

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**INCORRECT ACUTE STROKE
DIAGNOSIS CODES SUBMITTED BY
TRADITIONAL MEDICARE PROVIDERS
RESULTED IN MILLIONS OF DOLLARS
IN INCREASED PAYMENTS
TO MEDICARE ADVANTAGE
ORGANIZATIONS**

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Office of Inspector General

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Report in Brief

Date: September 2020

Report No. A-07-17-01176

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
OFFICE OF INSPECTOR GENERAL



Why OIG Did This Audit

This audit involved individuals eligible for Medicare who were covered under traditional Medicare in one year but chose to enroll in Medicare Advantage (MA) the following year (transferred enrollees). The Centers for Medicare & Medicaid Services (CMS) maps certain diagnosis codes into Hierarchical Condition Categories (HCCs). For transferred enrollees who, while covered under traditional Medicare, receive a diagnosis that maps to an HCC, CMS makes higher payments to MA organizations for the following year.

Through data mining and discussions with medical professionals, we have identified several diagnosis codes that were at high risk of being miscoded and resulting in inaccurate payments. For this audit, we focused only on selected acute stroke diagnosis codes (which map to the Ischemic or Unspecified Stroke HCC) that were reported on one physician's claim without being reported on a corresponding inpatient claim.

Our objective was to determine whether selected acute stroke diagnosis codes submitted by physicians under traditional Medicare that CMS later used to make payments to MA organizations on behalf of transferred enrollees complied with Federal requirements.

How OIG Did This Audit

We reviewed 582 of 8,437 transferred enrollees (that we selected with a stratified random sample) who received one instance of a high-risk acute stroke diagnosis code during 2014 or 2015. We had reviews performed to determine whether the medical records supported the submitted diagnosis codes. We relied on these reviews as the basis for our conclusions.

Incorrect Acute Stroke Diagnosis Codes Submitted by Traditional Medicare Providers Resulted in Millions of Dollars in Increased Payments to Medicare Advantage Organizations

What OIG Found

Almost all of the selected acute stroke diagnosis codes that physicians submitted to CMS under traditional Medicare and that CMS later used to make payments to MA organizations for 2015 or 2016 on behalf of the 582 transferred enrollees did not comply with Federal requirements. For 580 of the transferred enrollees, the medical records did not support the acute stroke diagnosis codes. Thus, the Ischemic or Unspecified Stroke HCCs were not validated.

These errors originated from physicians submitting incorrect acute stroke diagnosis codes on claims billed under traditional Medicare. However, these errors were unnoticed and caused inaccurate payments in MA because CMS did not have policies and procedures to (1) identify beneficiaries who transferred from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare on their behalf complied with Federal requirements. As a result, we estimated that CMS made inaccurate payments of just over \$14.4 million to MA organizations.

What OIG Recommends and CMS Comments

We recommend that CMS (1) educate physicians on how to correctly submit acute stroke diagnosis codes and how these diagnosis codes may impact the MA program, and (2) develop and implement policies and procedures to identify beneficiaries transferring from traditional Medicare to MA and evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare comply with Federal requirements.

CMS concurred with our recommendations and described actions that it had taken or planned to take to address them. Specifically, CMS stated that it would continue to educate physicians on how to correctly submit acute stroke diagnosis codes, including updated information on how these codes may impact the MA program. CMS also stated that although our findings account for less than 0.5 percent of all transferred enrollees, it would review its existing policies and procedures to evaluate whether any further clarification is needed with regards to acute stroke diagnoses.

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INTRODUCTION

WHY WE DID THIS AUDIT

Individuals who are eligible for Medicare can annually choose to receive coverage through either the traditional Medicare program or the Medicare Advantage (MA) program.¹ Individuals who choose MA after receiving coverage through traditional Medicare (transferred enrollees) present payment risks to the Centers for Medicare & Medicaid Services (CMS) because of the way each program is structured. Specifically, CMS uses diagnosis codes that transferred enrollees received while they were covered under traditional Medicare to calculate the payment amounts made to MA organizations on their behalf for the following year.²

CMS makes higher payments to MA organizations for transferred enrollees who received specific diagnosis codes. Through data mining and by considering discussions with medical professionals, we have identified several diagnosis codes that are at high risk for inaccurate payments. For this audit, we focused only on selected acute stroke diagnosis codes that were reported on one physician's claim without being reported on a corresponding hospital claim. In these instances, a diagnosis of history of stroke (which does not cause higher payments) typically should have been used.

OBJECTIVE

Our objective was to determine whether selected acute stroke diagnosis codes submitted by physicians under traditional Medicare that CMS later used to make payments to MA organizations on behalf of transferred enrollees complied with Federal requirements.

BACKGROUND

Traditional Medicare and the Medicare Advantage Program

The Medicare program provides health insurance coverage to individuals aged 65 and over, individuals with disabilities, and individuals with end-stage renal disease. CMS administers the program. Individuals can choose to receive coverage either through the traditional Medicare program or through the MA program.

For individuals who receive coverage under the traditional Medicare program, payments for medical services are not made until after the service has been performed (i.e., on a fee-for-

¹ In 2014 and 2015, a combined 1.9 million individuals transferred from traditional Medicare into MA, effective the following year.

