



# GUIDE FOR REIMBURSEMENT WHEN USING **AMMONIA N13** INJECTION FOR CARDIAC PET IMAGING PROCEDURES

## DISCLAIMERS

The information provided is general reimbursement information for Ammonia N13 injection when used for Cardiac PET procedures and provided by Ionetix Corporation. It is not legal advice, nor is it advice about how to code, complete, or submit any claim for payment. The information is provided based on our current knowledge, and it is the sole responsibility of the provider performing the procedures to determine and submit the appropriate codes, modifiers, and bills for services rendered. The coding and reimbursement information is subject to change without notice. Individual payers and their local affiliates may have their own coding and reimbursement policies and requirements. Therefore, before filling any claims, providers should verify current policies and requirements with each payer.

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# AMMONIA N13 FOR USE WITH CARDIAC PET MYOCARDIAL PERFUSION IMAGING

## Indications and Usage<sup>1</sup>

Ammonia N 13 Injection is indicated for diagnostic Positron Emission Tomography (PET) imaging of the myocardium under rest or pharmacologic stress conditions to evaluate myocardial perfusion in patients with suspected or existing coronary artery disease.

## Patient Preparation<sup>1</sup>

To increase renal clearance of radioactivity and to minimize radiation dose to the bladder, ensure that the patient is well hydrated before the procedure and encourage voiding as soon as the study is completed and as often as possible thereafter for at least one hour.

## Dosage Forms and Strengths<sup>1</sup>

Syringe (5mL) containing 0.138-0.1387 GBq (3.75-37.5 mCi/mL) of Ammonia N-13 Injection in aqueous 0.9% sodium chloride solution (approximately 4mL volume).

**For full prescribing information:** <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=61e196ba-3812-4ffd-8032-12b215378fef>

**Sites are encouraged to report any negative side effects of prescription drugs to the FDA.**

**Visit:** <https://www.fda.gov/safety/medwatch-fda-safety-information-and-adverse-event-reporting-program> or call 1-800-FDA-1088

# CODING NOMENCLATURE

## CODING TERMINOLOGY

Procedure must be coded correctly in order to obtain appropriate reimbursement from both CMS and commercial payers. The following describes the types of codes that may be applied when submitting claims for a myocardial perfusion PET imaging study:

- **CPT®** – Current Procedural Technology: Codes used to report the service or procedure that was performed and reported.
- **HCPCS** – Healthcare Common Procedure Coding System: Codes used to report the provision of supplies, materials, injections, and certain services and procedures. The HCPCS code for N-13 Ammonia is A9526.
- **ICD-10** – International Classification of Disease: Codes used to describe signs or symptoms of the patient that would represent a medically necessary reason for performing the procedure.
- **NDC** – National Drug Code Ammonia N13: **71162-001-05**

PROCEDURE CODES <sup>2</sup>	
CPT Code	Description
78429	Myocardial imaging, positron emission tomography (PET) metabolic evaluation study (including ventricular wall motion(s), and/or ejection fraction(s), when performed) single study; with concurrently acquired computed tomography transmission scan
78430	Myocardial imaging, positron emission tomography (PET) perfusion study (including ventricular wall motion(s), and/or ejection fraction(s), when performed) single study; with concurrently acquired computed tomography transmission scan
78431	Myocardial imaging, positron emission tomography, perfusion study (including ventricular wall motion(s), and/or ejection fraction(s), when performed); multiple studies at rest and stress (exercise or pharmacologic), with concurrently acquired computed tomography transmission scan
78432	Myocardial imaging, positron emission tomography, combined with metabolic evaluation study (including ventricular wall motion(s), and/or ejection fraction(s), when performed), dual radiotracer (eg, myocardial viability)
78433	Myocardial imaging, positron emission tomography, combined with metabolic evaluation study (including ventricular wall motion(s), and/or ejection fraction(s), when performed), dual radiotracer (eg, myocardial viability) with concurrently acquired computed tomography transmission scan
78434 + add on	Absolute quantitation of myocardial blood flow (AQMBF), positron emission tomography (PET), rest and stress (List separately in addition to code for primary procedure) (Use 78434 in conjunction with 78431, 78492)
78459	Myocardial imaging, positron emission tomography (PET), metabolic evaluation study (including ventricular wall motion(s), and/or ejection fraction(s), when performed) single study
78491	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion(s), and/or ejection fraction(s), when performed); single study, at rest or stress (exercise or pharmacologic)
78492	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion(s), and/or ejection fraction(s) when performed); multiple studies at rest and/or stress (exercise or pharmacologic)

# CODING NOMENCLATURE (CONTINUED)

## CODING TERMINOLOGY

Procedure must be coded correctly in order to obtain appropriate reimbursement from both CMS and commercial payers. The following describes the types of codes that may be applied when submitting claims for a myocardial perfusion PET imaging study:

- **CPT®** – Current Procedural Technology: Codes used to report the service or procedure that was performed and reported.
- **HCPCS** – Healthcare Common Procedure Coding System: Codes used to report the provision of supplies, materials, injections, and certain services and procedures. The HCPCS code for N-13 Ammonia is A9526.
- **ICD-10** – International Classification of Disease: Codes used to describe signs or symptoms of the patient that would represent a medically necessary reason for performing the procedure.
- **NDC** – National Drug Code Ammonia N13: **71162-001-05**

