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Conflicts of interest

- Lecture fees: AstraZeneca, Bristol Myers Squibb, Eli Lilly, Sanofi-Aventis, The Medicines Company

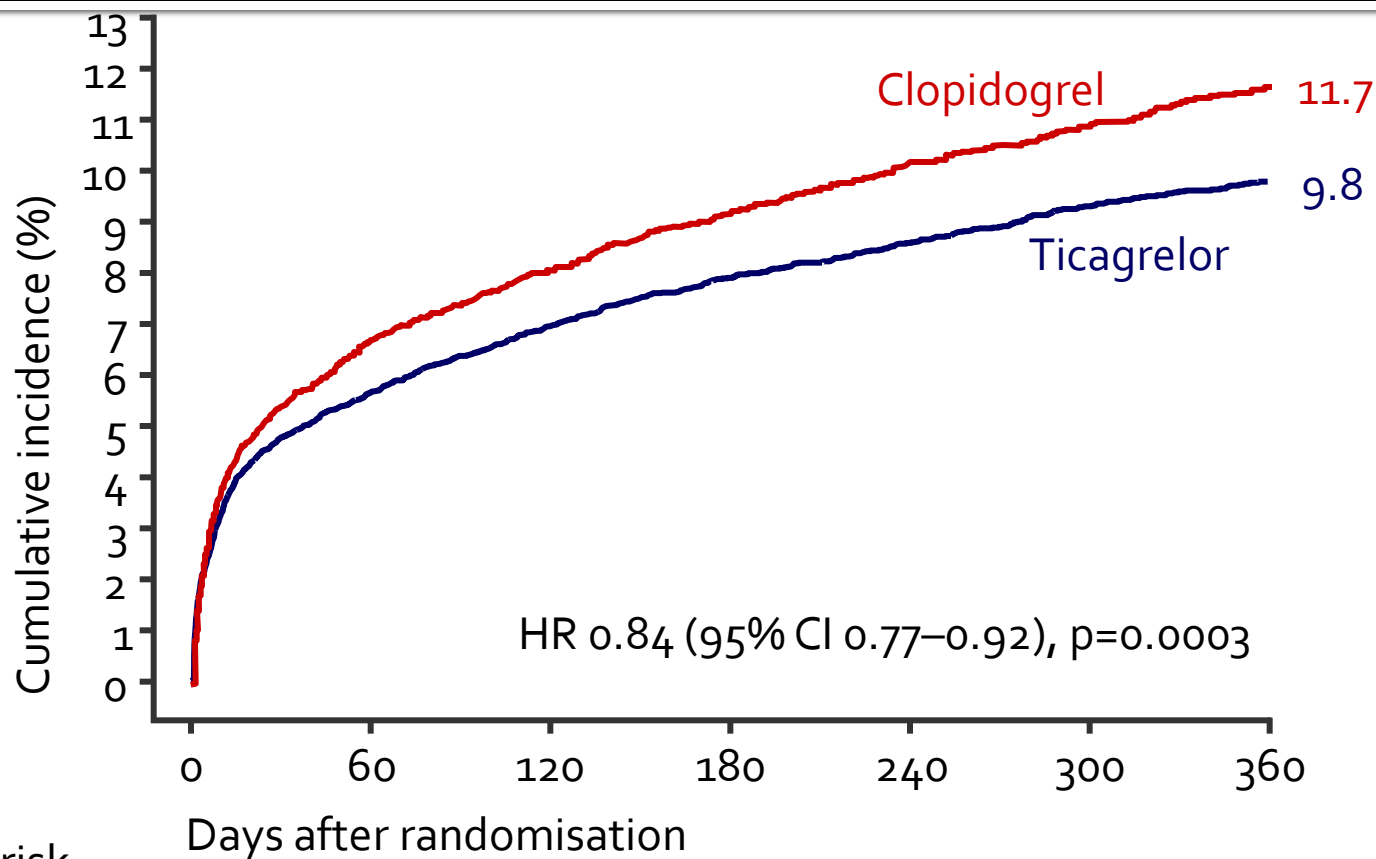
Ticagrelor vs clopidogrel in ACS: PLATO trial

- Double blind, multicenter mega-trial
- 18,264 ACS patients (NSTEMI- STEMI)
- Randomized within 24 hours
- 6-12 months treatment

- Hypothesis: Better efficacy of the faster acting and more powerful platelet inhibitor?

