

Peer Review File

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**Reviewer A**

1. The statistics in first paragraph missing references. I suggest to add the relevant references.
2. In second paragraph, I recommend adding new technologies somehow reliable with AI models i.e., Smartwatch ECG and PPG signals etc.
3. In third paragraph, it is necessary to mention about patient privacy when discussing public data for AI models.
4. How you can see the advance AI models i.e., ChatGPT making the health industry better, please describe in the report precisely. (Highlighted EPIC Gernative AI, Using ChatGPT4 )

**Reply 1:** Added relevant reference.

**Changes in text:** during the same period (1).

**Reply 2:** Added one more FDA approved application.

**Changes in Text:** Lastly, one of the most advanced applications of AI/Machine learning is Cleerly plaque analysis of coronary computed tomography angiography (CCTA). Cleerly was superior to the consensus of Level 3 expert readers in determining stenosis severity, plaque volume, and composition (6).

**Reply 3:** added a paragraph at the end highlighting UNESCO's effort to establish Ethics for the use of AI, safeguarding the privacy.

Changes in text: Numerous entities and nations have established ethical frameworks for AI, highlighting the importance of transparency, accountability, fairness, and a focus on human-centric design. These guidelines seek to regulate the development and application of AI, with a commitment to protecting user privacy (8).

**Reply 4:** Added EPIC's AI that helps reduced burnout by helping in progress notes summaries.

**Changes in text:** For Example, integration of Epic Generative AI into Electronic Health Records (EHR). This cutting-edge system, boasting HIPAA compliance, effortlessly weaves in advanced language models like GPT-4. where AI not only tailor's patient responses but also streamlines handoff summaries and furnishes healthcare providers with real-time insights.

**Reviewer B**

Dear author,

Thank you for submitting this brief report on AI in cardiology. As a reviewer, I agree that AI is likely to transform the diagnosis and treatment of CVD. You highlight some important recent studies in this regard. However, I do not feel that your manuscript significantly

advances the understanding of AI and CVD. In addition, in your abstract, you mention that physician burnout will be improved by AI but you do not go into this in the manuscript.

**The comment is compounded:**

**First part:** The manuscript is only to provide a high-level view on the current landscape, and how we should embrace the change, without going into detail of all publications.

**The second part:** Reply: I added how EPIC regenerative AI will help with progress notes, patient handoff and provider insights.

**Changes in text:** For Example, integration of Epic Generative AI into Electronic Health Records (EHR). This cutting-edge system, boasting HIPAA compliance, effortlessly weaves in advanced language models like GPT-4. where AI not only tailor's patient responses but also streamlines handoff summaries and furnishes healthcare providers with real-time insights.

#### **Reviewer C**

Thank you for your work in this very important topic. Your manuscript is well-written and on-point. This is a big topic, so very hard to capture in a few paragraphs. While the tone of your paper is a positive view of AI in medicine, it might be helpful to the reader to mention some of the issues that a healthcare profession needs to be aware of, such as the risk of bias, hallucinations, and a lack of transparency, and some suggestions for mitigating these risks.

**Reply:** The Purpose of the article is to highlight the positives of AI, I cannot delve into the side effect as well as provide solutions, That being said I added a paragraph highlighting that AI is as good as the people developing it.

**Changes in text:** A word of caution underscores the risks of artificial intelligence, emphasizing that the capabilities and consequences of AI are tied to the intentions and decisions of its human creators. This realization underscores the importance of responsible and ethical practices in guiding the evolution of AI, ensuring that it remains a force for good and avoids unintended consequences.

#### **Reviewer D**

The paper is interesting, but very generic. References appear limited. Difficulties for the useful developments of clinical applications of AI in cardiology should be also discussed and analyzed in detail. Several risks and factors should be also taken into account and analyzed, like overfitting, generalizability of the results, physiological plausability of the black box results, legal issues, certification of AI algorithms and products as medical devices, demonstration of more than marginal advantages of AI application as compared to the usual practice, and so on.

**Reply:** I added relevant references

Thank you for the comment, there are no similar articles, This is the provide a high level view on some of the current advances, and it is meant to inspire people to research more, look for areas of progress and to help whomever is hesitant to explore and to change.

The difficulties of AI could be a separatee topic.