ICU
MANAGEMENT & PRACTICE

Optimising Patient Care During COVID-19: The Four Ps

The COVID-19 pandemic has had a significant impact on ICUs around the world. Most healthcare systems were prepared to handle natural disasters or accidents, but as we have all witnessed, they were unprepared to handle the massive influx of patients during the COVID-19 crisis. Last year was quite a challenge for healthcare providers around the world, and as clinicians continue to battle the second wave of COVID-19, here is an overview of what we learned and how we could potentially improve in four key areas: Preparation, Progress, Personalisation, and Prioritisation.

Preparation

During the COVID-19 influx of patients, many healthcare systems began to prepare by converting other areas of hospitals into temporary ICUs. This had to be done, keeping in mind the large numbers of patients who required intensive care. However, since most systems were unprepared for such an influx, this measure had to be taken at the cost of routine, non-urgent procedures, which many experts believe could lead to an increase in non-COVID morbidity and mortality. Resources were distributed among units and hospitals to ensure adequate supplies. Many nurses and doctors had to be transferred from other units to work in the ICU and had to be trained quickly. Leading groups and societies played an important role in this area, including ESICM and SCCM. New CPAP systems and respirators were developed and constructed to meet increased demand. New methods of engaging with family members were devised because they could not visit their loved ones. All these measures were taken after the pandemic hit, but this highlights the importance of the first P - Preparedness. A useful lesson that healthcare systems have now learned is that it is important to plan in advance for such things and to have adequately trained personnel, appropriately equipped ICU beds and adequate amounts of material and alternative supply chains to better manage a crisis such as the one experienced in 2019-2020.

Progress

During the last year, there has been significant progress in the understanding of the pathophysiological alterations of COVID-19. We know now that this disease is not limited to the respiratory tract and altered lung function but that it can affect other organs as well. Management of COVID-19 patients has also improved, and there is less use of invasive mechanical ventilation and more effective thrombosis prophylaxis. Over time, mortality rates have declined because clinicians now understand the disease better, and patient management has thus improved. However, while this progress is praiseworthy, the fact is that this process could have been much faster had there been more research and exploration of old and new therapeutic interventions. So many drugs were tried during this pandemic, and many of these attempts failed because testing wasn't as rigorous, and several assumptions were wrong (hydroxychloroquine being a case in point). There could have been better international collaboration, better testing and much better results and progress if things had been approached differently. That is another lesson learned.

Personalisation

COVID-19 is a heterogeneous condition that has different responses in different individuals. When the pandemic began, most of the attention went to ARDS in COVID-19 patients. All patients were given standardised respirator management, but then clinicians realised that respiratory failure could be multifaceted. While ARDS is a common complication of COVID-19, in many patients, it is not severe initially. So much time was spent trying to identify differences between COVID ARDS and non-COVID ARDS. There was also too much focus on avoiding lung oedema, but not enough attention was paid to alterations in tissue perfusion. All this said and done, an important lesson learned is that effective management of COVID-19 requires personalised treatment, better use of biomarkers, and a better understanding of the right treatment strategy used in the right patients at the right dose and at the right time.

Prioritisation

There was a rapid surge of COVID-19 patients who needed intensive care. This meant that decisions had to be taken quickly, and many times, this was based on the presence of comorbidities and patient preferences. Age was reported as a major factor influencing ICU admission

decisions, but the fact is that frailty and life expectancy were actually more important than age. The first-come, first-served principle was applied sometimes, and at other times, patients who benefited most were treated first. Difficult decisions had to be taken, but it is important to understand that these decisions are not limited to pandemic times. Intensivists need to make such decisions on a regular basis, and it is thus important to have carefully defined criteria for ICU admission and for withholding and withdrawing therapies in place at all times, not just during times of crisis.

Overall, this pandemic was an eye-opener for healthcare around the globe. As we move forward, these four Ps - preparation, progress, personalisation and prioritisation - should be considered. Preparation is the key; progress in disease understanding and management a must; personalised treatment essential, and guidelines for prioritising care extremely important.

Source: Critical Care

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Published on : Sun, 31 Jan 2021