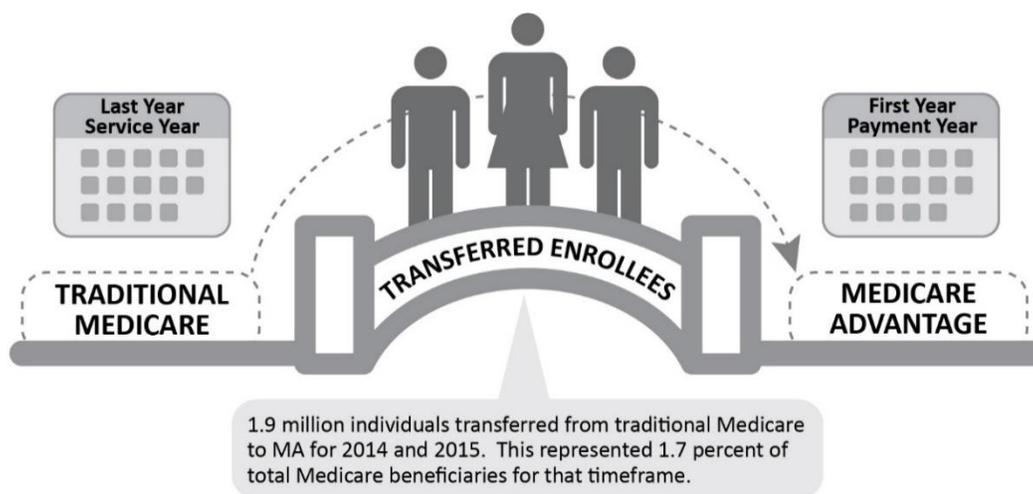
² Physicians code diagnoses using the *International Classification of Disease (ICD), Clinical Modification (CM), Official Guidelines for Coding and Reporting (ICD Coding Guidelines)*. The ICD is a coding system that is used by physicians and other health care providers to classify and code all diagnoses, symptoms, and procedures. Effective October 1, 2015, CMS transitioned from the 9th revision of the ICD Coding Guidelines (ICD-9-CM) to the 10th revision (ICD-10-CM). Each revision has different diagnosis code sets.

service basis) and a claim has been submitted to CMS for payment. CMS contracts with Medicare administrative contractors (MACs) to process and pay these claims, which include inpatient, outpatient, and physician services. For physicians' claims, the MACs make these payments according to established rates for the services that the physicians perform;³ diagnosis codes generally have no bearing on these payment amounts.

For individuals who receive coverage under the MA program (enrollees), CMS makes advance payments on a risk-adjusted basis to MA organizations each month for the expected costs of providing health care coverage to their enrollees. CMS contracts with MA organizations, which in turn contract with physicians to provide health care services.

All individuals who are eligible for Medicare have the option to change their coverage annually. For example, an individual who is covered by traditional Medicare in one year may transfer to MA for the following year. In 2014 and 2015, a combined 1.9 million individuals who had been covered by traditional Medicare opted out of that coverage and enrolled in MA, with each transfer taking effect the following year. The 1.9 million individuals represented 1.7 percent of the total population of all Medicare beneficiaries for that timeframe. (See Figure 1.)

Figure 1: Individuals Transferring From Traditional Medicare to Medicare Advantage*



* We discuss the associated terms “service year” and “payment year” in the next section of this report.

³ Physician services are paid according to the Medicare Physician Fee Schedule, which is a complete listing of fees used by Medicare to pay physicians for furnished services (*Medicare Claims Processing Manual*, Pub. 100-04, chapter 12, § 20).

Payments to Medicare Advantage Organizations Made Under the Risk-Adjustment Program

Principal Components Used To Calculate the Risk-Adjustment Payment

Federal requirements mandate that payments to MA organizations be based on the anticipated cost of providing Medicare benefits to a given enrollee and, in doing so, also account for variations in the demographic characteristics and health status of each enrollee.⁴

CMS uses two principal components to calculate the risk-adjusted payment that it will make to an MA organization for an enrollee—a base rate that CMS sets using bid amounts received from the MA organization and the risk score for that enrollee. These are described as follows:

- *Base rate:* Before the start of each year, each MA organization submits bids to CMS that reflect the MA organization’s estimate of the monthly revenue required to cover an enrollee with an average risk profile.⁵ CMS (1) evaluates each bid to determine whether the amounts are within acceptable ranges, and (2) compares each bid to a specific benchmark amount for each geographic area. This process results in establishing the base rate that the MA organization is paid for each of its enrollees.⁶
- *Risk score:* A risk score is a relative measure that reflects the additional or reduced costs that each enrollee is expected to incur compared with the costs incurred by an average enrollee. CMS calculates risk scores based on an enrollee’s health status (discussed below) and demographic characteristics (such as the enrollee’s age and sex). This process results in an individualized risk score for each enrollee that CMS calculates annually.

Determination of Enrollee Health Status

To determine an MA enrollee’s health status when calculating the risk score, CMS uses diagnosis codes that the enrollee receives on claims from face-to-face encounters with a physician (in an inpatient, outpatient, or office setting). In this process:

- For enrollees who remain in MA from 1 year to the next, the MA organizations submit these diagnosis codes directly to CMS.
- For transferred enrollees, CMS obtains diagnosis codes directly from claims that inpatient hospitals, outpatient hospitals, and physicians submit to the MACs for

⁴ Sections 1853(a)(1)(C) and (a)(3) of the Social Security Act (the Act); 42 CFR § 422.308(c).

