

## Editorial

# Responding to COVID-19: the experience from Italy and recommendations for management and prevention

Just >100 years after the 1918 pandemic (Spanish Influenza), the COVID-19 (Corona Virus Disease) pandemic has emerged. This event is severely challenging health systems and societies worldwide [1]. Patient safety of COVID-19 patients is an evolving task, as we are facing a pandemic caused by a virus that is still largely unknown. The experience in Italy could be a lesson for others, as the pandemic spreads.

On 29 January, the first cases of infection were detected in two Chinese citizens on vacation in Italy and they were admitted to Spallanzani Hospital in Rome. On 18 February 2020, we had the first case due to secondary transmission at Lodi in Lombardy (Region n.8 see infographics).

The timeline (Figure 1) in Italy, following the index cases is that from 29 January to 18 February 79 cases were registered—of which there were 76 positive, 2 deaths and 1 cured. On 23 February, the Italian Council of Ministers declared all the areas in which the cases occurred ‘red-zone’ areas and declared a lockdown. A surveillance network on the new COVID-19 was then activated, and contact screening was carried out, under the coordination of a task force set up by the Ministry of Health. In figure 2 the integrated surveillance of COVID 19 in Italy (27 May 2020 update) [2]

The international context is that on 30 January, the WHO declared the COVID-19 outbreak a Public Health Emergency of International Concern. Over the course of the next few weeks, the WHO introduced guidelines, protocols and monitoring forms, including on 18 February, guidance on the rights, roles and responsibilities of health workers, including recommendations for their safety when dealing with COVID-19.

On 8 March 2020 DPCM (DECREE OF THE ITALIAN PRIME MINISTER) prohibited travelling and gatherings of people in the cities of following regions: Lombardia, Emilia Romagna, Piemonte and Veneto.

On 9 March 2020 another DPCM extended such prohibition to the whole country. On 11 March 2020, a new DPCM stopped all non-essential production and commercial activities. On 22 March, DPCM declared a quarantine for the entire country. Citizens are allowed to circulate solely for work requirements or health needs or reasons of necessity, such as shopping for food and other essentials.

In this national scenario, regional health services, coordinated by a government task force, promoted various risk containment and control actions, also suggested by frontline professionals [4]. Higher Institute of Health - ISS distributed reports to healthcare workers and organizations through website updates and in parallel, the Ministry of Health addressed regional councilors, who in turn spread the message to regional healthcare organizations.

The Clinical Risk Managers and members of the Italian Association for Patient Safety, (INSH) who have been active throughout the federal healthcare service, have provided a specific INSH team COVID-19 response, based on their experiences on the requirements regarding patient safety. The team has supported the federal healthcare service with recommendations, which were derived from the emerging literature and official documents, including those from the WHO. This includes use of our human factors and ergonomics knowledge and experience to develop the interventions.

INSH has now disseminated these short and practical recommendations to an international audience, via the ISQua website, in order to offer easy to use practices to manage COVID-19. The recommendations refer to the highest moments of risk for the COVID-19 positive patient, or those on the suspected infected patient clinical pathway. Based on the learning we have made, the recommendations aim to facilitate the reduction and avoidance of errors in organizational, diagnostic and therapeutic decisions, as well as to reduce the errors in clinical monitoring and care transitions, mainly at discharge. Recommendations for some specific areas (surgery/operating rooms, obstetrics and pediatrics) and specific situations such as home isolation and the effects of quarantine on the population have also been provided.

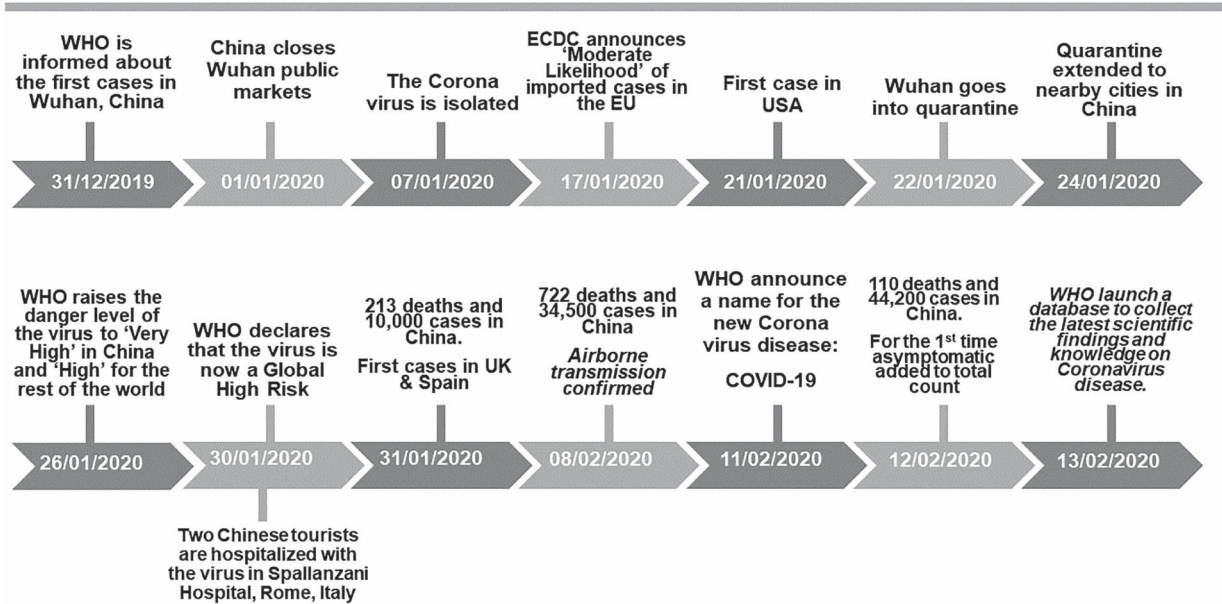
The document is simple, concise and neat, as the current heavy workload of healthcare operators requires brevity and easily accessible recommendations. The wording is direct, and actionable—especially by junior healthcare providers, who are being hired to support colleagues, or by specialists from other disciplines, who may be called upon to replace sick colleagues.