### STRESS TEST CODES<sup>2</sup>

CPT Code	Description
93015	Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise, continuous electrocardiographic monitoring, and/or pharmacological stress; with physician supervision, with interpretation and report
93016	Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise, continuous electrocardiographic monitoring, and/or pharmacological stress; physician supervision only, without interpretation and report
93017	Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise, continuous electrocardiographic monitoring, and/or pharmacological stress; tracing only, without interpretation and report
93018	Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise, continuous electrocardiographic monitoring, and/or pharmacological stress; interpretation and report only

### RADIOPHARMACEUTICAL DRUG CODE<sup>3</sup>

HCPCS Code	Description
A9526	Nitrogen N-13 ammonia NITROGEN N-13 AMMONIA, DIAGNOSTIC, PER STUDY DOSE, UP TO 40 MILLICURIES

### PHARMACEUTICAL DRUG AND REVERSAL AGENTS<sup>3</sup>

HCPCS Code	Description
J0153	Adenosine inj 1mg
J0280	Aminophyllin up to 250 MG, inj.
J0461	Inj, atropine sulfate, 0.01 mg
J1245	Dipyridamole injection, per 10mg
J1250	Inj dobutamine HCL/250 mg
J2785	Injection, Regadenoson, 0.1 milligrams

# HOSPITAL SETTING BILLING

## MEDICARE - Hospital Outpatient Prospective Payment System (HOPPS)

The Medicare HOPPS applies to almost all hospital outpatient departments and is based on previous years' claims data. For example, HOPPS payment rates for 2022 are based on 2020 hospital claims data. The HOPPS payments cover only facility or technical fees and are geographically adjusted.

It is essential that hospitals continue to code and apply appropriate charges to items and services that may be packaged or bundled into the procedural (technical) payment. For example, diagnostic radiopharmaceuticals are packaged but still should be coded and charged in order for the cost to be represented in the claims data.

## Hospital Revenue Codes for Chargemaster – Hospital Outpatient Department<sup>4</sup>

Revenue Codes	Imaging Procedures
0404	Other Imaging Services - PET
0340	Nuclear Medicine - General
0341	Nuclear Medicine - Diagnostic procedure

Revenue Codes	RADIOPHARMACEUTICAL AND NON-RADIOACTIVE MATERIALS
0343	Nuclear Medicine - Diagnostic Radiopharmaceutical

Revenue Codes	Cardiology - Stress Test
0482	Cardiology - Stress Test

Revenue Codes	Cardiology Stress Test - Pharmaceutical Stress Agent/Drug
0636	Drugs required detailed coding

# HOSPITAL SETTING BILLING (CONTINUED)

## HOPPS Medicare National Average Payment

CPT Code	Description	APC	2021	2022	2023	2024	2025
78429	PET/CT, Metabolic Evaluation	5594	\$1,480.34	\$1,511.56	\$1,489.35	\$1,490.60	\$1,458.59
78430	PET/CT Perfusion Single (Stress or Rest)	5594	\$1,480.34	\$1,511.56	\$1,489.35	\$1,490.60	\$1,458.59
78431	PET/CT Perfusion Multiple (Stress/ Rest)	1523 (changed back to 1522 for 2024)	\$2,250.50	\$2,250.50	\$2,750.50	\$2,250.50	\$2,250.50
78432	PET Perfusion Single or Multiple & Metabolic	1520 (changed from 1523 for 2023)	\$2,750.50	\$2,750.50	\$1,850.50	\$1,850.50	\$1,850.50
78433	PET/CT Perfusion Single or Multiple & Metabolic	1521 (changed from 1523 for 2023)	\$2,750.50	\$2,750.50	\$1,950.50	\$1,950.50	\$1,950.50
78434 + add on	AQMBF PET (Stress/Rest)	N/A	Packaged into APC rate is part of new technology payment	Packaged into APC rate is part of new technology payment	Packaged into APC rate is part of new technology payment	Packaged into APC rate is part of new technology payment	Packaged into APC rate is part of new technology payment
78459	PET Metabolic Evaluation	5593	\$1,305.94	\$1,334.62	\$1,327.27	\$1,352.92	\$1,305.48
78491	PET, MPI, Single (Stress or Rest)	5594	\$1,480.34	\$1,511.56	\$1,489.35	\$1,490.60	\$1,458.59
78492	PET, MPI, Multiple (Stress/ Rest)	5594	\$1,480.34	\$1,511.56	\$1,489.35	\$1,490.60	\$1,458.59

### CONSIDERATIONS FOR PRICE DETERMINATION:

- Discuss the professional and technical work with your chargemaster team
- Look for other services that may have similar costs that are already established
- Take into account the cost of new equipment or software including the time for the technologists/physician
- Include the acquisition cost of drugs/pharmaceuticals and devices used in the procedure
- It is important for hospitals to review their charge amounts on a regular (annual) basis
- Charges should include both direct and indirect costs - such as labor, space, supplies, equipment, etc.

