TROMBUS: NÁŠ VELKÝ NEPŘÍTEL

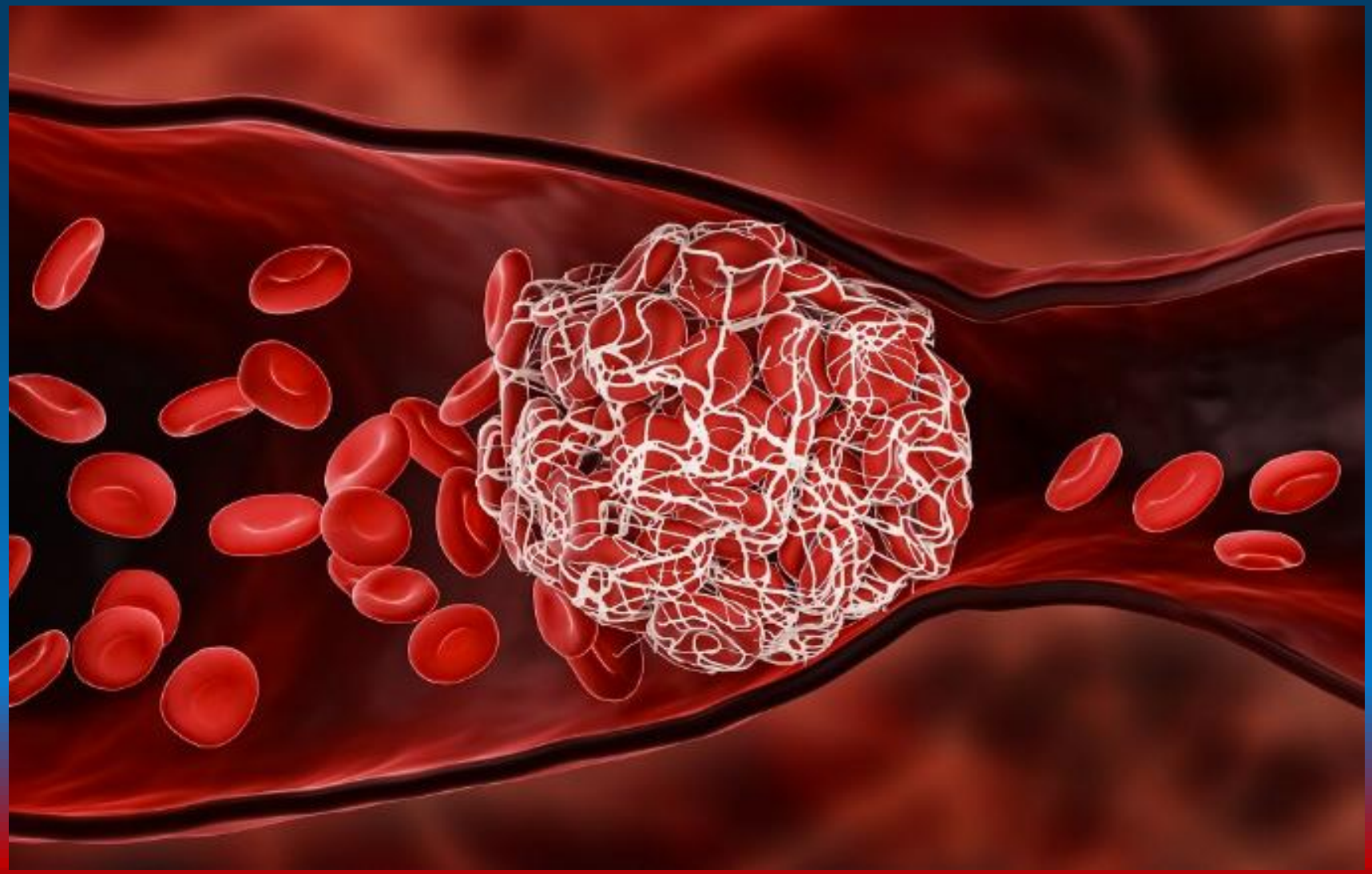
…NA SÁLE I POTOM

Ivo Varvařovský

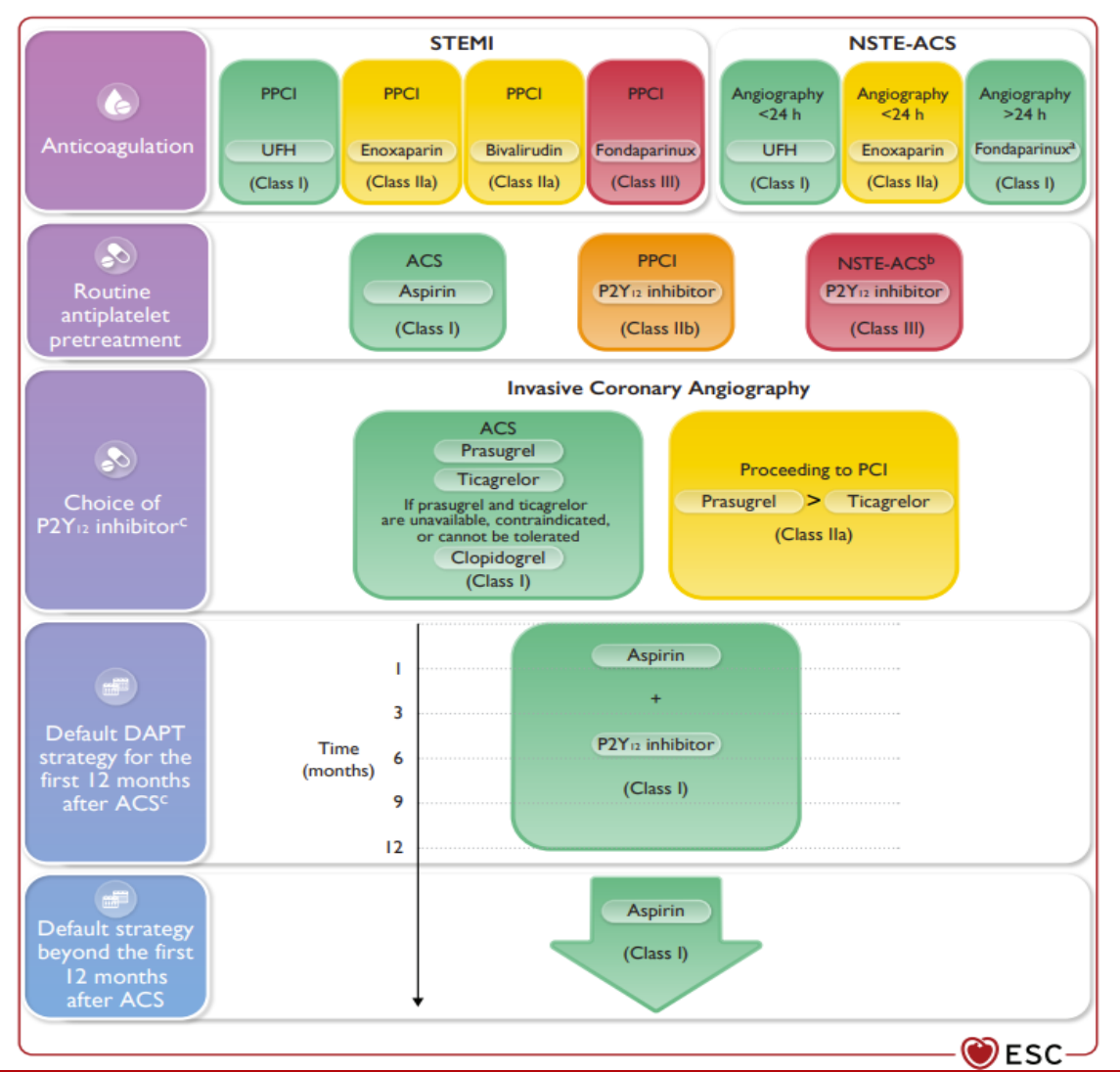
Kardiologické centrum Agel Pardubice

XXXII. výroční sjezd ČKS, Brno, 6.5.2024

TROMBUS: NEPŘÍTEL KARDIOLOGICKÉHO PACIENTA



DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023)



DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023) : STEMI

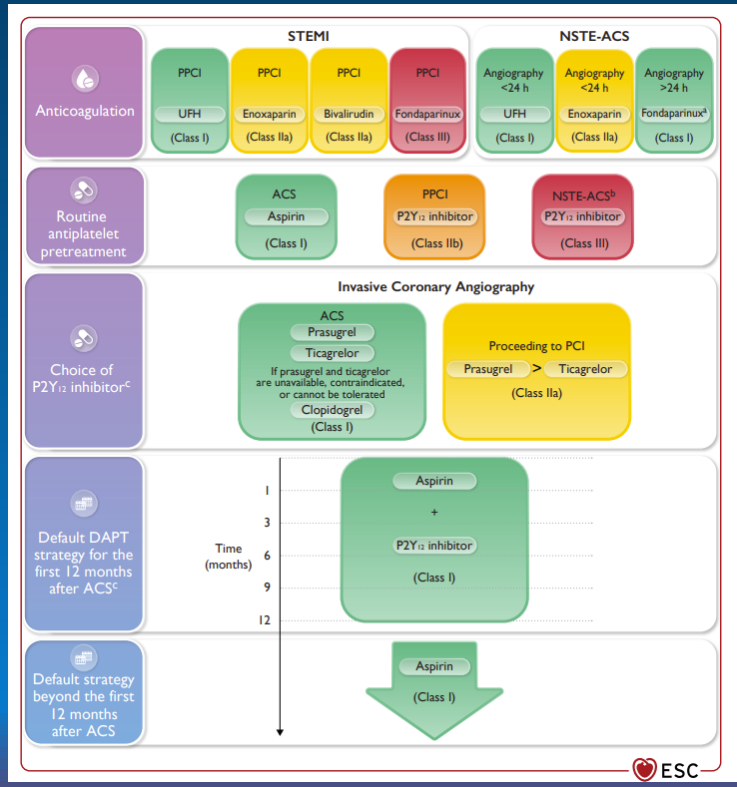
kyselina acetylsalicylová (ASA)

+

(inhibitor $P2Y_{12}$)

+

antikoagulační lék



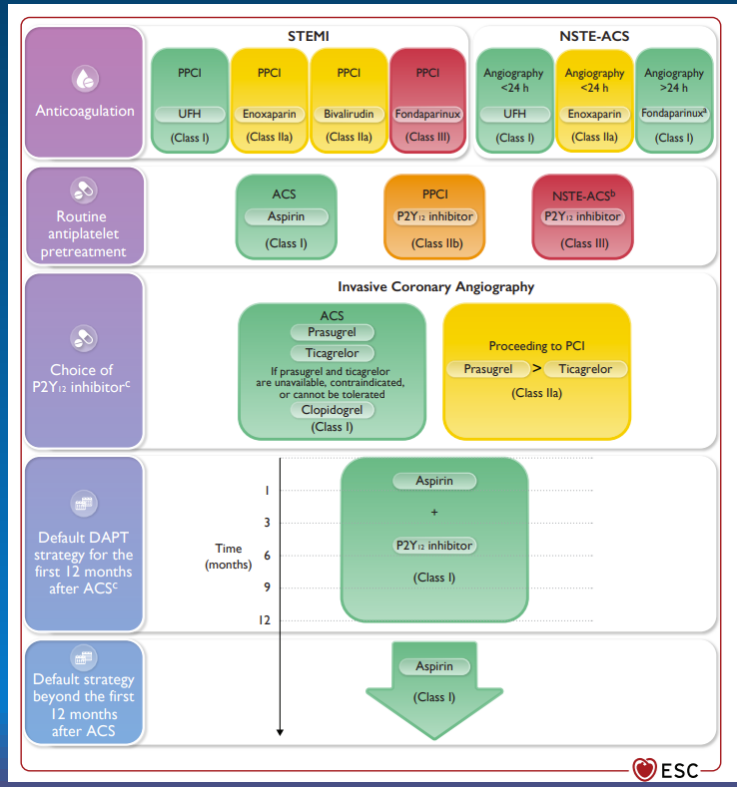
DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023) : STEMI

