

## Innovative 12 months ticagrelor virtual clinic – supporting appropriate extended dual anti-platelet therapy in post MI

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**Background:** The ESC and NICE guidelines recommend extended dual antiplatelet therapy (DAPT) with Ticagrelor 60mg twice a day for 3 years after 12 months of a myocardial infarction (MI) among high risk patients with low risk of bleeding. As those patients in our health system are not routinely reviewed by a cardiologist, we introduced a 12 months Virtual Review clinic to support primary care in ensuring that appropriate patients are offered extended DAPT.

**Methods:** Working with primary care, a group for cardiologists and cardiology pharmacists established a clear guidance and pathway for identifying patients who are suitable for extended DAPT with Ticagrelor 60mg twice a day for 3 years inline with ESC guidelines. A virtual review clinic was established where primary care can refer potential candidates to be considered for extended DAPT. Patients needed to have had an MI approximately 12 months before the referral, have up to date full blood counts and creatinine. Patients were reviewed virtually by a cardiology pharmacist against an agreed protocol. Patient risk factors and eligibility were identified and their risk of bleeding was assessed using the PRECISE-DAPT scoring. Complicated patients were discussed with a cardiologist and the final recommendation was sent to primary care electronically.

**Results:** 201 patients were reviewed in the virtual clinic; Mean age 69, 58% were males. 60% had NSTEMI, 37% STEMI, and the rest had either Unstable Angina or Type II MI. 28% had diabetes, 22% had prior MI, 60%

had multivessel disease, and 22% were anaemic. 93% of patients had at least one high risk factor according to PEGASUS trial. 33% (n=67) of all patients reviewed were high risk of bleeding according to PRECISE-DAPT. Of these 78% (n=52) were not suitable to extended DAPT despite 71% (n=37) having risk factors.

The virtual clinic recommended extended DAPT for 40% (n=81) of patients referred. In the case of 15 patients extended DAPT was recommended despite High risk of bleeding as deemed appropriate by the MDT with close monitoring.

At discharge post index point, 18% (n=37) had recommendations to extend DAPT or not by the interventionist. 11% (n=4) of those recommendations were reversed at the 12 months review.

40% (n=80) of patients reviewed in clinic were inappropriately on Ticagrelor 90mg twice a day (with aspirin) beyond 12 months post MI. That is a total of 556 months of excess ticagrelor. 19 patients were HIGH risk of bleeding

**Discussion and conclusion:** The multidisciplinary innovative 12 months virtual review clinic improved appropriate initiation of extended DAPT in high risk patients and reduced risk of bleeding by stopping inappropriate antiplatelet dosing (90mg vs. 60mg). The clinic supported the low levels of recommendations made by the interventionist at index point and assured safety when actioning these recommendations. The virtual review clinic improved levels of extended DAPT prescribing and improved patient safety.