Epidemiology and public health response in early phase of COVID-19 pandemic, Veneto Region, Italy, 21 February to 2 April 2020

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Abstract

Background
Veneto was one of the Italian regions hit hardest by the early phase of the coronavirus disease (COVID-19) pandemic.AimThis paper describes the public health response and epidemiology of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections in the Veneto Region from 21 February to 2 April 2020.

Methods
Information on the public health response was collected from regional health authorities' official sources. Epidemiological data were extracted from a web-based regional surveillance system. The epidemic curve was represented by date of testing. Characteristics of hospitalised COVID-19 cases were described and compared to those never admitted to hospital. Age- and sex-stratified case-fatality ratios (CFRs) were calculated.

Results
Key elements of the regional public health response were thorough case-finding and contact tracing, home care for non-severe cases, creation of dedicated COVID-19 healthcare facilities and activation of sub-intensive care units for non-invasive ventilation. As at 2 April 2020, 91,345 individuals were tested for SARS-CoV-2 and 10,457 (11.4%) were positive. Testing and attack rates were 18.6 per 1,000 and 213.2 per 100,000 population, respectively. The epidemic peaked around 20 to 24 March, with case numbers declining thereafter. Hospitalised cases (n = 3,623; 34.6%) were older and more frequently male compared with never-hospitalised cases. The CFR was 5.6% overall, and was higher among males and people > 60 years of age.

Conclusion
In the Veneto Region, the strict social distancing measures imposed by the Italian government were supported by thorough case finding and contact tracing, as well as well-defined roles for different levels of care.

Keywords: COVID-19; Italy; SARS-CoV-2; coronavirus; pandemic.

FULL TEXT
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