



June 3, 2010

Rene Alvarez, Jr., M.D., F.A.C.C.  
Pennsylvania Chapter of the  
American College of Cardiology  
777 East Park Drive  
P.O. Box 8820  
Harrisburg, PA 17105-8820

John U. Doherty, M.D., F.A.C.C.  
Pennsylvania Chapter of the  
American College of Cardiology  
777 East Park Drive  
P.O. Box 8820  
Harrisburg, PA 17105-8820

Ralph G. Brindis, M.D. M.P.H. F.A.C.C.  
President  
American College of Cardiology  
2400 N. Street, NW  
Washington, DC 20037

Dear Drs. Alvarez, Doherty, and Brindis:

I am writing in response to your recent letter of May 18, 2010, expressing your concerns about our new program to manage appropriate utilization of cardiac stress testing for our Highmark members. We at Highmark appreciate the opportunity to collaborate with the ACC to improve quality of care for your patients. Over the past several weeks, Highmark staff have reached out to you at the PaACC, as well as the Leadership Council of the Pennsylvania Medical Society, advising you on modifications to our radiology management program, as well as to solicit feedback on the impact to the provider community. These meetings have been informative and helpful for us.

As you are aware, health insurers and health care providers are facing growing demands from employers who are concerned that they are not receiving value for their health care dollars. The business community is expressing growing concerns that too many health care dollars are being wasted – going toward

*Corporate Offices:*

Camp Hill PA 17089  
Fifth Avenue Place • 120 Fifth Avenue • Pittsburgh PA 15222-3099  
www.highmark.com

ineffective, repetitive or inappropriate care. The concerns regarding unwarranted variation in the use of diagnostic imaging -- in particular, for certain cardiac imaging testing -- have been voiced by an increasing number of Highmark customers. In this challenging environment, exacerbated by the pressures of health care reform, we have an obligation to help our customers maintain comprehensive health benefits by focusing on services that are high cost, or at high risk for inappropriate use.

It is clear that we and the ACC share the goal of utilizing national appropriateness guidelines formulated by the ACC in identifying which patients would benefit from a stress test, be it a myocardial perfusion scan (MPI) or a stress echocardiogram. Highmark applauds the College's efforts to educate both its members, as well as other specialties, on improving the quality of cardiovascular care delivered to patients. You have taken leadership in these efforts that sets a standard for other specialty societies. We also have benefited from your efforts to work closely with health plans through your annual ACC Medical Director Institute; I have had the privilege to participate in these efforts. Our new program is designed to facilitate provider adherence to your ACC appropriateness criteria.

Like you, we are sensitive to busy practitioners, and are focused on streamlining process flow for providers. We utilize the electronic submission of imaging requests to allow for auto-authorization of requests. Currently, 69% of our radiology requests are submitted electronically.

Highmark shares with the ACC the goal of reducing unwarranted variations in the delivery of healthcare, especially with unnecessary or duplicative testing. At our meeting with the PaACC leadership on May 12, we shared with you the data that shows wide variability in the use of MPI tests both nationally and within Pennsylvania. Across fifteen different cities in Pennsylvania, the NIA data reveal that the percentage of stress echo compared to MPI ranges from 2% to 59%. In the latter group, cardiologists, faced with similar clinical situations, have found stress echo to be the preferred mode of testing for more of their patients, and have successfully incorporated the study into their practice workflows and decision-making.

Many myocardial perfusion scans are performed when not appropriate. In a multi-center study conducted by the American College of Cardiology Foundation and United Healthcare,<sup>1</sup> MPI testing was inappropriately used 14.4%

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<sup>1</sup> Hendel RC, et al. A multicenter assessment of the use of single-photon emission computed tomography myocardial perfusion imaging with appropriateness criteria. *J Am Coll Cardiol.* 2009.

of the time (range 4 - 22% among the practices); an additional 14.9% of tests had an uncertain level of appropriateness. As a part of the study design, the analysis was not blinded as to the identity of ordering providers and therefore likely underestimated the number of inappropriate studies. Among the more frequent inappropriate indications were -

- Detection of CAD, asymptomatic, low CHD risk (44.5%)
- Asymptomatic; post revascularization; <2 years after percutaneous coronary intervention; symptomatic before PCI (23.8%)
- Evaluation of chest pain; low probability; interpretable ECG; able to exercise (16.1%)
- Pre-operative evaluation of patients who would be undergoing a low-risk surgery (3.7%)

