Docket #: S20-124

Automated coronary artery calcification (CAC) scoring

This invention is a machine learning algorithm for determining coronary artery calcification (CAC) scoring from routine CT scans. Currently, obtaining this extra cardiovascular prognostic information requires manual assessment by clinicians to interpret the scan, adding time and costs. This algorithm automates this assessment and will allow doctors to gain additional cardiovascular health from the initial CT scan. Based on the automated CAC score, the patient could be flagged for extra monitoring or intervention.

Stage of Development

- Early stage
- Algorithm has been trained on Stanford data
- Planning external validation study

Applications

- **Assess cardiovascular disease risk**
- Preventive medicine

Advantages

- **Novel**– currently, there is no automated method for CAC scoring extracted from routine CT scans
- **Additional diagnostic data** for doctors and patients to determine cardiovascular disease risk
- **No added costs or time or testing** to obtain this useful data

Publications

- D. Eng et al Automated coronary calcium scoring using deep learning with multi center external validation *Nature Partner Journals* | *Digital Medicine* June 2021.

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