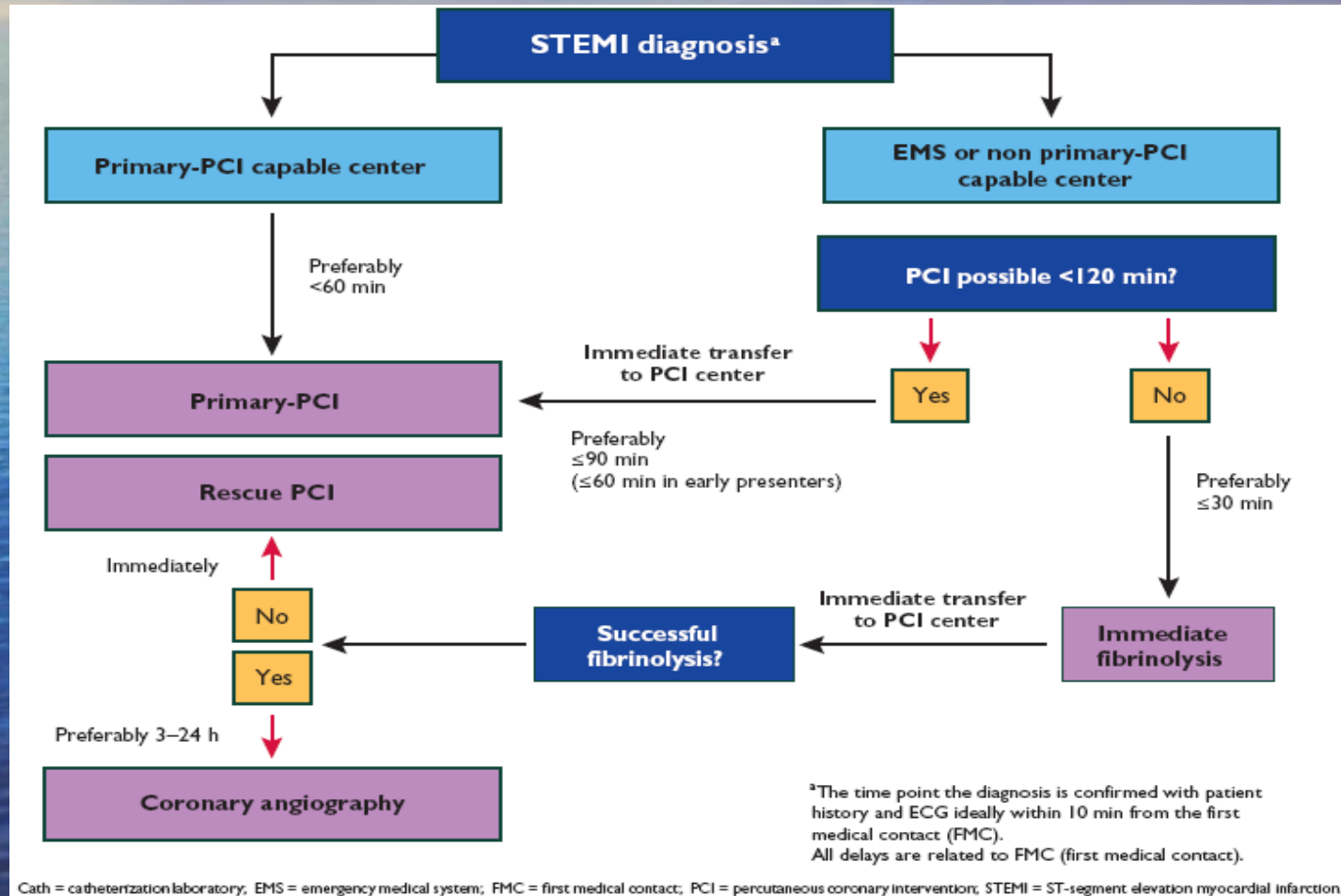


Място на тромбектомията и настоящо приложение на GP IIb-IIIa рецепторни блокери

Д-р Борислав Борисов
Отделение по кардиология
МБАЛ "Тракия"
гр. Стара Загора

ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation



ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation

- Мануалната тромбаспирация преди балон/стент подобрява показателите за миокардна реперфузия.⁽¹⁾
- Едногодишното проследяване показва намалена смъртност след тромбаспирация.^(2,3)
- Асистираната тромбаспирация и дисталната протекция нямат доказана полза.⁽⁴⁾

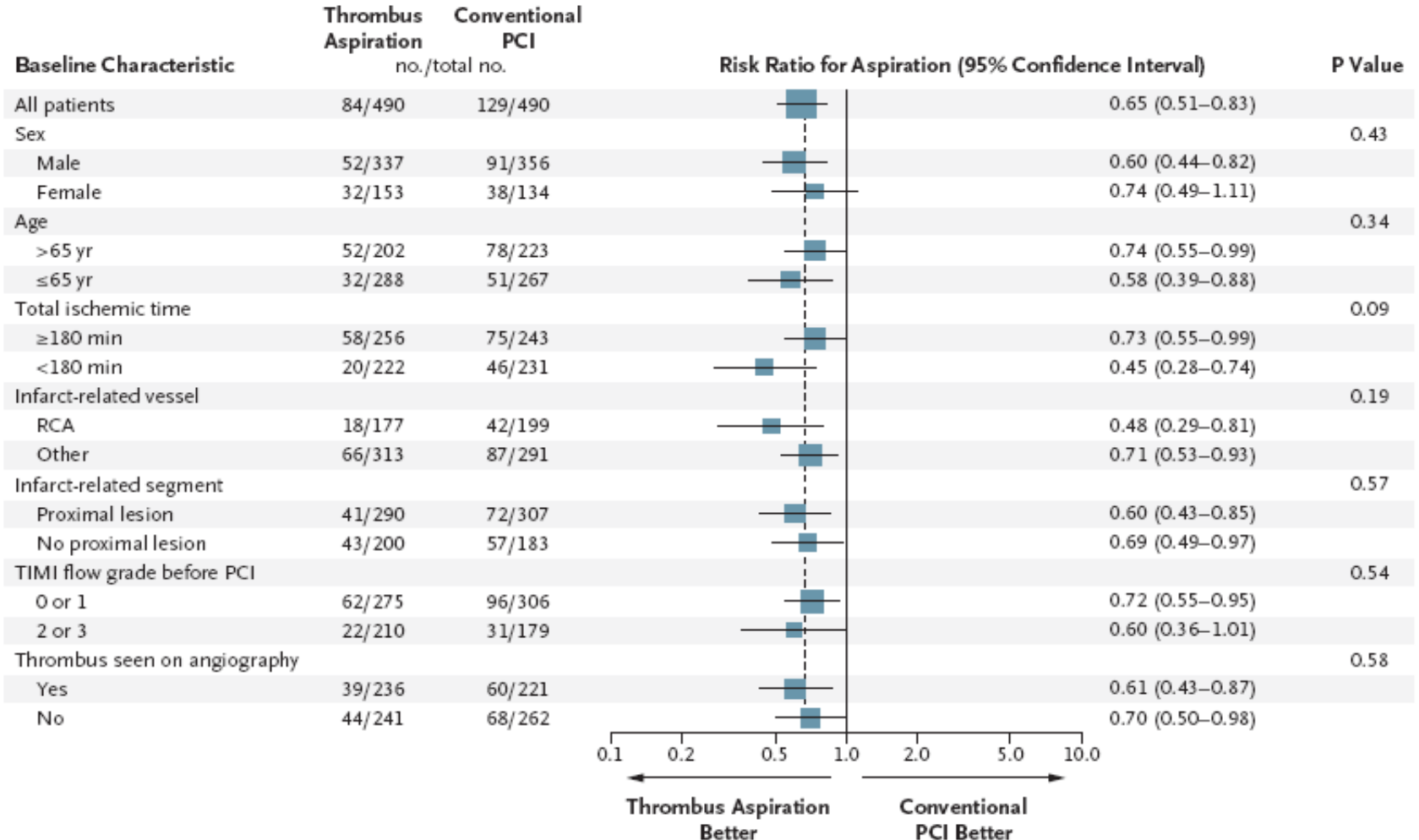
The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

FEBRUARY 7, 2008

VOL. 358 NO. 6

Thrombus Aspiration during Primary Percutaneous Coronary Intervention



TARAS, (71% позитивна хистологія)