⁵ The Act § 1854(a)(6); 42 CFR § 422.254.

⁶ CMS’s bid-benchmark comparison also determines whether the MA organization must offer supplemental benefits or must charge a basic beneficiary premium for the benefits.

payment under traditional Medicare. For this report, we refer to each instance of this process as a submission to CMS.

CMS then maps certain diagnosis codes, on the basis of similar clinical characteristics and severity and cost implications, into Hierarchical Condition Categories (HCCs).⁷ Each HCC has a factor (which is a numerical value) assigned to it that CMS uses in each enrollee's risk score.

The risk-adjustment program is prospective; CMS uses the diagnosis codes that the enrollee received for 1 year (known as the service year) to determine HCCs and calculate risk scores for the following year (known as the payment year). Thus, an enrollee's annual risk score does not change for the year in which a diagnosis is made. Instead, the risk score changes for the year after the diagnosis has been made.

For transferred enrollees, the diagnosis codes for the service year are submitted by physicians under traditional Medicare. In the following year (payment year), CMS uses these diagnosis codes to calculate risk scores and payments to MA organizations. For future years, the risk scores for transferred enrollees who remain enrolled in MA after their first year of enrollment are calculated primarily on the basis of diagnosis codes submitted by MA organizations.

The risk score calculation is an additive process: As HCC factors accumulate, an MA enrollee's risk score increases, and the monthly risk-adjusted payment to the MA organization also increases. In this way, the risk-adjustment program compensates MA organizations for the additional risk of providing coverage to enrollees who are expected to require more health care resources.

Acute Stroke Diagnoses at High Risk of Being Miscalculated

Using data mining techniques and after discussions with medical professionals, we identified specific acute stroke diagnosis codes that, when reported on a single physician's claim without being reported on a corresponding inpatient hospital claim, were at high risk of being miscoded. Because these specific diagnosis codes map to the HCC for Ischemic or Unspecified Stroke, CMS was at risk of making inaccurate payments to MA organizations. Typically, a diagnosis of history of stroke⁸—which does not map to an HCC—should have been used. Thus, an incorrect acute stroke diagnosis made in traditional Medicare could result in inaccurate payments if the individual transferred to MA in the following year.

⁷ CMS transitioned from one HCC payment model to another during our audit period. As part of this transition, for 2015 CMS calculated risk scores based on both payment models. CMS refers to these models as the Version 12 model and the Version 22 model, each of which has unique HCCs. For 2015, CMS combined the two, separate risk scores into a single risk score that it used to calculate a risk-adjusted payment. For 2016, CMS calculated risk scores based on the Version 22 model.

⁸ A history of stroke diagnosis is defined as a personal history of transient ischemic attack and cerebral infarction without residual deficits.

HOW WE CONDUCTED THIS AUDIT

Our audit focused on transferred enrollees for whom physicians documented high-risk acute stroke diagnosis codes during the 2014 or 2015 service year. We identified 8,437 transferred enrollees on whose behalf CMS made payments totaling just under \$107.4 million to MA organizations; of this amount, approximately \$16.3 million was directly related to the HCC for Ischemic or Unspecified Stroke.

We selected for review a stratified random sample of 607 transferred enrollees on whose behalf CMS made payments totaling just over \$8 million to MA organizations. We limited our review to the portions of the payments directly related to the HCC for Ischemic or Unspecified Stroke, which totaled approximately \$1.3 million.

Each of the 607 sampled transferred enrollees had only 1 physician's claim with an acute stroke diagnosis code. We asked the billing entity associated with each physician's claim to provide us with the medical records for that claim and to determine whether the selected acute stroke diagnosis code submitted to CMS complied with ICD Coding Guidelines. (We refer to this review as a coding review.) For 25 of the 607 sampled transferred enrollees, either the billing entity did not respond to our request (18 instances) or the billing entity stated that it could not find the medical records (7 instances). Because we were unable to determine the accuracy of these acute stroke diagnosis codes, and because we are estimating inaccurate payments made to MA organizations based on the accuracy of reviewed diagnosis codes, we excluded the 25 transferred enrollees from our review.

The billing entities sent to us the results of their coding reviews, and we relied on the results of the reviews for 504 of the remaining 582 sampled transferred enrollees to make our determinations. However, for 78 of the sampled transferred enrollees, either (1) the billing entity sent us a copy of the medical records but declined to perform a coding review, or (2) we disagreed with or did not understand how the billing entity applied the ICD Coding Guidelines. For these reasons, we used an independent medical review contractor to perform a coding review of the medical records for these 78 transferred enrollees to determine whether the records supported the acute stroke diagnosis codes.

In some instances, either the billing entity or the medical review contractor stated that an additional diagnosis code should have been included but was not included on the claim submitted to CMS. If the reviewer indicated that the additional diagnosis code—instead of the acute stroke diagnosis code—should have been submitted to CMS, we included the financial impact of the resulting HCC (if any) in our calculation of inaccurate payments.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix A contains the details of our audit scope and methodology, Appendix B contains our statistical sampling and mathematical calculation methodology, and Appendix C contains our sample results and estimates.

