

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 87364

Title: Time series analysis-based seasonal autoregressive fractionally integrated moving average to estimate hepatitis B and C epidemics in China

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02441737

Position: Peer Reviewer

Academic degree: N/A, MD, PhD

Professional title: Senior Scientist, Professor

Reviewer's Country/Territory: Mexico

Author's Country/Territory: China

Manuscript submission date: 2023-08-07

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-08-31 19:35

Reviewer performed review: 2023-09-08 19:50

Review time: 8 Days

Scientific quality	<input checked="" type="radio"/> Grade A: Excellent <input type="radio"/> Grade B: Very good <input type="radio"/> Grade C: Good <input type="radio"/> Grade D: Fair <input type="radio"/> Grade E: Do not publish
Novelty of this manuscript	<input type="radio"/> Grade A: Excellent <input checked="" type="radio"/> Grade B: Good <input type="radio"/> Grade C: Fair <input type="radio"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input checked="" type="radio"/> Grade A: Excellent <input type="radio"/> Grade B: Good <input type="radio"/> Grade C: Fair <input type="radio"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Comments to the manuscript: Time series analysis-based seasonal autoregressive fractionally integrated moving average to estimate and control hepatitis B and C epidemics in China. The present study made by Wang YB et al, aim to evaluate the usefulness of SARFIMA in monitoring and containing HB and HC epidemics (projection into 2030) in mainland China; and to assess the forecasting potential of paradigm seasonal autoregressive fractionally integrated moving average (SARFIMA) and comparing the effectiveness with seasonal autoregressive integrated moving average (SARIMA). Title: It is advisable to adjust the title of this research: omitting the word "control"; Since the scope of this research only reaches the comparison of the two prediction methods, and the prediction of hepatitis B and C in China for the year 2030.

Abstract: The abstract is clear, and adequately describes the state of the art of the subject of study and is consistent with the title of the study. Background: The introduction is adequate and allows a proper understanding of the problem, and the first-degree hypotheses. Comments This research is of practical importance due to the high prevalence and incidence of Hepatitis B (HB) and hepatitis C (HC) not only in



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China, but in various parts of the world. Making accurate predictions will help develop better strategies to reduce not only this infectious problem, but also its relationship with liver cirrhosis, liver cancer, and mortality related to viral hepatitis. Discussion The results support the hypothesis that the SARFIMA method as a more comprehensive approach for capturing the epidemic dynamics of HB and HC compared to SARIMA. With this study, the researchers demonstrated that unlike the global downward trend in the incidence of HB and HC, in the Chinese population a general increase was observed at an average rate of 0.44% for HB and 8.91% for HC per year, is consistent with previous studies in Guangxi. Although it would be interesting if the researchers explained a little more about all the factors associated with the behavior of these two infections (HB and HC). For example, commenting a little more about all the variables analyzed (since the authors described that the SAFIRMA method is useful in the analysis of a greater number of variables); It would be of interest if the authors describe how the following variables can affect or influence the observed results: a) the age of the affected population, b) the nutritional status of the population, c) the comorbidities (diabetes, hypertension, immunological problems, among many others), d) the characteristics of the water consumed daily, e) the hygiene habits, f) the habits or cultural patterns (infection risk) in the period of spring celebrations, and g) immunological resistance due to the genetic characteristics of the Chinese population, among others. In Table 1, it is important to explain the meaning of the acronyms used at the bottom of the table.

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Reviewer's code: 03647881

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Associate Professor, Attending Doctor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: China

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Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-09-10 23:37

Reviewer performed review: 2023-09-16 00:29

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Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

No special comment.