

Review of: "Qualitative Analysis of a Time-Delay Transmission Model for COVID-19 Based on Susceptible Populations With Basic Medical History"

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Potential competing interests: No potential competing interests to declare.

The paper is very interesting and has the potential to progress to the next step after that the authors revise the paper based on the following major comments:

- Nomenclature must be added to the mathematical model. As well as every unit of each parameter and variable.
- The authors need to explain every expression in the mathematical model from a biological point of view.
- Every equation in the paper must be with number.
- The following papers can be added to the current research:
- Al-Tuwairqi, S. M., & Al-Harbi, S. K. (2022). A time-delayed model for the spread of COVID-19 with vaccination. In Scientific Reports (Vol. 12, Issue 1). Springer Science and Business Media LLC. <https://doi.org/10.1038/s41598-022-23822-5>
- Nave, Op., Shemesh, U., & HarTuv, I. (2021). Applying Laplace Adomian decomposition method (LADM) for solving a model of Covid-19. In Computer Methods in Biomechanics and Biomedical Engineering (Vol. 24, Issue 14, pp. 1618–1628). Informa UK Limited. <https://doi.org/10.1080/10255842.2021.1904399>
- Nave, Op., Hartuv, I., & Shemesh, U. (2020). Θ -SEIHRD mathematical model of Covid19-stability analysis using fast-slow decomposition. In PeerJ (Vol. 8, p. e10019). PeerJ. <https://doi.org/10.7717/peerj.10019>
- After the equilibrium points and their stability analysis, what is the final conclusion of these results?
- A discussion section must be added to the paper. The authors in this section must analyze the results of the research.
- The conclusion section should extended.