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November 18, 2020

RE: Contractor Pricing - Payment for Myocardial PET Imaging January 2020

Dear Dr. Boren:

We are writing on behalf of the Society of Nuclear Medicine & Molecular Imaging (SNMMI) and the American Society of Nuclear Cardiology (ASNC) regarding the contractor pricing payment rates that National Government Services (NGS) has established for the myocardial positron emission tomography (PET) procedures. The Centers for Medicare & Medicaid Services (CMS) made the technical component of those procedures contractor priced under the Medicare Physician Fee Schedule (MPFS) at the urging of stakeholders to maintain access for these important services. It is our understanding that NGS intends to use the rates that CMS established for services furnished in ambulatory surgical centers (ASCs) for new codes describing a combination of metabolic and perfusion studies and for myocardial PET procedures performed with concurrent computed tomography (CT) scans. SNMMI believes that this approach does not appropriately recognize the relative value of the different procedures. We are also concerned that it is not consistent with CMS guidance on contractor pricing and would produce rank order anomalies in the payment rates for this family of codes and compared to other nuclear medicine services. We describe our concerns in greater detail below.

**A. Code History and Relative Cost of Performing Different Myocardial PET Procedures**

The original CPT codes for myocardial PET procedures (78459, 78491, and 78492) were established in the mid-1990s and described the relatively straightforward procedures performed at that time. As the technology developed since the original codes of 1991, the PET procedures became more complex and now are not only capable but also typically include measures of ventricular wall motion and ejection fraction. Effective January 1, 2020, the CPT Editorial Panel reviewed the medical literature and agreed by revising the myocardial PET procedure codes to recognize the additional elements and combinations of services on the same day, that are now part of the myocardial PET procedures.

**Table 1**  
**Revised Myocardial PET Procedure Codes**

CPT Code	2019 Descriptor	2020 Descriptor
78459	Myocardial imaging, positron emission tomography (PET), metabolic evaluation	Myocardial imaging, positron emission tomography (PET), <b>metabolic evaluation</b> study ( <u>including ventricular wall motion(s) and/or ejection fraction(s), when performed</u> ), single study

78491	Myocardial imaging, positron emission tomography (PET), perfusion; single study at rest or stress	Myocardial imaging, positron emission tomography (PET), <b>perfusion study</b> ( <u>including ventricular wall motion(s) and/or ejection fraction(s)</u> , when performed); single study at rest or stress (exercise or pharmacologic)
78492	Multiple studies at rest and/or stress	Myocardial imaging, positron emission tomography (PET), <b>perfusion study</b> ( <u>including ventricular wall motion(s) and/or ejection fraction(s)</u> , when performed); <b>multiple studies</b> at rest and/or stress (exercise or pharmacologic)

Also, effective January 1, 2020, CPT created new codes to describe performance of a perfusion study with a metabolic evaluation study (78432) and myocardial PET procedures performed concurrently with a computed tomography transmission scan (78429, 78430, 78431, and 78433). We note that these new codes describe comprehensive services and are not add-on codes. The AMA CPT Editorial Panel also established a new add-on code to describe absolute quantitation of myocardial blood flow (AQMBF) that would be reported in addition to the myocardial PET procedure, this was converted from a prior category III code to a category I CPT code. The entire family of codes is shown below.

**Table 2**  
**Myocardial PET Procedure Codes Effective January 1, 2020**

CPT Code	Descriptor
78459	Myocardial imaging, PET, metabolic evaluation study (including ventricular wall motion(s) and/or ejection fraction(s), when performed), single study
78429	With concurrently acquired computed tomography transmission scan
78491	Myocardial imaging, PET, perfusion study (including ventricular wall motion(s) and/or ejection fraction(s), when performed); single study at rest or stress (exercise or pharmacologic)
78430	Single study, at rest or stress (exercise or pharmacologic), with concurrently acquired computed tomography transmission scan
78492	Multiple studies at rest and/or stress (exercise or pharmacologic)
78431	Multiple studies at rest and/or stress (exercise or pharmacologic), with concurrently acquired computed tomography transmission scan
78432	Myocardial imaging, PET, combined perfusion with metabolic evaluation study (including ventricular wall motion(s) and/or ejection fraction(s), when performed), dual radiotracer (e.g., myocardial viability);
78433	With concurrently acquired computed tomography transmission scan
78434	Absolute quantitation of myocardial blood flow (AQMBF), PET, rest and pharmacologic stress

Within this family, there is a hierarchy in the complexity, time to perform and resource costs of the procedures. The simplest and least costly procedure is a single perfusion study (78491). Relative to a single perfusion study, the procedure involving multiple perfusion studies (78942) has costs that are roughly XX (70) percent greater because of the additional time required to perform multiple studies. The cost of performing a single metabolic evaluation study (78459) is approximately YY (10) percent greater than the cost of performing a single perfusion study. A procedure that combines a metabolic evaluation and a perfusion study (78432) is ZZ (90) percent greater than the cost of performing a single perfusion study.