Inhibitor P2Y12 :

KDY ???

Před transportem ?

Po koronarografii ?



DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023) : STEMI

Předléčení ticagrelorem při PCI/STEMI:

ATLANTIC study

žádný přínos

N Engl J Med. 2014 Sep 11;371(11):1016-27.

SWEDEHEART registr

žádný přínos

Circ Cardiovasc Interv. 2018 Mar;11(3):e005528.

Pre-treatment with a $P2Y_{12}$ receptor inhibitor may be considered in patients undergoing a primary PCI strategy.[244,245]	IIb	B

$P2Y_{12}$ PŘI LÉČBĚ STEMI PRIMÁRNÍ PCI: SILNÉ P.O.INHIBITORY

Infarct size following loading with Ticagrelor/Prasugrel versus Clopidogrel in ST-segment elevation myocardial infarction

Muhammad Sabbah [a,*,1], Lars Nepper-Christensen [a,1], Lars Køber [a,1], Dan Eik Høfsten [a,1],

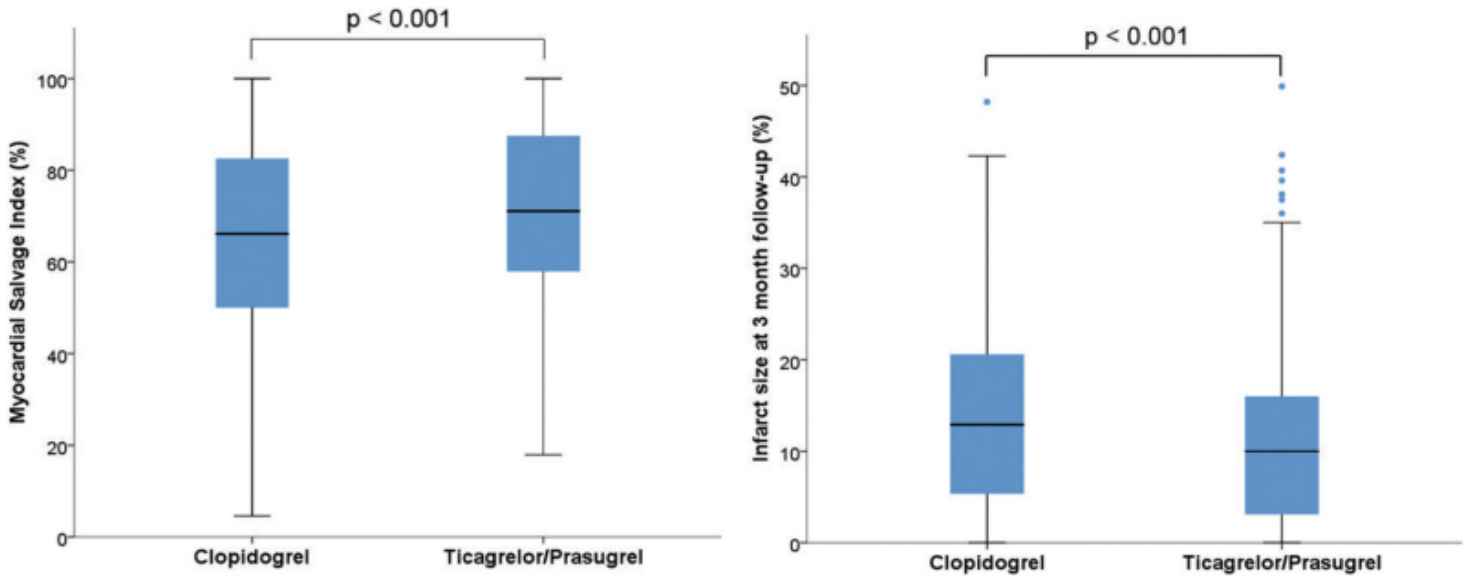


Fig. 2. Infarct size and myocardial salvage index at three-month follow-up according to anti-platelet treatment. Legend: Median, interquartile and total range of myocardial salvage index (left) and infarct size (right) according to treatment group (Clopidogrel vs Ticagrelor). There was a significant difference between treatment groups (Ticagrelor/Prasugrel vs Clopidogrel) for both infarct size and myocardial salvage index, $p < 0.001$ (see text for details).