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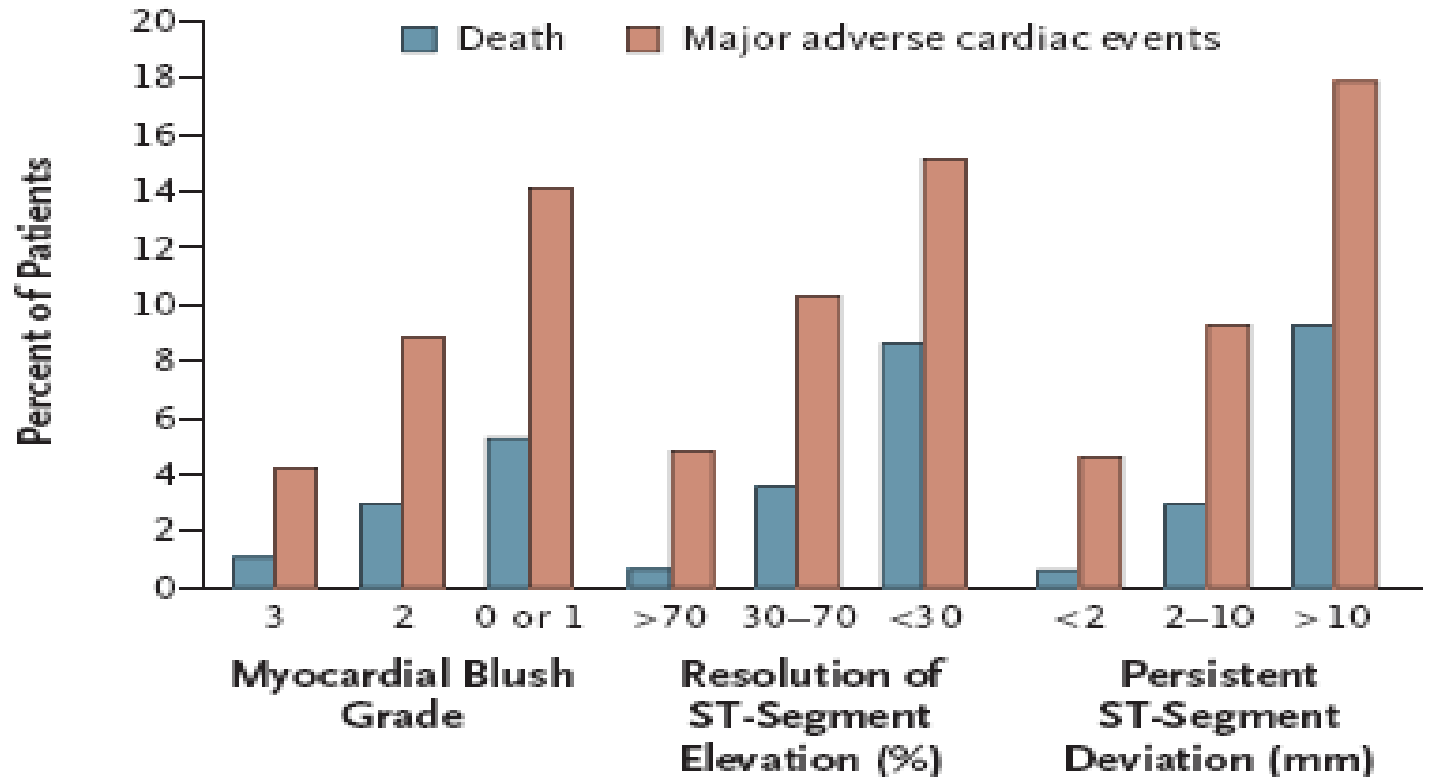
ESTABLISHED IN 1812

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VOL. 358 NO. 6

Thrombus Aspiration during Primary Percutaneous Coronary Intervention

Toshihide Goto, M.D., Daisuke Miyazaki, M.Sc., Yusaku Goto, M.D., Ph.D., Gilles F. L'Allier, M.D., Ph.D.

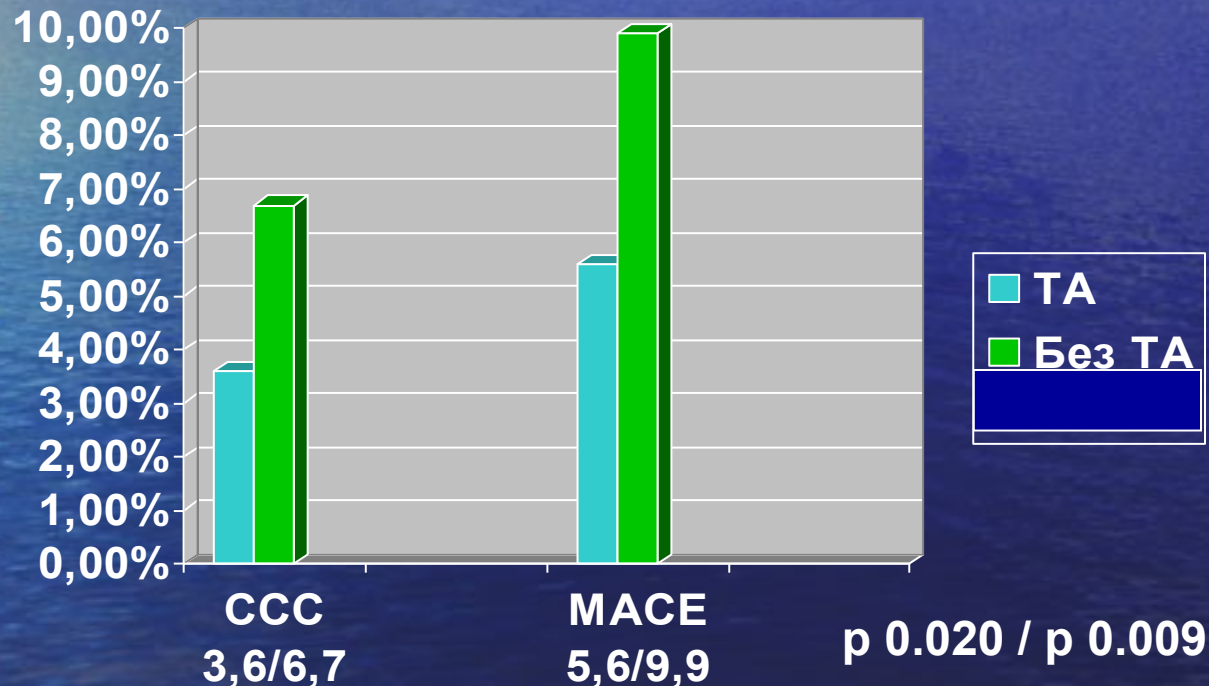


| | | | | | | | | | |
|--|-----|-----|------|-----|------|------|-----|-----|------|
| Rate of death (%) | 1.0 | 2.9 | 5.2 | 0.7 | 3.6 | 8.6 | 0.6 | 3.0 | 9.3 |
| Rate of major adverse cardiac events (%) | 4.2 | 8.8 | 14.1 | 4.8 | 10.3 | 15.2 | 4.7 | 9.2 | 18.0 |

TAPAS

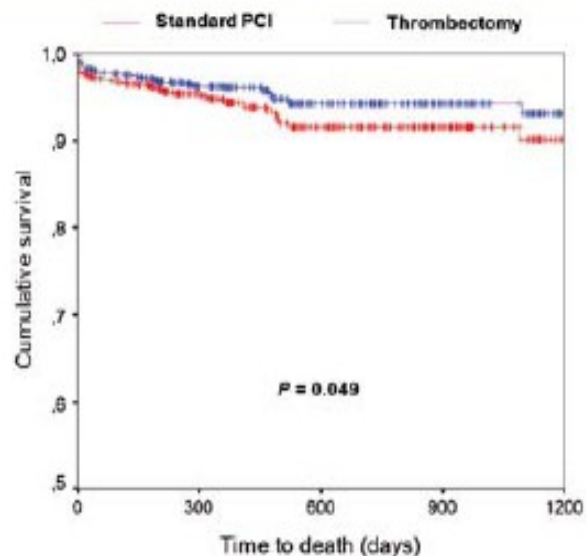
Cardiac death and reinfarction after 1 year in the Thrombus Aspiration during Percutaneous coronary intervention in Acute myocardial infarction Study (TAPAS): a 1-year follow-up study

Pieter J Vlaar, Tone Svilaas, Iwan C van der Horst, Gilles FH Diercks, Marieke



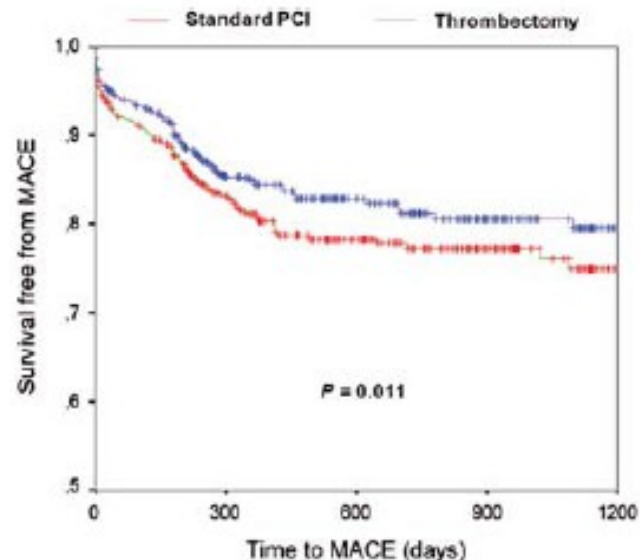
Clinical impact of thrombectomy in acute ST-elevation myocardial infarction: an individual patient-data pooled analysis of 11 trials

Francesco Burzotta^{1*†}, Maria De Vita^{1†}, Youlan L. Gu², Takaaki Isshiki³,



| Patients at risk | 0 | 300 | 600 | 900 | 1200 |
|-----------------------|------|-----|-----|-----|------|
| Standard PCI | 1333 | 857 | 167 | 97 | 37 |
| PCI with thrombectomy | 1339 | 864 | 164 | 101 | 48 |

Figure 2 Kaplan–Meier curves for cumulative survival; log-rank $P = 0.049$.



