

peak period of COVID-19 pandemic wave a reduction of 73,041 (-67%, 95%CI -69%; -66%) in ED admissions and of 682 (-38% 95%CI -55%; -43%) in hospitalization from ED were observed. Significant decreases in hospitalizations for life threatening medical conditions were observed. No significant differences were found between the observed and the expected in-hospital mortality and hospitalizations requiring ICU during the COVID-19 epidemic peak period (SR 1.1 95%CI 0.72-1.90; SR 1.0 95%CI 0.83-1.23).

Conclusions:

A large and generalized decrease in EMS utilization was observed during the first wave of COVID-19 pandemic. Furthermore, findings suggest that seriously ill patients avoid seeking care as less seriously ill patients did.

Key messages:

- The falling in the utilization of emergency medical services during pandemic could portend substantial harm to public health, and not simply the absence of real health need.
- The preparedness of the healthcare delivery system should not focus solely on confronting the pandemic disease, but also on ensuring access to high quality emergency care for other diseases.

The indirect impact of COVID-19 pandemic on the utilization of the emergency medical services

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Background:

Fear of contracting COVID-19 and the large-scale preventing measures may have influenced health service utilization. The aim of the study was to assess the indirect impact of COVID-19 pandemic on the utilization of the emergency medical services (EMS) of Tuscany Region (Italy).

Methods:

The study was carried out on administrative data from the public healthcare system of Tuscany (38 general hospitals and 4 university teaching hospitals). Variations in the utilization of out-of-hospital (i.e. calls for emergency medical assistance and dispatch of mobile medical care units) and in-hospitals (emergency department(ED) visits and hospitalizations from the ED) EMS during the first pandemic wave were analyzed (February - July 2020) in relation with corresponding periods of the previous three years. Furthermore, in order to understand changes in illness severity of patients using the EMS, standardized ratios for hospitalizations requiring ICU and in-hospital mortality were analyzed.

Results:

Significant decreases in the expected volumes of utilizations were observed in each of the considered EMS starting from the week in which the first case of COVID-19 was confirmed in Italy till the last week of the first wave. In particular, during the