# SAMPLE HOSPITAL SETTING BILLING UB-04 CMS-1450

## CARDIAC PET MPI MULTIPLY STUDY MPI WITH MBF AND PHARMACOLOGIC STRESS

1 Hospital Name One Hospital Place City, State 00000		2 Pay - To Name Pay - To Address (if different from billing provider in FL,1)		3 UNCL CHL #	4 TYPE OF BILL		
5 STREET NAME		6 PRESENT ADDRESS		7	8		
9 ICD-9-CM 10 ICD-9-CM 11 ICD-9-CM 12 ICD-9-CM 13 ICD-9-CM 14 ICD-9-CM 15 ICD-9-CM 16 ICD-9-CM 17 ICD-9-CM 18 ICD-9-CM 19 ICD-9-CM 20 ICD-9-CM 21 ICD-9-CM 22 ICD-9-CM 23 ICD-9-CM 24 ICD-9-CM 25 ICD-9-CM 26 ICD-9-CM 27 ICD-9-CM 28 ICD-9-CM 29 ICD-9-CM 30 ICD-9-CM 31 ICD-9-CM 32 ICD-9-CM 33 ICD-9-CM 34 ICD-9-CM 35 ICD-9-CM 36 ICD-9-CM 37 ICD-9-CM 38 ICD-9-CM 39 ICD-9-CM 40 ICD-9-CM 41 ICD-9-CM 42 ICD-9-CM 43 ICD-9-CM 44 ICD-9-CM 45 ICD-9-CM 46 ICD-9-CM 47 ICD-9-CM 48 ICD-9-CM 49 ICD-9-CM 50 ICD-9-CM 51 ICD-9-CM 52 ICD-9-CM 53 ICD-9-CM 54 ICD-9-CM 55 ICD-9-CM 56 ICD-9-CM 57 ICD-9-CM 58 ICD-9-CM 59 ICD-9-CM 60 ICD-9-CM 61 ICD-9-CM 62 ICD-9-CM 63 ICD-9-CM 64 ICD-9-CM 65 ICD-9-CM 66 ICD-9-CM 67 ICD-9-CM 68 ICD-9-CM 69 ICD-9-CM 70 ICD-9-CM 71 ICD-9-CM 72 ICD-9-CM 73 ICD-9-CM 74 ICD-9-CM 75 ICD-9-CM 76 ICD-9-CM 77 ICD-9-CM 78 ICD-9-CM 79 ICD-9-CM 80 ICD-9-CM 81 ICD-9-CM 82 ICD-9-CM 83 ICD-9-CM 84 ICD-9-CM 85 ICD-9-CM 86 ICD-9-CM 87 ICD-9-CM 88 ICD-9-CM 89 ICD-9-CM 90 ICD-9-CM 91 ICD-9-CM 92 ICD-9-CM 93 ICD-9-CM 94 ICD-9-CM 95 ICD-9-CM 96 ICD-9-CM 97 ICD-9-CM 98 ICD-9-CM 99 ICD-9-CM		11 ICD-9-CM 12 ICD-9-CM 13 ICD-9-CM 14 ICD-9-CM 15 ICD-9-CM 16 ICD-9-CM 17 ICD-9-CM 18 ICD-9-CM 19 ICD-9-CM 20 ICD-9-CM 21 ICD-9-CM 22 ICD-9-CM 23 ICD-9-CM 24 ICD-9-CM 25 ICD-9-CM 26 ICD-9-CM 27 ICD-9-CM 28 ICD-9-CM 29 ICD-9-CM 30 ICD-9-CM 31 ICD-9-CM 32 ICD-9-CM 33 ICD-9-CM 34 ICD-9-CM 35 ICD-9-CM 36 ICD-9-CM 37 ICD-9-CM 38 ICD-9-CM 39 ICD-9-CM 40 ICD-9-CM 41 ICD-9-CM 42 ICD-9-CM 43 ICD-9-CM 44 ICD-9-CM 45 ICD-9-CM 46 ICD-9-CM 47 ICD-9-CM 48 ICD-9-CM 49 ICD-9-CM 50 ICD-9-CM 51 ICD-9-CM 52 ICD-9-CM 53 ICD-9-CM 54 ICD-9-CM 55 ICD-9-CM 56 ICD-9-CM 57 ICD-9-CM 58 ICD-9-CM 59 ICD-9-CM 60 ICD-9-CM 61 ICD-9-CM 62 ICD-9-CM 63 ICD-9-CM 64 ICD-9-CM 65 ICD-9-CM 66 ICD-9-CM 67 ICD-9-CM 68 ICD-9-CM 69 ICD-9-CM 70 ICD-9-CM 71 ICD-9-CM 72 ICD-9-CM 73 ICD-9-CM 74 ICD-9-CM 75 ICD-9-CM 76 ICD-9-CM 77 ICD-9-CM 78 ICD-9-CM 79 ICD-9-CM 80 ICD-9-CM 81 ICD-9-CM 82 ICD-9-CM 83 ICD-9-CM 84 ICD-9-CM 85 ICD-9-CM 86 ICD-9-CM 87 ICD-9-CM 88 ICD-9-CM 89 ICD-9-CM 90 ICD-9-CM 91 ICD-9-CM 92 ICD-9-CM 93 ICD-9-CM 94 ICD-9-CM 95 ICD-9-CM 96 ICD-9-CM 97 ICD-9-CM 98 ICD-9-CM 99 ICD-9-CM		11 ICD-9-CM 12 