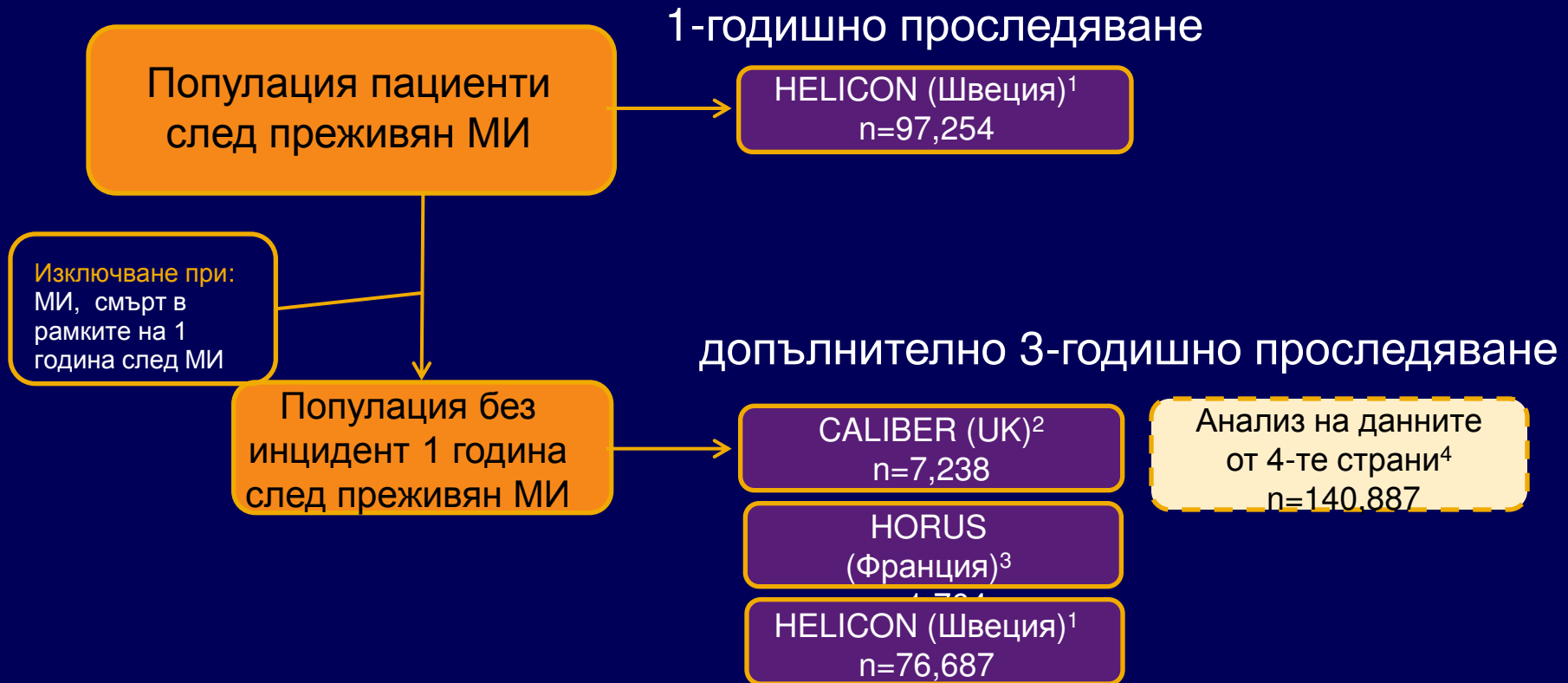
# Първи, последващ и общ брой исхемични инциденти CVD/MI/Stroke/SRI/RI/TIA/ATE



# Динамичен TIMI рисков скор за STEMI

	Points
<b>Baseline TIMI risk score for STEMI</b>	<b>0 to 14 possible points</b>
Age, y	
65 to 74	2
>75	3
DM/HTN/angina	1
Systolic blood pressure <100 mm Hg	3
Heart rate >100	2
Killip class II to IV	2
Weight <67 kg	1
Anterior STE or LBBB	1
Time to rx >4 hours	1
<b>Added index hospital events for dynamic score</b>	
Recurrent MI	1
Stroke	5
Major bleed	1
CHF/shock	3
Arrhythmia	2
Renal failure	3
<b>Dynamic TIMI risk score</b>	<b>0 to 29 possible points</b>

