Nature Reviews Cardiology **12**, 4 (2015); published online 18 November 2014; doi:10.1038/nrcardio.2014.179

ANTIPLATELET THERAPY

No benefit of antiplatelet pretreatment in patients with NSTE-ACS

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Data from a new meta-analysis have shown no reduction in mortality and an increase in major bleeding associated with thienopyridine pretreatment in patients with non-ST-segment elevation acute coronary syndrome (NSTE-ACS). "The concept of systematic and immediate pretreatment with $P2Y_{12}$ antagonists in patients admitted with NSTE-ACS needs to be reconsidered," say the researchers.

On the basis of two studies (CURE and CREDO) performed 15 years ago, clopidogrel pretreatment for patients with NSTE-ACS has a class IB recommendation in European and US guidelines. According to Dr Deepak Bhatt, who was not involved in the meta-analysis, "questions remain about the ischaemic benefits versus bleeding risks of thienopyridine pretreatment in the contemporary era, in particular at centres with fast times to catheterization and percutaneous coronary intervention or CABG surgery". Accordingly, the ACTION study group undertook a meta-analysis of the available data on the topic. They identified five randomized trials of clopidogrel pretreatment, one of prasugrel pretreatment, and three registries of clopidogrel pretreatment, involving a total of 32,383 patients with NSTE-ACS. No studies involving cangrelor or ticagrelor were identified.

Thienopyridine pretreatment did not reduce the risk of death (OR 0.90, 95% CI 0.75–1.07), but was associated with an increased risk of major bleeding (OR 1.32, 95% CI 1.16–1.49, $P<0.0001$). These findings were consistent in the overall cohort of patients and in the subgroup who underwent percutaneous coronary intervention. Thienopyridine pretreatment did not affect the rate of stent thrombosis, stroke, or urgent revascularization.

"The potential value of pretreatment may largely depend on the practice patterns with respect to timing of catheterization and other concomitant antithrombotic therapy," comments Dr Bhatt. "The advantage of pretreatment is also less obvious with the availability of new $P2Y_{12}$ antagonists that have a rapid onset of action," add the researchers. On behalf of the ACTION study group, Professor Gilles Montalescot says that they now aim "to identify the few patients who may need to be pretreated before a scheduled angiogram".

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Original article Bellemain-Appaix, A. *et al*. Reappraisal of thienopyridine pretreatment in patients with non-ST elevation acute coronary syndrome: a systematic review and meta-analysis. *BMJ* **349**, g6269 (2014)