International Journal of Cardiology 314 (2020) 7–12

ROZDRCENÝ PRASUGREL PŘI STEMI :
RYCHLEJŠÍ NÁSTUP, LEPŠÍ REPERFÚZE

ORIGINAL RESEARCH

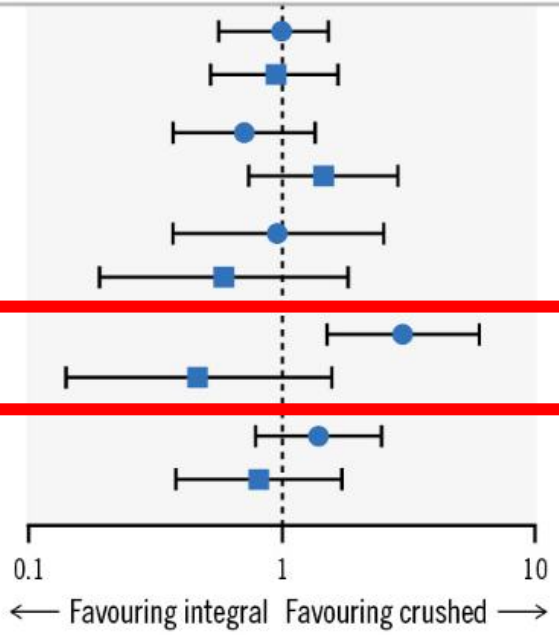
DOI: 10.4244/EIJ-D-23-00618

Prehospital crushed versus integral prasugrel loading dose in STEMI patients with a large myocardial area

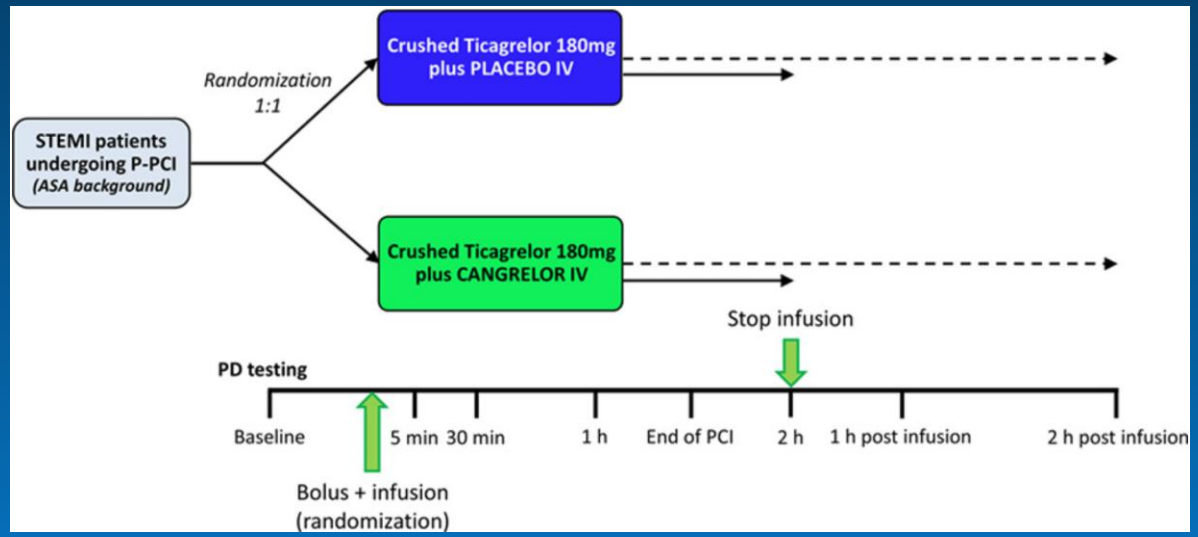
EuroIntervention
2024;20:e436-e444
published online e-edition April 2024

Jeroen M. Wilschut[1], MD; Rosanne F. Vogel[2,3], MD; Jacob J. Elscot[1], BSc; Ronak Delewi[3], MD, PhD;

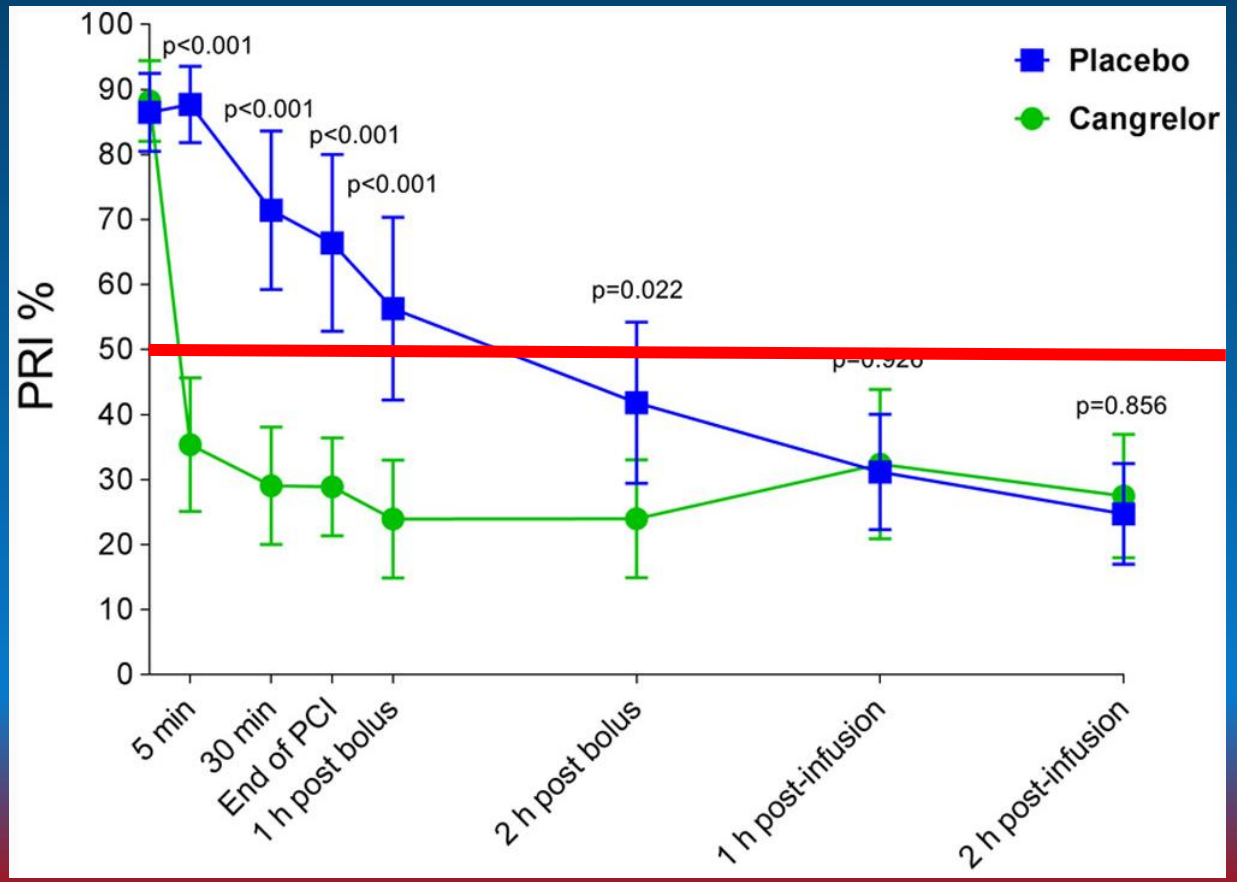
	Crushed *No. of events (%)*	Integral *Total no. of patients (%)*	Odds ratio [95% CI]
Pre-PCI TIMI 3 flow	44/160 (28)	43/148 (29)	0.93 [0.56-1.52]
in the IRA	40/99 (40)	38/90 (42)	0.93 [0.52-1.66]
Pre-PCI high thrombus burden	133/159 (84)	130/148 (88)	0.71 [0.37-1.35]
in the IRA	80/100 (80)	66/90 (73)	1.46 [0.74-2.86]
Pre-PCI myocardial	9/107 (8)	9/103 (9)	0.96 [0.37-2.52]
blush grade 3	6/62 (10)	8/52 (15)	0.59 [0.19-1.82]
Post-PCI TIMI 3 flow	146/159 (92)	116/147 (79)	3.00 [1.50-6.00]
in the IRA	86/95 (91)	82/86 (95)	0.47 [0.14-1.57]
Post-PCI myocardial	54/92 (59)	50/99 (51)	0.81 [0.38-1.72]
blush grade 3	31/59 (53)	30/52 (58)	1.39 [0.79-2.47]