ICD-9-CM 13 ICD-9-CM 14 ICD-9-CM 15 ICD-9-CM 16 ICD-9-CM 17 ICD-9-CM 18 ICD-9-CM 19 ICD-9-CM 20 ICD-9-CM 21 ICD-9-CM 22 ICD-9-CM 23 ICD-9-CM 24 ICD-9-CM 25 ICD-9-CM 26 ICD-9-CM 27 ICD-9-CM 28 ICD-9-CM 29 ICD-9-CM 30 ICD-9-CM 31 ICD-9-CM 32 ICD-9-CM 33 ICD-9-CM 34 ICD-9-CM 35 ICD-9-CM 36 ICD-9-CM 37 ICD-9-CM 38 ICD-9-CM 39 ICD-9-CM 40 ICD-9-CM 41 ICD-9-CM 42 ICD-9-CM 43 ICD-9-CM 44 ICD-9-CM 45 ICD-9-CM 46 ICD-9-CM 47 ICD-9-CM 48 ICD-9-CM 49 ICD-9-CM 50 ICD-9-CM 51 ICD-9-CM 52 ICD-9-CM 53 ICD-9-CM 54 ICD-9-CM 55 ICD-9-CM 56 ICD-9-CM 57 ICD-9-CM 58 ICD-9-CM 59 ICD-9-CM 60 ICD-9-CM 61 ICD-9-CM 62 ICD-9-CM 63 ICD-9-CM 64 ICD-9-CM 65 ICD-9-CM 66 ICD-9-CM 67 ICD-9-CM 68 ICD-9-CM 69 ICD-9-CM 70 ICD-9-CM 71 ICD-9-CM 72 ICD-9-CM 73 ICD-9-CM 74 ICD-9-CM 75 ICD-9-CM 76 ICD-9-CM 77 ICD-9-CM 78 ICD-9-CM 79 ICD-9-CM 80 ICD-9-CM 81 ICD-9-CM 82 ICD-9-CM 83 ICD-9-CM 84 ICD-9-CM 85 ICD-9-CM 86 ICD-9-CM 87 ICD-9-CM 88 ICD-9-CM 89 ICD-9-CM 90 ICD-9-CM 91 ICD-9-CM 92 ICD-9-CM 93 ICD-9-CM 94 ICD-9-CM 95 ICD-9-CM 96 ICD-9-CM 97 ICD-9-CM 98 ICD-9-CM 99 ICD-9-CM		11 ICD-9-CM 12 ICD-9-CM 13 ICD-9-CM 14 ICD-9-CM 15 ICD-9-CM 16 ICD-9-CM 17 ICD-9-CM 18 ICD-9-CM 19 ICD-9-CM 20 ICD-9-CM 21 ICD-9-CM 22 ICD-9-CM 23 ICD-9-CM 24 ICD-9-CM 25 ICD-9-CM 26 ICD-9-CM 27 ICD-9-CM 28 ICD-9-CM 29 ICD-9-CM 30 ICD-9-CM 31 ICD-9-CM 32 ICD-9-CM 33 ICD-9-CM 34 ICD-9-CM 35 ICD-9-CM 36 ICD-9-CM 37 ICD-9-CM 38 ICD-9-CM 39 ICD-9-CM 40 ICD-9-CM 41 ICD-9-CM 42 ICD-9-CM 43 ICD-9-CM 44 ICD-9-CM 45 ICD-9-CM 46 ICD-9-CM 47 ICD-9-CM 48 ICD-9-CM 49 ICD-9-CM 50 ICD-9-CM 51 ICD-9-CM 52 ICD-9-CM 53 ICD-9-CM 54 ICD-9-CM 55 ICD-9-CM 56 ICD-9-CM 57 ICD-9-CM 58 ICD-9-CM 59 ICD-9-CM 60 ICD-9-CM 61 ICD-9-CM 62 ICD-9-CM 63 ICD-9-CM 64 ICD-9-CM 65 ICD-9-CM 66 ICD-9-CM 67 ICD-9-CM 68 ICD-9-CM 69 ICD-9-CM 70 ICD-9-CM 71 ICD-9-CM 72 ICD-9-CM 73 ICD-9-CM 74 ICD-9-CM 75 ICD-9-CM 76 ICD-9-CM 77 ICD-9-CM 78 ICD-9-CM 79 ICD-9-CM 80 ICD-9-CM 81 ICD-9-CM 82 ICD-9-CM 83 ICD-9-CM 84 ICD-9-CM 85 ICD-9-CM 86 ICD-9-CM 87 ICD-9-CM 88 ICD-9-CM 89 ICD-9-CM 90 ICD-9-CM 91 ICD-9-CM 92 ICD-9-CM 93 ICD-9-CM 94 ICD-9-CM 95 ICD-9-CM 96 ICD-9-CM 97 ICD-9-CM 98 ICD-9-CM 99 ICD-9-CM	
44 REV. CD.	45 DESCRIPTION	46 HCPCS/RATE/HOPPS CODE	47 DATE	48 UNITS	49 CHARGE	50 NON-COVERED CHARGE	
0404	PET/CT, Perfusion Multiple	78431	05/14/2023	1	XXXXXX		
0404	AQMBF PET rest & stress	+78434	05/14/2023	1	XXXXXX		
0343	Ammonia N13 per study dose	A9526	05/14/2023	2	XXXXXX		
0482	Cardiac Stress Test	93017	05/14/2023	1	XXXXXX		
0636	Pharmacologic Stress Agent	JXXX	05/14/2023	1			

