

## Reply to technical comment on: Biskup E, et al. Oncological patients in the intensive care unit: prognosis, decision-making, therapies and end-of-life care

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We thank Dr Namendys-Silva for the thoughtful comments on our article [1]. The comment very positively emphasises that the trends described in our review are indeed global and apply to various hospital environments – not only American, European, Asian, but also Mexican [2, 3]. It is a pleasure to see how relevant and important the topic of oncological patients in the intensive care unit (ICU) is. A number of factors that determine the mortality and outcomes of this specific patient group are known and have been found significant. These factors are entering clinical practice [4, 5]. However, due to the complexity of acute ICU disease patterns, vague but stringent admission indications and the lack of objective algorithms providing personalised prognosis, there are no strict criteria that can be seen as hard guidelines for ICU admission of cancer patients [6]. Nevertheless, we summarised the evolving situation in both oncology/haematology and intensive care, and indicated that critically ill cancer patients have acceptable outcomes after ICU stay, which should lead to a review of admission policies, goals and strategies for oncological patients [7, 8]. What is still lacking is easy-to-use and evidence-based triage criteria, which would help extend life support to patients with cancer who might benefit from it. It was with an interest that we learnt about the mortality rates of haematological patients in the centre of Dr Silva, which are in agreement with the scientific reports we mentioned in our review: haematological cancer patients are shown to have a statistically worse prognosis in comparison with solid tumour patients. Pathophysiology, the systemic character (as opposed to the frequently localised character of solid cancers) and biological background of the haematological diseases means that these patients present in the ICU with a slightly different profile of acute illnesses. The outcomes of solid tumour patients are almost comparable to those of nononcological patients. This was mentioned again in the comment of Dr Silva, supported by several references. Nevertheless, these are broad numbers

and the individual underlying cancer type, considering its enormous heterogeneity, is an important determinant for the final outcome of the acute deterioration. This is why we strongly emphasised (as did Dr Silva) that that admission of cancer patients to the ICU (including the resuscitation status) should be decided by a multidisciplinary team of intensivists and oncologists/haematologists [9]. We of course agree that the treatment process and prognosis should be reassessed at frequent intervals in that constellation (as already mentioned in our review). This applies for both solid and haematological cancer patients.

The conclusion of Dr Silva's comment re-emphasises the essence of our review: cancer patients should not be refused admission only because of their diagnosis, but admission should be considered on the basis of the acute critical illness and its prognosis. Moreover, in agreement with Dr Silva, we want to point out that, regardless of the difference in tumour-specific mortality, ICU admission of patients with malignancy is a complex process that can only augur success in the context of an interdisciplinary team of experts.

### Disclosure statement

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