June 7, 2022

Stephen Sokolyk, MD, MHA, FACC
Market Medical Director
Aetna
Sent via email to SokolykS@aetna.com

Dear Dr. Sokolyk:

On behalf of the Society of Nuclear Medicine and Molecular Imaging (SNMMI)[1A] and the American Society of Nuclear Cardiology[1B], we are writing to object to Aetna's recent policy decision [Policy Number: 0071] to refuse coverage for hybrid PET/CT (CPT codes 78429-78431, 78433) on the basis it is "experimental/ investigational" and "not identified as widely used and generally accepted for the proposed uses as reported in nationally recognized peer-reviewed medical literature." The policy, effective April 5, 2022, reads:

> The fusion of PET and CT imaging into a single system (PET/CT fusion) is considered experimental and investigational for cardiac indications; a PET scan without CT is adequate to evaluate the myocardium (NIA, 2005)

Simply put, this decision is inconsistent with standards and practice for cardiac PET imaging across the United States. Nearly all currently available PET scanners are now hybrid PET/CT systems, and these newer systems include numerous improvements compared to older, non-hybrid, systems. With this policy, Aetna is thus requiring its members to obtain cardiac PET services on less advanced instrumentation. As noted previously, integrated PET/CT systems reduce patient motion, leading to higher quality images. The CT attenuation correction can also be customized for body habitus, again contributing to a higher quality image. For cardiac PET/CT, there is also extensive medical literature documenting the additional diagnostic value contributed by review of the CT attenuation map image for the qualitative assessment of coronary calcium.

Hybrid PET/CT represents state-of-the-art imaging for patients being evaluated for coronary artery disease. The advantages of PET myocardial perfusion studies over SPECT include: 1) greater

[1A] SNMMI is a nonprofit scientific and professional organization that promotes the science, technology and practical application of nuclear medicine and molecular imaging. SNMMI's 16,000 members set the standard for molecular imaging and nuclear medicine practice by creating guidelines, sharing information through journals and meetings, and leading advocacy on key issues that affect molecular imaging and therapy, research and practice.

[1B] ASNC is a greater than 4,700 member professional medical society, which provides a variety of continuing medical education programs related to nuclear cardiology and cardiovascular computed tomography, develops standards and guidelines for training and practice, promotes accreditation and certification within the nuclear cardiology field, and is a major advocate for furthering research and excellence in nuclear cardiology and cardiovascular computed tomography.

diagnostic accuracy;[2] 2) reduced rate of artifacts, decreasing need for downstream invasive procedures; 3) quantification of myocardial blood flow enabling improved identification of high risk populations who may have greater benefit from revascularization;[3] 4) more rapid scan protocols enabling more efficient discharge from increasingly overloaded hospitals with COVID surges; and 5) the use of shorter half-life radiotracers, which decreases radiation exposure.

SNMMI and ASNC therefore adamantly disagree with Aetna's decision to refuse to cover cardiac PET/CT on the basis it is experimental. This decision not to cover hybrid PET/CT denies patient access to standard-of-care testing that is required to make life-saving clinical decisions. The SNMMI and ASNC's recommendations[4] regarding the role of PET/CT in the evaluation of coronary artery disease have been accepted by the American Medical Association (AMA) RVS Update Committee (RUC) and multiple payers, including CMS.

In 2016, ASNC imaging guidelines / SNMMI procedure standards[5] were published that detail the quality components required to perform PET nuclear cardiology procedures. In addition, a multi-disciplinary appropriate use criteria (AUC) document[6] published by SNMMI states, "The high spatial and contrast resolution in concert with photon attenuation-free images of PET have led to high image quality associated with the highest sensitivity and specificity of PET/CT perfusion imaging in the detection and characterization of coronary artery disease (CAD) (1,2,6,7)."[7,8,9,10] The publication of these peer-reviewed documents validated the role of cardiac PET and led to