CANGRELOR :
RYCHLEJŠÍ NEŽ SILNÉ INHIBITORY $P2Y_{12}$



Circulation. 2019;139:1661–1670



DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023) : STEMI

Inhibitor P2Y12 :

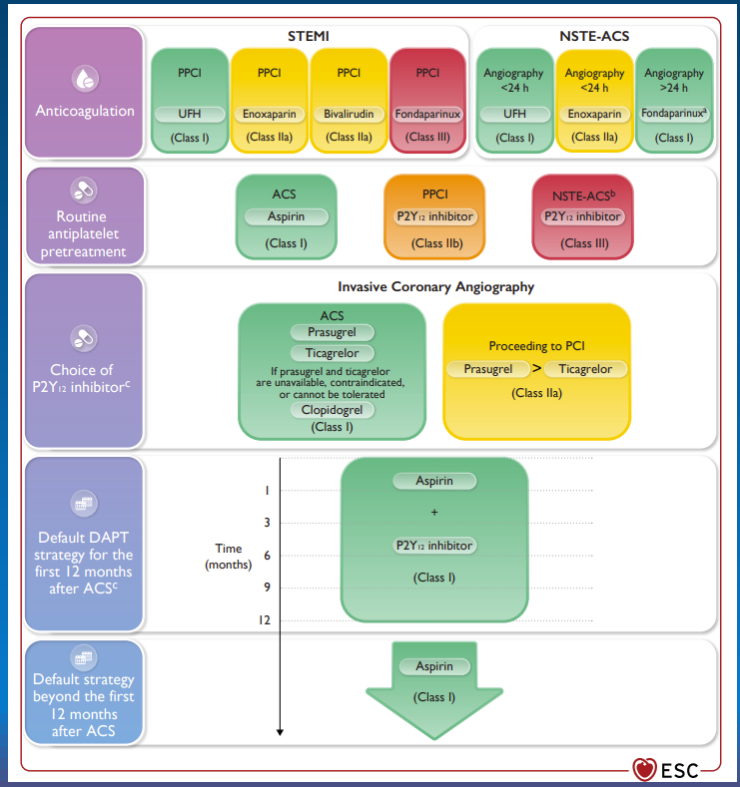
JAKÝ ???

Prasugrel ?

