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Letter to the Editor

Good times, bad times: A diary of a physician in the COVID-19 era

As a physician specializing in infectious diseases, you witness cases that are difficult to forget. As a physician who follows media updates on the pandemic's development, you believe this is an experience you will never forget. However, as a young physician in northern Italy now, this will undoubtedly be a time you will never forget.

7:30 a.m.

I put on my white coat and quickly freshen up before having a cup of coffee with several friendly faces. I take a deep breath and prepare for the morning briefing.

8:00 a.m.

Our colleague wrapping up her night shift appears tired. Night shifts are not new to her, but recently her eyes reflect a different kind of weariness. "I admitted four COVID-19 s last night", she says. Sighing, she continues, "One 57-year-old lady has a hacking cough and a high fever. She is not yet in need of oxygen, but I think she needs to be assessed by an intensivist. The other patients are stable for the moment". Since the first COVID-19 case was admitted to our Turin hospital on 22 February, we have been evaluating these patients jointly with an intensive care specialist three times daily. This collaboration has become an essential part of patient treatment, particularly with the increased caseload of late.

10:00 a.m.

The telephone rings every five minutes. Most callers want to consult regarding the need to perform a SARS-CoV-2 swab. The rest wish to know whether they should refer their patient to the hospital for admission. In the meantime, within three hours, one of the floors dedicated to the academic unit of infectious diseases has been isolated from the rest of the hospital by a team of engineers. It is good to know that we now have six additional negative pressure rooms with an extra twelve beds.

12:00 a.m.

We have rounds to conduct and four new patients to see. A 61-yearold man, patient Z, immediately grabs our attention. He is tachypnoeic, and his oxygen saturation is low despite receiving 50% oxygen through a Venturi mask. Patient Z has several comorbidities, including obesity and hypertension, treated with lisinopril. Yesterday, there was some discussion regarding potential interaction between angiotensin-converting enzyme (ACE) inhibitors and SARS-CoV-2 pneumonia. No conclusion was reached. We remember this discussion today when we discover that three of the four new patients are being treated with ACE inhibitors [1]. Regardless, we request an intensive care consult for Z too.

02:00 p.m.

Providing information via telephone to relatives prevented from visiting their loved ones is a significant challenge. Many are waiting at home for the results of their SARS-CoV-2 test. One such woman calls the ward hoping for news of her father. Her father is a 97-year-old senior citizen. She asks me, "Is Dad asking about us? About Elizabeth 'Bettina' and Gabriel 'Gabrio'?" I find it difficult to explain that her father is confused and disoriented. Instead, I promise to inform him that his daughter and son will visit him as soon as possible.

04:00 p.m.

The main topic of our discussion with the intensivist is Z. We finally decide to increase his FiO2 and transfer him to the intensive care unit (ICU). In the ICU, an attempt can also be made to provide respiratory support with non-invasive ventilation. For each patient being transferred to the ICU, about five more suspected of having SARS-CoV-2 are admitted. This time, three of the five new patients had inadvertently been in close contact with a SARS-CoV-2-positive patient in the emergency medicine department before being admitted to internal medicine. Hospitals are not safe places for sick people. Especially not these days. 06:00 p.m.

An 84-year-old woman on the ward is found to have new crackles and Rhonchi wheezes on physical examination of her chest. She is dyspnoeic and requires more oxygen than she did before. This becomes evident as her temperature rises. This patient suffered a hip fracture a year ago and had not exited her home since. She too has SARS-CoV-2. Her disease contact has never been identified. This is no longer rare.

08:00 p.m.

Meanwhile, the ward has been saturated with four new SARS-CoV-2 admissions. Supportive, antiviral and antibiotic therapy is administered according to clinical judgement. Many patients receive a regimen of chloroquine or hydroxychloroquine plus lopinavir/ritonavir [2]. Unfortunately, drug interactions and side effects are not uncommon. This topic will be discussed in our next briefing. Meanwhile, we do our best to manage these patients as best as we know.

10:00 p.m.

Although the overall situation is very dynamic, I deliver a status report to the colleague who will cover the first half of the night. We rapidly do a round of the ward together. We smile thinking that the two patients in room 9 have lived overall 188 years. I suddenly recall I made a promise regarding one of these patients. "Sir", I say to him, "Elizabeth called to inquire regarding your health". "Bettina!" he exclaims "How is she?" "She was worried about you", I say. He grins at me. "Tell her to rest easy. I have survived the war. I will survive this too", he says.

01:00 a.m.

I have some time off to rest outside the ward, so I take a shower. My hands are dry. My skin is becoming cracked and thin from too much scrubbing. I can trace the outline of the mask on my face. I have trimmed my beard but hesitate to shave off my mustache, my favourite. As hot water cascades over my shoulders, I cast my mind over the events of the day so far. I think about the vital signs of the patients; two are surely not doing well tonight. I had a friendly conversation earlier in the evening with one of them, the woman in room 2A. She recognised my accent; we are both from Rome. We both spent part of our life near Lake Bolsena. I swam there last summer. How long ago that seems.

We both now swim in different waters, an environment filled with

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Fig. 1. The ward of Infectious diseases in Turin.

droplets carrying a virus. "How long did you live there, doctor?" she had asked. Making that simple effort had left her coughing, displacing her Venturi mask. "Eight years", I responded distractedly as I counted her respiratory rate: 18 breaths per minute. "Tomorrow we will check your blood gasses again", I announce. She smiled at me. Perhaps she did not understand. "I will go back to the lake when everything is over", she stated. I was sweating. Perhaps it was only the coverall that made it unbearable.

04:00 a.m.

I go over medication orders yet again. I prepare coffee. I answer the telephone. I review my ventilation ABC course. I peek once again at the Johns Hopkins Covid-19 Map [3]. In January, on a premonition, I started following the website. The black map, with its expanding red circles, has long been an admonishment. I am in the middle of a red circle now, but I still watch it nervously. Everyone seems to be underestimating the rate of spread—everyone but my colleagues from other parts of northern Italy. We share protocols, experiences, tips, suggestions and stories. We answer each other's queries. We are overwhelmed but somehow find the strength to push through every day.

Meanwhile, my 97-year-old patient has tested negative. I make a note to my morning shift colleagues to call his beloved Bettina. A new day will soon begin.

Declarations

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Availability of data and material

not requested

Code availability

not requested Fig. 1

Declaration of Competing Interest

None to declare

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Bibliography

- Zheng Y, Ma Y, Zhang J, et al. COVID-19 and the cardiovascular system. Nat Rev Cardiol 2020https://doi.org/10.1038/s41569-020-0360-5.
- [2] Martinez MA. Compounds with therapeutic potential against novel respiratory 2019 coronavirus. Antimicrob Agents Chemother 2020 Mar 9. https://doi.org/10.1128/ AAC.00399-20. pii: AAC.00399-20[Epub ahead of print] Review.
- [3] https://coronavirus.jhu.edu/map.html.

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