Providing Better Patient Care With CCTA and Plaque Analysis

Cleerly's new model of standardized and personalized care focuses squarely on the true cause of heart disease: Atherosclerosis. Several peer-reviewed papers, including ICONIC,[1] PROMISE,[2] and SCOT-HEART,[3] have confirmed that accumulation of plaque within the arteries is the strongest predictor of a heart attack. By focusing on atherosclerosis, Cleerly's combination of Coronary Computed Tomography Angiography (CCTA) and quantitative plaque analysis is more comprehensive than calcium scoring and less invasive than fractional flow reserve.

Cleerly Helps Imaging Centers Improve Patient Care

- Offer AI-enabled CCTA clinical insights to cardiology groups and PCPs
- Provide patients a convenient CCTA option – no hospital visit required
- Enable patient disease tracking through follow-up CCTA scans
- Implement a new standard of high-quality patient care practice-wide
- Improve clinician job satisfaction with an easy-to-use system
- Deliver value-added service offerings to patients
- Reduce total cost of care and thrive under value-based contracts

Provider orders a CCTA scan + Cleerly analysis and refers their patient to an imaging center.

Patient visits the imaging center for their CCTA.

The imaging center uploads the CCTA scan to Cleerly Labs for analysis.

Cleerly analysis reports are delivered to the referring provider, helping to inform treatment plans and educate the patient.

Healthcare Needs a New Approach to Cardiovascular Care

Sudden death due to cardiac arrest is the No. 1 cause of death in the United States. It occurs most frequently in adults under 50 – still in the prime of their lives.[4] Yet 70% of patients who have a heart attack are considered low risk by traditional methods of assessing cardiovascular disease.[5]

By treating the symptoms of heart disease and not its root cause (the atherosclerosis), our current healthcare system provides substandard cardiovascular care and misses an opportunity to intervene at earlier stages where treatment of CAD patients may be simpler and more effective. It's time for a new approach. Cleerly offers a safe and non-invasive way to evaluate large numbers of patients for heart disease risk, even those with suspected CAD who are asymptomatic and don't yet know they have cardiovascular disease.

Cleerly provides comprehensive coronary phenotyping with AI-powered precision analysis to quantify the amount of plaque, including the high-risk, non-calcified plaque that is the strongest predictor of heart attack risk. Results are available within a short turnaround and clinical insights are presented in reports in a manner that non-specialist clinicians and even patients can understand.

By leveraging Cleerly analysis, care teams can develop personalized treatment plans to address high-risk plaque and help providers treat their patients to reduce the rate of major cardiovascular events, often without the need for a cardiology visit or expensive invasive procedure.[6]

Using the Cleerly Digital Care Pathway, follow-up CCTA scans and Cleerly analyses can also be utilized in order to track therapeutic effectiveness and help determine if cardiovascular disease has stabilized or even regressed. By utilizing regular surveillance exams, treatment can be specifically tailored to a patient identified with disease, similar to how follow-up studies are utilized for oncology patients to monitor their disease.

Making Cleerly Work for Your Imaging Center

Cleerly is designed to seamlessly integrate with your imaging center's existing technology platform, and most existing CCTA protocols meet the minimum standard for conducting a Cleerly scan. In other words, you won't need to invest in new imaging workstations or IT infrastructure to make the most of our industry-leading technology.

Cleerly also recognizes that every imaging center is unique. Instead of forcing a new workflow onto you, we'll provide customized workflow integration to meet your administrative, technology, and billing workflow needs. We'll also provide training for clinical, administrative, and technology teams as needed.

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[1]Coronary Atherosclerotic Precursors of Acute Coronary Syndromes. *Journal of the American College of Cardiology.* June 5, 2018.

[2]Prognostic Value of Coronary CTA in Stable Chest Pain: CAD-RADS, CAC, and Cardiovascular Events in PROMISE. *Journal of the American College of Cardiology.* July 13, 2020.

[3]SCOT-HEART Trial: Reshuffling Our Approach to Stable Ischemic Heart Disease. *British Journal of Radiology.* September 1, 2020.

[4]Sudden Cardiac Death (Sudden Cardiac Arrest). Cleveland Clinic. Last reviewed June 6, 2022.

[5]Preventing Myocardial Infarction in the Young Adult in the First Place. *Journal of the American College of Cardiology.* May 2003.

[6]AI Evaluation of Stenosis on Coronary CT Angiography, Comparison With Quantitative Coronary Angiography and Fractional Flow Reserve: A CREDENCE Trial Substudy. *Journal of the American College of Cardiology: Cardiovascular Imaging.* February 16, 2022.

Cleerly Labs is a web-based software application that is intended to be used by trained medical professionals as an interactive tool for viewing and analyzing cardiac computed tomography (CT) data for determining the presence and extent of coronary plaques (i.e. atherosclerosis) and stenosis in patients who underwent Coronary Computed Tomography Angiography (CCTA) for evaluation of CAD or suspected CAD.