

## **Response Letter**

**Name of Journal:** World Journal of Diabetes

**Manuscript NO.:** 67428

**Title:** Diabetes patients with comorbidities had unfavorable outcomes following COVID-19: a retrospective study

Dear Dr. Liu,

We appreciate your decision of minor revision on this manuscript, and we are truly grateful to your and reviewer's valuable comments and thoughtful suggestions. Based on these comments and suggestions, we have made careful modifications on the original manuscript. All changes made to the manuscript are in red color. In this revised version, the corrections have been made to comply with all points raised by the referee in the text of the manuscript.

We hope that the updated version will meet the publication requirement of **World Journal of Diabetes**

Thank you again

Kind regards

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**Reviewer #1:**

**The author of the manuscript "Diabetes patients with comorbidities had unfavorable outcomes following COVID-19: a retrospective study", investigated a large cohort of diabetic patients (DM) with and without other comorbidities and the COVID-19 outcome. The manuscript is well written, with clear objectives and discussion.**

**A few points that should be addressed:**

**-There is an age difference among groups, this should be better addressed in the discussion since age is a risk factor for the worst outcome in COVID-19.**

Authors: Thank you so much for your comments and valuable suggestion. These information have added in the first paragraph of the discussion section.

**- The incidence of comorbidities can also hinder the results, since the chronic disease may vary in severity. This should be addressed and not the simple fact that patients have or have not comorbidity. How was the treatment for these diseases pre-COVID and during hospitalization?**

Authors: Thank you for your valuable suggestions. Due to the retrospective, multiple-center and real world study design, some information, such as the chronic disease severity and treatments were not collected. We added this information in the last paragraph of the discussion section.

**-Why the difference in Antiviral therapy (table 3)?**

Authors: Thank you for your comment. The reason for this difference between the diabetes only patients versus diabetes with comorbidities patients was not known. Due to the retrospective, multiple-center and real world study design, the data probably reflected the real situation in patients. As the data were collected at the early stage of COVID-19 outbreak in Hubei Province, all of us didn't know enough about the disease. At the beginning of the disease outbreak, the pace of update on the guidelines for diagnosis and treatment in COVID-19 was high, the levels of diagnosis and treatment in that hospitals are uneven, also, the type and amount of drug in different hospitals might not the same as the lack of medication, all the reasons above might lead to the difference in antiviral therapy. It need further research to figure out the reasons.

**-Systemic glucocorticoids can impact COVID-19 (for example dexamethasone).**

**Why the difference in treatment in table 5?**

Authors: Thank you for your reminders. As the percentage of severe case in non-survivor group were 100%, while that rate in survivor group was just 33%, glucocorticoids was regards as an important medicine to reduces mortality among critically ill patients with COVID-19, so non-survivor group had higher rate of using systemic glucocorticoids. Therefore, in such cases, higher rate of systemic glucocorticoids treatment in non-survivor group did not indicated higher rate of mortality in systemic glucocorticoids treatment. These information have added in the third paragraph of the discussion section.

**-The most important question that should be addressed is how was the glucose control in all patients? This is particularly important in Tables 6 and 7, poor glucose control is a risk factor for poor outcome during COVID-19. Why the patients received different treatments for DM?**

Authors: Thank you for your valuable suggestions. We had collected the data of FPG and HbA1C which were showed in Table 6. Due to the retrospective, multiple-center and real world study design, some information, such as reasons for choosing different treatments for DM were not collected in all patients.