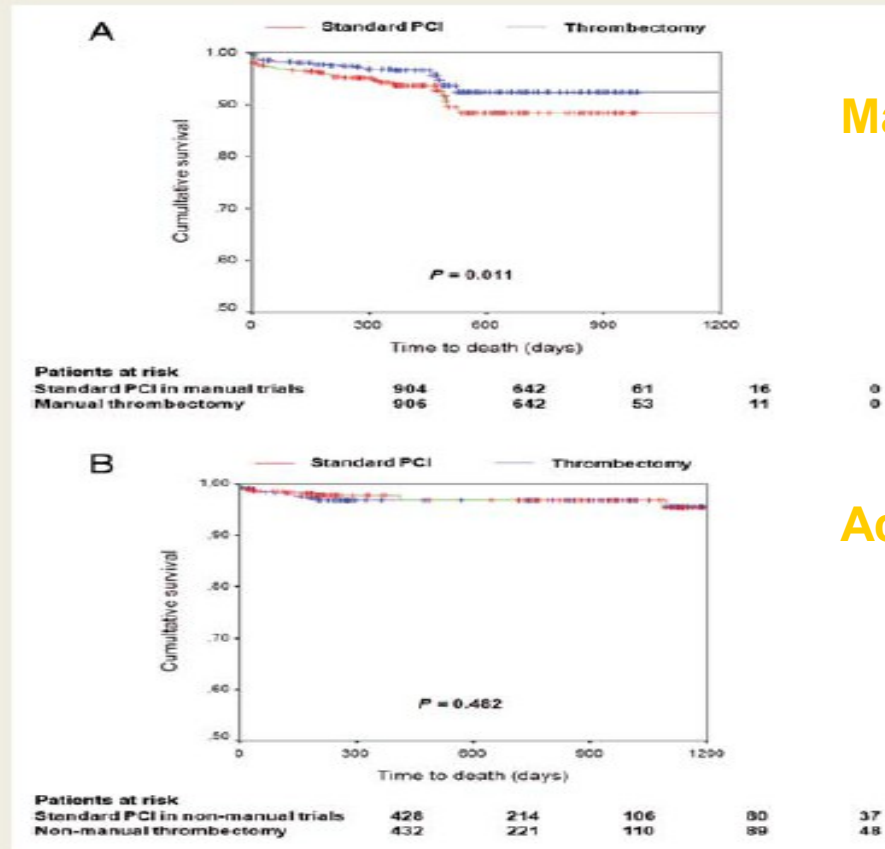
| Patients at risk | 0 | 300 | 600 | 900 | 1200 |
|-----------------------|------|-----|-----|-----|------|
| Standard PCI | 1333 | 768 | 164 | 96 | 37 |
| PCI with thrombectomy | 1339 | 777 | 159 | 99 | 48 |

Figure 4 Kaplan–Meier curves for MACE-free survival; log-rank $P = 0.011$.

NNT = 62 за избягване на 1 смърт за 1 г.

Clinical impact of thrombectomy in acute ST-elevation myocardial infarction: an individual patient-data pooled analysis of 11 trials

Francesco Burzotta¹, Giuseppe De Luca², Francesco Andreucci³, Francesco Di Mario⁴, Francesco Di Costanzo⁵, Francesco Di Biase⁶, Francesco Di Biase⁷, Francesco Di Biase⁸, Francesco Di Biase⁹, Francesco Di Biase¹⁰, Francesco Di Biase¹¹



Мануална ТА

Асистирана ТА

Figure 5 (A) Kaplan–Meier curves for cumulative survival in the manual thrombectomy group and corresponding control group; log-rank $P = 0.011$. (B) Kaplan–Meier curves for cumulative survival in the non-manual thrombectomy group and corresponding control group; log-rank $P = 0.481$.

NNT = 34 за мануална ТЕ

Intracoronary Abciximab and Aspiration Thrombectomy in Patients With Large Anterior Myocardial Infarction

The INFUSE-AMI Randomized Trial

- Пациенти с ОМИ до 4-ти час
- Оклузия на LAD в проксимален/среден сегмент
- TIMI 0-2
- Bivalirudin вместо хепарин
- Abciximab 0.25 mg/kg локално +/-
- ТА +/-
- Без: стент, байпас графт, предишен МИ, CrCl <30 ml/min

Intracoronary Abciximab and Aspiration Thrombectomy in Patients With Large Anterior Myocardial Infarction

The INFUSE-AMI Randomized Trial

4 групи

1. ТА + Abciximab
2. ТА - Abciximab
3. Без ТА + Abciximab
4. Без ТА - Abciximab

Цели: ЯМР оценка на размера на МИ на
30-ти ден

Intracoronary Abciximab and Aspiration Thrombectomy in Patients With Large Anterior Myocardial Infarction

The INFUSE-AMI Randomized Trial

Резултати:

1. Abciximab значитно редуцира размера на МИ на 30-ти ден.
2. ТА не повлиява размера на МИ.
3. ТА с Abciximab постигат най-голяма редукция на размера на МИ.
4. Липсва разлика между групите по отношение на: MBG, STR, събития.

The NEW ENGLAND JOURNAL of MEDICINE

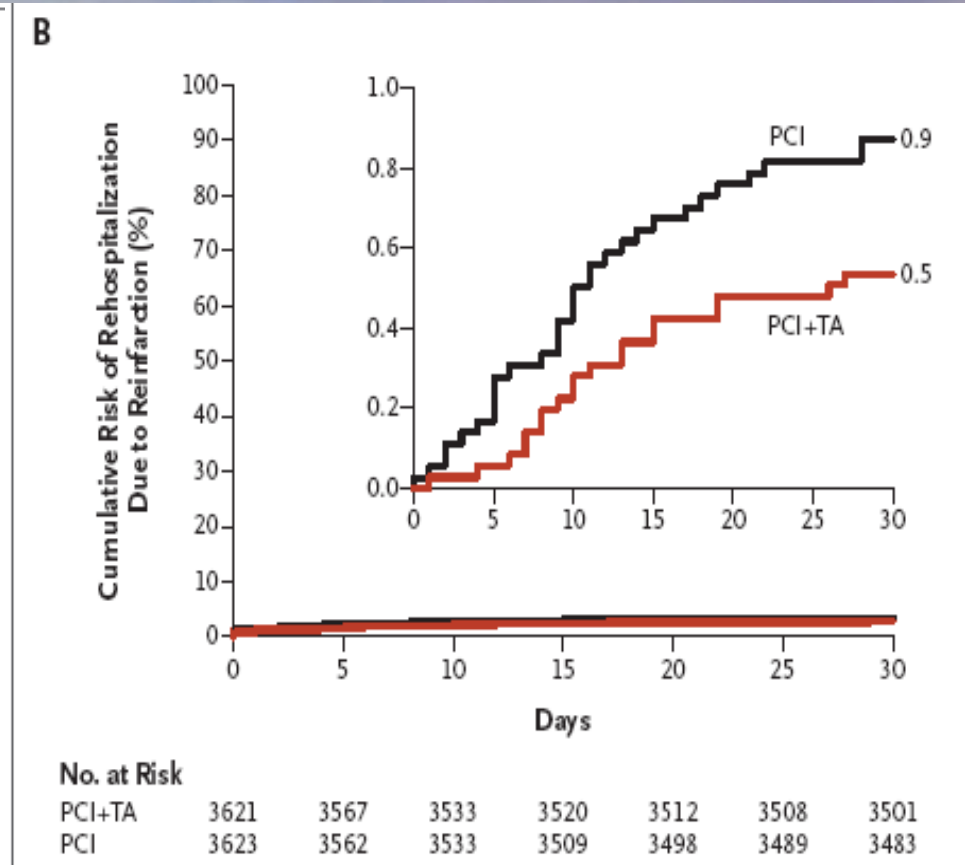
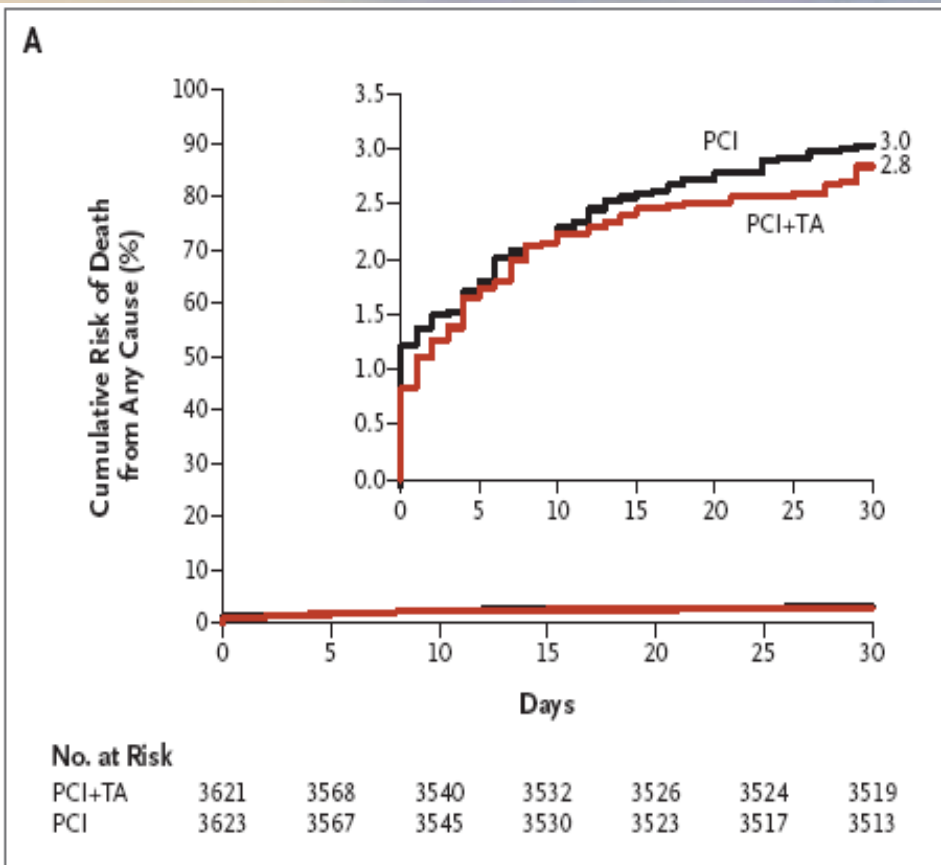
ESTABLISHED IN 1812