FINDING

Almost all of the selected acute stroke diagnosis codes that physicians submitted to CMS under traditional Medicare—codes that CMS later used to make payments to MA organizations on behalf of the 582 reviewed transferred enrollees—did not comply with Federal requirements.

For 2 of the 582 transferred enrollees, the medical record documentation supported the submitted acute stroke diagnosis codes. For the remaining 580 transferred enrollees, the medical records did not support the acute stroke diagnosis codes that the physicians submitted to CMS; accordingly, the HCCs for Ischemic or Unspecified Stroke were not validated, which resulted in inaccurate payments. On the basis of our findings, we estimated that CMS made inaccurate payments of just over \$14.4 million to MA organizations for 2015 and 2016.⁹

These errors originated from physicians submitting incorrect acute stroke diagnosis codes on claims billed under traditional Medicare. However, these errors were unnoticed and caused inaccurate payments in MA because CMS did not have policies and procedures to (1) identify beneficiaries transferring from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare complied with Federal requirements.

FEDERAL REQUIREMENTS

Payments to MA organizations are adjusted for risk factors, including the health status of each enrollee (the Act § 1853(a)).

For transferred enrollees, CMS calculates risk scores, in part, on the basis of diagnosis codes submitted by physicians while those individuals were covered under traditional Medicare (42 CFR § 422.310(c)(i) and *Medicare Managed Care Manual*, Pub. No. 100-16, chapter 7, § 110). Under traditional Medicare, CMS requires that claims for services furnished by physicians include the correct diagnosis code and that physicians comply with the ICD Coding Guidelines (42 U.S.C. § 1395u(p)(1) and *Medicare Claims Processing Manual*, Pub. No. 100-04, chapter 23, § 10.5).

In traditional Medicare, CMS uses MACs to process and pay Medicare claims submitted by physicians. In this regard, through its guidance CMS has instructed MACs to ensure that physician claims contain accurate ICD diagnosis codes but not to expend resources analyzing compliance with Medicare rules that do not affect Medicare payment. As an example, MACs ensure that physicians list accurate diagnosis codes on a claim; however, MACs would not

⁹ The exact amount of the estimated financial impact was \$14,417,533.

necessarily perform an analysis as to whether the correct diagnosis codes were listed (*Medicare Program Integrity Manual*, Pub. No. 100-08, chapter 3, § 3.1 and 3.4.1.3).

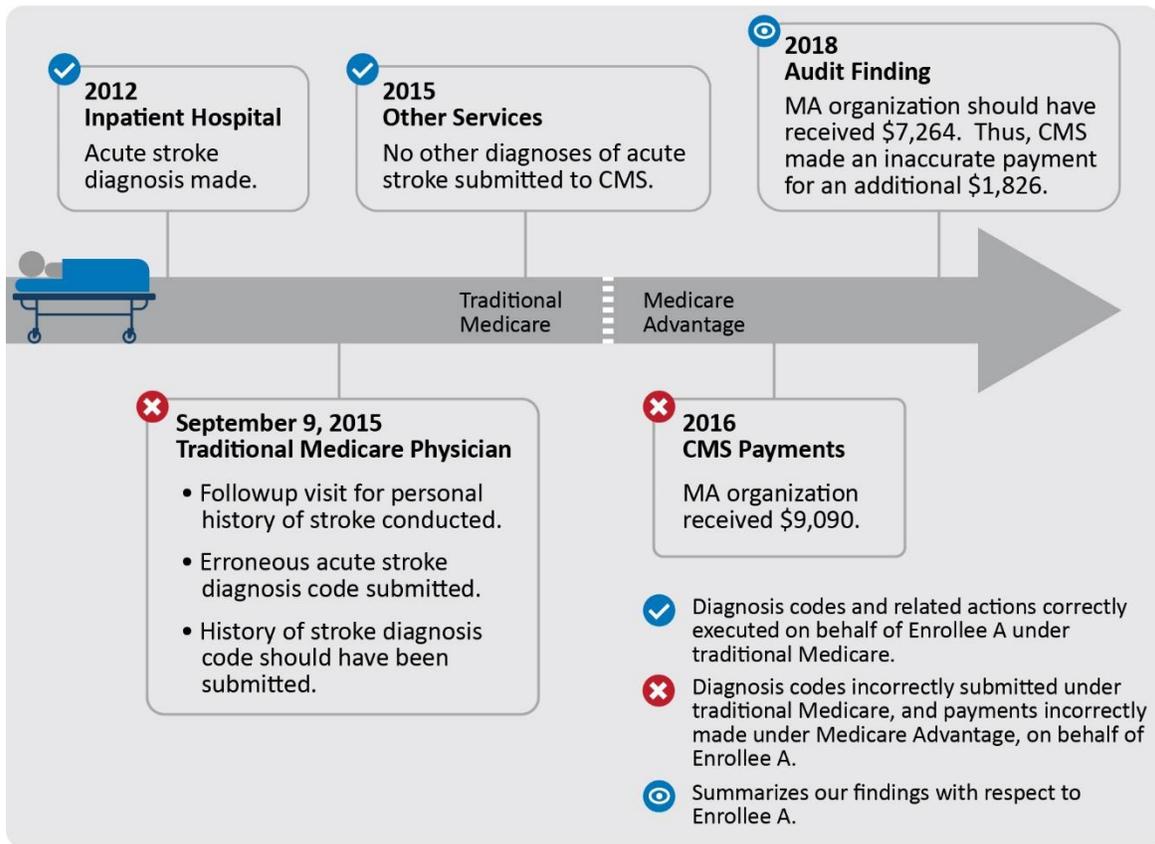
ALMOST ALL OF THE ACUTE STROKE DIAGNOSIS CODES THAT WE REVIEWED DID NOT COMPLY WITH FEDERAL REQUIREMENTS