PLATO: primary efficacy endpoint

(Composite of CV death, MI or stroke)



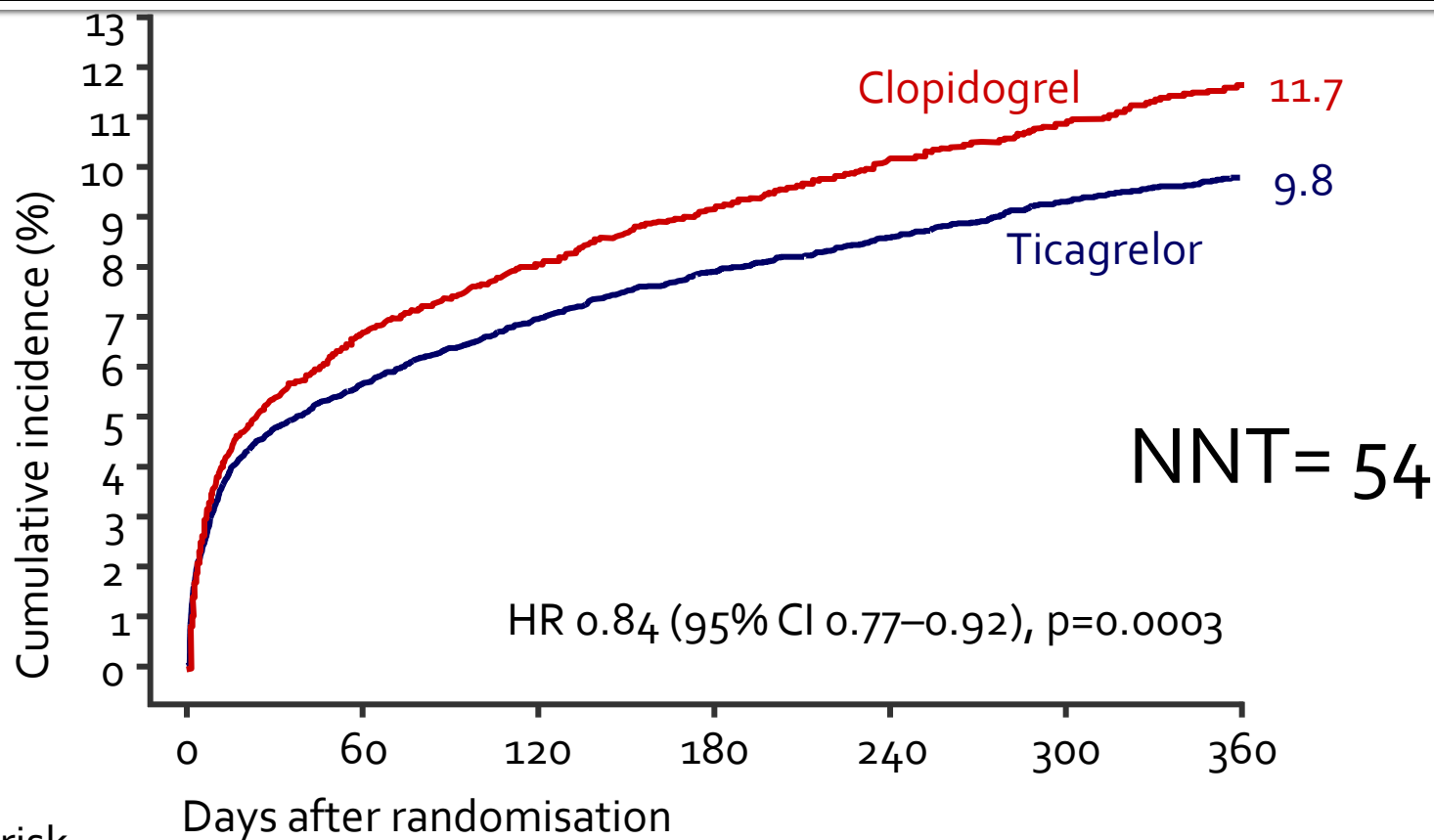
No. at risk

Ticagrelor	9,333	8,628	8,460	8,219	6,743	5,161	4,147
Clopidogrel	9,291	8,521	8,362	8,124	6,743	5,096	4,047

