ESC European Society of Cardiology
European Heart Journal (2021) **00**, 1–4
doi:10.1093/eurheartj/ehab035
CARDIOPULSE

Getting lost in the fog of the pandemic: insights from the 'second wave' of COVID-19

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Last Wednesday, at 9 p.m., E.C.—a Combonian brother born in a small town in the Dolomites 74 years ago and resident in Uganda for more than 40 years—died. He was a friend of mine. The news arrived at the end of my afternoon shift in the COVID-19 ward of my hospital, via text message. I squinted my eyes to make out those words, blurred by the passage through multiple transparent layers: the plastic

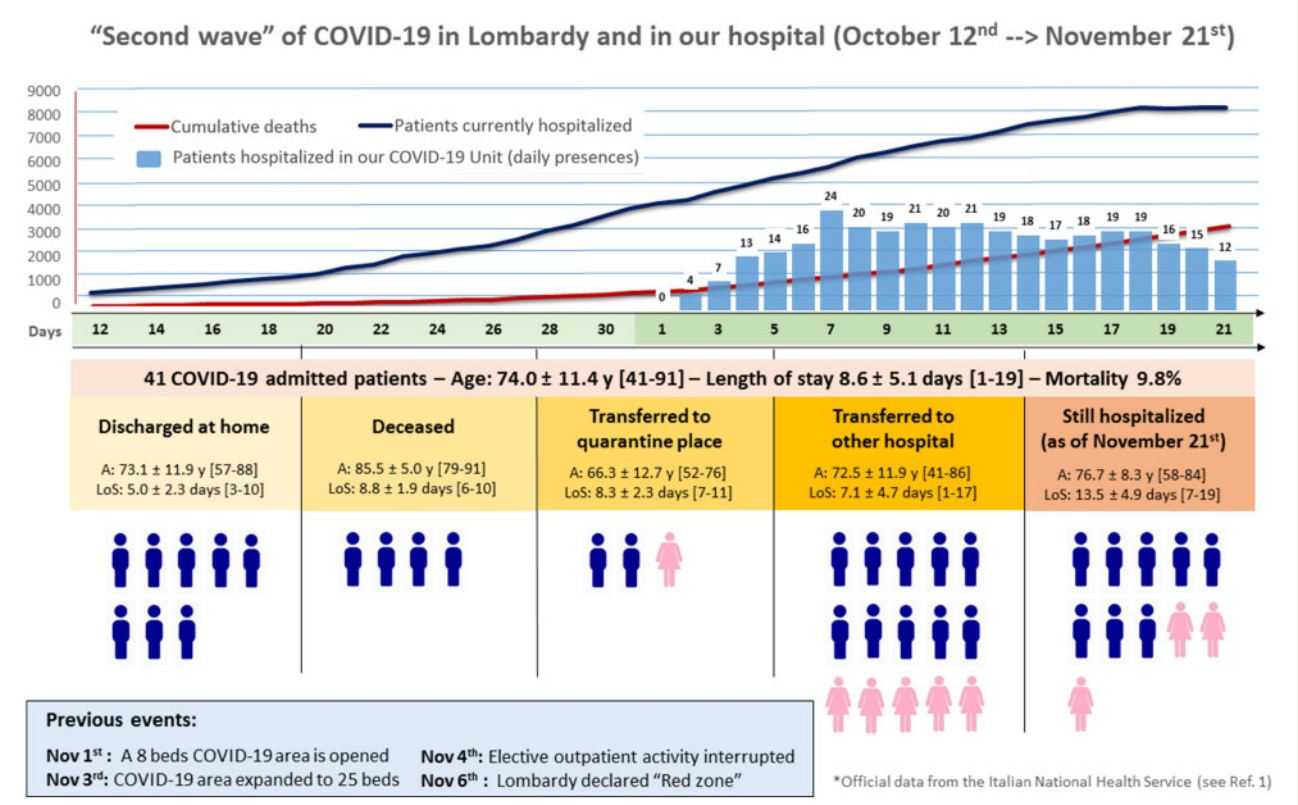

Figure 1 'Second wave' of COVID-19 in Lombardy and in our hospital (October 12th–November 21st). Our hospital, a tertiary reference centre for cardiovascular disease, was identified during the pandemic as a 'hub' centre for cardiovascular emergencies. However, since the beginning of November, given the epidemiological pressure with thousands of new cases of COVID-19 per day, a dedicated area for these patients has been opened.

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Figure 2 Insights from the COVID-19 second wave. (*A*) The entrance of Centro Cardiologico Monzino, shrouded in the evening fog. Most of the elective activities have been suspended and entire departments reconverted to cope with the pandemic. (*B*) 'Go back to doing hospital checks without any fear', the leaflets for patients printed at the beginning of September lie intact in the binders. (*C*) To reduce the contagion, beds monitored with a camera have been set up in an emergency room area for COVID-19 patients waiting for hospitalization. (*D*) At the shift change, we often take a picture to bid good luck to our colleagues. The photos are all blurred because of the plastic coating in which the cell phones are wrapped. (*E*) Brother E.'s body was transported to the hospital in Northern Uganda where he lived and worked. He was buried here after an outdoor ceremony, broadcast in the media and on social networks.

film that wrapped the cell phone to avoid contamination, the bulky protective visor, and finally my glasses, fogged up by my heavy breathing under the double-protective mask.

E. had fallen ill about a month earlier, initially with a slight malaise and dry cough, then with a picture of progressive respiratory failure. Initially, he was managed at home within the compound of the hospital where he lived and worked—a 600-bed non-profit hospital in northern Uganda that he had literally helped to build with his own hands—and then, as the situation worsened, he was transported on a daring journey by jeep at full speed and with the oxygen tank valve fully open, to the largest hospital of Kampala, the Ugandan capital 400 km further south. Despite all possible care and assistance, including prolonged non-invasive ventilation, he suddenly deteriorated to his death.

