

Case study: Clinical and economic burden of major adverse cardiovascular events



Background

High rates of major adverse cardiovascular events (MACE) occur in the months after acute myocardial infarction (AMI). Post-AMI MACE are associated with additional resource utilisation and economic burden for healthcare systems.

Challenge

A leading pharmaceutical client engaged the Specialty EMR Data team at CorEvitas to determine the clinical and economic burden of MACE in their patient population of interest. Although interventions have improved outcomes in AMI patients, the first 90 days after AMI remains a high-risk period for recurrent events, particularly in the patient population of interest. Our client sought to investigate the post-AMI clinical and economic burden of MACE in this group, in order to quantify the unmet need.



Solution

In a retrospective cohort study using linked primary care, secondary care and death registration data, we were able to identify patients within the population of interest and, through leveraging the linked data, longitudinally follow the healthcare interactions and medical events of these patients. Specifically, we identified patients who had a non-fatal AMI to determine their subsequent health care resource use, including that from post-AMI readmission due to further MACE.



Outcome

The analysis demonstrated that there is a clinically relevant burden of MACE following AMI in the patient group of interest and a substantial unmet need for treatments that reduce the risk of recurrent MACE events following AMI. Results were presented in poster form at the European Society of Cardiology (ESC) Congress in 2021 and further results are being presented at ESC 2022.