Editor's Note: Authors are invited to respond to Correspondence that cites their previously published work. Those responses appear after the related letter. In cases where there is no response, the author of the original article declined to respond or did not reply to our invitation.

Critical Care Use in Patients With Lung Cancer

To the Editor:

In a recent issue of *CHEST* (October 2014), Cooke et al¹ performed a secondary analysis using the Surveillance, Epidemiology, and End Results (SEER)-Medicare registry and demonstrated a significant increase in admissions of patients with lung cancer to intensive care and intermediate care units between 1992 and 2005. Interestingly, the increase in critical care use was more prominent in patients not mechanically ventilated and in intermediate care unit admissions. The study contributes significantly to the understanding of treatment aggressiveness among patients with lung cancer in the United States. In a previous study by the group using the same patient population, 65% of patients died within 6 months of ICU admission.² More importantly in that study, mortality rates of 79% were reported in patients who were mechanically ventilated.² However, as intrinsic limitations of using administrative data, the lack of information regarding relevant clinical characteristics (eg, performance status [PS]), goals of care provided (eg, full code, palliative care), and destination after ICU or hospital discharge imposes limitations for using the study results to assist in ICU triage decisions. Moreover, it is not clear in the study by Cooke et al¹ whether patients admitted to intermediate units (32% of all studied patients) received palliative care as the main goal of care.¹

Recently, our group evaluated 449 patients with lung cancer admitted to 22 ICUs in Europe and Latin America.³ We observed 6-month survival rates between 40% and 50% in patients with nonprogressive malignancy and good PS, even in case of sepsis, need for ventilatory support, or multiple organ dysfunction. Additionally, 71% of ICU survivors were at home at 6-month follow-up, and anticancer treatments were offered to almost one-half of them. Poor PS before ICU admission predicted the ability to receive chemotherapy in these patients. On the other hand, patients with poor PS and progressive cancer had mortality rates > 90%. We also observed

comparable results in unselected patients with cancer requiring ventilatory support.⁴

The decision to admit a patient with lung cancer to the ICU is complex, involving multiple domains. In this process, taking into consideration only the underlying malignancy is no longer acceptable. Conversely, to recommend broad ICU admission policies to any patient is also unwise. Besides, avoiding unnecessary physical, psychological, and emotional burden to patients and their relatives related to inappropriate decisions to offer or, conversely, deny ICU admission to patients with lung cancer should be paramount.⁵ If prognostic uncertainty is inherent to this process, we can improve it by promoting close collaboration and shared decisions among intensivists, oncologists, families, and, more importantly, patients themselves.

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Response

To the Editor:

We greatly appreciate the comments from Dr Soares and colleagues, who are right to be concerned that our results will not inform the decision to admit a patient with lung cancer to the ICU.¹ Our study does not provide clinicians with information or tools to help inform the decision-making process for ICU admission.¹ Instead, it describes temporal changes in, and predictors of, the aggressiveness of care delivered to elderly patients with lung cancer as reflected by use of the ICU. We identified greater ICU use among patients with lung cancer who were younger, as well as those with nondistant disease. These findings suggest that providers are reserving the ICU for patients with the greatest ability to benefit, but more research is required to understand how these decisions are made. Our results do not supplant clinicians' need to provide prognostic information and elicit preferences for aggressive care when deciding whether to admit a patient to the ICU.

We wholeheartedly agree that the decision to admit a patient to the ICU is complex and dependent on multiple factors. Balancing an individual's need for critical care and his or her desire for aggressive care with the available resources is one of the greatest challenges facing intensivists. As intensivists have come to recognize that more care does not necessarily represent better care, integrating objective prognostic data into the decision-making process becomes increasingly important. When intensivists do not engage patients with lung cancer and their families about the likely outcomes of ICU admission, they may be providing unnecessary, or worse, unwanted care.²⁻⁴

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