The same general relationship between the costs for these different types of PET studies is maintained when the PET procedure is performed concurrent with a CT scan - that is, a single perfusion study with CT scan is the least costly and a procedure with multiple perfusion studies and CT scan is XX (70) percent greater, a metabolic evaluation study with a CT scan is YY (10) percent greater, and the combined metabolic evaluation and perfusion study with CT scan is ZZ (90) percent greater than a single perfusion study with CT scan. In general, performing a CT scan concurrent with a PET procedure increases the cost of the base PET procedure AA (28) percent because of the additional cost of the equipment required to perform the CT scan.

## B. Approaches to Valuing New and Revised Myocardial PET Procedure Codes

Based on recent phone conversations with the NGS contractor medical directors,<sup>1</sup> it is our understanding that NGS has concerns about the accuracy of previously established values for the original PET procedure codes (78459, 78491, and 78492). The MPFS rate for two of these codes (78459 and 78492) exceeds the rate established for the same services under the Outpatient Prospective Payment System (OPPS) and therefore payments for those services are capped at the OPPS rate. NGS also questioned the appropriateness of the OPPS rates and indicated that it intends to set the rate for the new CPT codes (78429-78434) based on the rate established by CMS for the same service furnished in an ambulatory surgical center (ASC). We greatly appreciate the opportunity to discuss these issues but have a different perspective about how the rates should be determined for the new and revised PET codes.

First, any concerns about the appropriateness of using the OPPS rates to pay for MPFS services would also extend to the ASC rates. CMS uses the OPPS rates as the basis for the ASC rates for these services but has to reduce the rates to stay within the budget for ASC services; in 2020, the ASC rates are set at 51 percent of the OPPS rate. If NGS determines that rates capped at the OPPS amount are inappropriate for services paid under the MPFS, then it should determine appropriate values for the services. Use of the ASC rates applies an arbitrary reduction of almost 50 percent to the otherwise applicable rates that is not justified. In addition, use of the ASC rates is particularly problematic for diagnostic procedures such as the myocardial PET procedures. The myocardial PET procedures are only covered in the ASC setting when performed ancillary to a covered surgical procedure. When furnished in a physician office or independent diagnostic testing facility (IDTF) paid under the MPFS, the myocardial PET procedures

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<sup>1</sup> Phone call with D. Merlino, S. Boren, C. Cunningham, and V. Muir, October 21, 2020.

would typically be standalone diagnostic procedures and would almost never be performed in conjunction with a surgical procedure.

Second, we note that the revised codes describe a more intense service than the original codes and therefore using the existing valuation for the revised codes is not necessarily inappropriate. However, we urge NGS to set aside the actual value of the codes and focus on the relativity of the procedures as described above. If NGS were to use the ASC rates as the basis for the payment rate for the new codes, the resulting rates for the new and revised codes would create rank order anomalies that are not consistent with the actual relationship between the cost of the procedures. The table below shows the 2020 MPFS rates for the revised codes for Manhattan, the OPSS cap that applies to the MPFS rate, and the corresponding ASC rates for New York County. If NGS were to use the ASC rate, then any myocardial PET procedure provided with a concurrent CT scan would be paid at a rate equal to or less than the rate for the same procedure without the concurrent scan. A supplier would be paid 25 percent to 45 percent less for furnishing a metabolic evaluation or a perfusion study with a concurrent CT scan than it would be paid for providing the study alone.