OCTOBER 24, 2013

VOL. 369 NO. 17

Thrombus Aspiration during ST-Segment Elevation Myocardial Infarction

Ole Fröbert, M.D., Ph.D., Bo Lagerqvist, M.D., Ph.D., Göran K. Olivecrona, M.D., Ph.D., Elmira Omerovic, M.D., Ph.D.,



TASTE

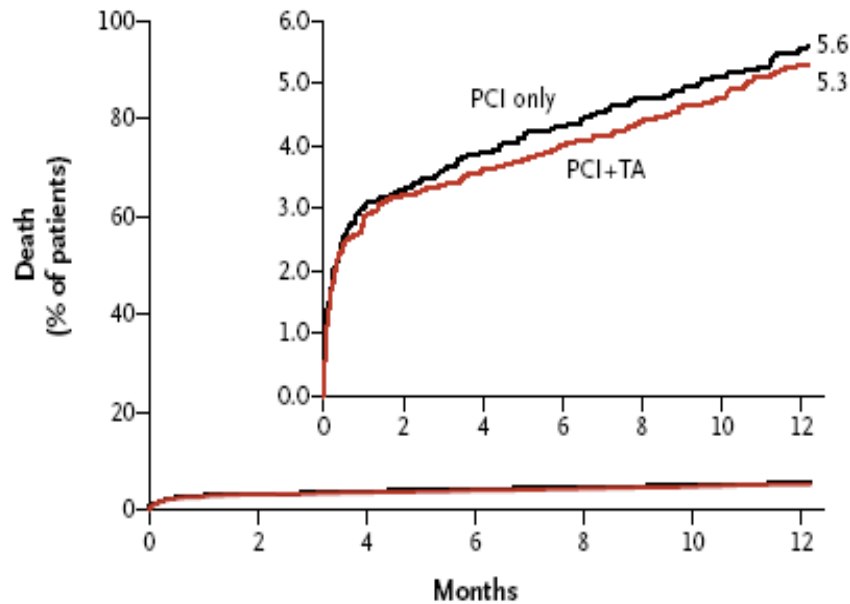
N = 7244, от 11709 STEMI (смъртност 10.8% при нерандомизираните)

ORIGINAL ARTICLE

Outcomes 1 Year after Thrombus Aspiration for Myocardial Infarction

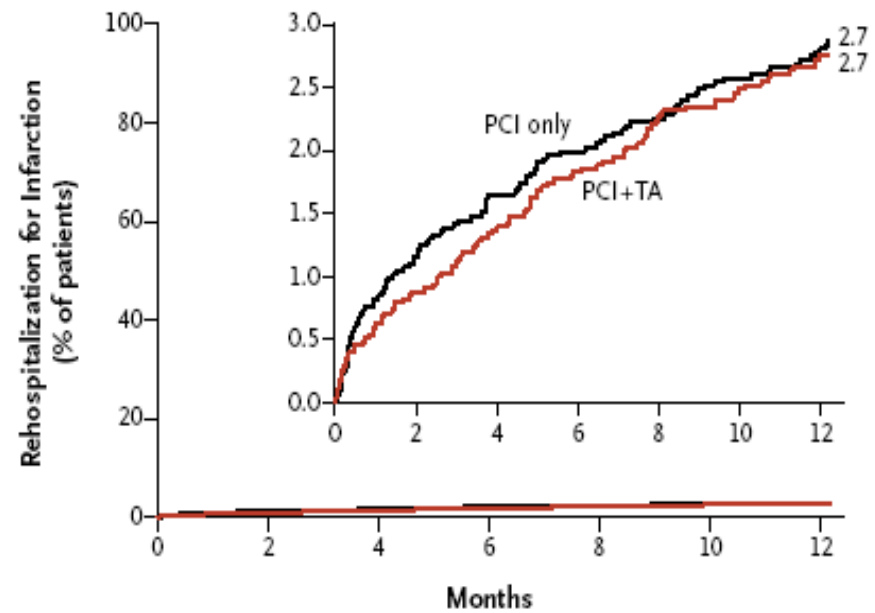
Bo Lagerqvist, M.D., Ph.D., Ole Fröbert, M.D., Ph.D., Göran K. Olivecrona, M.D., Ph.D.,

A Cumulative Risk of Death



| No. at Risk | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|-------------|------|------|------|------|------|------|------|
| PCI+TA | 3621 | 3500 | 3485 | 3470 | 3456 | 3440 | 3425 |
| PCI only | 3623 | 3503 | 3481 | 3466 | 3450 | 3435 | 3420 |

