



Interventional Cardiology

CLINICAL OUTCOMES ASSOCIATED WITH DE-ESCALATION FROM TICAGRELOR TO CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME

Poster Contributions

Poster Hall, Hall A/B

Sunday, March 11, 2018, 9:45 a.m.-10:30 a.m.

Session Title: Switching Antithrombotic Therapies and Genetic and Platelet Function Testing

Abstract Category: 15. Interventional Cardiology: ACS/AMI/Hemodynamics and Pharmacology

Presentation Number: 1194-226

Authors: *Dominick Angiolillo, Roshan Shah, Dara Paek, Toby Sayre, Alicia Clausel, Shalini Girotra, Doctor Evidence, Santa Monica, CA, USA, Sanofi-Aventis, Singapore, Singapore*

Background: In real-world practice of patients with acute coronary syndrome (ACS), following initial treatment with ticagrelor, it is not uncommon for patients to de-escalate to clopidogrel therapy. However, the clinical implications associated with such switching modality remain poorly explored.

Methods: A systematic literature search for clinical trial and real-world data on ACS patients initially treated with ticagrelor was performed. Databases included MEDLINE, Embase and Cochrane Central Register of Controlled Trials. Abstracts presented at relevant congresses from 2012 to 2017 were also reviewed. Studies reporting clinical outcomes after de-escalation were extracted, pooled, and analyzed. Due to the scarce data reported for patients who did not de-escalate and remained on ticagrelor, a cohort meta-analysis using a fixed effects model was used to quantify efficacy and safety outcomes in patients who de-escalated from ticagrelor to clopidogrel therapy. Major adverse cardiovascular events (MACE) were defined as the composite of cardiovascular mortality, myocardial infarction or stroke.

Results: A total of 7 studies, including 397 patients who de-escalated from ticagrelor to clopidogrel, were included. Timing of de-escalation was varied, either in-hospital or post-discharge, between 6 and 12 months of mean follow-up. MACE occurred at a mean rate of 1.4% [95% CI: -0.5, 3.3]. In particular, the components of MACE were as follows: 0.5% [95% CI: -0.1, 1.0] for cardiovascular mortality, 1.8% [-0.1, 3.6] for myocardial infarction and 0.4% [-0.2, 1.0] for stroke. All-cause mortality occurred at a rate of 3.1% [0.4, 5.9] and stent thrombosis at a rate of 1.3% [0.2, 2.4]. Bleeding outcomes showed a rate of 0.4% [-0.2, 1.0] for major bleeding and 3% [1.3, 4.7] for minor bleeding events.

Conclusion: The meta-analysis results show that patients who de-escalate from ticagrelor to clopidogrel have a 1.4% rate of MACE, with a 1.3% rate of stent thrombosis, paralleled by a 0.04% rate of major bleeding. The benefits and risks associated with this switching modality still require more evidence from studies that directly compare de-escalation to clopidogrel vs. continuation of treatment with ticagrelor.