COVID-19 in Europe: the Italian lesson

Severe acute respiratory syndrome coronavirus 2 is rapidly spreading worldwide,1 and WHO declared the coronavirus disease 2019 (COVID-19) outbreak a pandemic on March 11, 2020.2 The outbreak has hit Europe; as of March 20, 2020, Italy has the second-largest number of confirmed cases, after China. As elegantly presented by Andrea Remuzzi and Giuseppe Remuzzi,3 a rapid surge of cases is posing a serious threat to the Italian national health system because of the limited capacity of intensive care unit departments. The Italian Government introduced progressive mitigation measurements on March 9 and March 11, 2020, to drastically limit social interactions and prevent virus diffusion.4,5 Projections in Remuzzi and Remuzzi’s exponential model,2 which, according to data trends before March 8, predicted more than 30 000 cases by March 15, 2020. Real data from the Center for Systems Science and Engineering at Johns Hopkins University suggest a slight deviation from those predictions, with a recorded number of 24 747 cases by March 15, 2020, suggesting that measures introduced by March 11, 2020, began reducing the number of new cases within 3–4 days.

All other European countries appear to be in a similar situation, with just a short time-lag of a couple of weeks (figure). We urge all countries to acknowledge the Italian lesson and to immediately adopt very restrictive measures to limit viral diffusion, ensure appropriate health-system response, and reduce mortality, which appears to be higher than previously estimated, with a crude case-fatality rate of almost 4%.6

We declare no competing interests.

*Andrea Saglietto, Fabrizio D’Ascenzo, Giuseppe Biondi Zoccai, Gaetano Maria De Ferrari

Division of Cardiology, Department of Medical Sciences, Città della Salute e della Scienza Hospital, University of Turin, Turin 10126, Italy (AS, FD’A, GMDF); Department of Medico-Surgical Sciences and Biotechnologies, Sapienza University of Rome, Latina, Italy (GBZ); and Mediterranea Cardiocentro, Napoli, Italy (GBZ)


Figure: Epidemic curves for European countries, with estimated lag time from Italy’s situation, as of March 15, 2020

Green dots are for countries with more than 2 weeks of lag time from Italy; orange is for countries with 1–2 weeks of lag time; and red is for countries with 1 week or less of lag time. The Italian data curve is cut at 8000 cases to convey easier interpretability of lag times. Source: Center for Systems Science and Engineering, Johns Hopkins University.

