

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Critical Care Medicine

**Manuscript NO:** 64199

**Title:** Predictive Modeling in Neurocritical Care Using Causal Artificial Intelligence

**Reviewer's code:** 00502770

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-02-10

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-02-11 01:49

**Reviewer performed review:** 2021-02-11 02:36

**Review time:** 1 Hour

<b>Scientific quality</b>	[ <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 ] Grade E: Do not publish
<b>Language quality</b>	[ <input checked="" type="radio"/> ] Grade A: Priority publishing [ <input type="radio"/> ] Grade B: Minor language polishing [ <input type="radio"/> ] Grade C: A great deal of language polishing [ <input type="radio"/> ] Grade D: Rejection
<b>Conclusion</b>	[ <input checked="" type="radio"/> ] Accept (High priority) [ <input type="radio"/> ] Accept (General priority) [ <input type="radio"/> ] Minor revision [ <input type="radio"/> ] Major revision [ <input type="radio"/> ] Rejection
<b>Re-review</b>	[ <input checked="" type="radio"/> ] Yes [ <input type="radio"/> ] No
<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="radio"/> ] Anonymous [ <input type="radio"/> ] Onymous Conflicts-of-Interest: [ <input type="radio"/> ] Yes [ <input checked="" type="radio"/> ] No

#### **SPECIFIC COMMENTS TO AUTHORS**

It is an excellent mini-review which focuses on building an actionable AI model for improvement of training and practices in Neuro-Critical Care. It is suggested that more details be discussed for applying AI models to solve clinical problems, with regard to either training or practices, in the field of NCC rather than CCM (Critical Care Medicine).

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Critical Care Medicine

**Manuscript NO:** 64199

**Title:** Predictive Modeling in Neurocritical Care Using Causal Artificial Intelligence

**Reviewer's code:** 05227716

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Turkey

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-02-10

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-02-19 18:30

**Reviewer performed review:** 2021-02-20 19:51

**Review time:** 1 Day and 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer statements</b>	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**

In this mini-review, innovations in creating an AI model for Neuro-Critical Care that can be used to educate clinicians from a different perspective and increase clinical decision making are discussed. Current literature on the creation of a "digital twin" AI model as a tool for clinical decision making in the field of neurology is scarce. This mini-review could provide readers with an introduction to artificial intelligence applications in and outside of healthcare, the idea of the "digital twin" as a disease model, a methodology for the applicability of Artificial Intelligence in Neuro Critical Care. While using Digital Twin models in the fields of Cardiology and Endocrinology, attention has been drawn to the fact that a validated model has not yet been adopted in education and clinical practice in the NCC field.