**Form Locator 42 (Rev. CD.)**  
Enter Revenue Code - For Example:  
0308 PET or 0341 Nuclear Medicine Diagnostic (Verify Revenue Coding with Hospital Finance Dept.)  
0343 Diagnostic Radiopharmaceutical  
0482 Cardiac Stress Test  
0636 Drugs requiring detailed coding

**Form Locator 44 (HCPCS/Rates/HOPPS Code)**  
Enter the CPT of HCPCS code for the procedure, radiopharmaceutical and drug  
78431 PET/CT Perfusion Multiple  
A9526 Ammonia N13, diagnostic, per study dose up to 40mCi  
78434 Absolute quantitation of myocardial blood flow, PET, rest and pharmacologic stress  
93017 Cardiovascular Stress Test, tracing only, without interpretation and report  
Use the appropriate HCPCS code for the pharmacological stress used to perform the study

**Form Locator 46 (Units of Service)**  
Enter the number of units based on the HCPCS code descriptor

**Form Locator 67 (Principle Diagnosis Code)**  
Enter the ICD-10 code for the principal diagnoses  
For example: R907.9 Chest pain unspecified  
  
I24.9 Acute ischemic disease, unspecified.  
Special note: Do not use the decimal place on the claim form, it may cause rejection of the claim form. Up to eight other diagnoses that co-exist in addition to the principle diagnosis can be reported in FL 67 A-H.

*Ionetix Corporation cannot guarantee coverage or payment for products or procedures at any particular level. For more specific information please contact your Medicare contractor or the patient's insurer.*



# NON-HOSPITAL SETTING BILLING

## IDTF/PHYSICIAN OFFICE SETTING BILLING

The Medicare Physician Fee Schedule (MPFS) applies to procedures, products, and the services in the Independent Diagnostic Testing Facility (IDTF) or office setting as well as the professional component. CMS sets payment rates for procedures and physician services based on assigned Relative Value Units (RVU). These RVU are multiplied by a conversion factor and the payments are geographically adjusted.

CMS has not accepted or published the American Medical Association (AMA) Relative Value Update Committee (RUC) approved RVU for the technical component of MPI PET procedures. The technical component of these procedures is priced by the Medicare Administrative Contractor (MAC) under the MPFS. However, due to the Deficit Reduction Act (DRA), any rate a contractor could set would be capped at the HOPPS calculated technical rate. The rate can be lower but can be no higher than the wage adjusted HOPPS CAP rate.

**To locate and review the reimbursement for your locality:**

MAC (Medicare Administrative Contractor) website at: <https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Who-are-the-MACs.html>

The CMS Physician Fee Schedule Look-Up Tool at: <https://www.cms.gov/medicare/physician-fee-schedule/search>

***Diagnostic radiopharmaceuticals are paid separately in the IDTF/office setting. Some MACs pay as a percent (%) of published AWP while others pay based on an invoice price. Check your local MAC policy to determine their method of payment and how information should be presented on claims for submission.***

## PROFESSIONAL COMPONENT

The MPFS applies to the professional component of procedures performed in both the outpatient hospital and IDTF/office setting.

CPT Code	Description	2021*	2022*	2023*	2024*	2025*
78429	PET/CT, Metabolic Evaluation	RVU 2.35	RVU 2.34	RVU 2.34	RVU 2.32	RVU 2.34
78430	PET/CT Perfusion Single (Stress or Rest)	RVU 2.23	RVU 2.23	RVU 2.21	RVU 2.21	RVU 2.21
78431	PET/CT Perfusion Multiple (Stress/Rest)	RVU 2.59	RVU 2.59	RVU 2.59	RVU 2.58	RVU 2.59
78432	PET Perfusion Single or Multiple & Metabolic	RVU 2.76	RVU 2.76	RVU 2.76	RVU 2.76	RVU 2.85
78433	PET/CT Perfusion Single or Multiple & Metabolic	RVU 3.00	RVU 3.01	RVU 3.01	RVU 3.02	RVU 3.04
78434 + add on	AQMBF PET (Stress/Rest)	RVU 0.87	RVU 0.87	RVU 0.86	RVU 0.85	RVU 0.86
78459	PET Metabolic Evaluation	RVU 2.14	RVU 2.14	RVU 2.14	RVU 2.15	RVU 2.15
78491	PET, MPI, Single (Stress or Rest)	RVU 2.07	RVU 2.08	RVU 2.08	RVU 2.11	RVU 2.13
78492	PET, MPI, Multiple (Stress/Rest)	RVU 2.45	RVU 2.46	RVU 2.48	RVU 2.48	RVU 2.47

\*Centers for Medicare & Medicaid Services. Physician Fee Schedule Look-Up Tool. Centers for Medicare & Medicaid Website. Accessed October 2, 2023.

# PHYSICIAN OFFICE & IDTF INFORMATION

Prior to performing any new procedure, Medicare should be notified through the appropriate process based on the setting type/location. If your facility is enrolled with Medicare Part B as an IDTF, Medicare Administrative Contractors (MACs) may require the HCPCS code for Ammonia N13 (A9526) be added to your enrollment when completing Medicare's PECOS or paper 855-B enrollment application before claims can be considered for processing.