[2] Danad I, Raijmakers PG, Driessen RS, et al. Comparison of Coronary CT Angiography, SPECT, PET, and Hybrid Imaging for Diagnosis of Ischemic Heart Disease Determined by Fractional Flow Reserve. *JAMA Cardiol*. 2017;2(10):1100-1107. doi:10.1001/jamacardio.2017.2471

[3] Patel KK, Spertus JA, Chan PS, Sperry BW, Badarin FA, Kennedy KF, Thompson RC, Case JA, McGhie AL, Bateman TM. Myocardial blood flow reserve assessed by positron emission tomography myocardial perfusion imaging identifies patients with a survival benefit from early revascularization, *Eur. Heart J*. 2020;41(6):759–768, https://doi.org/10.1093/eurheartj/ehz389

[4] Bateman TM, Dilsizian V, Beanlands RS, DePuey EG, Heller GV, Wolinsky DA. J Nucl Cardiol. 2016 Oct;23(5):1227-1231. doi: 10.1007/s12350-016-0626-9. PMID: 27528255.

[5] Dilsizian V, Bacharach SL, Beanlands SR, Bergmann SR, Delbeke D, Dorbala S, et al. ASNC Imaging Guidelines/SNMMI Procedure Standard for Positron Emission Tomography (PET) Nuclear Cardiology Procedures. J Nucl Cardiol 2016; 23:1187-1226.

[6] Schindler TH, Bateman TM, Berman DS, Chareonthaitawee P, De Blanche LE, Dilsizian V, Dorbala S, Gropler RJ, Shaw L, Soman P, Winchester DE, Verberne H, Ahuja S, Beanlands RS, Di Carli MF, Murthy VL, Ruddy TD, Schwartz RG. Appropriate Use Criteria for PET Myocardial Perfusion Imaging. J Nucl Med. 2020 Aug;61(8):1221-1265. doi: 10.2967/jnumed.120.246280. PMID: 32747510.

[7] Bateman TM, Dilsizian V, Beanlands RS, DePuey EG, Heller GV, Wolinsky DA. American Society of Nuclear Cardiology and Society of Nuclear Medicine and Molecular Imaging joint position statement on the clinical indications for myocardial perfusion PET. J Nucl Cardiol. 2016;23: 1227–1231.

[8] Schindler TH, Schelbert HR, Quercioli A, Dilsizian V. Cardiac PET imaging for the detection and monitoring of coronary artery disease and microvascular health. JACC Cardiovasc Imaging. 2010;3:623–640.

[9] Gould KL, Johnson NP, Bateman TM, et al. Anatomic versus physiologic assessment of coronary artery disease: role of coronary flow reserve, fractional flow reserve, and positron emission tomography imaging in revascularization decision-making. J Am Coll Cardiol. 2013;62:1639–1653.

[10] Gould KL, Johnson NP, Roby AE, et al. Regional, artery-specific thresholds of quantitative myocardial perfusion by PET associated with reduced myocardial infarction and death after revascularization in stable coronary artery disease. J Nucl Med. 2019;60:410–417.

reimbursement by the Centers for Medicare and Medicaid Services and most other payers for those procedures with Category I codes.

In summary, SNMMI and ASNC strongly disagree with Aetna's coverage policy to exclude hybrid PET imaging for cardiac indications as 'experimental' and 'investigational'. There is ample evidence in the published literature as well as published clinical guidelines and appropriate use criteria supporting the use of hybrid PET/CT that is widely accepted by many payers, including CMS, and by the AMA.

This antiquated policy using evidence from 2005 will deny patients access to state-of-the-art imaging procedures that are the standard-of-care for making potentially life-saving clinical decisions. We respectfully insist this new policy be reversed. If you need further information, please contact Julia Bellinger, Director of Health Policy and Quality, at jbellinger@snmmi.org or (703) 326-1182.

Sincerely,

Richard L. Wahl
President, SNMMI

Dennis A. Calnon, MD
President, ASNC