



Received on 12 March 2021; received in revised form, 15 May 2021; accepted, 02 June 2021; published 01 January 2022

AN INTELLIGENT DATA ANALYTICS SYSTEM FOR THERAPEUTIC OF ANGINA PECTORIS IN CARDIOVASCULAR DISEASE MANAGEMENT: A MODEL METHODOLOGY

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Keywords:

Angina pectoris, Cardiovascular case taking, Real-time Digital system, Rule Engine, Expert System, Machine Learning

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ABSTRACT: Medical Case taking process in any field of medicine science is considered to be a significant stage for the treatment management of various diseases. Cardio Vascular diseases (CVD) are one of the life-threatening diseases across the globe, and its prognosis entirely depends on the right intuition of the clinicians; cases may account for 31% of deaths worldwide, based on a recent study. Big Data Management and Machine Learning Algorithms have reached paramount Computational Technological advancement over the last decade and capable of drive applications in diverse domains which can assist in the process of selecting proper medicines. The case-taking approach and selection of drugs were significantly correlated, and the skill of the physicians plays a very important role in the entire procedure blended with proper use of Smart Technology, Artificial Intelligence, and Cloud storage of huge volume of patient's physiological, clinical and pathological data. In this paper, we have made an attempt to build a digital system driven by smart technology to cater to this equation and explore the association and causation between patient case capturing of "Angina Pectoris" in "Cardio Vascular Diseases (CVD)" and its subsequent treatment selection process with the help of Machine Learning. We have present a methodology and approach roadmap driven by Analytics and Data science for handshaking between medical paradigms of CVD type of diseases, specifically patients suffering from angina pectoris, and Smart Technology to enhance the prediction of medicine for the physicians in order to achieve faster and quicker throughput time for patients.

INTRODUCTION: The legacy approach of the medical case-taking process towards the various medical therapies, including homeopathic management of any diseases like Angina Pectoris in Cardio Vascular Diseases (CVD) in a patient, is

considered to be a critical and human-driven process¹. It sometimes involves undesired human errors as well from both ends, which leads to serious medical complications in follow-up cases.

The traditional approach is based on a detailed clinical and social interaction between the patient/family representatives and the corresponding clinicians which is based on certain pre-chosen criteria or human intuition¹. It should be noted that the principal background behind the case-taking process is the detailed assortment of the data, so that drug selection can be done based on the

<p>QUICK RESPONSE CODE</p> 	<p>DOI: 10.13040/IJPSR.0975-8232.13(1).152-63</p> <hr/> <p>This article can be accessed online on www.ijpsr.com</p>
<p>DOI link: http://dx.doi.org/10.13040/IJPSR.0975-8232.13(1).152-63</p>	