WHO declared this outbreak a pandemic on 11 March 2020. Globalization has surely played a role in its dissemination, but it will also represent the solution, as now, like never before. Knowledge has been rapidly shared and exchanged among countries. This is the reason why our recommendations will be published online, suitable for continuous updating—as new knowledge and experiences emerge from all over the world.

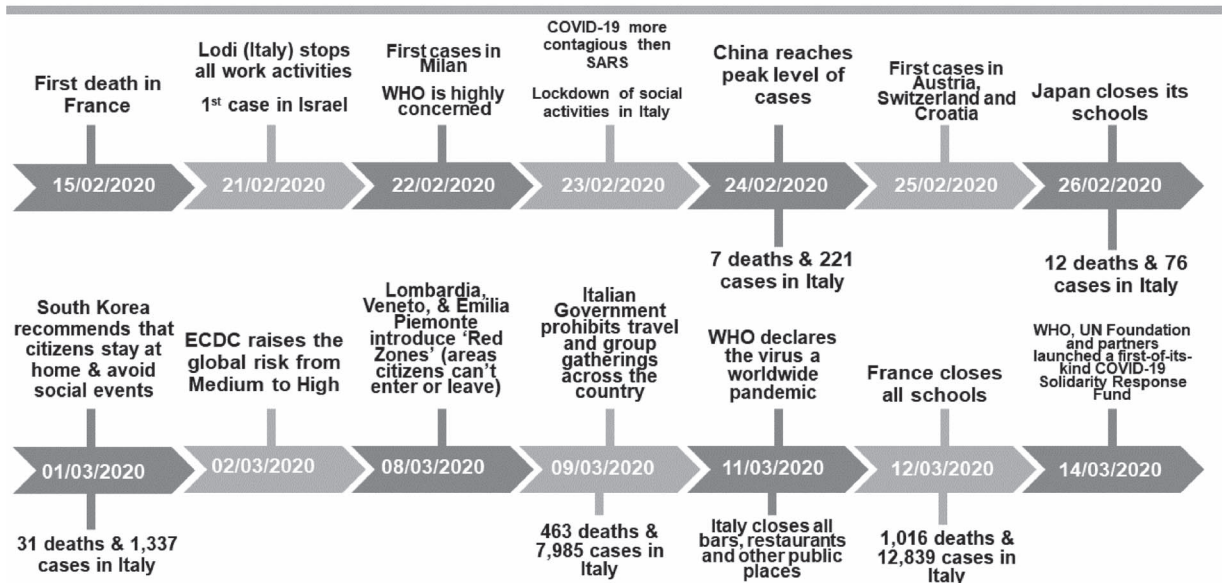
Estimations of the evolution of the pandemic anticipate substantial changes from an organizational and logistical point of view [3]. There could be an unprecedented request of intensive care beds, with scenarios that cannot be foreseen at present, even in the most affected areas. New information will emerge, and frontline experience may change. Therefore, the recommendations will be modified and adapted over time.

The direct knowledge and management of the pandemic will be acquired through practice and may vary from country to country, according to demographic, social, economic characteristics and local ethical values. Different age distribution, as well as social