B Cumulative Risk of Rehospitalization for Infarction

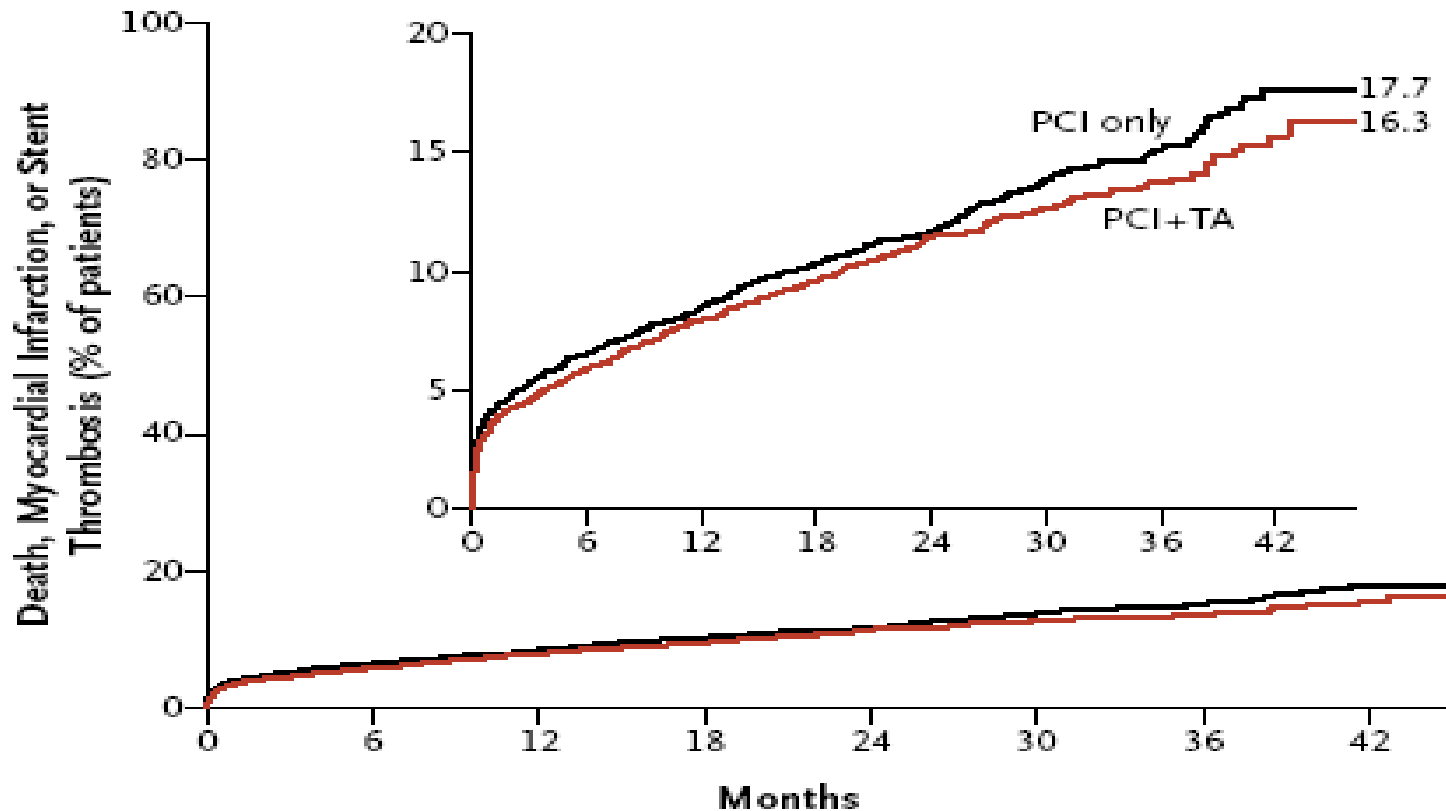


| No. at Risk | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
|-------------|------|------|------|------|------|------|------|
| PCI+TA | 3621 | 3473 | 3441 | 3412 | 3384 | 3360 | 3336 |
| PCI only | 3623 | 3463 | 3424 | 3398 | 3374 | 3349 | 3327 |

TASTE 1 година

ORIGINAL ARTICLE

Outcomes 1 Year after Thrombus Aspiration for Myocardial Infarction



No. at Risk

| | | | | | | | | |
|----------|------|------|------|------|------|------|-----|-----|
| PCI+TA | 3623 | 3404 | 3328 | 2821 | 2180 | 1505 | 864 | 184 |
| PCI only | 3621 | 3386 | 3315 | 2796 | 2200 | 1494 | 862 | 190 |

TASTE 1 година

Aspiration thrombectomy in patients undergoing primary angioplasty: Totality of data to 2013

15 November 2014, Pages 973–977

D. Kumbhani et al.

- 11 321 пациента от 20 RCT
- Резултати на 6/12 месец
- MACE - RR 0.81 (0.70-0.94), $p=0.006$
- Смъртност 6-12 месец – RR 0.64 (0.44-0.92), $p=0.016$
- Реинфаркт – RR 0.64 (0.44-0.92), $p=0.017$
- Стент тромбоза – RR 0.54 (0.32-0.91), $p=0.021$

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

APRIL 9, 2015

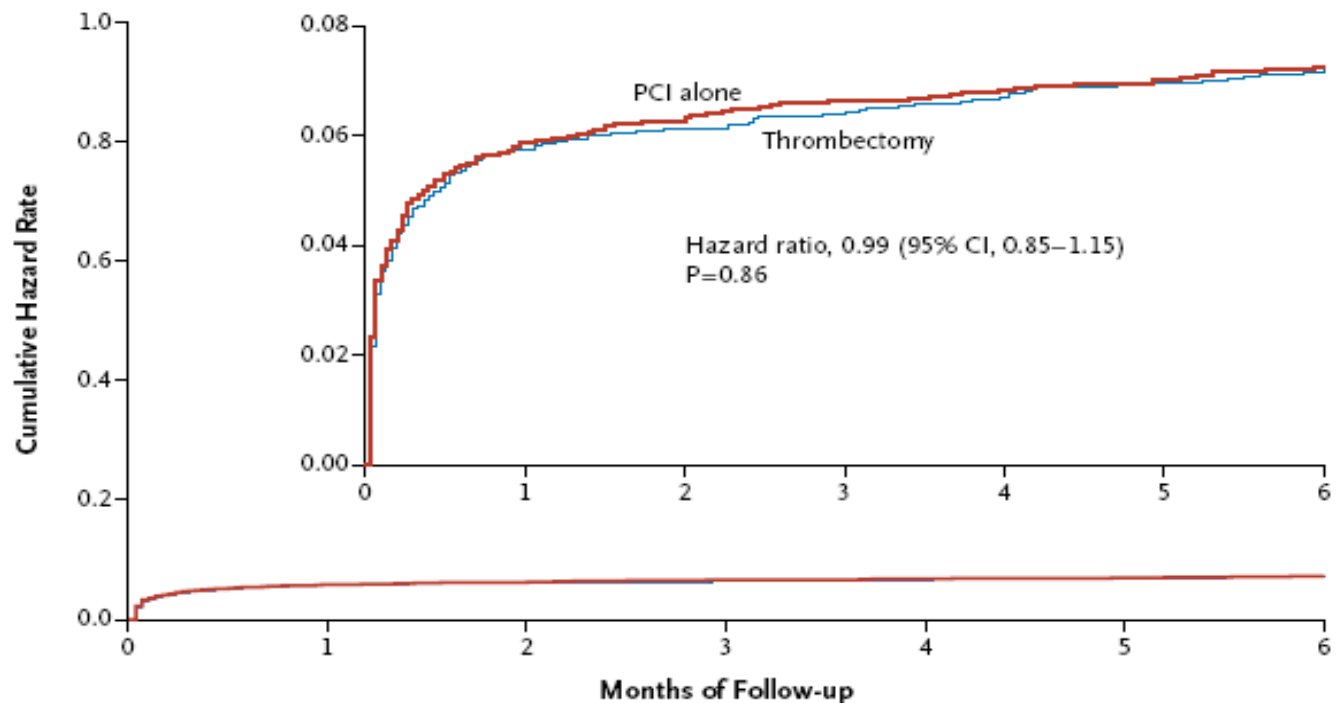
VOL. 372 NO. 15

Randomized Trial of Primary PCI with or without Routine Manual Thrombectomy

S.S. Jolly, J.A. Cairns, S. Yusuf, B. Meeks, J. Pogue, M.J. Rokoss, S. Kedev, L. Thabane, G. Stankovic, R. Moreno,

TOTAL

A Primary Outcome



No. at Risk

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------|------|------|------|------|------|------|------|
| Thrombectomy | 5033 | 4734 | 4696 | 4678 | 4662 | 4647 | 4628 |
| PCI alone | 5030 | 4727 | 4688 | 4666 | 4653 | 4642 | 4618 |

IIb/IIIa
37.4% c/y
41.4%
7.1% bailout
TE

N = 10 066, смъртност, ре-МИ, шок, СН 4 ф. кл. на 6-ти месец

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

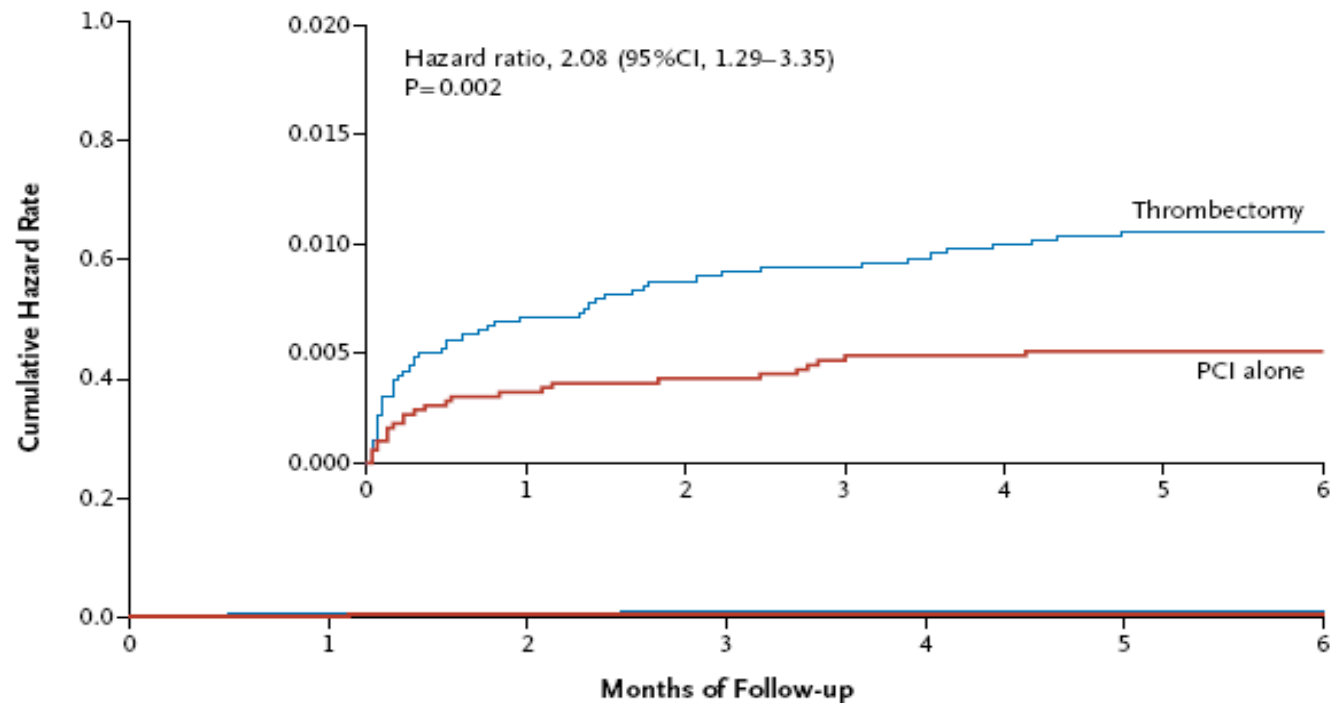
APRIL 9, 2015

VOL. 372 NO. 15

Randomized Trial of Primary PCI with or without Routine Manual Thrombectomy

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B Stroke



No. at Risk

| | | | | | | | |
|--------------|------|------|------|------|------|------|------|
| Thrombectomy | 5033 | 4873 | 4836 | 4819 | 4806 | 4794 | 4778 |
| PCI alone | 5030 | 4866 | 4829 | 4810 | 4800 | 4791 | 4775 |