# APOLLO: Дизайн на отделните анализи

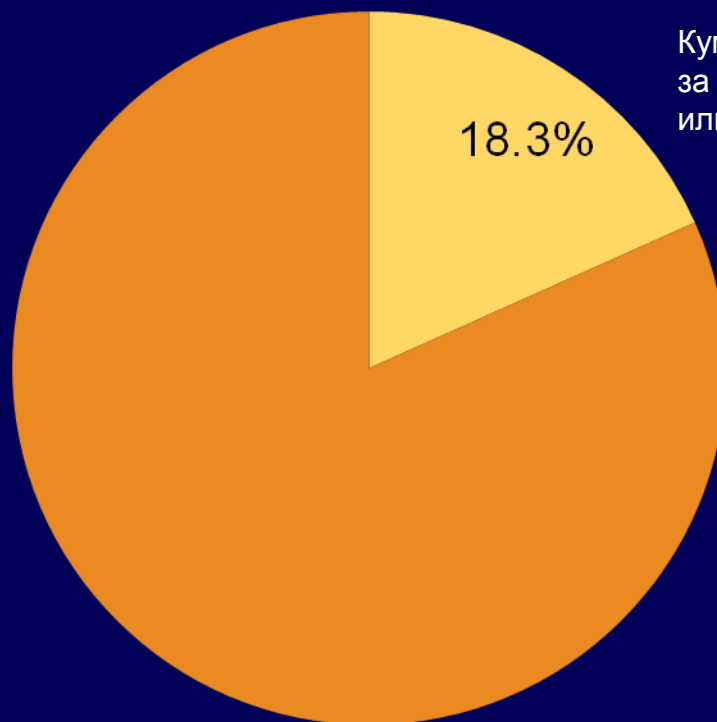


MI, myocardial infarction.

1. Jernberg, T. et al. Eur Heart J 2015; doi:10.1093/eurheartj/ehu505; 2. Rapsomaniki E et al. Eur Heart J 2014; 35(Suppl 1):363 (Abstract P2077); 3. Blin P et al. Eur Heart J 2014;35(Suppl 1):150 (Abstract P790); 4. Rapsomaniki E et al. ESC Late Breaking Registry presentation 2014.

# ~1 от 5 пациента ще получи повторен СС- инцидент в рамките на първата година след МИ

APOLLO HELICON Шведски анализ  
Пациенти, преживели МИ (n=97,254)[Jernberg 2014]

