

Data Analytics of Electronic Medical Records Shows an Age-Related Differences in Diagnosis of Coronary Artery Disease

Authors : Maryam Panahiazar, Andrew M. Bishara, Yorick Chern, Roohallah Alizadehsani, Dexter Hadley, Ramin E. Beygui

Abstract : Early detection plays a crucial role in enhancing the outcome for a patient with coronary artery disease (CAD). We utilized a big data analytics platform on ~23,000 patients with CAD from a total of 960,129 UCSF patients in 8 years. We traced the patients from their first encounter with a physician to diagnose and treat CAD. Characteristics such as demographic information, comorbidities, vital, lab tests, medications, and procedures are included. There are statistically significant gender-based differences in patients younger than 60 years old from the time of the first physician encounter to coronary artery bypass grafting (CABG) with a p-value=0.03. There are no significant differences between the patients between 60 and 80 years old (p-value=0.8) and older than 80 (p-value=0.4) with a 95% confidence interval. This recognition would affect significant changes in the guideline for referral of the patients for diagnostic tests expeditiously to improve the outcome by avoiding the delay in treatment.

Keywords : electronic medical records, coronary artery disease, data analytics, young women

Conference Title : ICBI 2022 : International Conference on Bioinformatics

Conference Location : Ottawa, Canada

Conference Dates : July 12-13, 2022