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Letter to the Editor

COVID-19: The Waterloo of governments, healthcare systems, and large health organizations

To the editor

In our humble opinion, the current corona-virus disease 2019 (COVID-19) crisis presents the modern Waterloo of western authorities at multiple levels, both at the administrative, the scientific, and the social level. The aim of this letter to the editor is not to engage into a blame game; it is to highlight several black boxes in order to be avoided by rather unaffected countries or during the case of a second wave of the disease.

The COVID-19 crisis started in China at the end of December and peaked in February. During this two-month period, both European and North American authorities severely underestimated the danger involved in this new respiratory virus. For example, in the words of President Donald Trump: “Because of all we've done, the risk to the American people remains very low. When you have 15 people, and the 15 within a couple of days is going to be down to close to zero. That's a pretty good job we've done.” (February 2020). This attitude towards the invisible threat of corona-virus resulted in the lack of or the delay in taking precaution measures, applying traveling restrictions, and acquiring necessary supplies.

Another type of governmental strategy towards the pandemic was the adoption of “herd immunity”, mainly by the UK, the Netherlands, and Sweden [1]. These countries did not take restrictive measures, at least initially, to reduce the financial consequences from the restriction measures based on the assumption that after a short time more than 50-70% of inhabitants will be infected, thus providing a protective immunity shield to the whole society. This assumption carries two fundamental drawbacks: a) confronts the value of human life with the financial cost, b) neglects that many elderly individuals are at high risk, cannot be isolated, and are dependent by younger individuals (who may be asymptomatic carriers).

Even however in countries which adopted restrictive measures very early (like my home country, Greece), many holes remained uncovered. For example churches remained open for 10-15 days after large gatherings were restricted, and while direct flights from Italy, Spain, and UK were forbidden, passengers from UK and elsewhere could come to Greece through other countries. Therefore, although Greece has to be applauded for the early implementation of restriction measures, it is a pity that small holes may blur the whole picture.

The rapid spread of the corona-virus and the unprecedented number of deaths so far proved that the healthcare systems were not ready for this pandemic. The number of intensive care units (ICU) beds was not adequate or even close to cope for the needs created by the pandemic (Fig. 1). Therefore, physicians in Italy and Spain had to improvise and take advantage of every possible inch to increase the number of ICU and “pseudo-ICU” beds.

Likewise, a significant shortage of respirators has been observed in countries heavily affected by the pandemic, which seems to be extremely big in the US, especially in New York. The shortage of FF3 masks, glasses, forms, and gloves is observed in all affected countries. This problem is extremely significant since healthcare personnel are at high risk of contamination and could further spread the disease (more than 10% in Northern Italy are affected and more than 90 physicians in Italy died during the past 30 days).

The limited number of tests is of utmost importance. Wide-scale surveillance is of crucial importance, since if we are not able to make an approximate estimation of the virus spread in the community, we cannot plan effective strategies, limit the infection, and allow for more accurate and safe termination of quarantine. Moreover, the number of detected cases represents the denominator of the ratio that estimates the mortality rate. Therefore, countries with stringent testing will report higher mortality rates.

The World Health Organization (WHO) is a highly respected Organization with tremendous work and contribution since its establishment. However, it seems that a couple of significant omissions can be recognized in this corona-virus infection [2]. First, the WHO underestimated initially the capacity of the corona-virus to become the most significant pandemic of our times. Initial reports described a relatively low contamination capacity and probability to spread outside China, thus not recommending adequate restrictions [3,4] and permitting governments to hush, underestimate the magnitude of the problem, and delay the implementation of restrictive measures. In addition, even after the China endemic and the frightening situation in Italy, WHO did not raise its voice versus the US, UK, Turkish, and other governments which actually undermined the pandemic.

WHO delayed significantly in providing accurate data regarding potential therapeutic agents for the management of COVID-19. Only a few weeks ago, WHO announced the conduction of a large clinical trial that will evaluate the efficacy and safety of 4 treatment options, the so-called SOLIDARITY trial [5]. Therapeutic approaches, up to now, are based on thin evidence; small trials, usually monocentric, usually with monotherapy or limited combination therapy, expert opinion, and extrapolation [6].

