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Moving beyond the assessment of mortality and severity of diseases in critical patients: we are just getting started...

Para além da avaliação da letalidade e da gravidade da doença em pacientes críticos: estamos apenas começando...

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The scenario of intensive care has changed considerably in recent decades. Increasing number of patients require hospitalization in intensive care units (ICU) worldwide due to several factors, including greater access to the healthcare system, advances in the management of several diseases with a subsequent increase in patient survival, and an increased availability of multimodal aggressive treatments with the potential for serious complications that require monitoring or management in the ICU. In addition, advances in the care have resulted in substantial improvements in the survival rates of patients with a number of critical diseases and complications.[1,2]

Until the end of the last century, the characterization of critically ill patients have been focused on the severity of acute disease, and the primary outcome for these patients was short-term mortality (28-30 days), especially when evaluating the effectiveness of various interventions.[3] Since 2000, it has become evident that this evaluation was incomplete and inappropriate and that studies should also consider long-term mortality (at least 90 days but ideally 6-12 months).[3] In addition, mortality evaluations *per se* are incomplete. Currently, mortality during hospitalization for acute diagnoses and complications that are prevalent in intensive care, such as sepsis and acute respiratory distress syndrome (ARDS), ranges from 20% to 40%.[2,4] Improvements in the prognoses of a number of diseases have reached even subgroups of patients who recently had very bad prognoses and patients with acquired immunodeficiency syndrome (AIDS) or malignancies.[5-7] Over the last years, studies in different populations and regions demonstrated that survivors of ICU hospitalization experience complications and residual organic dysfunctions that significantly impact their functional capacity, quality of life and recovery of their work capacity.[8-10] These complications that follow critical illnesses and ICU admission are particularly important for patients with serious chronic diseases such as cancer, AIDS and autoimmune diseases, because they could limit the availability or continuity of the most appropriate treatments.

On the other hand, patient's previous functional capacity and quality of life have a significant impact on his or her prognosis and are often used in discussions to evaluate the appropriateness of ICU hospitalization.[6,11] However, the available information in the literature is very limited, especially regarding Brazilian patients. In the present issue of the Revista Brasileira de Terapia Intensiva, Tereran et al.[12] evaluated the previous quality of life of 91 patients, representing 24% of the total admissions to the ICU of a tertiary hospital.[12] The authors evaluated only patients who were awake and able to participate in the study in the first 72 hours of ICU hospitalization. Cardiac complications

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and postoperative care were the causes of hospitalization for 85% of the patients. Using the SF-36, the authors observed that the quality of life prior to hospitalization was considered bad, especially in physical terms. In addition, the authors demonstrated that the previous quality of life in this population had a poor correlation with the severity of the disease that caused the ICU hospitalization. In our daily practice as intensivists, the prevalence of ICU patients for which we infer that their previous functional capacity and quality of life were reduced is noticeable. The present study contributes to a better understanding of the premorbid factors that are present in critical patients because it quantifies this information through the use of a validated instrument; however, some observations must be considered when interpreting the results. It is important to focus on potential selection biases that can compromise the generalization of the results. The admitted patients are of low severity, as indicated by the low values of the severity scores, mortality rates and hospitalization times. Most of the patients were admitted for cardiac complications and postoperative care after complex or high-risk surgeries, and presented with a high prevalence of comorbidities. Thus, it is not possible to infer that these results apply to patients without previous comorbidities and to patients who have been admitted in more severe conditions. In addition, the present study did not assess quality of life after ICU hospitalization, which hinders the evaluation of the impact of the disease and its treatment on that domain. Finally, only patients who were admitted to the ICU were evaluated, which makes it necessary to consider the bias related to the screening criteria of the institution for ICU admission and possibly the biases related to a patient's own decision to be hospitalized in the ICU. Despite these limitations, studies such as that of Tereran et al.[12] are relevant because they can help the ICU team to identify patients who are more vulnerable to residual complications and the modifiable factors related to these complications. These studies are critical for assessing the impact of prevention strategies on patients who are at high risk for these residual complications after ICU hospitalization and for evaluating the rehabilitation of those who developed them.

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