TOTAL

The NEW ENGLAND JOURNAL of MEDICINE

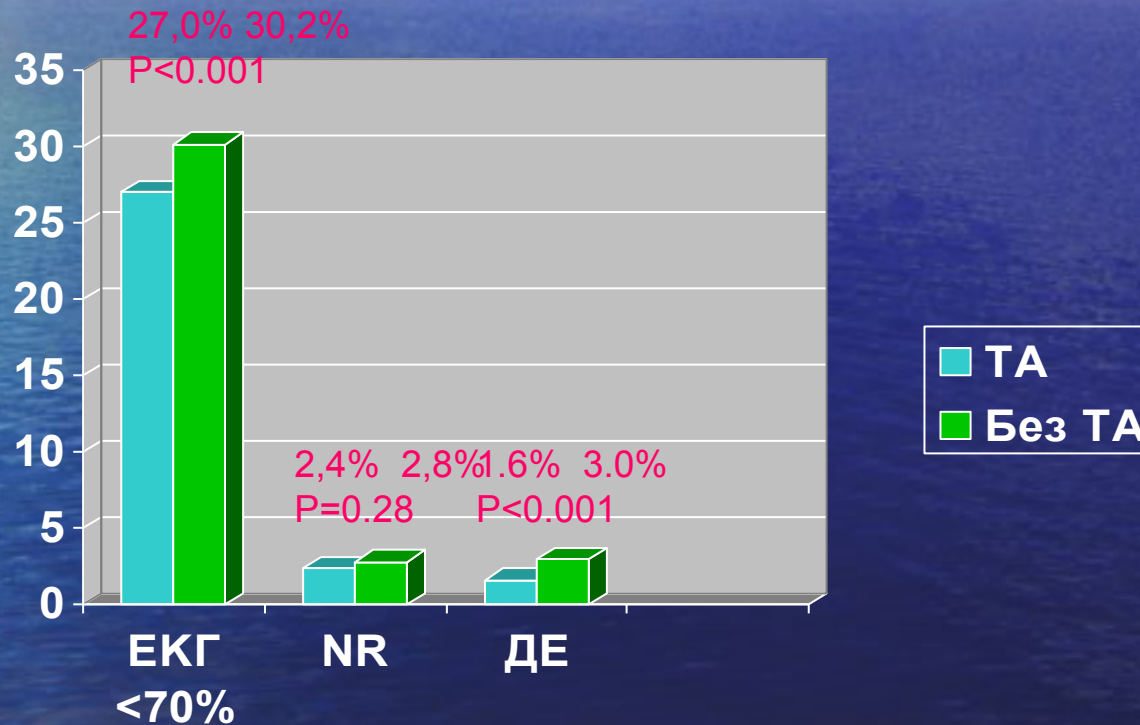
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S.S. Jolly, J.A. Cairns, S. Yusuf, B. Meeks, J. Pogue, M.J. Rokoss, S. Kedev, L. Thabane, G. Stankovic, R. Moreno,



TOTAL

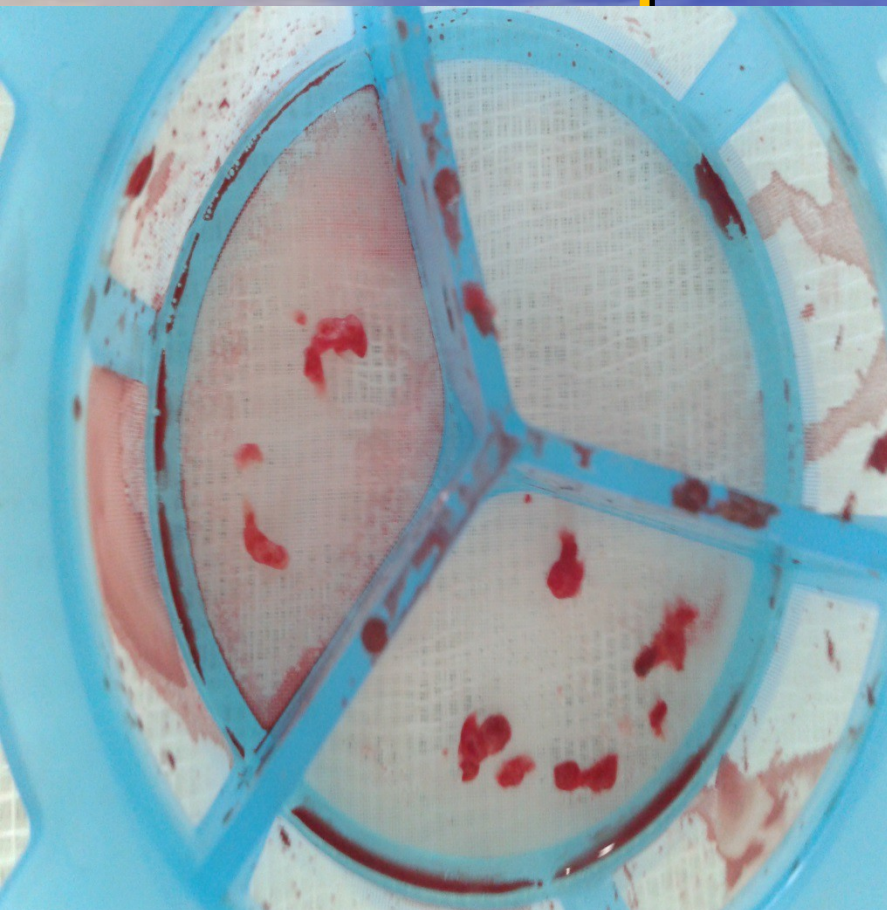


**Coronary Microvascular Obstruction — A Puzzle
with Many Pieces**

Filippo Crea, M.D.

- Ниската честота на събитията в TASTE и TOTAL говори за селекция на нискрискови пациенти.
- Около 10% от пациентите в TASTE за само-ПТКА са прехвърлени за ТА.
- Освен дисталната емболизация уврежданията от исхемия/реперфузия и първична микровакуларна дисф-я имат значение.
- Необходим е интегриран и персонализиран подход за превенция на риска от микроемболизация.

Мечтата на интервенционалиста...?!