## Updating Medicare Forms:

### Physician Offices:

- *Update PECOS – form 855i*  
More information is available at: <https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/Downloads/cms855i.pdf>

### Independent Diagnostic Imaging Center (IDTF):

- *Update PECOS – IDTF: Independent Imaging Centers – update form 855b*  
More information is available at: <https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/Downloads/cms855b.pdf>

## Medicare Traditional/Original (Part B)

When billing for an IDTF, group practice, clinics, or other freestanding imaging facilities, some payers, similar to the Medicare Administrative Contractors (MAC), may require the radiopharmaceutical invoice cost and data. This can be provided in field 19 of the CMS-1500 claim form or 837 loop segment for electronic submission of claims. Be sure to review the specific billing guidelines for your respective MAC or other payers.

## Reporting of Invoice Cost and/or Invoice on Claims

For Medicare, Medicaid, and other 3rd party payers that require either the cost of the invoice reported on claim forms (box 19 on CMS-1500) or a copy of the invoice, be sure to follow the specific payer's format and requirements. In some cases, in addition to the format with dollar sign (\$), decimal, and thousands separator (eg, \$790.80), the words "Invoice Cost," "Inv," etc. may be needed. The provider should always follow the specific payer's requirements.

## Accreditation and Reimbursement

Medicare as well as several other payers have adopted directives for PET requiring accreditation as a condition for reimbursement. More information is available at:

**Intersocietal Accreditation Commission IAC-Nuclear/PET:** <https://www.intersocietal.org/nuclear/>  
**ACR: American College of Radiology:** <https://www.acraccreditation.org/modalities/nuclear-medicine-and-pet>

## Billing and Accreditation:

The conditions under which you can bill during your accreditation process varies for both Medicare and Commercial payers.

- For more information, contact the accreditation body:
  - ◇ **IAC:** <https://intersocietal.org/reimbursement/payment-policies/>
  - ◇ **ACR:** <https://www.acraccreditation.org/modalities/nuclear-medicine-and-pet>

# SAMPLE PHYSICIAN BILLING GLOBAL NON-HOSPITAL OUTPATIENT SETTING CMS-1500

## CARDIAC PET/CT MPI MULTIPLY STUDY WITH MBF AND PHARMACOLOGIC STRESS

**HEALTH INSURANCE CLAIM FORM**  
APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE (NUCC) 05/12

**Form Locator 19 & 24D: Global Billing Example**  
 FL 19 - In order to facilitate coverage and payment, provide a description of the radiopharmaceutical (if required) and a description of unlisted procedures if necessary. See Medicare contractors or private payer instructions for information required.  
 FL 24D - Enter CPT or HCPCS code for procedures performed and interpreted by the physician.  
 78434 Absolute quantitation of myocardial blood flow, PET rest and pharmacologic stress  
 78431 Myocardial Imaging, PET/CT, perfusion; multiple studies at rest and/or stress  
 93015 Cardiovascular Stress Test; supervision, interpretation and report  
 A9526 Ammonia N13 per study dose up to 40mCi

**Form Locator 24G**  
 Enter the number of units based on the CPT or HCPCS code description.  
 Note: Ammonia N13 is per dose. For multiple studies, two doses are administered; place (2) in units.  
 \*Also check units for stress agent, using the HCPCS code long description.

**Form Locator 21 & 24E**  
 Enter ICD-10 code for principal diagnosis in FL 21.  
 For example:  
 CR94.3 Abnormal electrocardiogram [ECG] [EKG]  
 I24.9 Acute ischemic disease, unspecified.  
 Special note: Do not use the decimal place on the claim form, it may cause rejection of the claim form.  
 Enter the letter corresponding to the diagnosis code for the procedure in FL 24E

**Ionetix Corporation cannot guarantee coverage or payment for products or procedures at any particular level. For more specific information please contact your Medicare contractor or the patient's insurer.**

LINE	DATE	ICD-10	PROCEDURE	CHARGE	UNITS
1	06 17 23	06 17 23	78431	A XXX XX	1
2	06 17 23	06 17 23	A9526	A XXX XX	2
3	06 17 23	06 17 23	93015	A XXX XX	1
4	06 17 23	06 17 23	Jxxxx*	B XXX XX	X**
5	06 17 23	06 17 23	78484	A XXX XX	1

# PRIOR AUTHORIZATION

**Most third-party payers require some type of prior authorization for advanced imaging, and it may be necessary to provide the following information when making a prior authorization request:**

- Patient demographics including name, insurance policy number, and date of birth
- Physician information including name and tax ID number
- Facility information including name and tax ID number
- Setting of care:
  - ◇ Independent diagnostic testing facility (IDTF)
  - ◇ Hospital inpatient
  - ◇ Hospital outpatient
- Date of service
- Patient diagnosis and relevant ICD-10 code(s)
- Patient clinical notes detailing the relevant diagnosis
- Relevant CPT® and HCPCS codes for services/products to be performed or provided
  - ◇ HCPCS code Ammonia N13: A9526
- **NDC** - National Drug Code Ammonia N13: **71162-001-05**

# COVERAGE AND APPROPRIATE USE INFORMATION

## Medicare

### **National Coverage Determination:**

The Centers for Medicare and Medicaid Services (CMS) has a **National Coverage Determination (NCD)** in place for cardiac PET imaging.

