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## Unsolved questions in solid tumor patients and intensive care: response to Vincent et al.

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Dear Editor,

We thank Vincent et al. [1] for their interest in our work. They suggest that three additional papers should be considered in our systematic review of survival in solid cancer patients following intensive care admission [2]. Two of the papers suggested indeed meet the inclusion criteria. The paper by Kim et al. [3] was published in print the same week as our literature search was performed, and as a consequence did not appear in our search results. The paper by Hwang et al. [4] was not identified by our search strategy. Both papers report survival outcomes for patients with lung cancer who were admitted to the ICU, the first in a cohort of 97 patients with stage IIIB/IV lung cancer and the second in a cohort of 95 patients with lung cancer (of whom 75 % had stage IIIB/IV disease). ICU mortality was reported in 57 and 53.6 %, respectively. While these figures are higher than the 40.1 % average pooled mortality for ICU patients with lung cancer reported in our systematic review, it is likely that this reflects the advanced disease

present in those patients included in these studies.

The paper by Sharma et al. [5] was reviewed, and was considered of interest; however, this study assessed a cohort of patients that was predefined by their survival (patients that died within 1 year of diagnosis). We believed that inclusion of these patients in a review aimed at assessing survival would introduce bias and therefore we opted to exclude the paper.

We agree with Vincent et al. that there is considerable variation in short-term survival dependant on the nature of ICU admission (i.e., elective surgery, emergency surgery, or medical). Unfortunately, many of the historical papers that studied survival of tumour patients do not provide outcome data for these subgroups of patients and thus exclusion would involve a significant reduction in included studies. It was felt that to restrict the number of studies further would be to discount much of the valuable literature to date. In general, the more recent studies provide greater detail in terms of patient subgroups with outcomes reported for each group. We would be keen to see this trend continue to allow future reviews to provide additional accuracy for the individual patient.

As with any systematic review, the conclusions are limited by the published literature available. We concur that the literature does not yet answer many of the important questions pertaining to the ICU patient with a solid tumour. Furthermore, it was never our intention to examine outcomes beyond survival, such as quality of life or post-ICU chemotherapy use. However, we accept that these are important issues and would be eager to see publications addressing these subjects in the future.

**Conflicts of interest** None declared.

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