

# Making Appropriate Use of Advanced Technology in Diagnosing Coronary Artery Disease

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Study results reported recently in the Journal of the American College of Cardiology and The New England Journal of Medicine, among others, prompted a number of commentaries on the role and efficacy of coronary computed tomography angiography (CCTA) in the diagnosis of coronary artery disease. Some of these reports included definitive statements that CCTA cannot replace cardiac catheterizations and implicit messages that perhaps this technology was not yet a viable option in the diagnosis of coronary artery disease.

While this technology cannot replace cardiac catheterization, we believe that *CCTA has a very significant role to play in excluding coronary artery disease for many patients before someone has a cardiac catheterization.* This perspective is supported by our external advisory board of leading cardiologists and radiologists.

The negative predictive value (the ability to exclude coronary artery disease) of CCTA is extremely high compared to other non-invasive tests. This means the patient and physician can be confident that a negative test truly means the absence of disease. Adding CCTA to the diagnostic algorithm has the potential to reduce the time to diagnosis, the radiation exposure and the costs associated with identifying patients with coronary artery disease. We agree that there is no one “right” solution for all patients. As such, CCTA is not meant to take the place of cardiac catheterizations. It should be one of the many tests considered, in light of the patient’s symptoms and risk factors, to ensure that the patient receives the right care at the right time.

We also firmly support the importance of monitoring and managing radiation exposure. As an industry, we must evaluate the benefits of any procedure or test against the possible risks. This is at the core of our rationale for supporting the value of CCTA as a viable option in the diagnosis of coronary artery disease.

In the case of CCTA, there have been significant positive developments in both the technology and administration of this modality. Newer technology and approaches reduce radiation exposure by more than 50 percent.<sup>1</sup> Privileging programs help ensure that these protocols and technologies are in place.

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## The Facts about Cardiac Imaging

The diagnosis and treatment of coronary artery disease represents more than 80 percent of a payor’s cardiac-related spend.<sup>2</sup>

Cardiac imaging has grown 26 percent per year in recent years.<sup>2</sup>

As many as 25 percent of the 1.3 million cardiac catheterizations performed each year may be unnecessary.<sup>3</sup>

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## The Facts about CCTA

With the high negative predictive value of CCTA, patient and physician can be confident that a negative test truly means absence of disease.

Newer CCTA technology can reduce exposure to radiation by 50 percent or more.<sup>1</sup>

CCTA can shorten time to diagnosis, reduce radiation exposure, and better manage costs associated with diagnosing coronary artery disease.

The bottom line is that by adding CCTA to the diagnostic algorithm, we can *shorten the time to diagnosis, reduce radiation exposure and better manage costs* associated with diagnosing coronary artery disease.

As with any healthcare advance, there should be dialogue and discussion to ensure that we're making the best possible decisions for our patients. The use of CCTA is no exception. It's just important that we take the time to consider all of the facts and, in doing so, obtain the perspective necessary to recommend the most appropriate option to meet the needs of each individual patient.

*For more information or to learn more about NIA, call 1-877-NIA-9762.*

1. *The Plain Dealer (Cleveland, OH), CT coronary angiography exposes cardiac patients to radiation; study raises concerns, Feb. 4, 2009.*
2. *Redberg, Rita, Health Affairs, Evidence, Appropriateness and Technology Assessment in Cardiology: A Case Study of Computed Tomography, Jan/Feb 2007, 26 no. 1, 86-95*
3. *Radiology Today, Dec. 3, 2007, 28.*