This NCD is available on the CMS site at:

<https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/Downloads/R31NCD.pdf>

*The NCD states that cardiac PET procedures, performed at rest or with pharmacologic stress, used for noninvasive imaging of the perfusion of the heart for the diagnosis and management of patients with known or suspected coronary artery disease using the FDA-approved radiopharmaceutical **N-13 Ammonia** are covered, provided the requirements below are met:*

- *The PET scan, whether at rest alone or rest with stress, is performed in place of, but not in addition to, a single photon emission computed tomography (SPECT); or*
- *The PET scan, whether at rest alone or rest with stress, is used following a SPECT that was found to be inconclusive.*

*In these cases, the PET scan must have been considered necessary to determine what medical or surgical intervention is required to treat the patient.*

IOM citations listed in the LCD:

- [CMS IOM Publication 100-03, Medicare National Coverage Determinations \(NCD\) Manual, Chapter 1, Part 4, Sections 220.6 Positron Emission Tomography \(PET\) Scans; and 220.6.1 PET for Perfusion of the Heart](#)
- [CMS IOM Publication 100-04, Medicare Claims Processing Manual, Chapter 13, Sections 60.3.1 Appropriate CPT Codes Effective for PET Scans for Services Performed on or After January 28, 2005; 60.3.2 Tracer Codes Required for Positron Emission Tomography \(PET\) Scans; and 60.11 Coverage for PET scans for Perfusion of the Heart Using Ammonia N13.](#)

### **Local Coverage Decision and Local Coverage Article (LCD/LCA)**

In addition to NCD, Local Coverage Determinations (LCD) and Local Coverage Articles (LCA) may be issued by the Medicare Administrative Contractors (MAC). The LCD and LCA specify under what clinical circumstances a service is considered to be reasonable and medically necessary. They often provide the list of ICD-10 codes by procedure or group of procedure codes. It is important to identify if your regional MAC has issued an LCD or LCA related to cardiac PET studies.

These policies are available at:

<https://www.cms.gov/medicare-coverage-database/new-search/search.aspx?redirect=Y&from=Advanced>

To find your Medicare Administrative Contractor (MAC), go to:

<https://www.cms.gov/medicare/coding-billing/medicare-administrative-contractors-macs/who-are-macs>

# COVERAGE AND APPROPRIATE USE INFORMATION (CONTINUED)

## Private/Commercial Payers

Private or commercial insurance plans may publish coverage policies and may use a Radiology Benefit Management (RBM) company to pre-authorize claims. The following is a list of several of the RBM companies:

<b>Evicore</b>	<a href="http://www.evicore.com">www.evicore.com</a>
<b>American Imaging Management (AIM)</b>	<a href="http://www.americanimaging.net">www.americanimaging.net</a>
<b>National Imaging Associates (NIA)</b>	<a href="http://www.niahealthcare.com">www.niahealthcare.com</a>
<b>Health Help</b>	<a href="http://www.healthhelp.com">www.healthhelp.com</a>
<b>Care to Care</b>	<a href="http://www.caretocare.com">www.caretocare.com</a>

Clinical guidelines for each of these RBM companies are provided on the web at the addresses shown or via the commercial insurer. Unlike Medicare, Commercial payers require pre-authorization most of the time. Make sure you use the forms designated by the payer or RBM. Medicare Advantage often has their own specific plans and pre-authorization requirements that may differ from other commercial plans.

**Medicaid:** Medicaid is administered at the state level. Each state determines their coverage and pre-authorization requirements. Ionetix does not participate in the Medicaid rebate program.

# COVERAGE AND APPROPRIATE USE INFORMATION (CONTINUED)

The American Society of Nuclear Cardiology (ASNC) and the Society for Nuclear Medicine and Molecular Imaging have issued a joint statement on the clinical indications for myocardial perfusion PET<sup>6</sup>:

According to the ASNC/SNMML, myocardial perfusion PET is:

- **First line preferred** for patients with known or suspected CAD undergoing pharmacologic stress testing.
- **Recommended for patients who meet appropriate criteria for stress imaging such as:**
  - ◇ Patients with body characteristics that commonly affect image quality (ex. large breasts, obesity)
  - ◇ High-risk patients such as those with diabetes or kidney disease
  - ◇ Patients with body positioning challenges
  - ◇ Patients who may benefit from revascularization
  - ◇ Young patients with established CAD

Medicare and several other insurance companies recognize that cardiac PET is covered in place of cardiac SPECT in patients with conditions that may cause attenuation problems and technical challenges to standard imaging. It is important to recognize these conditions and discuss them with the insurance payer if coverage of the cardiac PET study is questioned. These conditions should be clearly indicated in the patient report and taken into consideration when ordering a cardiac PET study.

