

Response to the Reviewers' Comments

Reviewer 1:

The research paper is very interesting. The manuscript is important because it contains a modified concept in the treatment of *H. pylori*. The manuscript is well, concisely, and coherently organized and presented. Minor modifications to be done I highlighted in yellow; the corrections to be done.

1. You should delete or add a word as mentioned by me. AMX should be the abbreviation of Amoxicillin because AMO is usually the abbreviation of anti-microRNA antisense oligodeoxynucleotide. Vonoprazan : V should be a capital letter in all the manuscript. *H. pylori* : should be written in italic in all the manuscript.

Authors' Response: We apologize for making such a basic mistake due to our lack of rigor. We have modified all the highlighted parts in the manuscript, including changing all abbreviations of amoxicillin to AMX and capitalizing all instances of vonoprazan to V. Additionally, *H. pylori* was written in italic in all the manuscript. Thank you for your suggestion regarding the phrase 'aim to' in the 'Background and aims' section of the abstract. We believe that retaining the 'to' is necessary for grammatical completeness and clarity of the sentence. Therefore, we have chosen to keep it as 'We aimed to evaluate the efficacy of VAT in the Chinese population.' We appreciate your understanding. The modifications have been highlighted in yellow. Thank you again for your valuable comments and patient guidance.

2. This sentence is confusing so I suggest to delete it. "The poor treatment outcomes observed with VAT-7 regimen in this study may be attributable to the widespread usage of AMO in Fujian for other bacterial infections, and increasing drug resistance to AMO for the treatment of *H. pylori* infection in Fujian[22]". (delete) Therefore, we suggested that the duration of VAT in Fujian be extended to 10 or 14 days. (If the resistance is already present from the beginning, the duration is not a matter: better to say that a 10 or 14 days regimen is better than 7 days regimens, as previous numerous regimens).

Authors' Response: Thank you for your professional comment, and we deeply apologize for our lack of rigor. We have deleted the sentence "The poor treatment outcomes observed with VAT-7 regimen in this study may be attributable to the widespread usage of AMO in Fujian for other bacterial infections, and increasing drug resistance to AMO for the treatment of *H. pylori* infection in Fujian[22]". Additionally, we have explained in that paragraph that similar to other studies in China, the 7-day VAT regimen cannot achieve satisfactory eradication rates, but extending the treatment to 10 days or 14 days can increase the eradication rate to over 90%. Therefore, we recommend a 10-day or 14-day VAT regimen. The modifications have been highlighted in yellow. Thank you again for your guidance and support.

3. To be added in the discussion with the reference: Vonoprazan plus AMX was approved by the FDA and has been packaged in the Voquezna Dual Pak. However, the

product has not been released on the market due to the detection of trace levels of a nitrosamine impurity (Phathom Pharmaceuticals Provides Update on New Drug Application Review of Vonoprazan for Erosive Esophagitis. January 3, 2023; Accessed July 24, 2023)THERE IS NO KEYWORDS.

Authors' Response: This comment is professional and rigorous. We have added the suggested content and the relevant references to the discussion section. The modifications have been highlighted in yellow, and the keywords are also highlighted in yellow. Thank you again for your review and suggestion.

Reviewer: 2

1. For better understanding, I recommend you to address the abbreviations (BQT, BQT-V, VAT-7, VAT-10, VAT-14) in the abstract.

Authors' Response: We apologize for our previous lack of precision. We have now clearly defined the abbreviations BQT, BQT-V, VAT-7, VAT-10, and VAT-14. The modifications have been highlighted in yellow. Thank you again for your guidance and patience.