**COST EFFECTIVENESS OF CORONARY CT ANGIOGRAPHY IN PATIENTS WITH LOW RISK FOR CORONARY ARTERY DISEASE (CAD) AT A TERTIARY CARE CENTER**

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*Background*: Coronary Computed Tomography Angiogram (CCTA) has emerged as a valuable diagnostic tool in patients with low to intermediate risk for CAD. The Cost-effectiveness of using CCTA instead of invasive coronary angiography (ICA) in patients referred for CCTA for atypical chest pain and/or equivocal stress test results has not been validated.

*Objectives*: We sought to study the cost-effectiveness of CCTA in this low to intermediate risk population.

*Methods*: Retrospective chart review of patients having undergone CCTA and ICA for risk assessment for CAD using pooled data from the current electronic medical record. Patients >18 years of age having undergone CCTA with prior negative or equivocal stress tests in patients with persistent atypical chest pain in low to intermediate risk for CAD were included in the study. Student’s t test was used to test statistical significance.

*Results*: Of the total 88 patients, who had CCTA, 36 had normal CCTA, 34 patients had non obstructive CAD and 18 patients had significant CAD. Of the 18 patients, 13 patients had ICA and 5 patients were medically managed. Of the 13 patients who had ICA, 8 patients had significant CAD that required intervention. The total cost of an average ICA was $20,500 and the average cost of a CCTA was $ 2,300. The difference between the average cost of the two modalities was $18,300. For 70 patients, we saved $1,281,000 (p\_value < 0.001) by not performing ICA. If we add back the cost of those who had CCTA and went on to angiography ($266,500) we still come to a net savings of $1,014,500.00. *Conclusions*: CCTA is a cost-effective imaging modality for patients with low/intermediate likelihood of CAD and/or equivocal stress test. The underutilization of this investigative tool should be investigated further especially given the increased focus on achieving high quality yet cost effective care.