2014 ESC/EACTS Guidelines on myocardial revascularization

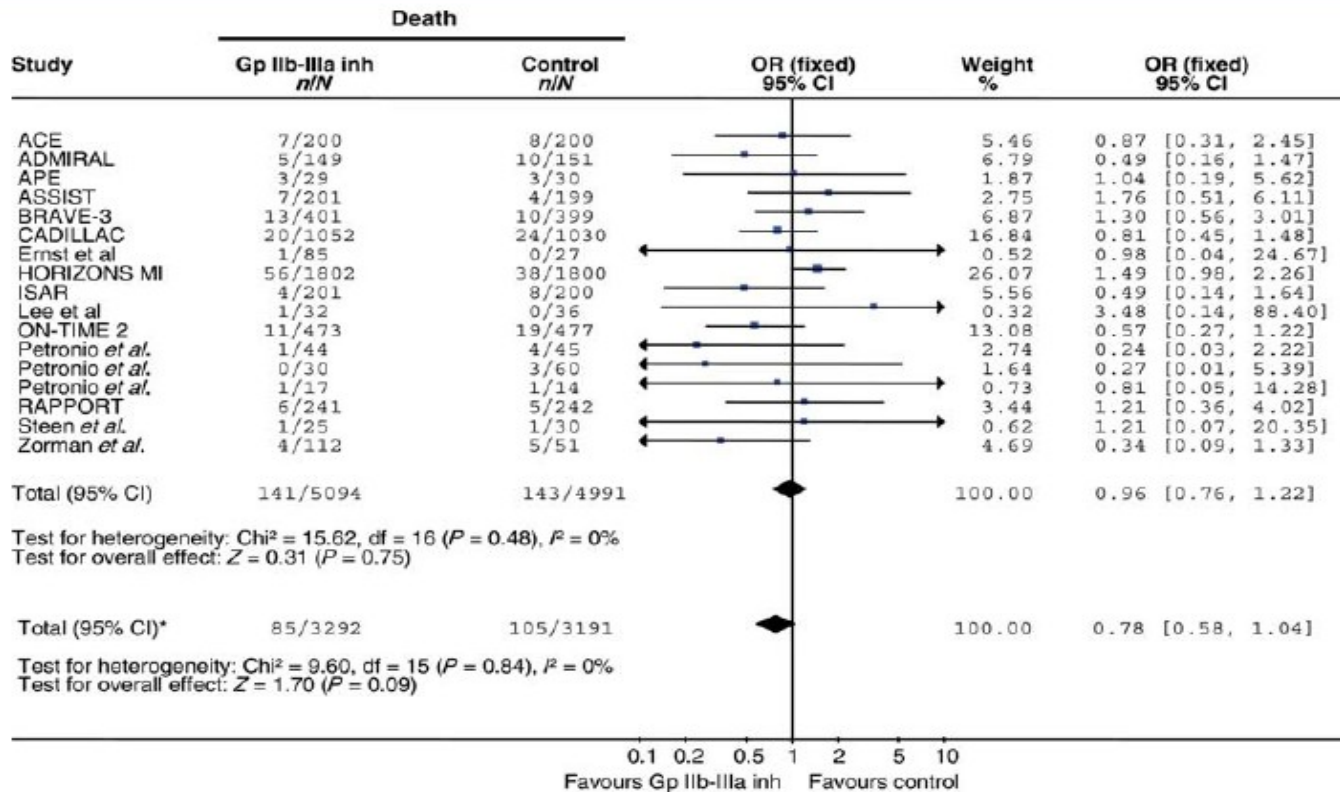
Използването на IIb-IIIa инхибитори се препоръчва като спасителна терапия.

В случаи на:

1. Голям тромб
2. Бавен/липсващ кръвоток
3. Други тромботични усложнения

Risk profile and benefits from Gp IIb/IIIa inhibitors among patients with ST-segment elevation myocardial infarction treated with primary angioplasty: a meta-regression analysis of randomized trials

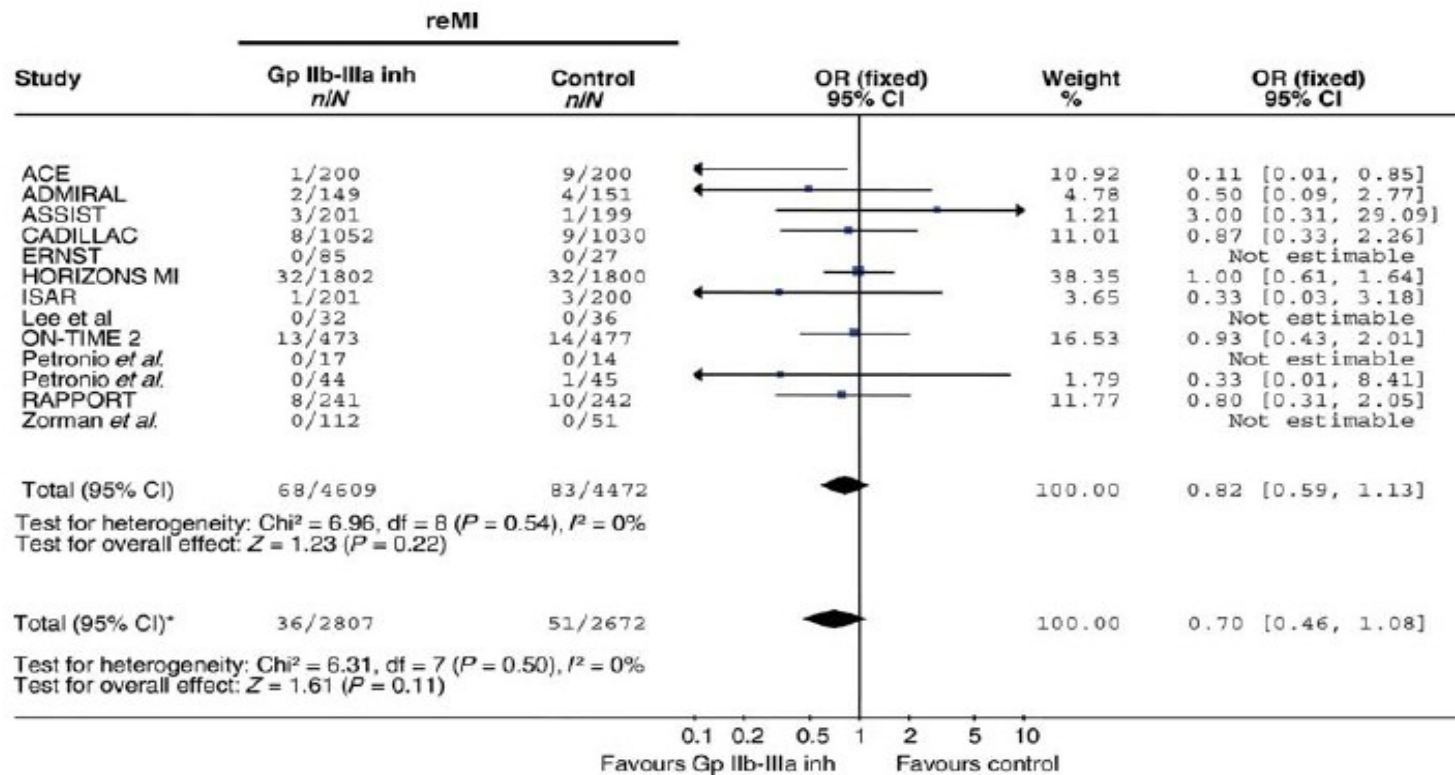
Giuseppe De Luca*, Eliano Navarese, and Paolo Marino



16 проучвания, 10 085 пациента, смъртност на 30-ти ден

Risk profile and benefits from Gp IIb-IIIa inhibitors among patients with ST-segment elevation myocardial infarction treated with primary angioplasty: a meta-regression analysis of randomized trials

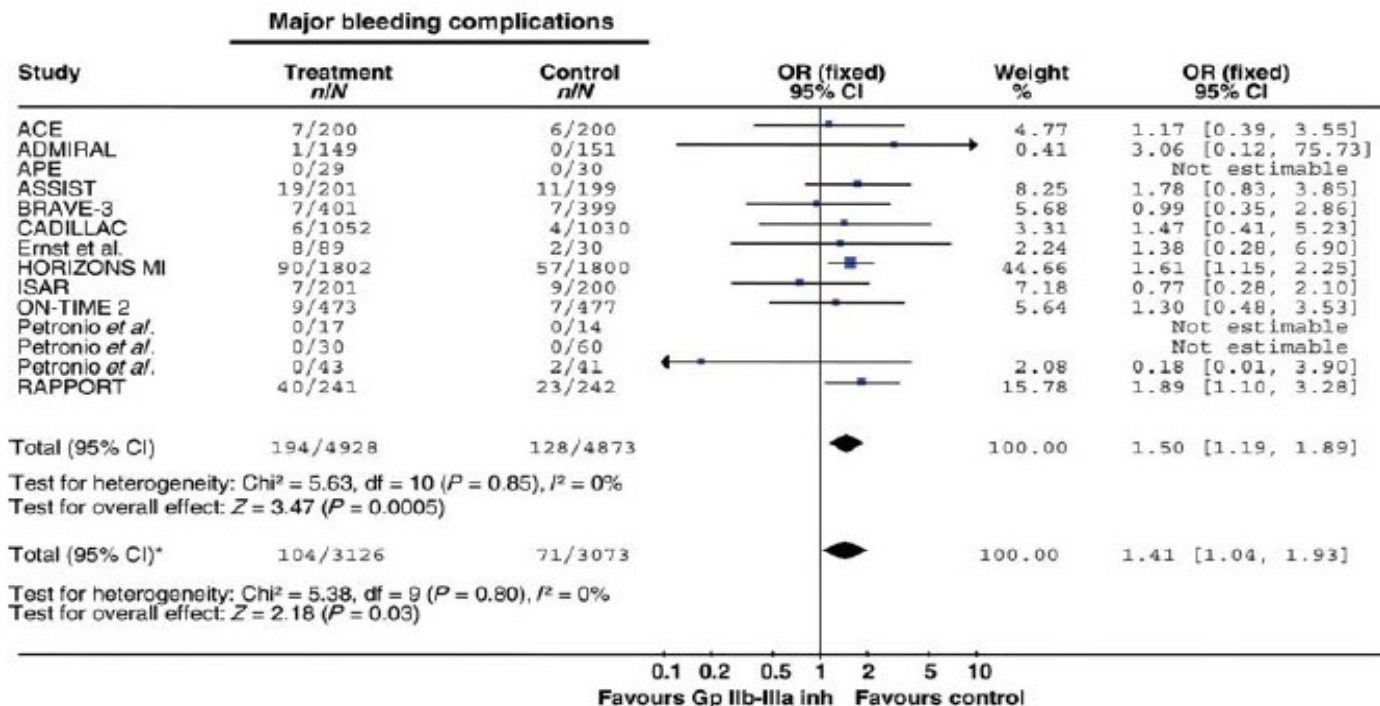
Giuseppe De Luca*, Eliano Navarese, and Paolo Marino