K-M = Kaplan-Meier; HR = hazard ratio; CI = confidence interval

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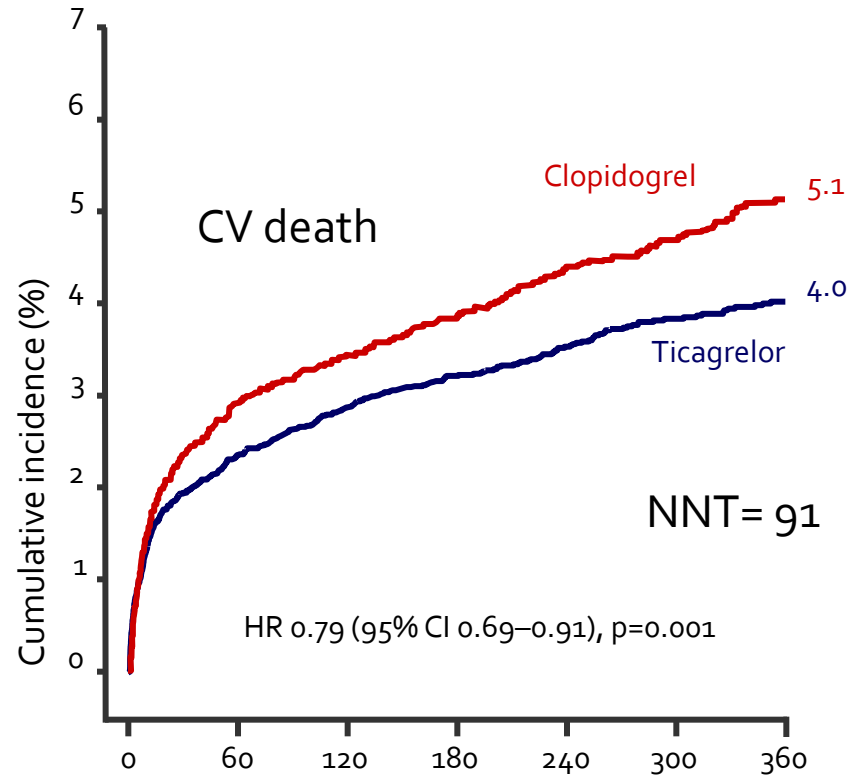
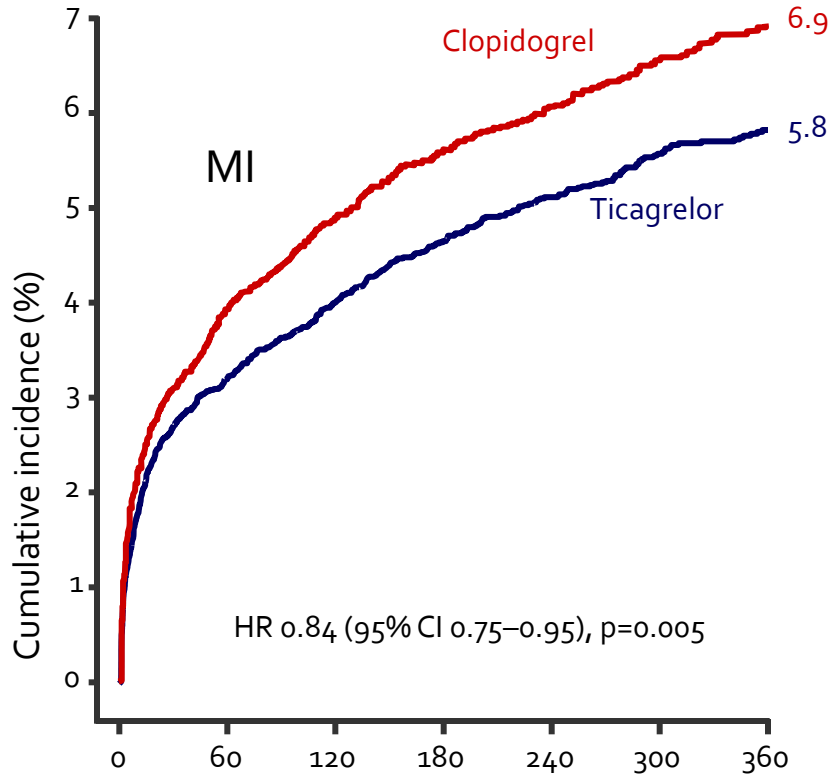


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Secondary efficacy endpoints



No. at risk	0	60	120	180	240	300	360
Ticagrelor	9,333	8,678	8,520	8,279	6,796	5,210	4,191
Clopidogrel	9,291	8,560	8,405	8,177	6,703	5,136	4,109

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Ticagrelor vs clopidogrel in ACS

- Bleedings?

