**EARLY ANTIPLATELET THERAPY UPGRADE IN STEMI PATIENTS TREATED WITH PRIMARY PCI**

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*Background*: Antiplatelet therapy (APT) upgrade from clopidogrel to novel P2Y12 inhibitors is common in patients with STEMI treated with primary PCI. Real-world data about this strategy, however, are limited.

*Methods*: From 2013 to 2014, 643 consecutive STEMI patients treated with primary PCI in the hub-and spoke network of Novara (Italy) were enrolled in a single-centre observational registry (RENOVAMI, ClinicalTrials.gov # NCT01760382). We assessed prevalence, predictive factors and in-hospital outcomes of early (24 hours after admission) upgrade to novel APT.

*Results*: In the first 24 hours after admission, 449 (69.8%) patients continued on a novel APT, 118 (18.4%) upgraded from an initial clopidogrel load and 194 (30.2%) continued on clopidogrel. The novel APT was ticagrelor in the majority of patients (65.6%). The use of a drug eluting stent during primary PCI was the only independent predictive factor for the clinical decision to upgrade from clopidogrel to novel APTs (OR 2.24, 95% CI 1.44-3.48, P=0.0004). Fewer in hospital deaths were observed in upgraded patients, in comparison with those continuing on clopidogrel (Clopidogrel 9.8%, Novel APT 3.9%, Upgrade 0.8% with P<0.001 vs the first 2 groups), as well as fewer bleedings (Clopidogrel 17.0%, Novel APT 12.1%, Upgrade 7.6% with P<0.05 vs the first 2 groups). After adjustment for confounders, upgrade to novel APT was not independently correlated with in-hospital survival and bleeding rates.

*Conclusion*: In a real world hub-and-spoke network of STEMI patients undergoing primary PCI with contemporary APT, early upgrade from clopidogrel to novel APT did not result in increased bleedings or ischemic events.