**Problem Definition**

Cardiovascular disease (CVD) remains the leading cause of death in the United States, responsible for 840,768 deaths in 2016. From 2006 to 2016, the US death rate from Cardiovascular disease decreased by 18.6% and decreased by 31.8% from coronary artery disease (CAD) specifically. This decrease in mortality has largely been driven by early detection and initiation of statin therapy. Atherosclerotic risk factors have been evaluated in multiple longitudinal studies. These studies have defined advancing age, male gender, hypertension, dyslipidemias, diabetes, cigarette smoking and family history as predictors of cardiac events. In addition to this, an underrecognized surrogate marker for CAD is coronary artery calcification (CAC). This should be considered diagnostic for CAD. In the PROVIDI study, using a qualitative scoring system for CAC, the authors found a stepwise increase in the likelihood of cardiovascular events with increasing CAC burden (four-fold increase in CV events in patients with severe CAC relative to patients without CAC). Yet despite this, CAC remains an under-recognized and under-reported marker of CAD and an opportunity for improvement.

**Aims For Improvement**

Overall aim: Improve diagnosis and management of CAD based on CT chest imaging.

- Improve diagnosis of silent CAD based on CT chest imaging: more patients who have findings of CAC on CT chest imaging will be diagnosed with CAD.
- Increase the number of appropriate statin prescriptions based on CAD findings on CT chest imaging.

**Intervention**

Our proposed intervention has three components which will be implemented sequentially.

1. Standardize the reporting format for CAC on CT chest imaging by the Radiology Department.
2. Creation of best practice advisory for CAC CT findings in Epic. The goal is to alert the provider on the presence of CAC, and thus CAD, and to consider statin initiation.
3. Educate Jefferson primary care providers on new best practice advisory that will prompt them to have a discussion about the presence of CAD and risks and benefits of statin initiation.

**Next Steps**

DETECTION OF CORONARY ARTERY DISEASE ON CT CHEST IMAGING

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