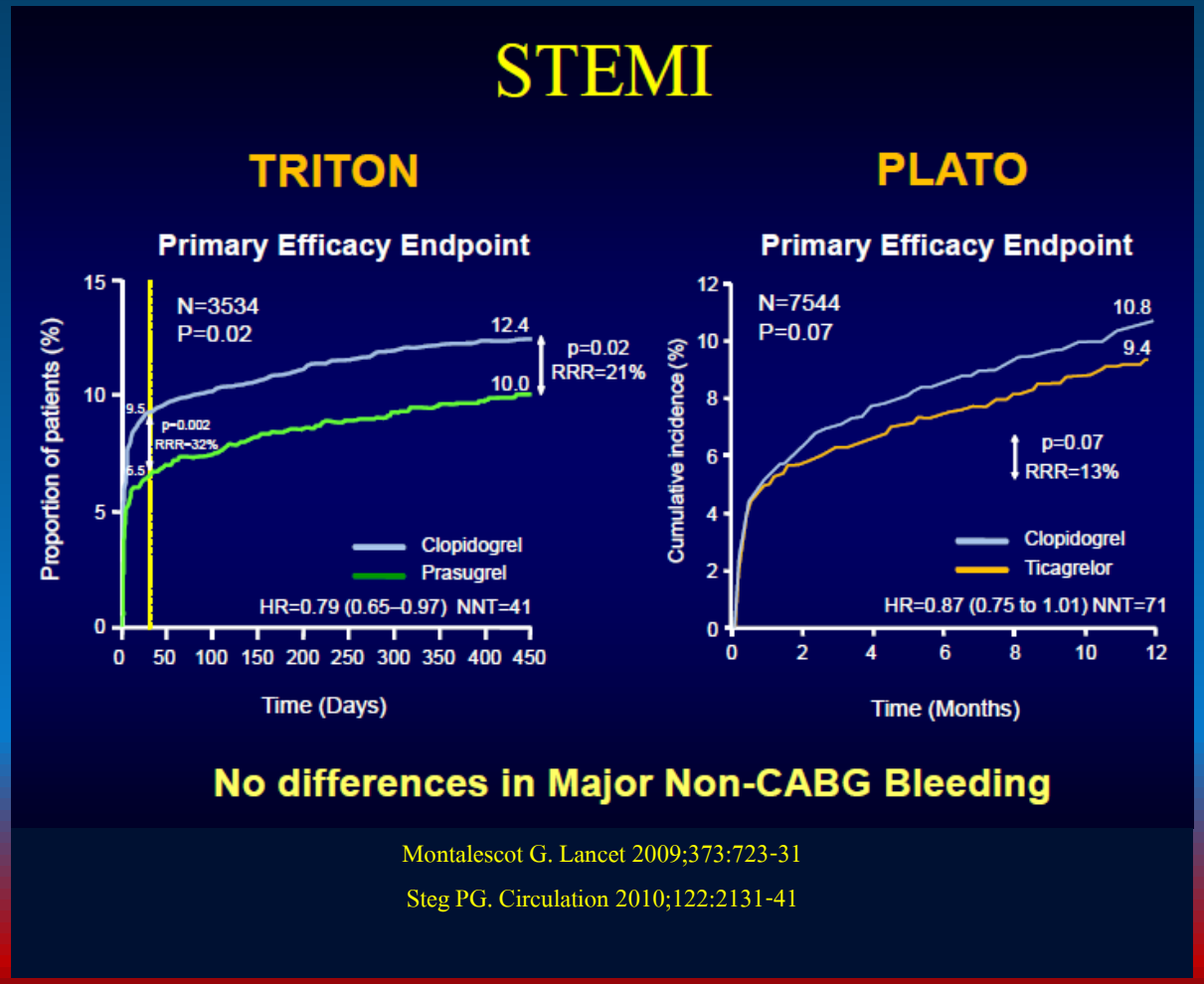
Ticagrelor ?

Clopidogrel ?

Cangrelor ?