**Table 3**  
**Example MPFS and ASC Rates for New and Revised Myocardial PET Codes**

CPT Code	Descriptor	MPFS TC Rate NY (01 - Manhattan)		ASC Rate NY County
		2019	2020	2020
78459	Metabolic evaluation study	\$1,913 (OPSS cap = \$1,451)	\$1,913 (OPSS cap = \$1,517)	\$731
78429	Metabolic evaluation study with CT			\$829
78491	Perfusion study (single)	\$1,135 (OPSS cap = \$1,623)	\$1,135 (OPSS cap = \$1,720)	\$829
78430	Perfusion study (single) with CT			\$829
78492	Perfusion study (multiple)	\$1,912 (OPSS cap = \$1,623)	\$1,912 (OPSS cap = \$1,720)	\$829
78431	Perfusion study (multiple) with CT			\$1,293
78432	Combined perfusion with metabolic evaluation study			\$1,581
78433	Combined perfusion with metabolic evaluation study with CT			\$1,581

To avoid this illogical outcome, SNMMI strongly recommends that NGS not use the ASC rates to determine the MPFS rates for the new myocardial PET procedures. Instead we recommend that NGS

determine the payment rate to appropriately reflect the relativity between the procedures. In Table 4 below, we used the established payment rate for a single perfusion study (78491) and calculated the appropriate rates for the other PET procedures relative to that base amount.

**Table 4 Template and Completed  
Recommended Rates for Myocardial PET Procedures Maintaining Appropriate Relativity**

<b>CPT Code</b>	<b>Descriptor</b>	<b>Ratio to Base Procedure (78491)</b>	<b>Recommended MPFS Rates</b>
78459	Metabolic evaluation study	1.YY	
78491	Perfusion study (single)	1.0	\$1,135
78492	Perfusion study (multiple)	1.XX	
78432	Combined perfusion with metabolic evaluation study	1.ZZ	
<b>CPT Code</b>	<b>Descriptor</b>	<b>Ratio to Base Procedure (no CT)</b>	<b>Recommended MPFS Rates</b>
78429	Metabolic evaluation study with CT	1.AA	
78430	Perfusion study (single) with CT	1.AA	
78431	Perfusion study (multiple) with CT	1.AA	
78433	Combined perfusion with metabolic evaluation study with CT	1.AA	

Completed with example rates based on Ratios, see attachment for details.

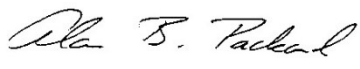

<b>CPT Code</b>	<b>Descriptor</b>	<b>Ratio to Base Procedure (78491)</b>	<b>Recommended MPFS Rates</b>
78459	Metabolic evaluation study	1.10	\$1,248.50
78491	Perfusion study (single)	1.0	\$1,135.00
78492	Perfusion study (multiple)	1.70	\$1,932.02
78432	Combined perfusion with metabolic evaluation study	1.90	\$2,862.47
<b>CPT Code</b>	<b>Descriptor</b>	<b>Ratio to Base Procedure (no CT)</b>	<b>Recommended MPFS Rates</b>
78429	Metabolic evaluation study with CT	1.28	\$1,592.83
78430	Perfusion study (single) with CT	1.28	\$1,448.03
78431	Perfusion study (multiple) with CT	1.28	\$2,464.85
78433	Combined perfusion with metabolic evaluation study with CT	1.28	\$3,651.92

We also note that this approach is consistent with CMS’ instructions to the contractors for setting payment rates for new codes. In instances where CMS Central Office has not provided a pricing guidance in the Medicare Physician Fee Schedule (MPFS) Database for a code, the Medicare Claims Processing Manual instructs the Medicare Administrative Contractors (MACs) to “make every effort to determine whether the procedure, drug or supply has a pricing history and profile. If there is a pricing history, map the new code to previous customary and prevailing charges or fee schedule amounts to ensure continuity of pricing.”<sup>2</sup> Using the current payment rate for 78491 and 78492 as the basis for payment for the other revised and new myocardial PET procedure codes would appropriately take into consideration the pricing history for these codes and provide the continuity of pricing that CMS expects to see.

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SNMMI and ASNC greatly appreciates NGS’ openness in engaging with the provider community about the appropriate methodology to use in determining MPFS payment rates for the myocardial PET procedures and the time and effort spent considering alternative approaches. We would like to continue this dialogue and provide any additional information NGS may need.

Sincerely,

	
Alan B. Packard, PhD	Sharmila Dorbala, MD, MASNC
President, SNMMI	President, ASNC

**Attachment:** SPECT-CT comparators existing CPT codes and PE values

cc. Dr. Carolyn Cunningham  
Virginia Muir, RN

<sup>2</sup> Medicare Claims Processing Manual (Publication 100 -04), Chapter 23, section 30.2.1.