

## Peer Review File

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### **Review Comments**

- 1) First, the title did not indicate the clinical research design of this study, i.e., a retrospective cohort study.

Reply 1: We revised the title Differential Organ-Specific Tumor Response to First-Line. Immune Checkpoint Inhibitor Therapy in Non-Small Cell Lung Cancer-A Retrospective Cohort Study.

Changes in the text: Page1, line 1-2.

- 2) Second, the abstract needs further revisions. The background did not indicate the clinical needs for this research focus and what the knowledge gap is on this focus. The methods need to describe the inclusion of subjects, follow up procedures, and outcome measurements. The results did not describe the clinical characteristics of the study sample, and the conclusion needs comments for the clinical implications of the findings, not to repeat the findings again.

Reply 2: We have made changes in the abstract based on reviewer's advice.

Changes in the text: Page2, line 12-13, line24-26. Page3, line 10-12.

- 3) Third, in the introduction of the main text, the authors did not analyze what the potential clinical contributions of this research focuses are and what the knowledge gaps and limitations of prior studies are.

Reply 3: We highlighted it in the introduction and discussion.

Changes in the text: Page5, line 8-14. Page11, line 9-19.

- 4) Fourth, in the methodology of the main text, please accurately describe the clinical research design, sample size estimation, assessment of baseline clinical characteristics, and follow up details. The statistics should not be the outcome measurements only and test whether competing risk model is suitable for the data. The direct comparisons of organ-specific tumor response rates without adjusting for potential confounders are potentially problematic. The authors need to explain this.

Reply 4: We have listed the clinical characteristics in table1. And the shortcomings of statistics discussed in Page11, line 9-19.