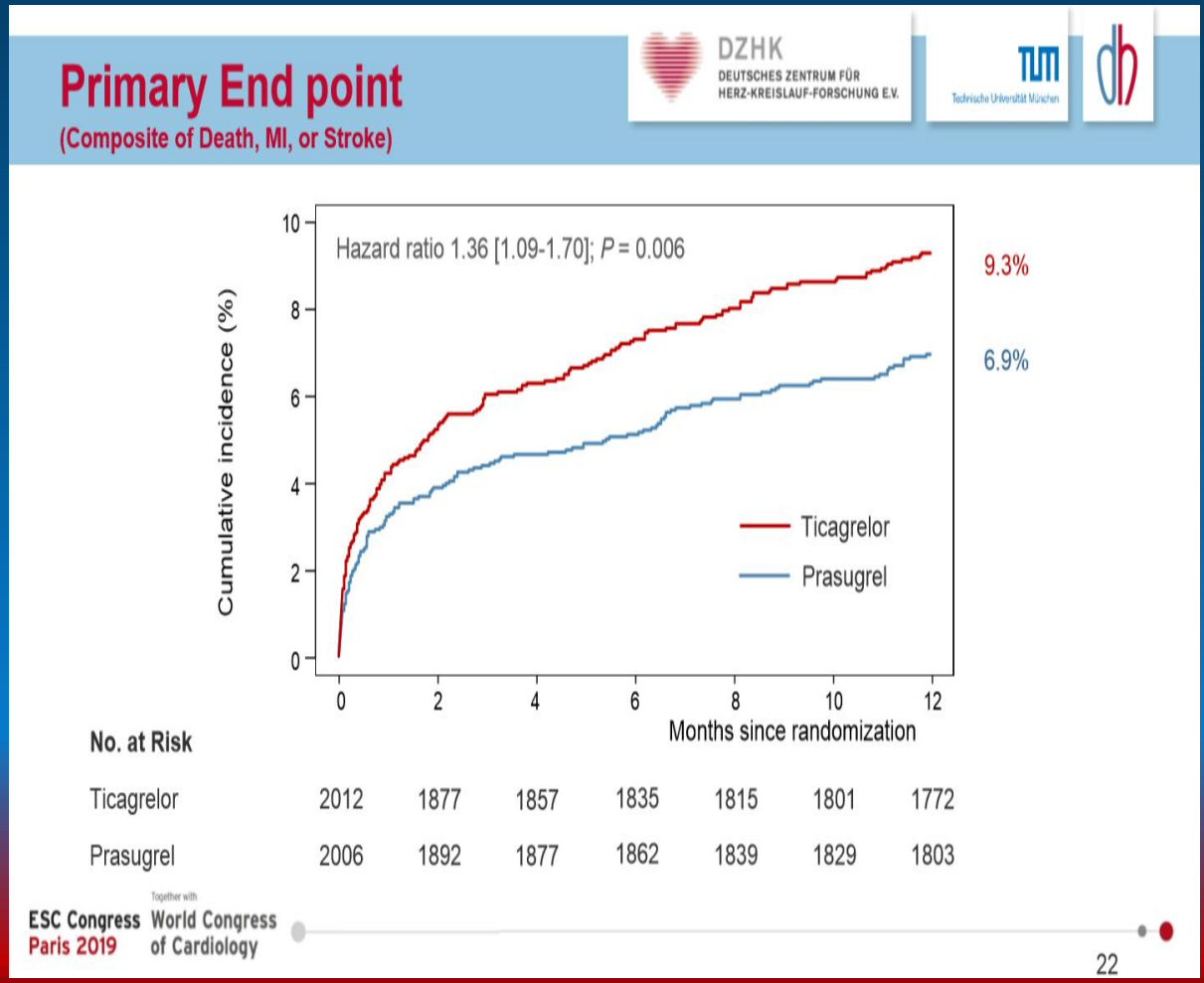


VÝSLEDKY SROVNÁVACÍCH STUDIÍ INHIBITORŮ $P2Y_{12}$ V LÉČBĚ STEMI



Montalescot G. Lancet 2009;373:723-31

Steg PG. Circulation 2010;122:2131-41



INHIBITORY $P2Y_{12}$ PŘI **STEMI**

Podání před koronarografií :

- při jisté diagnóze velkého STEMI : asi ano
- rozdrcený asi lepší než vcelku

Potenciálně nejvýhodnější : cangrelor

Pořadí volby perorálních : prasugrel > ticagrelor > clopidogrel

TROMBOLYTICKÁ LÉČBA STEMI : KDY ?

If timely PPCI (<120 min) cannot be performed in patients with a working diagnosis of STEMI, fibrinolytic therapy is recommended within 12 h of symptom onset in patients without contraindications.[176,183]	I	A
Rescue PCI is recommended for failed fibrinolysis (i.e. ST-segment resolution <50% within 60–90 min of fibrinolytic administration) or in the presence of haemodynamic or electrical instability, worsening ischaemia, or persistent chest pain.[184,185]	I	A

Absolute
Previous intracranial haemorrhage or stroke of unknown origin at any time
Ischaemic stroke in the preceding 6 months
Central nervous system damage or neoplasms, or arteriovenous malformation
Recent major trauma/surgery/head injury (within the preceding month)
Gastrointestinal bleeding within the past month
Known bleeding disorder (excluding menstrual)
Aortic dissection
Non-compressible punctures in the past 24 h (e.g. liver biopsy, lumbar puncture)

Koronarografie + PCI do 24 hodin

TROMBOLYTICKÁ LÉČBA STEMI : JAK ?

Streptokinase	1.5 million units over 30–60 min i.v.
Alteplase (tPA)	15 mg i.v. bolus 0.75 mg/kg i.v. over 30 min (up to 50 mg) then 0.5 mg/kg i.v. over 60 min (up to 35 mg)
Reteplase (rPA)	10 units + 10 units i.v. bolus given 30 min apart
Tenecteplase (TNK-tPA)	Single i.v. bolus: 30 mg (6000 U) if <60 kg 35 mg (7000 U) if 60 to <70 kg 40 mg (8000 U) if 70 to <80 kg 45 mg (9000 U) if 80 to <90 kg 50 mg (10 000 U) if ≥90 kg It is recommended to reduce to half dose in patients ≥75 years of age.[153]
Doses of antiplatelet co-therapies	
Aspirin	Starting dose of 150–300 mg orally (or 75–250 mg i.v. if oral ingestion is not possible), followed by a maintenance dose of 75–100 mg/day
Clopidogrel	Loading dose of 300 mg orally, followed by a maintenance dose of 75 mg/day. In patients >75 years of age: loading dose of 75 mg, followed by a maintenance dose of 75 mg/day.

DOPORUČENÉ POSTUPY PRO LÉČBU ACS (ESC 2023) : NSTEMI

Kyselina acetysalicylová (ASA)

+

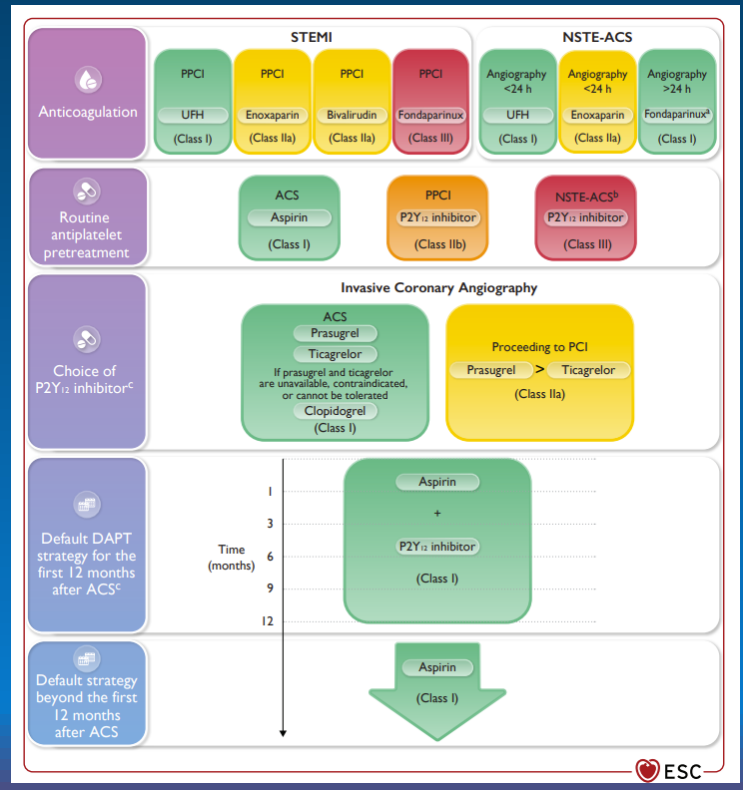
Inhibitor $P2Y_{12}$

(<24h NE, ≥24h C,T)

