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Spotlight on Special Topics

TRENDS OF IN-HOSPITAL AND 30-DAY MORTALITY AFTER PERCUTANEOUS CORONARY INTERVENTION IN ENGLAND BEFORE AND AFTER THE COVID-19 ERA

Poster Contributions

Sunday, May 16, 2021, 2:45 p.m.-3:30 p.m.

Session Title: Spotlight on Special Topics: COVID 6

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Background: Public reporting of percutaneous coronary intervention (PCI) outcomes is a performance metric and a requirement in many healthcare systems. There are inconsistent data on the causes of death after PCI, and what proportion of these are attributable to cardiac causes. The present study sought to examine short-term primary causes of death after PCI in a national cohort and assess their trend before and after the COVID-19 pandemic.

Methods: All patients undergoing PCI in England between 1st January 2017 and 10th May 2020 were retrospectively analyzed (n=273,141), according to their outcome from the date of PCI; no death and in-hospital, post-discharge, and 30-day death. Logistic regression analyses were performed to examine the predictors and adjusted odds of 30-day death before and during the COVID period.

Results: The overall rates of in-hospital and 30-day death were 1.9% and 2.8%, respectively. The rate of 30-day death declined between 2017 (2.9%) and February 2020 (2.5%), mainly due to lower in-hospital death (2.1% vs. 1.5%), before rising again from 1st March 2020 (3.2%) due to higher rates of post-discharge mortality. Only 59.6% of 30-day deaths were due to cardiac causes, the most common being acute coronary syndrome, cardiogenic shock and heart failure, and this persisted throughout the study period. 10.4% of 30-day deaths after 1st March 2020 were due to confirmed COVID-19.

Conclusion: In this nationwide PCI cohort study, we show that a significant proportion of 30-day deaths are due to non-cardiac causes, a finding that persisted over 3 years. Non-cardiac deaths have increased even more from the start of the COVID-19 pandemic, with one in ten deaths from March 2020 being COVID-19 related. These findings raise the question of whether public reporting of PCI outcomes should be cause-specific.