



## **Prognostic impact of the new P2Y<sub>12</sub> (ticagrelor and prasugrel) versus clopidogrel in acute coronary syndrome patients in relation to renal function**

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# Declaration of interest

- I have nothing to declare

# BACKGROUND AND OBJECTIVES

## ACUTE CORONARY SYNDROMES (ACS)

**Reduced renal function** → higher  
burden of adverse  
cardiovascular events

Little is known regarding  
effectiveness of these agents  
compared to clopidogrel in ACS  
with reduced renal function

**Ticagrelor and Prasugrel** →  
higher efficacy at reducing  
recurrent cardiovascular events

## AIM OF THE STUDY

Investigate this issue in a  
contemporary cohort of ACS  
patients

# METHODS

Retrospectively, 2007 → 2017

8357 patients with definitive diagnosis of ACS who survived the hospitalization stage

Creatinine clearance → estimated by Cockcroft Gault equation

Chronic kidney disease (CKD) → creatinine clearance <60 ml/min

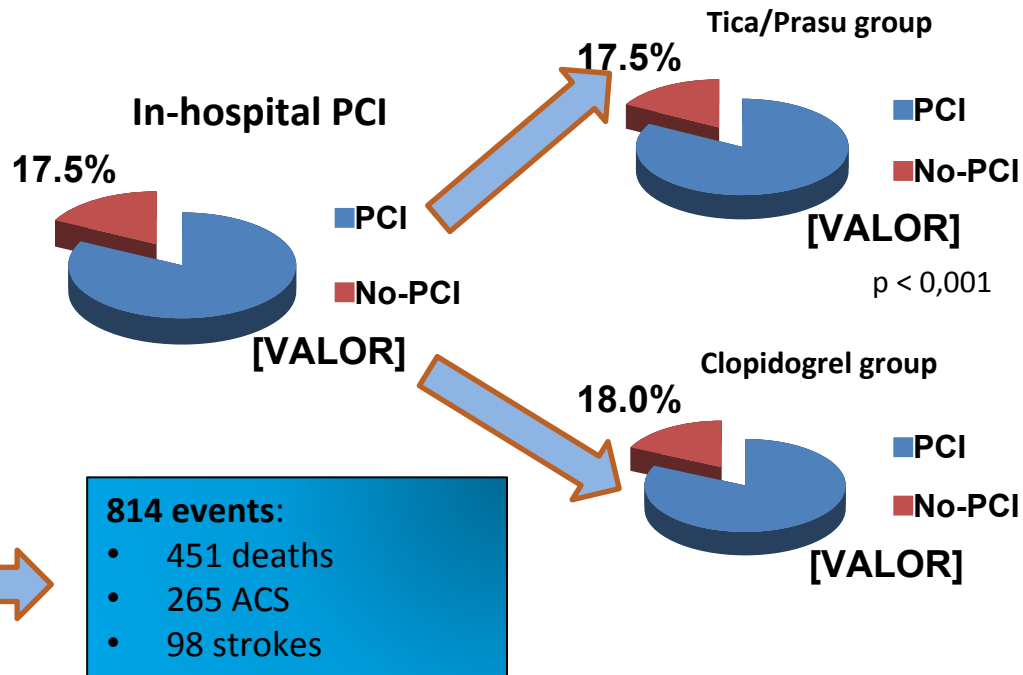
Cox regression models to compare the effect of ticagrelor or prasugrel at discharge vs clopidogrel

**ENDPOINT** → composite of death, myocardial infarction and stroke after hospital discharge

# RESULTS

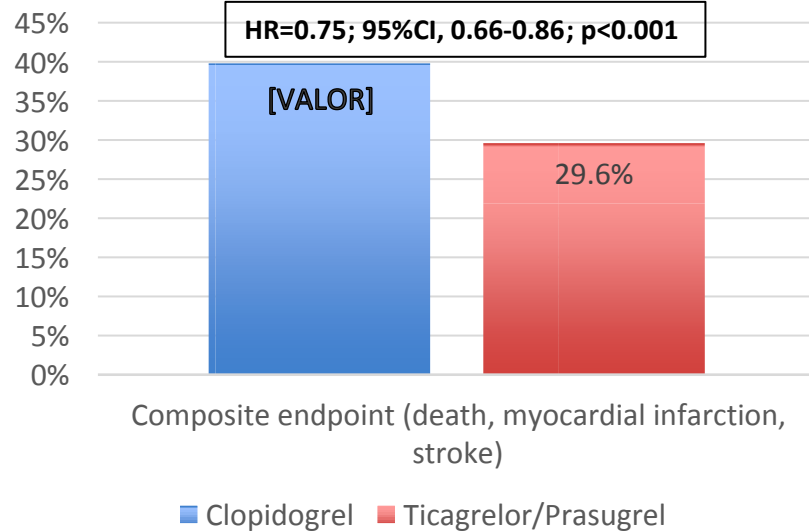
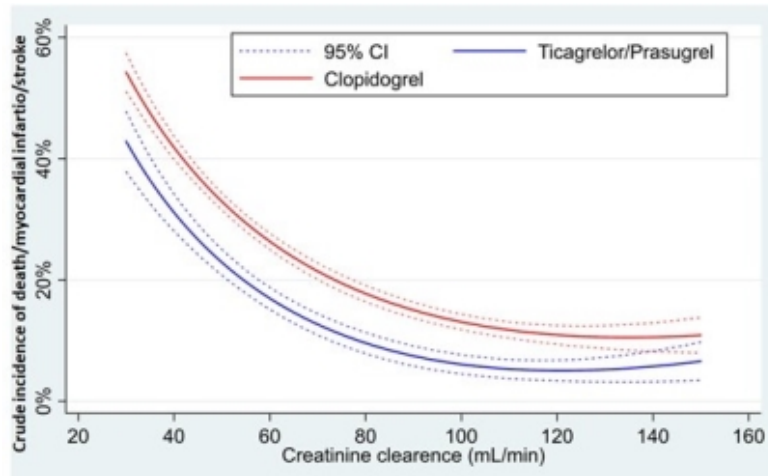
- **Baseline characteristics:**

- Women 24,4%
- Mean age 66 ±13 years
- 2199 (26.4%) had CKD
- 2244 (26.9%) were discharged with ticagrelor/prasugrel



# RESULTS

Kaplan-Meier estimate of the event rate for the primary composite end point according to creatinine clearance values



Composite endpoint after adjusting for 22 confounding variables

HR=0.83; 95%CI, 0.73-1.03; p=0.09

# CONCLUSION

- In acute coronary syndrome patients with CKD, ticagrelor/prasugrel reduces the composite endpoint of death, myocardial infarction and stroke after hospital discharge, compared with clopidogrel