+

Antikoagulační lék

(<24h LMWH, ≥24h fondaparinux)

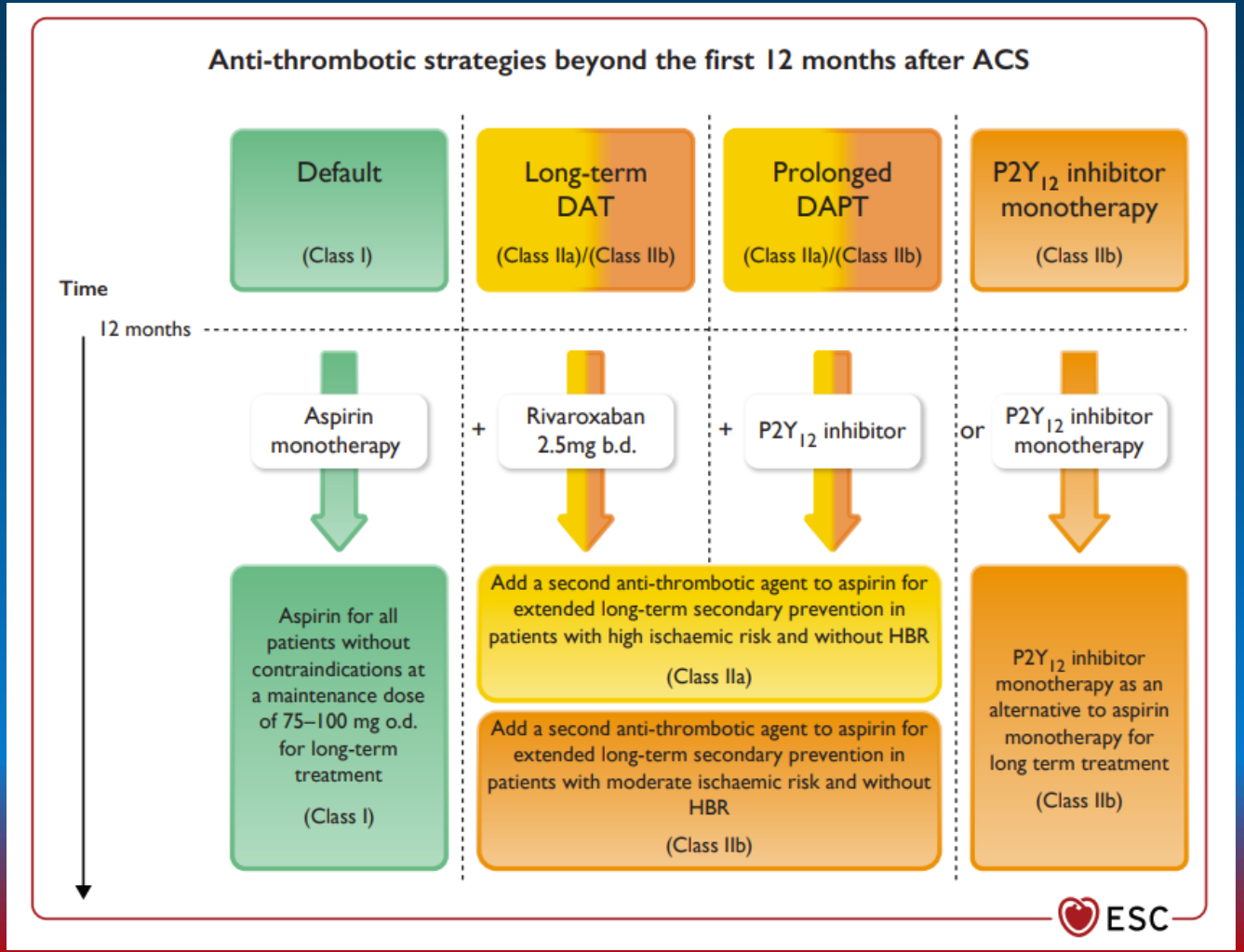


DÉLE NEŽ 12 MĚSÍCŮ PO ACS : PRODLOUŽENÁ ANTITROMBOTICKÁ LÉČBA

High thrombotic risk (Class IIa)	Moderate thrombotic risk (Class IIb)
Complex CAD and at least one criterion	Non-complex CAD and at least one criterion
Risk enhancers	
Diabetes mellitus requiring medication History of recurrent MI Any multivessel CAD Premature (<45 years) or accelerated (new lesion within a 2-year timeframe) CAD Concomitant systemic inflammatory disease (e.g. human immunodeficiency virus, systemic lupus erythematosus, chronic arthritis) Polyvascular disease (CAD plus PAD) CKD with eGFR 15–59 mL/min/1.73 m^2	Diabetes mellitus requiring medication History of recurrent MI Polyvascular disease (CAD plus PAD) CKD with eGFR 15–59 mL/min/1.73 m^2

Technical aspects
At least three stents implanted
At least three lesions treated
Total stent length >60 mm
History of complex revascularization (left main, bifurcation stenting with ≥2 stents implanted, chronic total occlusion, stenting of last patent vessel)
History of stent thrombosis on antiplatelet treatment

DÉLE NEŽ 12 MĚSÍCŮ PO ACS : PRODLOUŽENÁ ANTITROMBOTICKÁ LÉČBA



TROMBUS: NEBEZPEČNÝ NEPŘÍTEL KARDIOLOGICKÉHO PACIENTA…

… SE KTERÝM SE KARDIOLOGIE NAUČILA ZACHÁZET