For 2 of the 582 reviewed transferred enrollees, the medical records supported the selected acute stroke diagnosis codes that physicians submitted to CMS under traditional Medicare. CMS later used these codes to make payments to MA organizations. For the remaining 580 reviewed transferred enrollees, the selected acute stroke diagnosis codes did not comply with Federal requirements. Specifically, the medical records did not support the acute stroke diagnosis codes that the physicians submitted to CMS. Thus, the HCCs for Ischemic or Unspecified Stroke were not validated and should not have been used in the transferred enrollees' risk scores. For 285 of these instances, the billing entities determined that a history of stroke diagnosis should have been documented.

These errors caused inaccurate payments from CMS to the MA organizations.¹⁰ For example, as shown in Figure 2 on the following page, transferred enrollee A received an acute stroke diagnosis on an inpatient hospital claim in 2012. Then on September 9, 2015, enrollee A was seen during an office visit for his history of stroke and other conditions. However, he received an acute stroke diagnosis on the accompanying physician's claim. Enrollee A was a traditional Medicare beneficiary in 2015 and transferred to MA for 2016. In 2018, after we contacted the billing entity about this 2015 followup visit, the entity explained to us that an erroneous acute stroke diagnosis code, instead of the correct history of stroke diagnosis code, had been submitted to CMS. A history of stroke diagnosis code does not map to an HCC; therefore, the incorrect acute stroke diagnosis code resulted in an incorrect payment of \$1,826 from CMS to the MA organization for transferred enrollee A.

¹⁰ For 16 of the 580 transferred enrollees, the medical records supported diagnosis codes that the physicians should have submitted but did not submit to CMS (instead of the selected acute stroke diagnosis codes). In these instances, the diagnosis codes mapped to the HCC for Hemiplegia/Hemiparesis (15 instances) or the HCC for Monoplegia, Other Paralytic Syndromes (1 instance). These errors caused underpayments (which we incorporated into our calculation of inaccurate payments) from CMS to the MA organizations.

**Figure 2: Transferred Enrollee A,
Who Should Have Received a History of Stroke Diagnosis Code**



CMS DID NOT HAVE POLICIES AND PROCEDURES TO ENSURE COMPLIANCE WITH FEDERAL REQUIREMENTS FOR ACUTE STROKE DIAGNOSIS CODES THAT PHYSICIANS SUBMITTED UNDER TRADITIONAL MEDICARE FOR TRANSFERRED ENROLLEES

These errors originated from physicians submitting incorrect acute stroke diagnosis codes on claims billed under traditional Medicare. However, these errors were unnoticed and caused inaccurate payments in MA because CMS did not have policies and procedures to (1) identify beneficiaries transferring from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare complied with Federal requirements.

CMS has policies and procedures that separately address payment accuracy for the traditional Medicare and MA programs. Under traditional Medicare, CMS has provided guidance to the MACs regarding the submission, processing, and payment of physicians’ claims. Under MA, Federal regulations state that MA organizations must adopt and implement effective compliance programs that must include measures that detect and correct noncompliance—

such as the submission of incorrect acute stroke diagnosis codes—with CMS’s program requirements.¹¹

CMS has not established oversight provisions for beneficiaries transferring from traditional Medicare to MA. Such oversight provisions would involve the identification of transferred enrollees and evaluation of potentially incorrect diagnosis codes that could cause inaccurate payments. Instead:

- CMS has instructed the MACs to expend resources analyzing compliance with Medicare rules that affect Medicare payment. According to one MAC official, MACs generally perform reviews to determine whether “the [medical record] documentation supports the medical necessity” of the applicable service. These reviews can result in adjustments to the amounts paid to physicians. Incorrect diagnosis codes reported on physicians’ claims often have no bearing on the amount of payment. The MAC official also said that “diagnosis codes are considered during [these reviews] but the primary focus of the medical review is not centered on the correctness of the diagnosis code billing.” Because CMS has not directed the MACs to make the accuracy of diagnosis codes a primary focus of their reviews, physicians are not sufficiently educated on the importance of submitting accurate acute stroke diagnosis codes.
- CMS has required that MA organizations ensure the accuracy and integrity of risk adjustment data submitted to CMS.¹² With respect to diagnosis codes, CMS requires that MA organizations review only the diagnosis codes that physicians submit to them and that they subsequently submit to CMS. The *Medicare Managed Care Manual* does not discuss a requirement for MA organizations to determine the accuracy of diagnosis codes that physicians previously submitted (under traditional Medicare) to CMS for transferred enrollees.

In summary, CMS has policies and procedures to ensure the accuracy of payments made under traditional Medicare and MA. CMS has not developed similar policies and procedures to (1) identify beneficiaries transferring from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare comply with Federal requirements.

