

## Euro Heart Congress 2021: Effects of switching from ticagrelor to clopidogrel in Acute Coronary Syndrome (ACS) patients undergoing Percutaneous Coronary Intervention (PCI)- Mohammed Ahmed Akkaif, Universiti Sains Malaysia, Malaysia

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### Abstract

**Background:** Guidance of antiplatelet therapy and compliance assessment is of great importance for patients with acute coronary syndrome (ACS) and directly affects patients in the short and long term. P2Y<sub>12</sub> receptor inhibitors are the main antiplatelet drugs to prevent clotting events for ACS patients. Ticagrelor is the first choice based on myocardial revascularization guidelines and diagnosis and treatment recommendations for patients with ACS 2017, aspirin with ticagrelor is the first choice for initial treatment for patients with ACS. However, there will be shifts between antiplatelet drugs in the clinical real world due to adverse events related to antiplatelet therapy, drug compliance, and economic factors. **Method:** The current study reviewed the literature related to the effects of conversion from ticagrelor to clopidogrel in ACS patients after PCI to provide references for the drug's rational clinical use. **Discussion and Conclusion:** Many studies have been conflicting results in evaluating specific points in a realworld environment to ACS patients switching from ticagrelor to clopidogrel after PCI treatment. Most studies indicate that early switching of ticagrelor to clopidogrel leads to increased platelet reactivity and an increased incidence of cardiovascular events in the short term. However, switching after a month from PCI might reduce adverse events and bleeding events in ACS patients, saving patients' costs without compromising safety and efficacy.

Recent Publications Wang, C.; Zheng, W.; Shaqdan, A.; Wang, C.; Qin, X.; Zhao, X.; Wang, X.; Yuan, L.; Nie, S.; Liu, R. Efficacy and safety of switching from ticagrelor to clopidogrel during the early and late phase in acute coronary syndrome patients after percutaneous coronary intervention. *Platelets* 2020, 31, 337-343. Hong, J.; Turgeon, R.D.; Pearson, G.J. Switching to Clopidogrel in Patients With Acute Coronary Syndrome Managed With Percutaneous Coronary Intervention Initially Treated With Prasugrel or Ticagrelor: Systematic Review and Meta-analysis. *Annals of Pharmacotherapy* 2019, 53, 997-1004. Franchi, F.; Rollini, F.; Rivas Rios, J.; Rivas, A.; Agarwal, M.; Kureti, M.; Nagaraju, D.; Wali, M.; Shaikh, Z.; Briceno, M. Pharmacodynamic effects of switching from ticagrelor to clopidogrel in patients with coronary artery disease: results of the SWAP4 study. *Circulation* 2018, 137, 2450-2462. Li, X.Y.; Su, G.H.; Wang, G.X.; Hu, H.Y.; Fan, C.J. Switching from ticagrelor to clopidogrel in patients with STsegment elevation myocardial infarction undergoing successful percutaneous coronary intervention in realworld China: occurrences, reasons, and long-term clinical outcomes. *Clinical cardiology* 2018, 41, 1446-1454. Nawarskas, J.J.; Montoya, T.N. Switching from ticagrelor or prasugrel to clopidogrel. *Cardiology in review* 2018, 26, 107-111.

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