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COVID-19 Challenges

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Intensive Care in the Coronavirus Era: Keep in Mind Your Collective Intelligence

Above and beyond the logistical and organisational aspects, shaken by the COVID-19 pandemic, here is an overview of our experience as an intensive care team in Switzerland.

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We will not parade the efficient measures implemented in our institution in preparation for welcoming COVID-19 patients; rather, we will discuss the impact of this epidemic on the clinical and emotional intelligence of intensivists.

Our usual pragmatic and evidence-based practice of medicine was shaken by the COVID-19 assault before we found our footing about two weeks after the first COVID patient had been admitted to our ICU. At the beginning of the pandemic, we were overwhelmed by fear-based medicine and we fell into its trap. This fear-medicine was triggered by the ignorance that leads to anxiety and aggravated by several factors:

- First of all, before the arrival of the wave, the massive influx of COVID patients and mortality were the central subjects in scientific exchanges with Chinese and Italian colleagues and in the media through the images conveyed.
- The anticipation of an overwhelming surge of critical care patients led us to organise ourselves to treat more than triple the number of patients we usually admit to our ICU, by doubling staff and searching for solutions for beds and materials. This particular situation increased uncertainty and anxiety about admission or therapeutic withdrawal decisions. Our emotions have not been attenuated by the published recommendations of the Swiss Academy of Medical Sciences for the triage at admission and during the stay in ICU of COVID-patients according to the availability of resources. Indeed, on the one hand, we faced an unknown disease complicated by an expected single organ failure (ARDS) requiring an invasive approach of mechanical ventilation, based on publication of articles of sometimes questionable scientific quality. On the other hand, as we are usually bound to reduce the number of deaths, we had to make difficult ethical decisions especially regarding withdrawal when an additional organ failure set in. Thus, the automatic and logical thought was: we are going to have a high mortality, is it worth engaging in a fight lost in advance and at the expense of non-COVID patients (collateral victims)?
- Our emotional stress was amplified by the portrayal of deceased patients in the media and the high mortality among mechanically ventilated patients reported during the initial scientific exchanges with Chinese and later Italian colleagues (Zhou et al. 2020; Yang et al. 2020). They impressed in our collective unconscious a feeling of helplessness in the face of this virus.
- Intensive media coverage of a highly complex debate on experimental approaches for management of SARS-

CoV-2 (antimalarial and antivirals) massively increased the pressure on healthcare workers. We have been overwhelmed with proposals for these experimental approaches coming from inside and outside of our institution, and even from patients and their families influenced by all kinds of media. This led to prescribing treatments not based on scientific evidence and at the risk of causing harm. Our desire to save our patients, combined with a lack of effective treatments, distracted us from evidence-based medicine and the principle of "do no harm" and "less is more" (Zagury-Orly and Schwartzstein 2020; Rice and Janz 2020). This generated fear-driven reactions (contempt, blame, disappointment) which are worsening an already very complex situation.

• The discrepancy of the recommendations on protective measures for health workers and the shortage of personal protective equipment with its reported consequences: contamination and death among doctors and nurses in China, Italy and Spain have also increased our anxiety and fear of contagion.

This whole cascade of factors affected our stressability (internal reaction to stress) which reached a critical threshold causing our brain to switch from intentional conscious functioning, where results determine our actions and vice versa (learning loop) to an automatic functioning where the funeral context, audiovisual stimuli and ignorance determine the action.

At the outset of the pandemic, all these factors led for a short time to a medicine based on fear and emotional stress rather than clinical intelligence. It was invasive and degraded: less contact with patients, less auscultation, less chest X-ray, less transport to CT scan, no aerosol-generating procedures (administration of nebulised treatment, non-invasive ventilation, high flow oxygen therapy, and bronchoscopy). All of this might have contributed to the initial high mortality rate among critical care patients exceeding 50%, observed in our service and in other centres (Richardson et al. 2020).

Fortunately, we rapidly became aware of these misguided influences, thanks to daily exchange within our medically team about our first experiences with this new disease. In the light of the relevant published data, we realised that COVID-19 was a complex multi-system disease that required our usual comprehensive and scientific approach to critical care. In parallel, we could once again rely on the availability of personal protective equipment and we could observe an excellent rate of protection among our staff thanks to the applied measures.

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Our collective awareness of the ineffectiveness of our invasive and degraded approach during our first experiences with COVID-19 patients, and the plethora of published scientific data led us to collectively rethink: change tack and go back to reasoned and reasonable medicine based on the endeavours obligation and not of result.

Nevertheless, the result is right on time and it's gratifying. In our ICU, during the first pandemic weeks, mortality dropped down dramatically, from 67% for patients admitted during week 1, to 33% in week 2, and 15% in week 3, leading to an overall mortality during 7 weeks of 22% (12 out of 54 patients).

We can summarise this experience by saying: COVID-19, a hell of an attack on the system!

Conclusion

The COVID-19 pandemic stripped bare our vulnerability when we were ignorant in the face of "an unknown enemy." However, it also brought us back to the essential question: what do we do when we do not know what to do? We mobilise our collective intelligence by sharing our emotions and our experiences, thereby reinforcing our teamwork. ■

Conflict of Interest

The authors report no conflict of interest.

Key Points

- During the COVID-19 pandemic, intensivists could fall prey to cognitive error and unconsciously rely on anecdotal experiences, whether their own or others, instead of scientific evidence.
- In the face of great uncertainty, we believe that intensivists should rely on clinical and collective intelligence as a safeguard mechanism.
- The frantic race for publication should not make us lose sight or critical thinking.
- The media noise on experimental treatments must not pollute the scientific debate.

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