¹¹ These measures must prevent, detect, and correct noncompliance with CMS’s program requirements. Further, the Federal requirements mandate that the MA organizations establish and implement an effective system for routine monitoring and identification of compliance risks (42 CFR § 422.503(b)(4)(vi)).

¹² *Medicare Managed Care Manual*, Pub. No. 100-16, chapter 7, section 40.

THE MISCODED ACUTE STROKE DIAGNOSES FOR TRANSFERRED ENROLLEES RESULTED IN AN ESTIMATED \$14.4 MILLION IN INACCURATE PAYMENTS TO MEDICARE ADVANTAGE ORGANIZATIONS

The MA organizations received \$1,152,883 in inaccurate payments for the 607 sampled transferred enrollees (Appendix C). On the basis of our sample results, we estimated that CMS made an estimated \$14.4 million in inaccurate payments to MA organizations for which the portions of the payments related to the HCCs for Ischemic or Unspecified Stroke for 2015 and 2016 were not supported. The MA organizations do not always have access to the medical records for services that transferred enrollees received while they were in traditional Medicare. Further, CMS guidance does not discuss a requirement for MA organizations to review the accuracy of those diagnosis codes. Therefore, it is unclear whether CMS has the regulatory authority to correct any of the miscoded acute stroke diagnoses identified in our audit. For this reason, we are not recommending that CMS pursue recovery of the estimated \$14.4 million in inaccurate payments.

RECOMMENDATIONS

We recommend that the Centers for Medicare & Medicaid Services:

- educate physicians on how to correctly submit acute stroke diagnosis codes on physicians' claims and how these diagnosis codes may impact the MA program and
- develop and implement policies and procedures to (1) identify beneficiaries transferring from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare comply with Federal requirements.

CMS COMMENTS

In written comments on our draft report, CMS concurred with our recommendations and described actions that it had taken or planned to take to address them. Specifically, CMS stated that it would "continue to educate physicians on how to correctly submit acute stroke diagnosis codes on physicians' claims, including updating education efforts to include information about how these diagnosis codes may impact the MA program." CMS also stated that although our findings account for less than 0.5 percent of all transferred enrollees, it would review its existing policies and procedures "to evaluate whether there needs to be any clarification with regards to this [acute stroke] diagnosis."

CMS also provided separate technical comments, which we addressed as appropriate. CMS's comments, excluding technical comments, are included as Appendix D.

Lastly, after our draft report was issued, we discovered a minor error in our methodology used to calculate the payment amounts made to risk-adjusted MA organizations. We adjusted our

calculations and updated this report with the accurate payment amounts. The updated amounts reflect a less than 0.4 percent change from the amounts listed in our draft report.

APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

In the 2014 and 2015 service years, 1.9 million individuals transferred from traditional Medicare into MA effective for 2015 and 2016, respectively. For 86,252 of those transferred enrollees, CMS made increased payments to MA organizations based on physicians' submissions of diagnosis codes that mapped to the HCC for Ischemic or Unspecified Stroke.

We limited our review to 8,437 of the 86,252 transferred enrollees on whose behalf CMS made payments totaling \$108,172,309 to risk-adjusted MA organizations; of this amount, payments totaling \$16,275,916 were directly related to the HCC for Ischemic or Unspecified Stroke. Each of these 8,437 transferred enrollees:

- received only one selected acute stroke diagnosis code on a physician's claim under traditional Medicare during either the 2014 or 2015 service year (for the 2015 or 2016 payment year, respectively),
- did not receive any other diagnosis codes that mapped to the HCC for Ischemic or Unspecified Stroke for the same service year, and
- did not receive an acute stroke diagnosis code on an inpatient hospital claim for the same service year.

We selected for review a stratified random sample of 607 transferred enrollees on whose behalf CMS made payments totaling \$8,125,186 to risk-adjusted MA organizations. We limited our review to the portions of the payment directly related to the HCC for Ischemic or Unspecified Stroke, which totaled \$1,268,904.

Our audit objective did not require an understanding or assessment of the complete internal control structure of CMS, and we limited our review of internal controls to those directly related to our objective.

We performed audit work from November 2017 to June 2020.

METHODOLOGY

To accomplish our objective, we performed the following steps:

- We reviewed applicable Federal laws, regulations, and guidance.
- We discussed with CMS program officials the Federal requirements that physicians billing under traditional Medicare and MA organizations should follow when submitting diagnosis codes to CMS.

- We identified, through data mining and discussions with medical professionals at a MAC, 6 selected acute stroke diagnosis codes (3 ICD-9-CM diagnosis codes and 3 ICD-10-CM diagnosis codes) that were at high risk for noncompliance with coding guidelines. The selected diagnosis codes were as follows:
 - The selected ICD-9-CM diagnosis codes included:
 - 434.01: Cerebral thrombosis with cerebral infarction,
 - 434.11: Cerebral embolism with cerebral infarction, and
 - 434.91: Cerebral artery occlusion, unspecified with cerebral infarction.
 - The selected ICD-10-CM diagnosis codes included:
 - I6330: Cerebral infarction due to thrombosis of unspecified cerebral artery,
 - I6340: Cerebral infarction due to embolism of unspecified cerebral artery, and
 - I6350: Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery.
- We used CMS systems to identify the transferred enrollees for whom physicians submitted one of the selected acute stroke diagnosis codes. Specifically, we used extracts from the CMS:
 - National Claims History to identify transferred enrollees who received acute stroke diagnosis codes on traditional Medicare claims during the 2014 and 2015 service years,
 - Risk-Adjustment System (RAS)¹³ to identify transferred enrollees whose risk scores included the HCC for Ischemic or Unspecified Stroke, and
 - Medicare Advantage Prescription Drug system (MARx)¹⁴ to identify the total payments that CMS made to risk-adjusted MA organizations on behalf of the transferred enrollees for the 2015 and 2016 payment years.