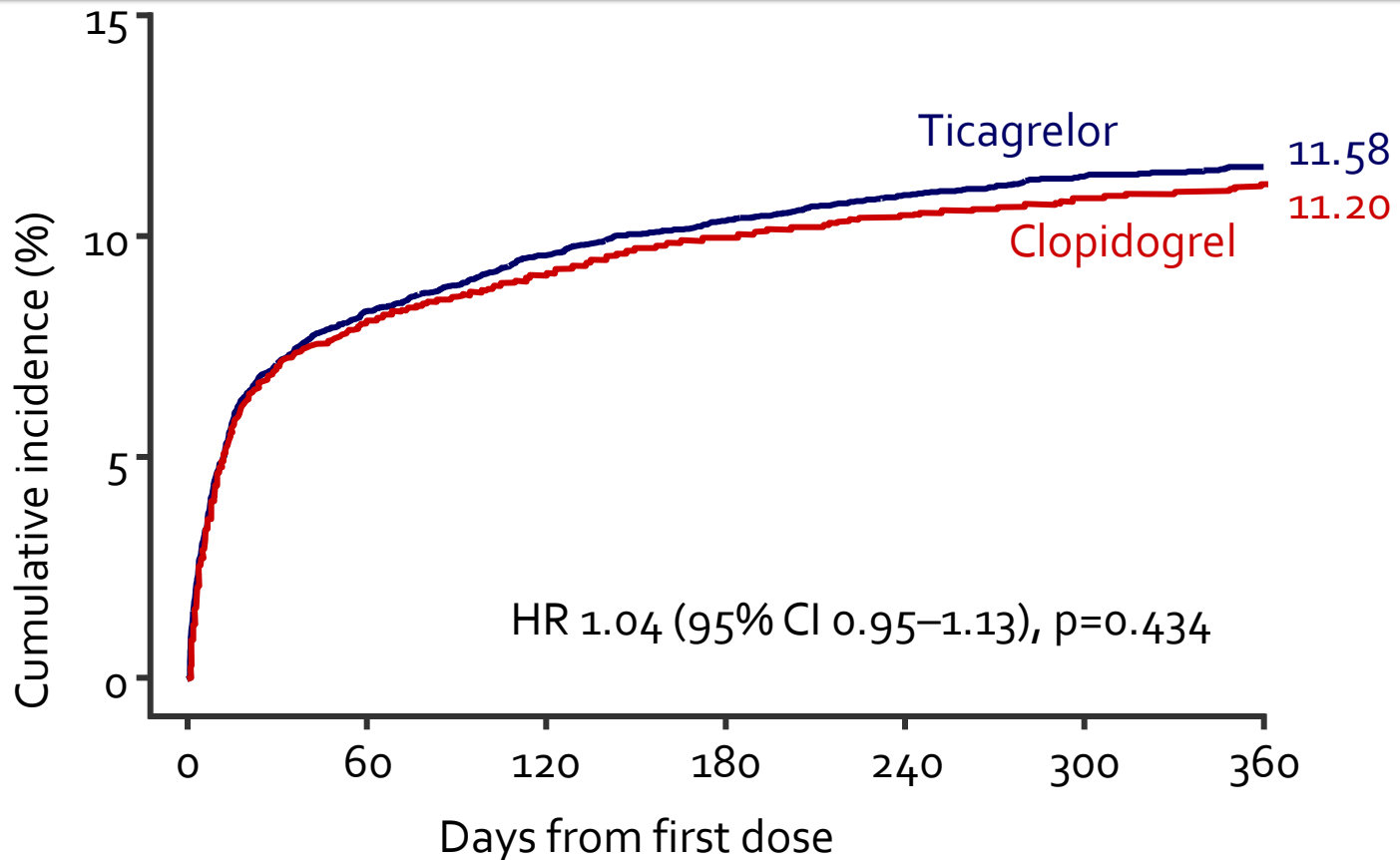
Ticagrelor vs clopidogrel in ACS

- Bleeding definitions?