The COVID-19 pandemic exerted a major social impact so far and is expected to be even more influential in the weeks to come. First, it is the individual's fear that themselves or someone close to them will be infected and die from COVID-19, a feeling accompanied by the loneliness and melancholy of self-isolation quarantine. The most unthinkable fact however, is the hospitalization and the death of affected patients away from the beloved family. Last, there is the unthoughtoubly situation that the COVID-19 poses to the physicians. For the first time, in peaceful times, physicians in the west are called to decide which patient will be intubated and who not, thus having to move from “patient-centered” to “community-centered” medical practice as accurately pointed in a recent NEJM paper [7].

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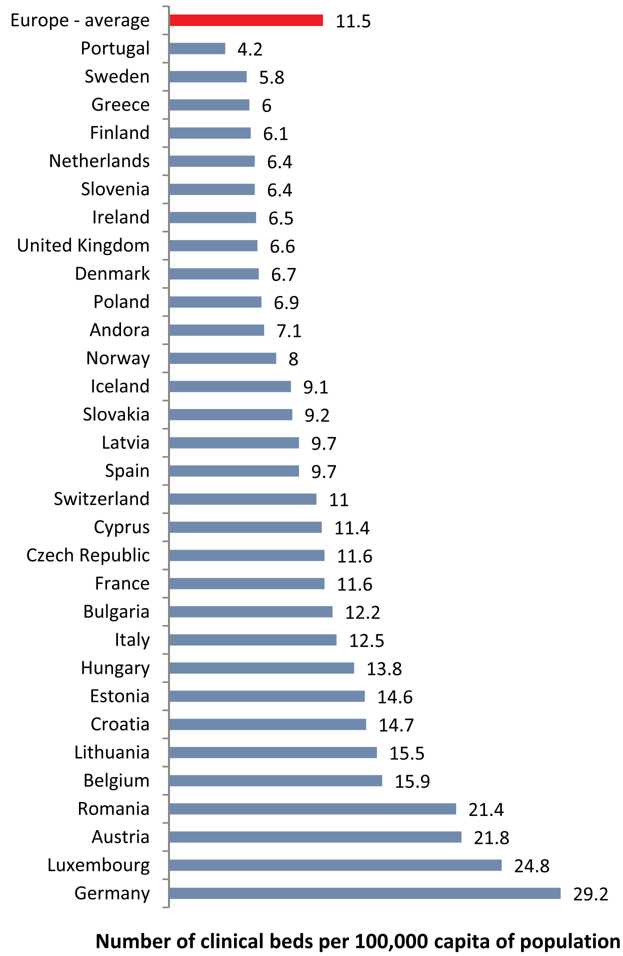

Fig. 1. Number of intensive care unit beds per 100,000 capita of population in European countries.

The critical evaluation of current situation and recognition of "best" and "worse" practices will not be sufficient, unless they are combined with realistic proposals.

a) Implementation of wide restriction measures seems up to now the best weapon against virus spread [8] and should be decided without any further delay.
b) The manufacture of adequate number of respirators and PPEs is essential.
c) This pandemic unveiled the necessity of a well-organized and adequately-staffed healthcare system.
d) Appropriately designed clinical trials are urgently needed regarding the treatment of the disease, to have something to effectively manage our patients until a vaccine becomes available.
e) The impact of RAS-inhibitors on COVID-19 has emerged as a significant clinical aspect [9]. Current data are inconclusive [10] and carefully gathered prospective data are needed for the management of patients with hypertension and/or cardiovascular disease.

The current COVID-19 crisis unveiled tremendous black holes in national and international authorities and highlighted the lack of efficient crisis management protocols in government authorities, health care systems, and international organizations. The wide restriction seems to be the best option to reduce the spread of the virus and should be implemented without further delay. The enhancement of hospital equipment is of outmost significance for the management of the affected population and the protection of both patients and physicians. Results from trials examining the efficacy and safety of drugs for COVID-19 are urgently needed until the vaccine becomes available.

Declaration of Competing Interest

None.

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