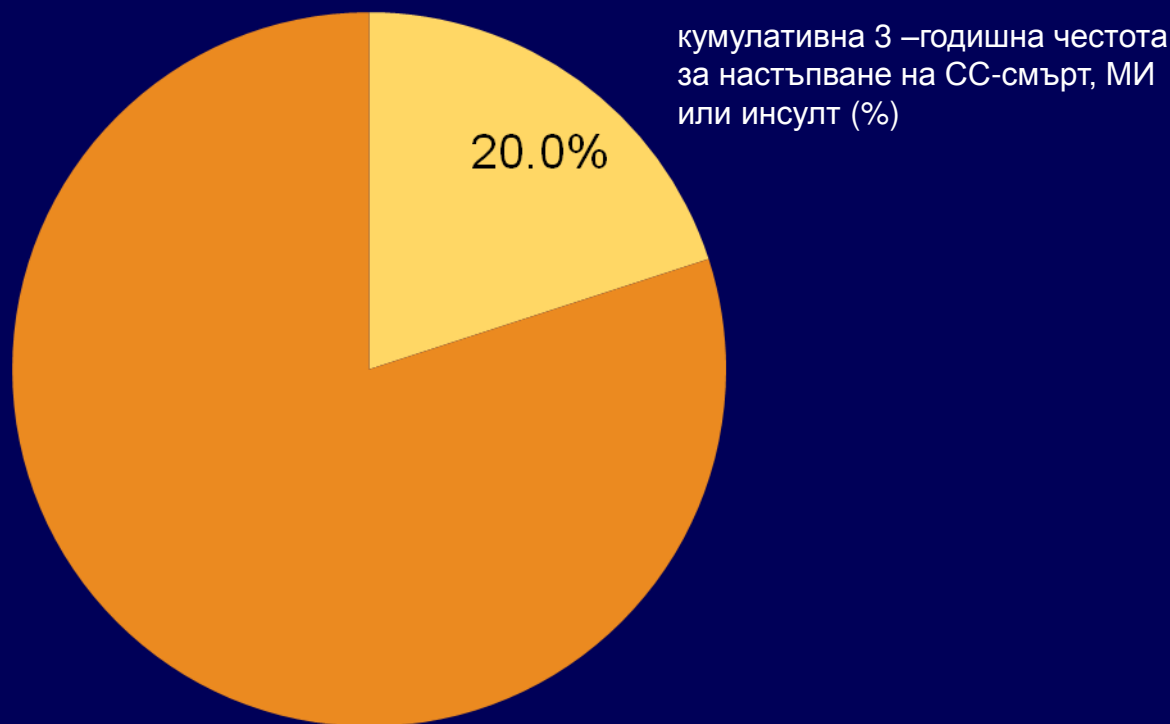


Кумулативна 1-годишна честота  
за настъпване на СС-смърт, МИ  
или инсулт (%)

# 1 от 5 пациента без инцидент през първата година след преживян МИ, ще има нов СС инцидент в рамките на 3 години

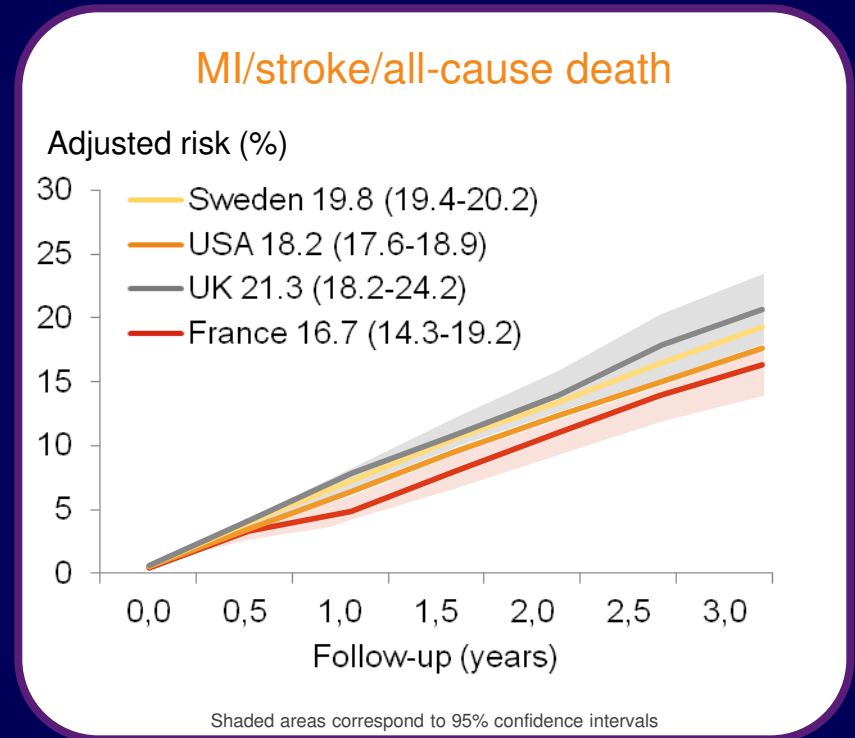
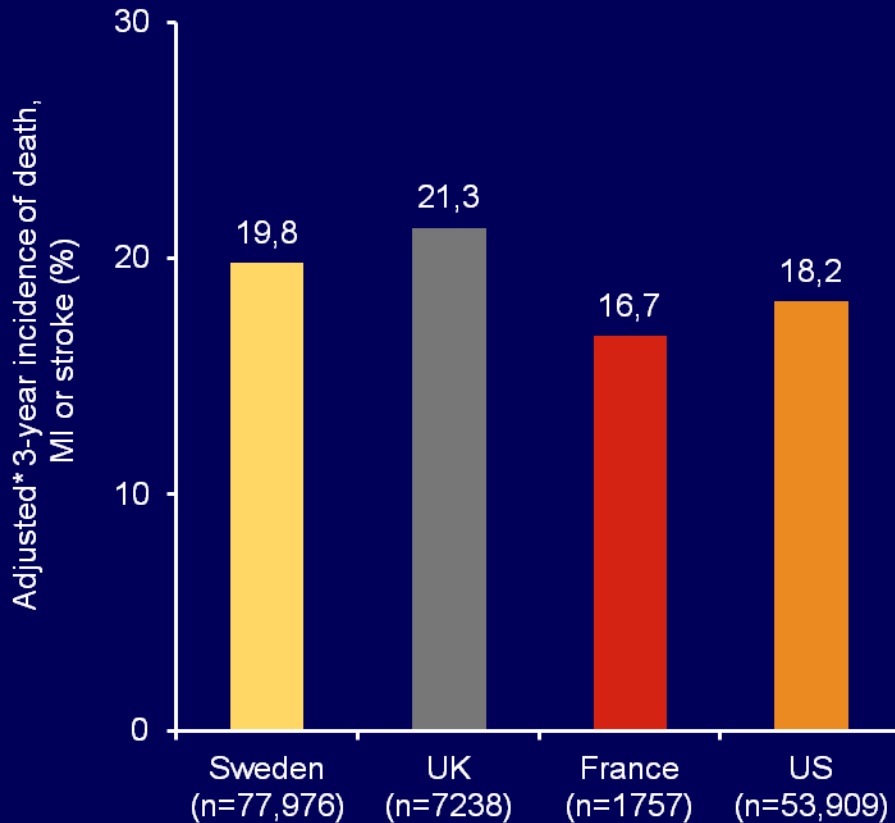
APOLLO HELICON шведски анализ