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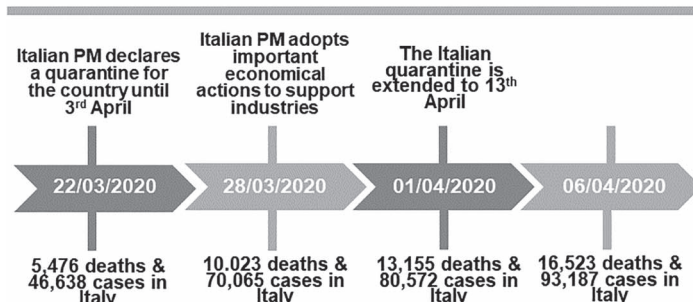
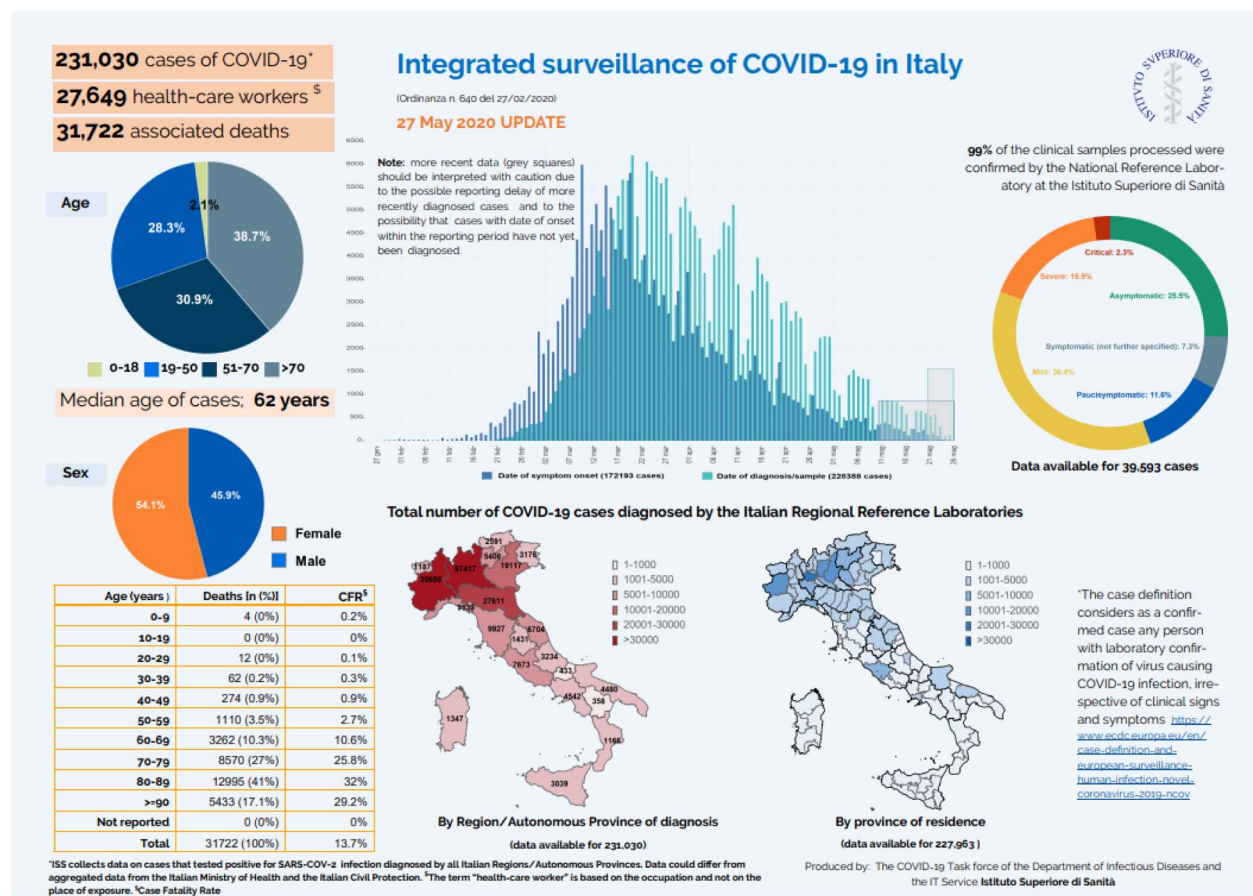


Figure 1 The timeline in Italy, following the index cases from 29 January to 18 February 2020.



**Figure 2** Integrated surveillance of COVID-19 in Italy (27 May 2020 update).

factors—including cultural attitudes, can affect patient outcomes. Similarly, community and individual economic factors can affect the disease burden. Reduced capacity to respond has fostered the debate on limiting intensive treatments to people with greater life expectancy. Each society will address this issue differently—for example, in Italy the predominance of Catholicism does not accept the concept of limiting intensive treatments to subjects with greater life expectancy. The crude mortality rate in Italy is surprisingly high at present (6–7%) and many potential explanations have been proposed. We believe that, as about 10% of deaths are complicated by superinfections [4, 5], we should not let down our guard against healthcare-related infection prevention, as bacteria do not go on vacation during pandemics.

It is evident that COVID-19 is affecting many healthcare providers. We have lack official data at present, but this is to be expected, as we are all vulnerable to the new virus. Nevertheless, unpreparedness, rapid evolution of the pandemic, shortage of individual protective devices, and, in rare cases, a low situational awareness at the beginning of the pandemic have contributed to the infection of healthcare workers.

Despite this, we have also been experiencing day after day a great response in capacity, flexibility and resilience of the health systems and solidarity between countries. The lessons from Italy have relevance for all countries now. We can make a difference by increasing our knowledge about what works and what does not, through ISQua developing an international network to address the challenge of COVID-19, by voicing our experiences and sharing our learning. This makes us hopeful for that together we can overcome this challenge.

## Conflict of interest

The authors declare that they have no conflicts of interest.

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