At the same time, more than 5000 km to the north, at bed 181, a 79-year-old patient whom I had admitted a few days earlier from the emergency room with uncomplicated COVID-19 pneumonia, and who, until 2 days before had been breathing in ambient air, was moved to intensive care and intubated for a sudden respiratory crisis. He died 24 h later. The day before, I had called his son, telling him that his father was improving.

Italy, and Milan, in particular, is facing in these weeks a terrible 'second wave' of the COVID-19 pandemic[1] (*Figure 1*). After a relatively normal summer, in which the measures of containment and prevention have loosened, since the beginning of October, the epidemiological curve has started once again to rise exponentially. Hospitals have again fallen under pressure, and the healthcare workers, having physically and psychologically been prepared since last spring,[2] have once again found themselves actors in a bad movie they no longer wanted to participate in (*Figure 2*).

As in a mocking and barely credible script, this 'second wave', which had been widely announced, found our country once again unprepared, as one might be suddenly surprised by a fog bank while driving at night. In half a day, when emergencies departments were already being assailed by patients with interstitial pneumonia, part of my ward, the heart failure unit of a regional referral centre, was isolated with plasterboards covered with biohazard stickers. Unlike the first phase of the pandemic, this time it took much longer to find volunteer healthcare workers for the new COVID-19 area.

Every morning I take my son to the nursery, where the nannies test the temperature both during entry and departure. They know that I am a doctor, but to avoid panic, I tell them that our hospital, mainly dedicated to cardiology, is spared by COVID-19. Usually, less than an hour later, I am dressed like some sort of diver and, together with the tireless interns who have interrupted their training to help us in this battle, I spend my shift raising or lowering patients' oxygen to try to make them feel better, often without success. Since the beginning of October, some colleagues have already fallen ill and in addition to the fear of becoming

Figure 3 Insights from the COVID-19 second wave. (*A*) A Down's syndrome patient made a drawing for his mother at home with a red heart. (*B*) I met Brother E. 6 years ago during this time of year. He was accompanying a young disabled girl to her parents' hut, in the middle of the Ugandan Savannah, so that they could spend Christmas together. (*C*) With the arrival of COVID-19, the entire department was disrupted. Tighter spaces forced us to take advantage of even the narrowest corners. (*D,E*) Christmas decorations, set up in anticipation of the holiday season, give a surreal touch to the ward. Patients will spend Christmas alone, away from their families.

infected, the enthusiasm is dampened by the ever-increasing number of shifts.

In the atmosphere muffled by personal protective equipment , incredible stories are recounted that seem to come from some Dantean work (*Figure 3*). An oxygen-dependent Down's syndrome patient made a drawing for his mother at home with a red heart and 2 days later, he found her in the bed next to him with respiratory failure. Currently, they are both improving, relieved to at least be together during this crisis.

A former professional football player, with an infectious clinical picture, complicated by severe peripheral embolization, was transferred to another centre. His leg will be probably be amputated.

At the end of the corridor, on the other side of the glass door that hermetically closes the ward, in our cardiopulmonary laboratory, we keep testing patients of the COVID-19 'first wave' 6 months after the discharge. The data for the first 100 are quite reassuring. In the hopes of infusing some optimism, we deliver that good news to those lying in bed, attached to oxygen.

Triggered by some politicians and misinformation, almost every day some patients' relatives ask us why we are not giving them hydroxychloroquine and hyperimmune plasma.[3]

My father, a general practitioner close to retirement, like many out-of-hospital doctors abandoned by the healthcare system, has extended his visiting hours, and he visits patients with the windows open despite the cold weather to reduce the viral load in the air. When they are not picking up their prescriptions in silence, patients complain about the flu vaccines that seem to be unobtainable this year. In the evening, at home, everybody waits for the bulletin of contagions and deaths, which are still on the rise, despite the lockdown. The cell phone rings continuously reporting updates and bringing news of acquaintances and family members at home with fever.

During the hard lockdown we experienced in March, the news reports alternated between fear and a feeling of solidarity and trust for doctors and hospitals; now half of the news reports deal with a large group of deniers who publicly claim that the pandemic is all a hoax. In the centre of Milan, a mural dedicated to doctors and nurses in the frontline of the pandemic was smeared with paint and, last week, a first-aid team was attacked by a group of deniers.

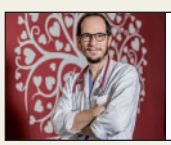
In sub-Saharan Africa, a stone's throw from the equator, fog is not a frequent phenomenon, but when it arrives, it leaves everyone dismayed. Brother E. is part of the history of northern Uganda. He has fought rebels, malaria, even Ebola.[4,5] The last time I spoke to him, in the shade of a big tree at the entrance of the orphanage he built near the hospital, he told me about when an elephant attacked his jeep with its tusks. That time he survived by a miracle. An infinitely smaller virus, born in a Chinese market on the other side of the world, having landed in Europe by the airliner and now spreading almost everywhere, finished the job that even a mighty elephant, could not. It is 4 p.m.; at this time last April, the balconies were full of people

clapping their hands and singing their support to hospital workers. As I now look out my window, all I can see is fog.

Acknowledgements

This article is dedicated to the memory of Brother Elio Croce, may he rest in peace. I thank Prof. Piergiuseppe Agostoni, Elisabetta Salvioni, and Michela Palmieri for their constant and unconditional support. All authors contributed to the writing and/or revision of the manuscript and approved it before submission. The manuscript is not under consideration elsewhere at present and data have not been previously published. 'The authors do hereby declare that all illustrations and figures in the manuscript are entirely original and do not require reprint permission.'

Conflict of interest: none declared.



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