Пациенти, преживели МИ без повторен инцидент през първата година (n=76,687)<sup>[Jernberg 2014]</sup>



# 1 от 5 пациента без инцидент през първата година след преживян МИ, ще има нов СС инцидент в рамките на 3 години

## APOLLO общ анализ 4 страни: наблюдавана честота

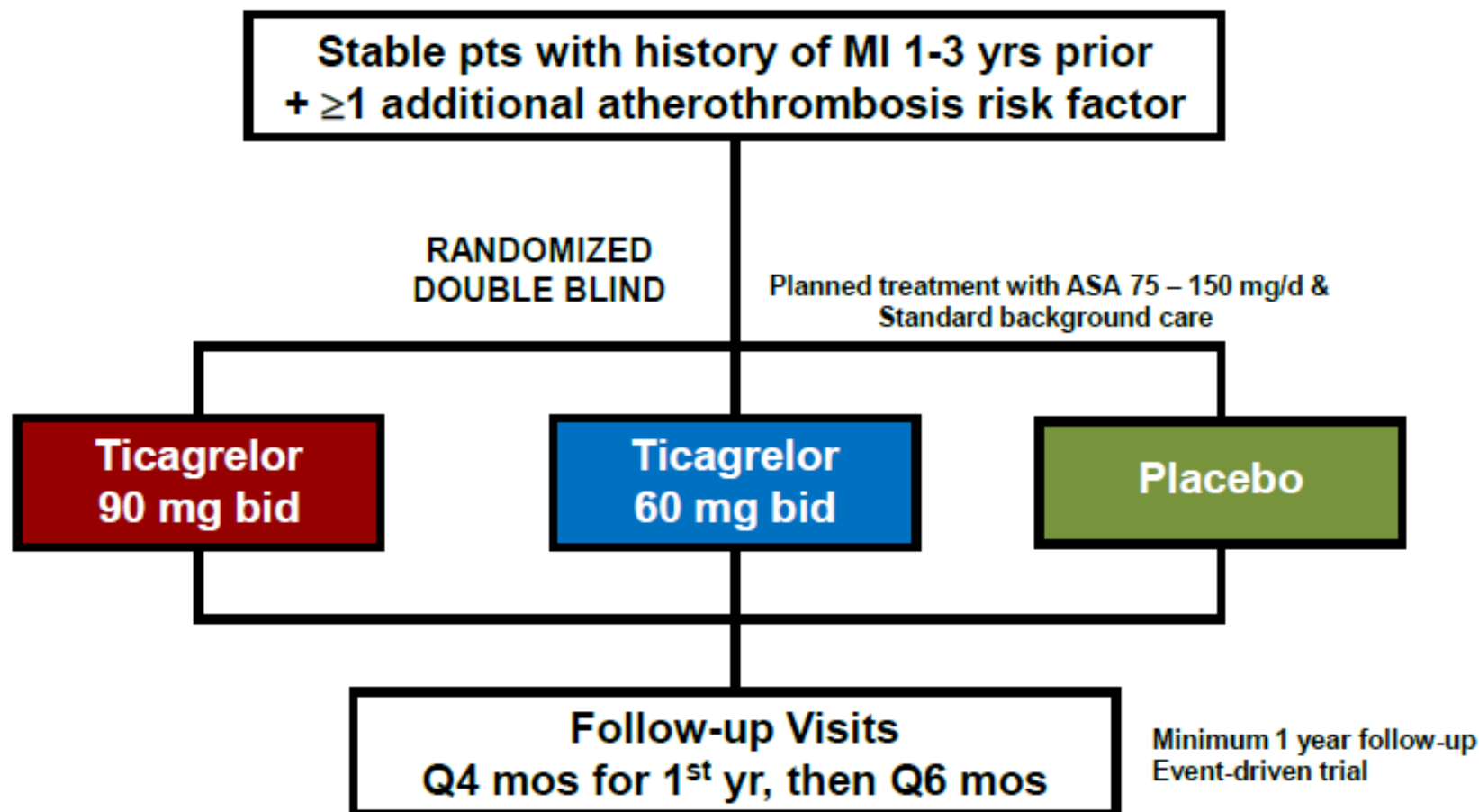


MI, myocardial infarction.

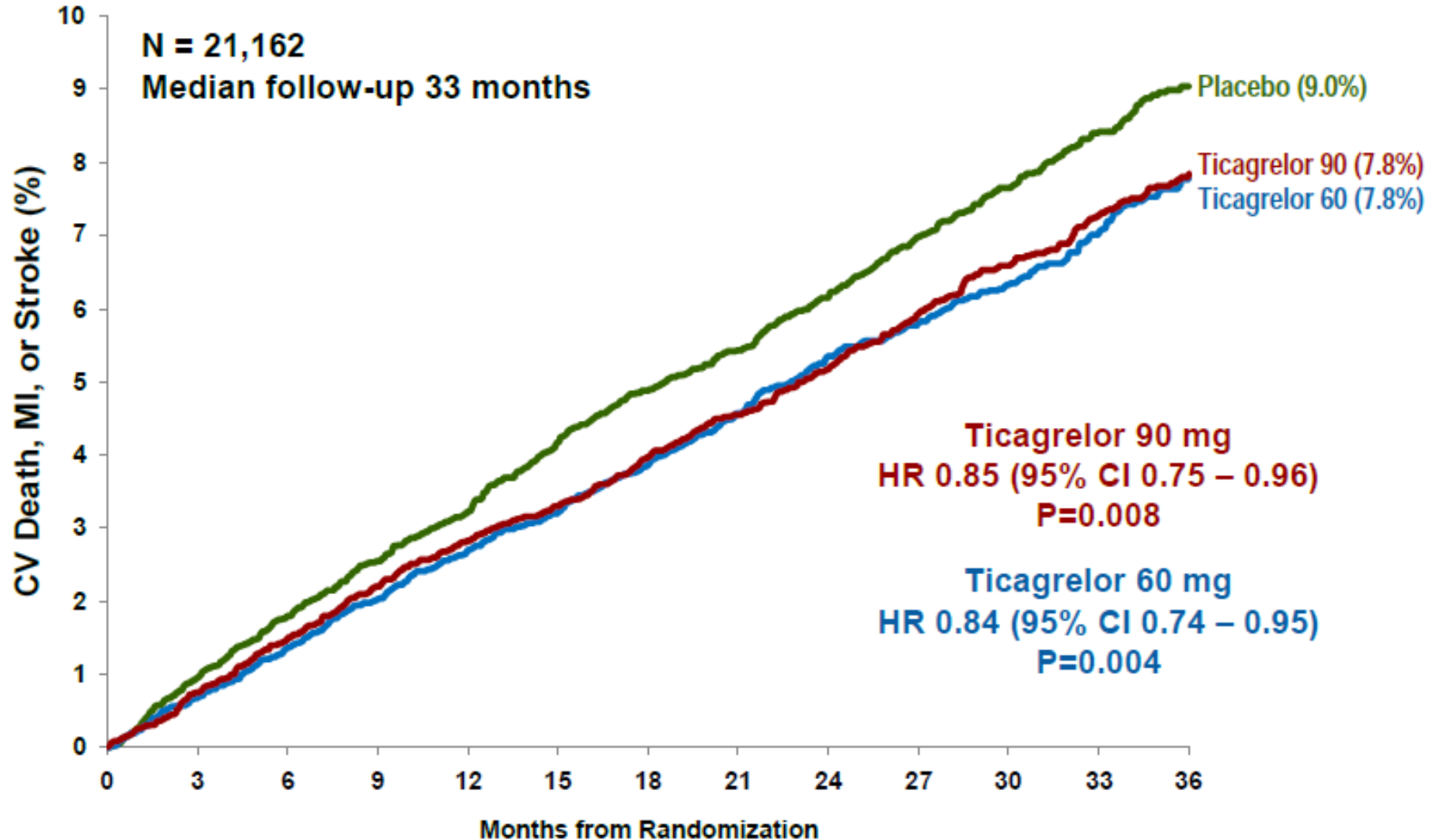
\*Adjusted for differences in study populations; MI, myocardial infarction. Shaded areas / figures in brackets [95%CI]