¹³ The RAS identifies the HCCs that CMS factors into each enrollee's risk score calculation.

¹⁴ The MARx identifies the payments made to MA organizations.

- We selected for review a stratified random sample of 607 transferred enrollees. See Appendix B.
- We requested that the appropriate billing entities perform coding reviews of the medical records for the 607 transferred enrollees to determine whether the selected acute stroke diagnosis codes submitted to CMS complied with Federal requirements. For cases in which the medical records did not support the acute stroke diagnosis code, we asked the entity's staff to determine whether another diagnosis code should have been submitted to CMS.

For 25 of the sampled transferred enrollees, we could not obtain any documentation. For the other 582 sampled transferred enrollees (607–25):

- We reviewed the rationale used by the billing entities in their coding reviews to reach their conclusions and relied on the results of those reviews for 504 of the sampled transferred enrollees.
- For the remaining 78 transferred enrollees, an independent medical review contractor determined the accuracy of the acute stroke diagnosis because either (1) the billing entity sent us a copy of the medical records but declined to perform a coding review, or (2) we disagreed with or did not understand how the billing entity applied the ICD Coding Guidelines.
- The independent medical review contractor's coding review of the 78 transferred enrollees followed a specific process to determine whether there was support for the acute stroke diagnosis codes and the HCC for Ischemic or Unspecified Stroke. Under the process:
 - If the first senior coder found support for the acute stroke diagnosis code on the medical record, the HCC for Ischemic or Unspecified Stroke was considered validated.
 - If the first senior coder did not find support on the medical record, a second senior coder performed a separate review of the same medical record and then:
 - If the second senior coder also did not find support, the HCC for Ischemic or Unspecified Stroke was considered not validated.
 - If the second senior coder found support, then a physician independently reviewed the medical record to make the final determination.
 - If the first senior coder asked a physician for assistance, the physician's decision was the final determination.

- For instances in which other diagnosis codes should have been used instead of the acute stroke diagnosis code and had not been previously submitted to CMS, the HCC was considered validated as an additional HCC if either (1) both senior coders or (2) one senior coder and a physician found support in the medical record.
- We used the results of the billing entities' coding reviews and those of the independent medical review contractor's reviews to estimate the potential financial impact of inaccurate payments made by CMS to the MA organizations.
- We discussed the results of our audit with CMS officials on August 12, 2019.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

APPENDIX B: STATISTICAL SAMPLING AND MATHEMATICAL CALCULATION METHODOLOGY

SAMPLING FRAME

We identified all transferred enrollees for whom MA organizations received payments for the HCC for Ischemic or Unspecified Stroke in either the 2015 or 2016 payment years.

From this group, we eliminated those transferred enrollees who:

- received more than one of the six, selected acute stroke diagnosis codes on a physician's claim under traditional Medicare during either the 2014 or 2015 service year (for the 2015 or 2016 payment year, respectively),
- received any other diagnosis codes that mapped to the HCC for Ischemic or Unspecified Stroke for the same service year, and
- received an acute stroke diagnosis code on an inpatient hospital claim for the same service year.

After we performed these steps, there were 8,438 transferred enrollees in our finalized sampling frame.

SAMPLE UNIT

The sample unit was one transferred enrollee.

SAMPLE DESIGN

We used a stratified, random sample consisting of three strata and based on the characteristics listed below. See Table 1 on the following page:

- The first stratum consisted of 10 transferred enrollees initially selected for a probe sample to determine whether acute stroke diagnoses complied with Federal requirements.
- The second stratum consisted of 497 transferred enrollees from each billing entity that submitted 12 or more physicians' claims with an acute stroke diagnosis code on behalf of transferred enrollees (29 billing entities).
- The third stratum consisted of the 7,931 transferred enrollees who were not included in the first stratum or second stratum.

Table 1: Sample Design

Stratum	Sample Size	Number of Enrollees	Dollar Value of Frame¹⁵
1	10	10	\$17,703
2	497	497	1,059,489
3	100	7,931	15,199,018
Total	607	8,438	\$16,276,210

SOURCE OF RANDOM NUMBERS

We generated the random numbers with the Office of Inspector General (OIG), Office of Audit Services (OAS), statistical software.

METHOD FOR SELECTING SAMPLE ITEMS

We selected all 10 sample units in stratum 1 and all 497 sample units in stratum 2. We consecutively numbered the sample units within the third stratum and, after generating 100 random numbers, we selected each number’s corresponding sample unit.

ESTIMATION METHODOLOGY

We used the OIG, OAS, statistical software to calculate the point estimate and the two-sided 90-percent confidence interval of the total amount of inaccurate payments made by CMS (Appendix C).