16 проучвания, 10 085 пациента, ре-МИ на 30-ти ден

Risk profile and benefits from Gp IIb-IIIa inhibitors among patients with ST-segment elevation myocardial infarction treated with primary angioplasty: a meta-regression analysis of randomized trials

Giuseppe De Luca*, Eliano Navarese, and Paolo Marino

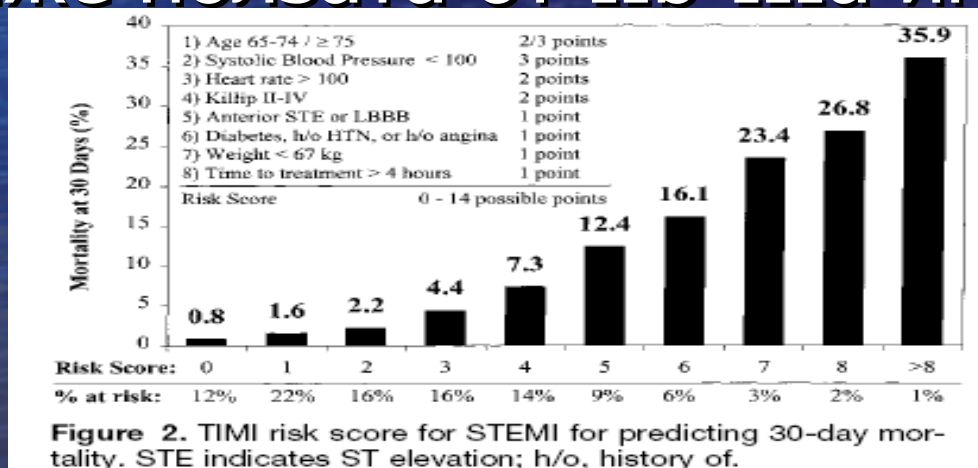


16 проучвания, 10 085 пациента, голямо кървене

Risk profile and benefits from Gp IIb-IIIa inhibitors among patients with ST-segment elevation myocardial infarction treated with primary angioplasty: a meta-regression analysis of randomized trials

Giuseppe De Luca*, Eliano Navarese, and Paolo Marino

- Значимо по-ниска смъртност има при по-рисковите групи пациенти.
- Необходимо е използването на индекси за риск (TIMI risk score), за да се предскаже ползата от IIb-IIIa инхибитори.



Effect of Early, Pre-Hospital Initiation of High Bolus Dose Tirofiban in Patients With ST-Segment Elevation Myocardial Infarction on Short- and Long-Term Clinical Outcome

Jurriën M. ten Berg, MD, PhD,* Arnoud W. J. van 't Hof, MD, PhD,† Thorsten Dill, MD, PhD,‡

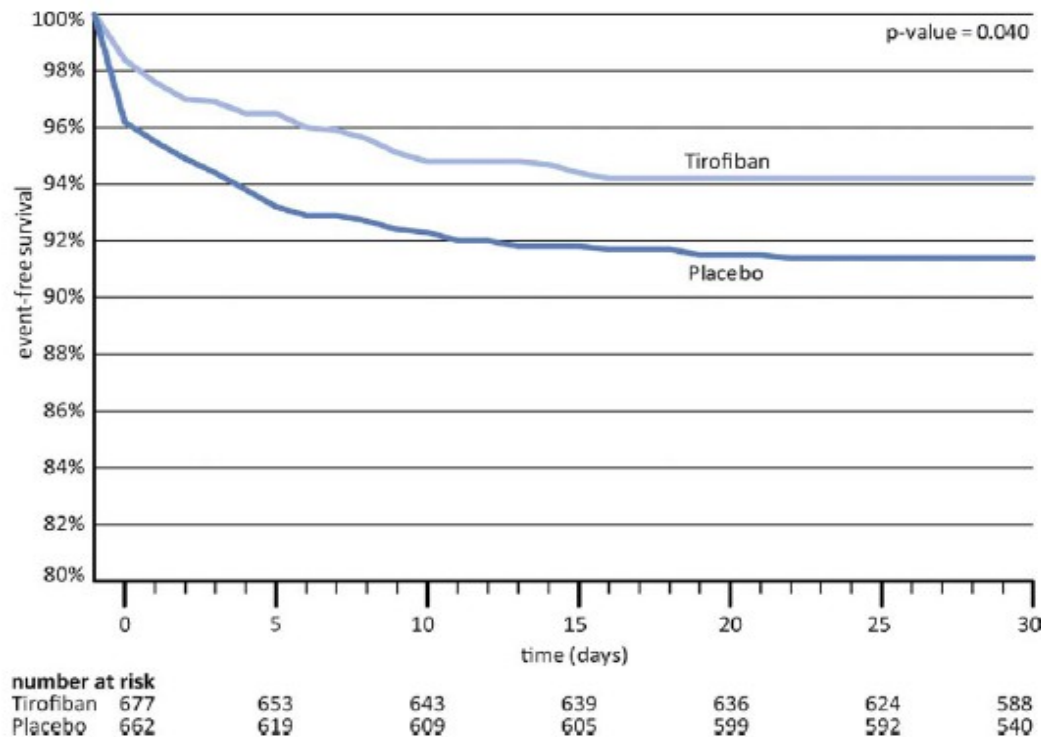


Figure 3

Kaplan-Meier Survival Curves Free From Major Adverse Cardiac Events in the Group of 1,339 Patients From the Open-Label and Blinded Study Phases Who Had 30-Day Follow-Up

**Effect of Early, Pre-Hospital Initiation
of High Bolus Dose Tirofiban in Patients
With ST-Segment Elevation Myocardial
Infarction on Short- and Long-Term Clinical Outcome**

Jurriën M. ten Berg, MD, PhD,* Arnoud W. J. van 't Hof, MD, PhD,† Thorsten Dill, MD, PhD,‡

- Ползите са предимно при приложение до 75-та минута - **NNT=26**
- След 75-та минута – **NNT=113**

On-TIME 2 trial

I Ib-IIIa i.v. срещу i.c.

- **INFUSE-AMI – 2012 г.**
- **AIDA-STEMI – 2012 г.**

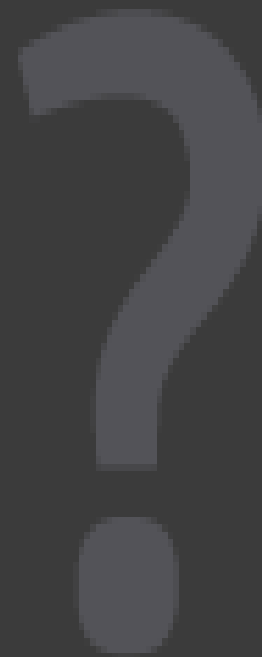
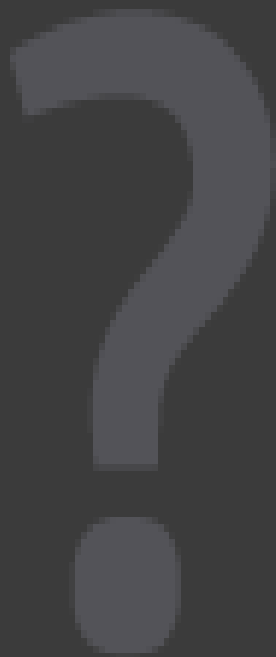
AIDA-STEMI

- 1032 i.c. – 1033 i.v.
- Резултати:
 1. Смъртност, реинфаркт, СН – без разлика.
 2. Само смъртност/реинфаркт – без разлика.
 3. Само СН – 2.4% с/у 4.1%, $p=0.04$, RR 0.57 (0.33-0.97)
 4. Кървене – без разлика.

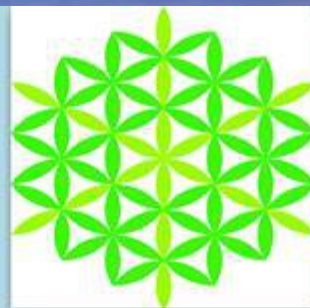
Обобщение

- При съвременните ОАА приложението на IIb-IIIa инхибиторите е с най-голяма полза при високорискови пациенти (TIMI>4) и при ранна апликация (<75 мин. и преди трансфер).
- Възможно е приложение само на насищаща доза без последваща инфузия.
- Интракоронарното приложение (оптимално интралезионното) може да се има предвид.

Мечтата на интервенционалиста...?!



Благодаря за вниманието!



БОЛНИЦА ТРАКИЯ

Грижата, от която се нуждаете!

