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**Aims:** Coronavirus disease 19 (COVID-19) pandemic has dramatically changed the management and the prognosis of patients experiencing acute coronary syndrome (ACS). Several scientific societies have highlighted the need for dedicated paths to deliver better and faster care to improve outcomes. Nevertheless, data depicting the impact of COVID-19 pandemic on ACS in Italy are still poor. To perform a propensity weighted analysis on a multicentre Italian registry involving patients with ACS managed before vs. during COVID-19 pandemic, taking into account baseline patients characteristics, clinical presentation, procedural aspects, and in-hospital outcomes (death, bleeding, stent thrombosis, myocardial infarction, stroke/transient ischaemic attack, mechanical complication, and arrhythmic complication).

**Methods and results:** We included all consecutive patients who have suffered from ACS during two periods before (March/April 2018, March/April 2019) vs. the period of COVID-19 pandemic (March/April 2020). A generalized boosted non-parsimonious regression was used to estimate the propensity scores of having an ACS in 2020 (year of COVID-19) vs. 2018/2019 using an average treatment effect and balancing for all baseline confounders. We included 2851 patients admitted to hospital with ACS in 17 Italian centres: 1079 (37.8%) during 2018, 1056 (37.0%) in 2019, and 716 (25.1%) during the first COVID-19 wave of 2020. Seventy (2.5%) patients had a positive swab for SARS-CoV-2 at admission. During 2020 there were higher time-to-emergency-call ( $P=0.028$ ) and less diagnosis of unstable angina ( $P=0.029$ ) and MINOCA ( $P=0.004$ ); none of the admission symptoms differ significantly across the years ( $P>0.05$ ) except for fever that was more prevalent in 2020 ( $P<0.001$ ). Patients suffering from ACS had lower admission EF ( $P=0.006$ ). After PS weighting, multivariate Cox regression analysis showed age ( $P<0.001$ ), night admission ( $P=0.017$ ), cardiocirculatory arrest before cath-lab ( $P=0.041$ ), worst Killip class ( $P=0.039$ ), admission EF ( $P=0.026$ ), and need for left-ventricle mechanical support ( $P=0.011$ ) as independent predictors of in-hospital death. After propensity weighted analysis none of the in-hospital outcomes differed significantly across the years of investigation (all  $P>0.05$ ).

**Conclusions:** During COVID-19 pandemic in Italy the characteristics and management of ACS was slightly different than the past. However, the rates of 'hard', in-hospital outcomes (e.g. deaths) are almost similar to the past, suggesting appropriate care and well-organized emergency-paths for ACS.

#### 692 Impact of COVID-19 pandemic on in-hospital outcomes for patients with acute coronary syndrome: a propensity-weighted, multicentre study

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