¹⁵ The dollar totals in Tables 1 and 2 only include amounts directly related to the HCC for Ischemic or Unspecified Stroke.

APPENDIX C: SAMPLE RESULTS AND ESTIMATES

Table 2: Sample Results

Stratum	Frame Size¹⁶	Dollar Value of Frame	Sample Size	Dollar Value of Sample	Number of Sampled Transferred Enrollees With Incorrect Diagnosis Codes	Dollar Value of Inaccurate Payments for Sampled Transferred Enrollees
1	10	\$17,703	10	\$17,703	8	\$12,418
2	497	1,059,489	497	1,059,489	475	971,811
3	7,930	15,198,724	100	191,712	97	168,654
Total	8,437	\$16,275,916	607	\$1,268,904	580	\$1,152,883

**Table 3: Estimated Value of Inaccurate Payments
(Limits Calculated for 90-Percent Confidence Interval)**

Point estimate	\$14,417,533
Lower limit	\$12,929,539
Upper limit	\$15,905,526

¹⁶ When calculating our estimate, we used a frame size of 8,437, which was 1 less than the sampling frame from which we selected our sample. This reduced total excludes a single enrollee from stratum 3, which we identified in our sampling frame, who was not enrolled in a plan that fell within the scope of our audit. Although this adjustment was not necessary to ensure that our estimate was unbiased, we made this adjustment to remove any uncertainty about how we accounted for the excluded individual in our results.



Administrator

Washington, DC 20201

DATE: July 30, 2020

TO: Christi Grimm
Principal Deputy Inspector General

FROM: Seema Verma
Administrator 

SUBJECT: Office of Inspector General (OIG) Draft Report: Incorrect Acute Stroke Diagnosis Codes in Medicare Advantage (A-07-17-01176)

The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on the Office of Inspector General's (OIG) draft report regarding acute stroke diagnosis codes in Medicare Advantage (MA).

Individuals who are eligible for Medicare can annually choose to receive coverage through either the traditional Medicare program or MA. Under traditional Medicare, CMS generally makes payments to physicians for medical services after the service has been performed according to fee schedules, which is a listing of fees created and used by Medicare to pay physicians. For beneficiaries who receive coverage under the MA program, CMS makes premium payments on a risk-adjusted basis to Medicare Advantage Organizations (MAOs) each month for the expected costs of providing health care coverage to their enrollees. CMS contracts with MAOs, which in turn contract with physicians for health care services. If a beneficiary transfers from traditional Medicare to MA, CMS uses certain diagnosis codes that the enrollee received in traditional Medicare to calculate the payment amounts made to MAOs on the enrollee's behalf for the following year.

CMS has created policies and procedures, as well as provided education to physicians, to ensure that both traditional Medicare and MA payments are accurate. For example, CMS educates health care physicians on appropriate Medicare billing through various channels including the Medicare Learning Network, weekly electronic newsletters, and quarterly compliance newsletters. Under traditional Medicare, CMS has provided guidance to the Medicare Administrative Contractors (MACs) regarding the submission, processing, and payment of physicians' claims. As stated above, traditional Medicare uses a fee schedule to pay physicians for services rendered. Incorrect diagnosis codes reported on Medicare Part B claims often have no bearing on the amount of payment a physician receives when submitted through traditional Medicare. However, in certain situations, diagnosis coding can affect whether payment is made at all since it bears on medical necessity. Under MA, risk adjustment data validation (RADV) activities are conducted for the purpose of ensuring the accuracy and integrity of risk adjustment data and MA risk adjusted payments, including verifying that diagnosis codes submitted for payment by an MAO are supported by medical record documentation for an enrollee. Accurate diagnosis codes supported by medical record documentation are required in all Medicare programs.

For this report, the OIG focused on transferred enrollees for whom physicians documented high-risk acute stroke diagnosis codes during the 2014 or 2015 service year. In service years 2014 and 2015, 1.9 million beneficiaries opted out of traditional Medicare and enrolled in a MAO. CMS notes that this is only five percent of the traditional Medicare population. Within this five percent, less than 0.5 percent were related to acute stroke diagnoses. Therefore, it is important to note that the findings of OIG's report do not apply to the vast majority of payments MAOs received from CMS on behalf of MA beneficiaries.

OIG Recommendation

Educate physicians on how to correctly submit acute stroke diagnosis codes on physicians' claims and on the potential effect that these diagnosis codes have on the MA program.

CMS Response

CMS concurs with this recommendation. CMS currently provides outreach and education to physicians, including material designed specifically for physicians billing traditional Medicare. CMS will continue to educate physicians on how to correctly submit acute stroke diagnosis codes on physicians' claims, including updating education efforts to include information about how these diagnosis codes may impact the MA program.

OIG Recommendation

Develop and implement policies and procedures to (1) identify beneficiaries transferring from traditional Medicare to MA, and (2) evaluate whether the acute stroke diagnosis codes submitted under traditional Medicare comply with Federal requirements.

CMS Response

CMS concurs with this recommendation. While the OIG's findings account for less than 0.5 percent of transferred enrollees during their review, CMS will review our existing policies and procedures to evaluate whether there needs to be any clarification with regards to this diagnosis.