PLATO

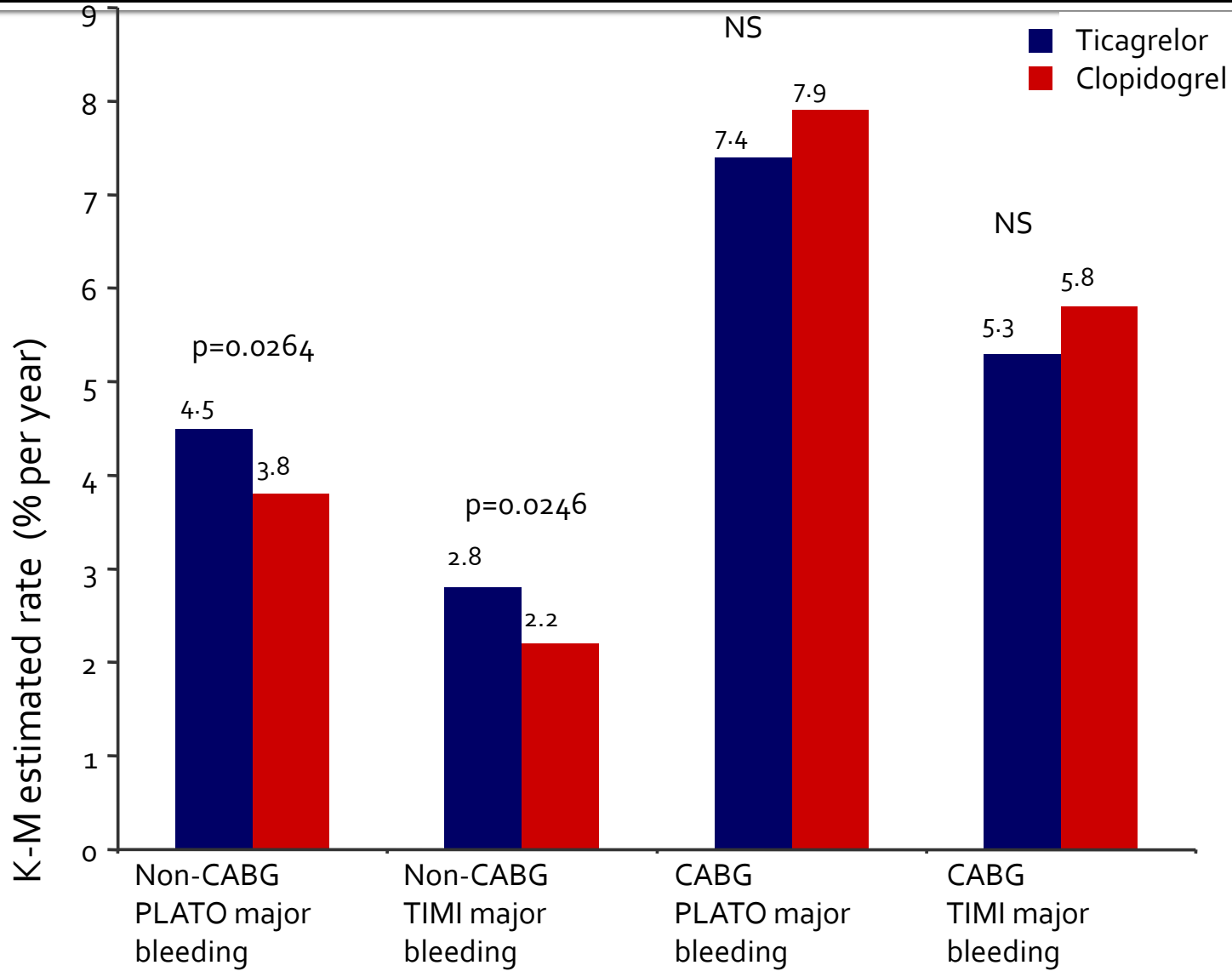
TIMI

Primary safety endpoint Major PLATO bleeding



No. at risk							
Ticagrelor	9,235	7,246	6,826	6,545	5,129	3,783	3,433
Clopidogrel	9,186	7,305	6,930	6,670	5,209	3,841	3,479

Non-CABG & CABG-related major bleeding



PLATO: exclusion criteria

- active bleeding
- a bleeding history
- severe anemia

Ticagrelor in ACS: challenges

- Compliance?
- More bleedings in the real world?
- Side-effects?

Ticagrelor in ACS: Side effects

- increase in the levels of uric acid
- an increased frequency of dyspnoea (14.2% vs 9.2%; $p < 0.001$)
- increase in brady-arrhythmias (especially ventricular pauses > 3 sec)

Ticagrelor in ACS: potentials

- Better efficacy
- Bleedings – easier to 'treat'?
- Easier to manage patients on anti-platelet therapy undergoing operations?

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Ticagrelor is a promising drug