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

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**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.