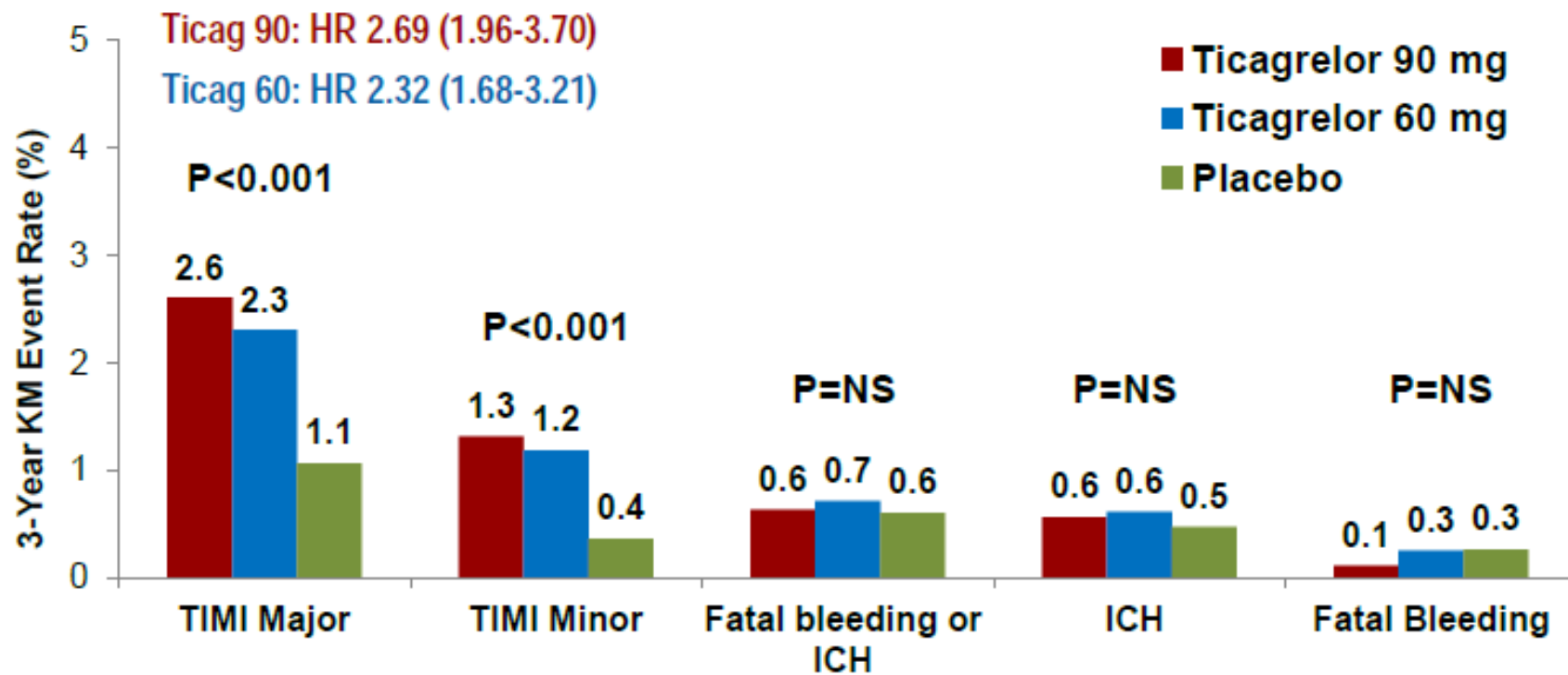
1. Rapsomaniki E *et al.* ESC Late Breaking Registry presentation 2014.



