

# Critical Care for Cancer Patients: A Global Challenge and a Need for Interdisciplinary Collaboration

## El cuidado crítico para pacientes con cáncer: un desafío global y una necesidad de colaboración interdisciplinaria

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Cancer represents a global public health problem, and in developed countries it is projected to soon become the leading cause of death [1]. Advances in oncology have led to many patients, although not completely cured, living longer; thus, the number of people living with this condition will increase as well as the number of oncology patients who will need to be admitted to the intensive care unit (ICU). Despite advances, cancer is still seen as a "fatal disease" and, in some regions, the admission of patients with cancer to the ICU is still limited or questioned, although many patients can be managed as chronically ill, and sometimes even cured. In fact, many nonmalignant diseases have a prognosis equally or more unfavorable than certain severe types of cancer [2]. The unique characteristics of critically ill patients with cancer underscore the need for dedicated approaches and areas of expertise for this population.

Since the 1950s, critical care has evolved considerably. Technological innovations, such as organic support systems (mechanical ventilation, dialysis, and extracorporeal membrane oxygenation), now make it possible to replace vital functions temporarily, complementing advances in the understanding of the pathophysiology of critical illness. Historically, oncology patients, especially those with solid tumors, were restricted access to the ICU. Intensivists were often hesitant to admit them due to limited knowledge about prognosis and treatment options in this population. Studies in intensive care show that a diagnosis of cancer increases the likelihood of refusal of admission to the ICU or limiting aggressive treatment almost sixfold [3]. However, recent advances in cancer therapies and intensive care have improved expectations for these patients.

Today, survival rates are on the rise thanks to early diagnosis and more specific and effective treatments with fewer adverse effects. This evolution is largely due to "precision medicine", which has enabled the development of anticancer treatments that offer a wide range of therapeutic options to oncologists [4]. Between 5% and 10% of oncology patients develop life-threatening conditions requiring admission to the ICU [5, 6, 7]. A study conducted in France showed that the percentage of admissions to the ICU for oncology patients ranged from 0.7% to 12%, with higher rates in cases of esophageal cancer, acute leukemias, and allogeneic bone marrow transplantation [8, 9]. Currently, oncologic patients account for 13.5% to 21.5% of all admissions to the ICU [10, 11]. At the end of the 20th century, survival rates for critically ill patients with cancer ranged from 20% to 30%; today, these rates have reached 50% to 60% [12, 13]. In our specialized oncology unit, survival is approximately 70%, thus approaching that of critical patients without cancer. This suggests that cancer itself is no longer a universal contraindication for admission to

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the ICU. This decision should be based on factors such as type and stage of cancer, response to previous treatments, functional and nutritional status, as well as patient and family preferences.

A review made in our unit revealed that patients with a higher ECOG (Eastern Cooperative Oncology Group Functional Status) score (limited functionality) had higher mortality rates, regardless of cancer type. Although many complications presented by critical oncology patients are common in patients without cancer, this population has specific characteristics, such as leukostasis, superior vena cava syndrome, and paraneoplastic autoimmune phenomena, among others. These patients benefit from joint management between oncologists, hematologists, oncologic surgeons, palliative care specialists, and intensivists, with vital support from experts in nutrition and physiotherapy [14]. Currently, some hospitals have implemented rapid response teams, composed of critical care physicians and/or nurses who assist the oncologist in identifying patients who would benefit from early transfer to ICU or more intensive room management. This approach has demonstrated a positive impact on mortality, as it allows intervention before irreversible organ failure [15, 16]. The integration of palliative care in the ICU is another key aspect, as it reduces the use of aggressive treatments in the end-of-life phase and improves the experience of patients and their families, thus facilitating the transition from curative intent to limiting therapeutic effort [17, 18].

As a conclusion, the rapid development of critical care medicine and oncology allows intensive care for oncology patients continue to evolve; therefore, the demand for intensive care in this population will increase. Comprehensive care of critically ill patients with cancer requires close collaboration between specialists in oncohematology, palliative care, and intensive care. This collaboration should start at hospitalization, allowing the prevention of irreversible organ failure and avoiding aggressive measures in patients with an unfavorable prognosis. The decision to admit patients to the ICU should be based on a set of criteria and should be taken as a team, in order to offer quality intensive care adapted to the needs and personal preferences of each patient.

## 1. Abbreviations

Does not apply.

## 2. Administrative information

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The author declares no conflicts of interest.

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