This past week, I had the opportunity to meet with Dr. Jack Lewin, Dr. Janet Wright and Kathleen Flood from the American College of Cardiology when they met with the Blue Cross Blue Shield Association's Chief Medical Officers in Chicago. At that time, we discussed the ACC's pilot program to improve appropriate utilization, which focuses on a decision support tool at the point of ordering a stress test. Highmark is interested in learning more about this pilot program and we have reached out to Kathleen Flood to schedule a visit to Washington, D.C. in the near future. When I spoke with Drs. Lewin and Wright, I expressed my support for this methodology as a possible long term solution, but noted that this 3 year pilot program will not be scalable or operational quickly enough to solve the issue of widespread inappropriate utilization that exists today. We also have concerns that the ACC program will not address the education and change required to reduce the inappropriate ordering by primary care physicians. We would be happy to consider support of your pilot program in our region, but this will need to be done concurrently with our utilization management program. In so doing, we could begin to understand and compare the relative impact for each of these programs. In my conversations with Drs. Lewin and Wright on May 25, they understood the need for our approach.

We have additional concerns that the ACC does not address the issue of patient safety in your letter. In the area of diagnostic testing, the individual and population burden of ionizing radiation from myocardial perfusion imaging is significant. An MPI delivers the same average effective dose of radiation in mSv as does a PCI. In the U.S., more than one-fifth (22.1%) of the total population dose from diagnostic testing is from MPI studies.<sup>2</sup>

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<sup>2</sup> Fazel R, Krumholz HM, Wang Y, et al. Exposure to low-dose ionizing radiation from medical imaging procedures. *New Engl J Med* 2009; 361: 849-857

	Average Dose (mSv)	Proportion of Total Dose
MPI	15.6	22.1%
CT abdomen	8	18.3
CT pelvis	6	12.2
CT chest	7	7.5
Diagnostic cardiac cath	7	4.6
Perc coronary intervention (PCI)	15	1.8

In numerous studies, no consistent difference in accuracy or predictive value between myocardial perfusion imaging and stress echocardiography is demonstrated. A meta-analysis published in 2007<sup>3</sup> reviewed the prognostic value of a normal MPI and stress echocardiography.

- The negative predictive value (NPV) for myocardial infarction and cardiac death was found to be 98.8% for MPI and 98.4% respectively
- The estimated annualized rate of myocardial infarction or cardiac death after negative MPI was 0.45% and after a normal stress echo 0.54%

This study concluded that “both exercise MPI...and exercise echocardiography have high NPV’s for primary and secondary cardiac events...suggesting that the use of any of these noninvasive tests is appropriate, depending on experience and cost at particular institutions.” Where there are equivalent testing options for an individual patient, would it not be appropriate to choose the test that will provide the needed information but at a lower risk to the patient?

Two principles form the foundation of our program. . First, when parties agree that individual patient diagnostic testing strategies are equivalent, the less expensive and less risky examination should be performed. Second, medicine is both an art and a science. Differences in opinion about optimal decision-making in cardiology are inevitable and should always be addressed jointly by the ordering physician and the reviewing cardiologist. As such, any requests related to cardiac modalities under this program that require physician review are

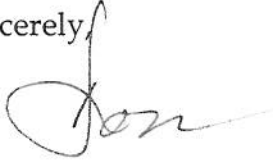
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<sup>3</sup> Metz LD, Beattie M, Hom R, et al. The prognostic value of normal exercise myocardial perfusion imaging and exercise echocardiography: A meta-analysis. J of Am Coll Cardiol 2007; 49: 227-237

reviewed by cardiologists. And peer to peer discussions can always occur with the reviewing cardiologist.

We look forward to an ongoing dialogue with the College on this topic as well as any feedback that you receive from your members in response to the e-mail distributed to them on May 27, 2010.

Sincerely,

A handwritten signature in black ink, appearing to read "Don", written over the word "Sincerely,".

Donald R. Fischer, MD, MBA, FACC  
Senior Vice President of Health Affairs  
Chief Medical Officer

CC: John C Lewin, MD, FACC; CEO, American College of Cardiology  
Daniel Edmundowicz, MD, FACC; PaACC  
Maria Elias, PaACC  
Kathleen Flood, American College of Cardiology  
Janet Wright, MD, FACC; American College of Cardiology  
Henry McCants, Senior Specialist, American College of Cardiology