Cardiac PET has a greater ability to avoid attenuation artifacts that degrade image quality and increase the risk of an inconclusive cardiac SPECT study. Several factors may increase photon attenuation and result in image artifacts including, but not limited to, the following<sup>7</sup>:

- Diaphragmatic attenuation
- Breast tissue
- Previous mastectomy
- Patient position
- Breast implants
- Chest wall deformities
- Bowel loop
- Pleural or pericardial effusion
- Body size
- Scar tissue

When compared to Single Photon Emission Computed Tomography (SPECT), Cardiac PET has been demonstrated to provide the following advantages<sup>6-7</sup>:

- Improved diagnostic accuracy
- Shorter imaging protocols
- Reduced radiation exposure to patients

# COVERAGE AND APPROPRIATE USE INFORMATION (CONTINUED)

## APPROPRIATE USE AND COVERAGE POLICY REFERENCES

- ASNC Model Coverage Policy 2023: Cardiac positron emission tomographic imaging, *Journal of Nuclear Cardiology*, Sept/Oct 2013, Hourgan et al. (<https://link.springer.com/article/10.1007/s12350-023-03355-8>)
- 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(5):1227-1231. (<https://www.asnc.org/files/Guidelines%20and%20Quality/ASNCandSNMMIJointPETPositionPaper2016.pdf>)
- Appropriate Use Criteria for PET Myocardial Perfusion Imaging, Special Contribution: Thomas H. Schindler et al, *Journal of Nuclear Medicine* 2020 61:1221-1265. (<http://jnm.snmjournals.org/content/61/8/1221>)



# AMMONIA N13 BILLING INFORMATION AND RESOURCES

## Ammonia N-13 Billing Information

- **Product Description:** AMMONIA N 13 Injection for intravenous use (4ml in 1 syringe) unit
- **HCPCS Code:** A9526
- **NDC – National Drug Code:** **71162-001-05**
- The Average Wholesale Price/Wholesale Acquisition Cost (AWP/WAC) list price for IONETIX Ammonia N13 are published and available in Red Book, First DataBank, and Medi-Span. These publications are the primary databases CMS and private carriers use for verification of published price. These databases are not public however, IONETIX will provide a copy of the Ammonia N13 published AWP/WAC list price upon request.

## Reimbursement Resources for Ammonia N-13

IONETIX Corporation provides support for reimbursement related to Cardiac PET Myocardial Perfusion Imaging performed with Ammonia N13. For information please contact IONETIX Reimbursement: [reimbursement@ionetix.com](mailto:reimbursement@ionetix.com)

### IONETIX will provide support for various coding and billing questions:

- HCPCS codes for products
- CPT and HCPCS codes for procedures
- Medicare payment policies

To learn more about **Ammonia N13**, visit: <https://www.ionetix.com/n-13ammonia/>

The information provided in this resource is for informational purposes only and does not guarantee that codes will be appropriate or that coverage and reimbursement will result. Customers should consult with their payers for all relevant coverage, coding, and reimbursement requirements.

# BILLING AND SUBMITTING CLAIMS FOR REIMBURSEMENT

## Checklist for Completion and Success

Ensure the provider has included the...

- ✔ PET procedure (CPT) code(s)
- ✔ Cardiac Stress Test (CPT) code(s)
- ✔ Radiopharmaceutical agent code (HCPCS) and unit(s)
- ✔ Radiopharmaceutical agent NDC code as appropriate
- ✔ Pharmacologic stress agent code (HCPCS) and unit(s)
- ✔ Principal diagnostic (ICD-10) code (and secondary if applicable)
- ✔ Applicable revenue codes (hospital only)
- ✔ Documentation providing the medical necessity for all codes billed (including add-on codes)
- ✔ Invoice Price in appropriate location or copy of invoice as required

*Properly submitted bills and charges are used in creating Medicare Fee Schedules. Ensuring that all aspects of the procedure are accounted for is necessary to support appropriate payment rates in the future.*

**For reimbursement questions contact: [reimbursement@ionetix.com](mailto:reimbursement@ionetix.com)**

# REFERENCES

## References

1. AMMONIA N 13- ammonia n-13 injection Ionetix Corporation, Lansing, Michigan 2023. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=61e196ba-3812-4ffd-8032-12b215378fef>
2. American Medical Association. 2023 Professional Edition CPT® current procedural terminology. Chicago, IL: American Medical Association; 2022.
3. American Medical Association. *HCPCS Level II Professional 2023*. Chicago IL: American Medical Association; 2022.
4. Hospital Revenue Codes 2023. <https://www.amazinghealthcareconsultants.com/revenue-codes/>
5. [CMS-1736-FC: Hospital Outpatient Prospective Payment- Notice of Final Rulemaking \(NFRM\) with Comment Period Year 2023. Medicare Program: Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting Programs.](#)
6. 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(5):1227-1231.
7. Dilsizian et al. ASNC Imaging Guidelines /SNMMI Procedure Standard for Positron Emission Tomography (PET) Nuclear Cardiology Procedures. *JNC* 2016; 23(5):1187-1236.

## AMMONIA N13

### Indications and Usage<sup>1</sup>

Ammonia N13 Injection is indicated for diagnostic Positron Emission Tomography (PET) imaging of the myocardium under rest or pharmacologic stress conditions to evaluate myocardial perfusion in patients with suspected or existing coronary artery disease.

#### **For full prescribing information:**

<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=61e196ba-3812-4ffd-8032-12b215378fef>

**Sites are encouraged to report any negative side effects of prescription drugs to the FDA.**

**Visit:** <https://www.fda.gov/safety/medwatch-fda-safety-information-and-adverse-event-reporting-program> or call **1-800-FDA-1088**

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