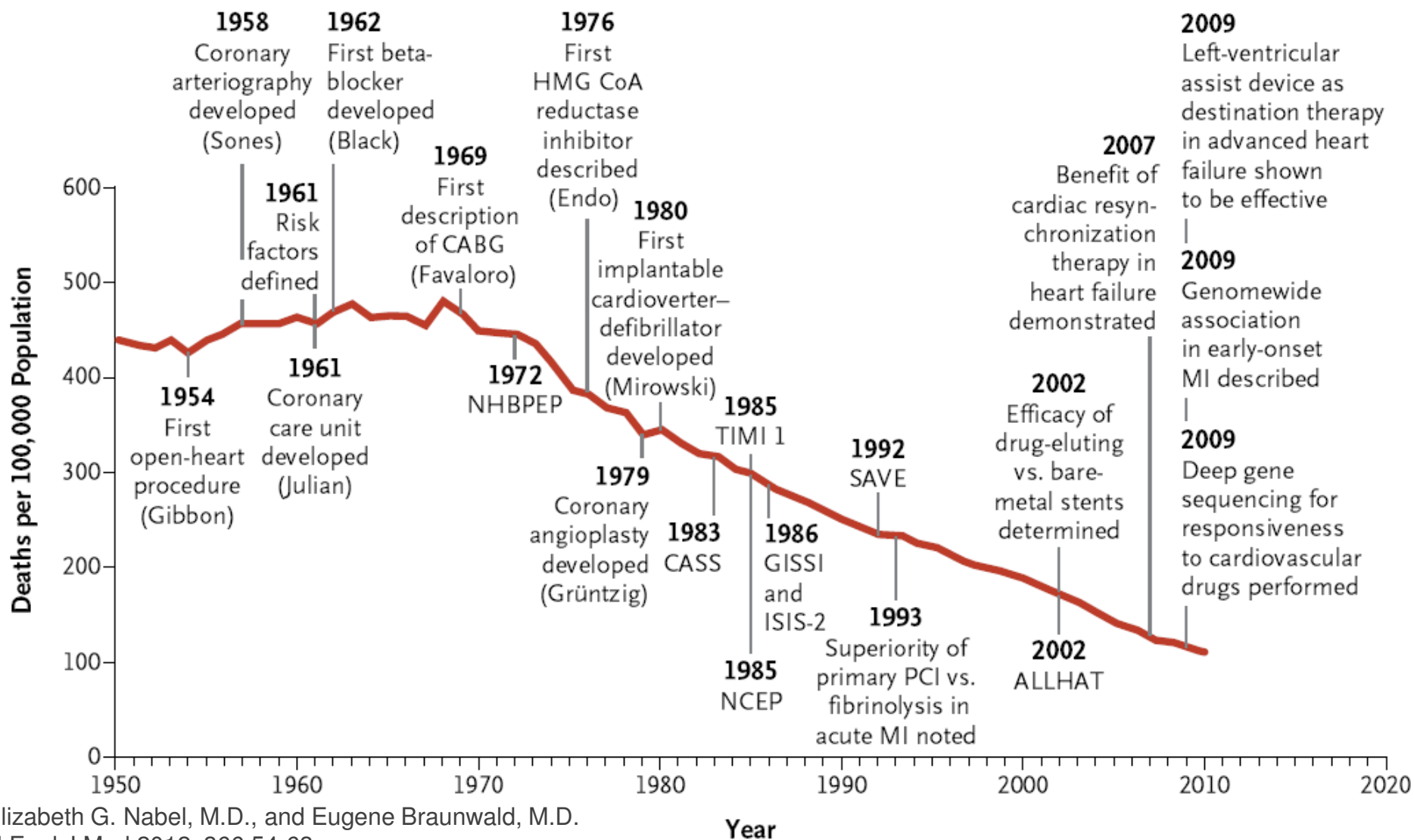


# Primary Endpoint





20<sup>th</sup> NEJM ANNIVERSARY ARTICLE



Elizabeth G. Nabel, M.D., and Eugene Braunwald, M.D.

N Engl J Med 2012; 366:54-63