**TITLE:** **The LoVarN CACT Study**

Clinical variables associated with negative Coronary Artery Computed Tomography Studies

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**RESEARCH PROJECT DESCRIPTION:**

Chest pain is one of the most common complaints of patients presenting to the emergency department. In most patients with this complaint, there is a concern coronary artery disease (CAD). The majority of low risk patients with this complaint do not have the disease. However, because this is a potentially catastrophic illness that can be intervened upon and fixed, screening is warranted in many patients. One screening test that is becoming more frequently used is the Coronary Artery Computed Tomography Scan. Negative coronary artery CTs have been shown to be predictive of no major adverse coronary events at 30 days. As this test becomes more prevalent, it may result in morbidity and mortality associated with the test itself. It is known that contrast CT scans increase patients risk of radiation associated cancers and contrast induced kidney damage. The purpose of this study is to determine clinical variables predictive of a negative coronary artery CT scan in patients presenting to the emergency department with acute chest pain. We intend to use these variables to develop a clinical prediction rule that will identify a population at such low risk for CAD, that the risks of testing outweigh the risks of disease.

The medical student will review emergency department and inpatient medical records, to extract and analyze the resulting data to determine the clinical variables associates with negative coronary artery CTs. The student will also participate in abstract preparation and presentation. Funding will be from internal sources.