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APPROPRIATE USE CRITERIA

ACC Appropriate Use Criteria Methodology: 2018 Update

A Report of the American College of Cardiology Appropriate Use Criteria Task Force

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Authors' listing of relevant relationships with industry is disclosed in Appendix 1 of this document.

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1. INTRODUCTION

Rapid and extensive changes have occurred in the practice of cardiology, especially in the development and utilization of imaging, interventional, and electrophysiological procedures. Enhanced radionuclide imaging techniques; advances in echocardiography; the development of cardiac magnetic resonance and cardiac computed tomography techniques; as well as innovations such as drug-eluting stents, percutaneous valves, and cardiovascular implantable electronic devices have revolutionized how patients are diagnosed and treated. Although these developments have resulted in direct patient benefits, including improved survival and enhanced quality of life, they have been accompanied by increases in resource utilization and healthcare costs. The high growth rate for expenditures related to cardiovascular procedures has led payers to initiate utilization constraints to markedly reduce spending and reimbursement (1). Various payer initiatives, such as physician profiling, prior notification, and prior authorization, have led to costly administrative requirements (2). These programs are also, in part, driven by marked geographic variability in equipment and utilization of CV procedures, underscoring the need for further guidance regarding optimal patient selection for procedures (3,4). Professional efforts to better define quality have also highlighted the importance of matching procedures and patients (5).

In response to the imperative to improve the utilization of cardiovascular procedures in an efficient and contemporary fashion, the American College of Cardiology (ACC), along with other relevant organizations, developed Appropriate Use Criteria (AUC) for multiple procedures and testing modalities. The first AUC document was published in 2005 and focused on indications for radionuclide imaging (4). During the ensuing 12 years, 14 AUC documents have been published covering appropriateness in individual cardiac imaging procedures (radionuclide imaging, cardiac computed tomography, cardiac magnetic resonance imaging, echocardiography, and diagnostic catheterization). Recently, AUC documents have combined these diagnostic modalities into multimodality publications focused specifically on the diagnosis and evaluation of disease states, such as stable ischemic heart disease detection and risk assessment, chest pain evaluation in the emergency department, and cardiovascular imaging in heart failure. AUC documents have also covered transthoracic echocardiography in outpatient pediatric cardiology, peripheral vascular ultrasound and physiological testing, implantable cardioverter-defibrillators and cardiac resynchronization therapy, and coronary revascularization.

This growth in the AUC portfolio over the past 12 years has led to both transformation and maturation of many of the aspects of AUC methodology, which was initially defined in a 2005 publication (3). Since then, input from external stakeholders, including the payer community, state and national government regulators, and the Institute of Medicine, along with internal feedback from ACC's Board of Governors, relevant professional societies, and the cardiovascular community, has substantially influenced AUC development. This feedback has helped to ensure that AUCs have a positive role in cardiovascular care delivery while minimizing negative unintended consequences. A 2013 update of the AUC methodology incorporated many of these recommendations (6).

The process of developing AUCs continues to mature as we deepen our understanding of how clinical practice,