Use of artificial intelligence in heart disease treatment

Nihad Mešanović*, **Elnur Smajić**

University Clinical Center Tuzla, Tuzla, Bosnia and Herzegovina

KEYWORDS: e-Cardiology, artificial intelligence, machine learning.

CITATION: Cardiol Croat. 2024;19(11-12):555. | https://doi.org/10.15836/ccar2024.555

***ADDRESS FOR CORRESPONDENCE**: Nihad Mešanović Javna zdravstvena ustanova Univerzitetski klinički centar Tuzla, Trnovac bb, 75000 Tuzla, Bosnia and Herzegovina. / Phone: +387-61-152-152 / E-mail: Nihad.Mesanovic@ukctuzla.ba

ORCID: Nihad Mešanović, https://orcid.org/0000-0003-1912-1155 • Elnur Smajić, https://orcid.org/0000-0003-0881-9443

The goal of this abstract is to present available artificial intelligence (AI) software and tools for the development, assessment, and implementation of artificial intelligence/machine learning in cardiovascular research and clinical care, ensuring they are safe, reliable, and cost-effective.[1] AI has the potential to enhance patient outcomes by offering faster and more accurate diagnoses, personalized treatment plans, and reduced healthcare costs. Scientists, industry leaders, and global governmental agencies are focused on developing and applying AI and other advanced analytical tools to transform healthcare delivery. This abstract also addresses how digital tools and AI provide clinical insights, as well as how education and implementation strategies can improve cardiovascular outcomes for both healthcare workers and patients. Additionally, a key objective is to identify the best practices, strategies, and challenges for stakeholders within the healthcare system. Both academics and software developers support the creation of tools and services that advance the science and practice of precision medicine by enabling more precise approaches to stroke and cardiovascular care and prevention. Currently, several challenges remain, although many AI software and tools have been shown to sufficiently improve cardiovascular care to warrant broader adoption. This abstract outlines the current state of the art in the use of AI algorithms and data science for the diagnosis, classification, and treatment of cardiovascular disease.

RECEIVED:
October 11, 2024

ACCEPTED:
October 31, 2024

LITERATURE

1. Al-Zaiti SS, Martin-Gill C, Zègre-Hemsey JK, Bouzid Z, Faramand Z, Alrawashdeh MO, et al. Machine learning for ECG diagnosis and risk stratification of occlusion myocardial infarction. Nat Med. 2023 Jul;29(7):1804-1813. https://doi.org/10.1038/s41591-023-02396-3