



## PHYSICIAN ACCEPTANCE FOLLOWING CLINICAL IMPLEMENTATION OF AN ALGORITHM-BASED GUIDELINE FOR MYOCARDIAL PERFUSION IMAGING (MPI)

*This abstract was to be presented at the Medical Leadership Forum 2007 of the American Health Insurance Plans.*

### INTRODUCTION

Variation in the use of diagnostic procedures is believed to be associated with decreased quality of care and increased costs. One area of heightened scrutiny is the use of myocardial perfusion imaging (MPI), which has increased by 23% annually. Professional organizations such as the American College of Cardiology (ACC), American Heart Association (AHA) and American Society of Nuclear Cardiology (ASNC) have proposed guidelines and appropriateness criteria to aid providers in MPI use, but the results and physician acceptance of MPI guidelines have not previously been reported. CareCore Cardiology Management studied the impact of implementing such guidelines for MPI use.

### AUTHORS

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### METHODS

A seven-member panel consisting of board certified cardiologists developed a pre-certification algorithm based on ACC/AHA/ASNC practice guidelines and appropriateness criteria. The goal was to adhere to a step-wise approach to the evaluation of patients with suspected or documented coronary artery disease (CAD) taking into consideration other, already performed, modalities and interventions. The algorithm was implemented on 2/3/06 by dividing patients with CAD into symptomatic and asymptomatic groups. Those without CAD documentation were stratified by symptoms, risk, and contraindications to routine exercise stress testing. The requests from a single insurance carrier covering 829,360 lives were reviewed and approved or denied based on the algorithm criteria. The impact of implementation of requests, and approvals and denials utilizing the algorithm were reviewed. Requesting physicians had the opportunity to appeal the algorithm-based decisions.

## RESULTS

Over a 4 month study period, 02/06 through 05/06 there were 9311 requests. 21% of which did not meet the algorithm criteria. The appeal rate for denied requests during this period was 4.9% of the studies requested. As a follow-up, appeal rates were analyzed between 10/06 and 12/06 and are shown below:

Month	Cases Requested	Cases Denied	% Denied	% MPI Requests Appealed	% Denied MPI Appealed
Oct-06	2421	496	20.49%	0.21%	1.01%
Nov-06	2228	445	19.97%	0.18%	0.90%
Dec-06	1791	410	22.89%	0.11%	0.49%
<b>Totals</b>	6440	1351	20.98%	0.17%	0.80%

The overall appeal rate for this period was 0.80% for 1,351 denied requests (20.98% of requested studies). All appeals that overturned denials of cases were appealed by cardiologists.

## CONCLUSIONS

The use of a step-wise evaluation suggested by the American College of Cardiology, when applied to CareCore Cardiology Management's pre-certification process is associated with a low rate of appeals, suggesting a strategy acceptable to practicing clinicians and which decreases radiation exposure to a population overall. Given the cost of MPI-SPECT, the use of such algorithms provides substantial health care savings. In addition, the evaluation of the appeals process offers the opportunity to modify the MPI algorithm.

## ABOUT CARECORE CARDIOLOGY MANAGEMENT

Founded in 2006, CareCore Cardiology Management enables health plans to interface with physicians and patients to determine the optimal cardiologic procedure at the most appropriate time. Using clinical pathways devised of evidence-based guidelines, CareCore Cardiology makes appropriateness decisions concerning cardiac procedures to reduce unnecessary patient radiation exposure and duplication of services, resulting in reduced cost and streamlined patient care.