

Preparing for the tsunami or the way towards flattening the curve, the Greek perspective

The World Health Organization has officially declared the outbreak of COVID-19 pandemic on 11 March 2020, after the disease caused by the new coronavirus spread to more than 100 countries and led to tens of thousands of cases within a few months.

In Greece, COVID-19 seemed exotic and distant mid-February, there was no obvious contact with China, everyone was continuing their lives, jobs, congresses, dinners. No precautions at the Greek airports were taken, and no one, except epidemiologists, was realizing that a tsunami was on its way to Europe.

On the 31st of January, when the first COVID-19 case was confirmed in Italy, the Italian government suspended all flights to and from China and declared a state of emergency. The Lombardy outbreak came to light when a 38-year-old Italian tested positive in Codogno on the 16th of February. Initially, there was no suspicion of COVID-19, so no additional precautionary measures were taken, and the virus was able to infect other patients and healthcare workers. All public events were suspended. Universities and schools closed in Northern Italy on the 23rd of February, 23 days after the first case. On the 24th of February, three deaths had occurred in Italy, and still shops and bars were open. The weather was warm and everyone in Northern Italy was enjoying their walks and coffees in the historical squares and sites.¹ On the 11th of March, nearly all commercial activities except for supermarkets and pharmacies were prohibited. On the 21st of March, the Italian government closed all non-essential businesses and industries, with additional restrictions to movement of people. Fifty days after the first case was confirmed.

During the week of February 23 to March 1, in Greece we learned the importance of flattening the curve of COVID-19 propagation, while in Italy the curve was really steep. The health system was overwhelmed as cases and deaths increased exponentially.¹

The first COVID-19 case in Greece was recorded on the 26th of February. The health system had to be organized and ready for COVID-19 as fast as possible. As Greece and Italy are neighbouring countries, there was a lot of information from Italy. Do not underestimate the virus, stay at home, learn from us, they kept shouting.¹ Social distancing would be the country's answer to the pandemic. In Greece, schools closed on the 10th of March just 14 days after the first confirmed COVID-19 case, restaurants and bars on the 14th of March, all shops on the 18th of March and a general lockdown was established on the 22nd of March, less than a month after the first case was recorded. A travel ban was implemented inside Greece, with few exceptions.

Dedicated COVID-19 hospitals had been appointed all around Greece since early March. Since the beginning of the outbreak in Greece, suspicion for COVID-19 infection was high and every case

was considered as a possible COVID-19 case. On the 11th of March, all private clinics and non-urgent surgery were cancelled, while a few days later, all regular clinics were cancelled. Personnel in both emergency departments and wards had to be educated and familiarized with the new status and procedures. We needed more infrastructure and personnel. There was also need of personal protective equipment (PPE) for healthcare workers.

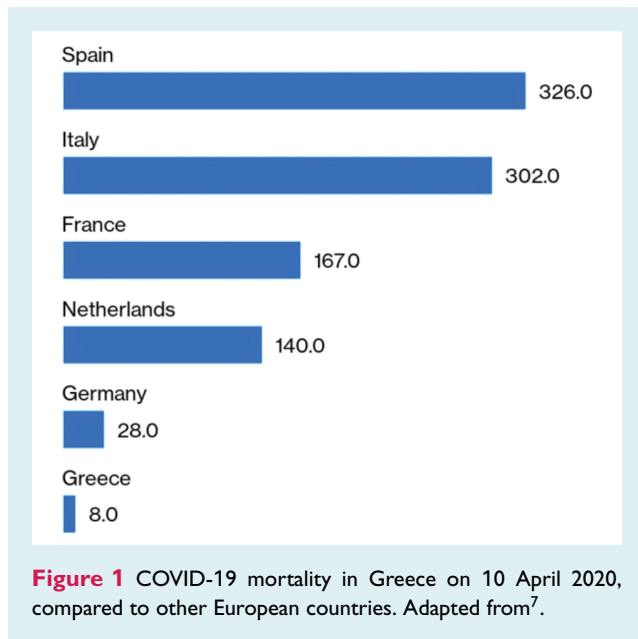
As cardiologists, we were not familiar with this type of crisis, we were (and still are) scared for us, our families, our colleagues and our patients.² Will be enough PPE or testing if needed? Are we adequately trained to cope with the new unknown situation? What is the impact of coronavirus on the heart?³ What biomarkers should we measure⁴ and how are we supposed to perform diagnostic and therapeutic procedures?^{3,5} Should heart failure medication be changed?⁶ What about following heart failure patients if the situation is prolonged?

During on calls we had to take care and echo COVID-19 patients. How safe was that? We studied and studied about safety procedures and proper management of COVID-19 patients. We learned it. We had bought the time as the curve was not steep in Greece. We were not tired and we had time to take care of ourselves and to establish communication via telemedicine with our regular patients who are of course scared and often presented with acute conditions as patients with decompensated heart failure⁶ or arrhythmias.

With all clinics cancelled, we needed to establish as soon as possible ways of communication with our patients. There was a spontaneous wave of compassion and solidarity in order to keep patients safe and away from dangerous hospitals. Since the 23rd of March it was possible to prescribe remotely, while telemedicine was the safe solution for heart failure patients. Patients are only coming to hospitals if blood tests are absolutely necessary or they need hospitalization. Heart failure patients' admissions were reduced up to 75% in Greece. Fear of face-to-face medical care may result to people with urgent health problems remain at home rather than call for help. Additionally, enhanced communication with cardiologists and nurses could be a reason, as well as intense adherence to medical treatment and a healthier way of living, the only weapon against COVID-19, the unknown enemy. Family support is also more robust during crises.

As all major congresses were cancelled and there is no travelling, the social media became a way of communication and teleconferences substituted, in part, major educational events and scientific meetings.

As of 10 April 2020, we could say, we Greeks, flattened the curve thanks to timely government measures as indicated by experts in infectious diseases, strict timely social distancing and



of course thanks to healthcare workers who under completely strange situations are managing with heroism all COVID-19 and non-COVID-19 patients. Up to the end of lockdown, 4 May 2020, Greece had one of the lowest rates of morbidity and mortality due to COVID-19 in Europe.

We learnt a lot up to now. How important is to be able to communicate and collaborate in depth with colleagues and patients. How different forms of communication may work and the scientific world will never be the same after the COVID-19 pandemic. How solidarity between healthcare professionals popped out spontaneously. And more importantly, we learned that though social distancing imposes hardships, it can save many millions of lives.

Up to date Greece did not ignore the lessons from Italy and was proactive in the management of the COVID-19 pandemic. The impressive result was as of the 10th of April only eight deaths per million people (Figure 1)⁷ and around 2000 confirmed COVID-19 cases. Despite minimum morbidity and mortality, the impact on society, economy and healthcare services delivery was immense. Now we have to look carefully towards the future. The way-out of social distancing and total lockdown has to be done gradually and carefully. The social-economic crisis that will follow the pandemic is expected to impact health services as well as the community which is already psychologically affected.

Concerning heart failure patients there are few questions arising. Are we going to see more decompensated patients after the pandemic or even later during this period? Is telemedicine going

to be broadly implemented in the post-COVID-19 era with the help of digital health gadgets? Finally, how combination of adequate communication and follow-up with the new life-saving medical treatments could reduce hospitalizations in heart failure patients?

There is definitely a need for implementing new technologies and ways of communication^{8,9} that we all became familiar with as well as the re-establishment of a face-to-face patient–doctor relationship, which is always going to be valuable.

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