

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**REX HOSPITAL
INCORRECTLY BILLED MEDICARE
INPATIENT CLAIMS WITH
KWASHIORKOR**

*Inquiries about this report may be addressed to the Office of Public Affairs at
Public.Affairs@oig.hhs.gov.*



**Stephen Virbitsky
Regional Inspector General
for Audit Services**

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Office of Inspector General

<http://oig.hhs.gov>

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OFFICE OF AUDIT SERVICES FINDINGS AND OPINIONS

The designation of financial or management practices as questionable, a recommendation for the disallowance of costs incurred or claimed, and any other conclusions and recommendations in this report represent the findings and opinions of OAS. Authorized officials of the HHS operating divisions will make final determination on these matters.

Rex Hospital incorrectly billed Medicare inpatient claims with Kwashiorkor, resulting in overpayments of \$392,000 over 4 years.

INTRODUCTION

WHY WE DID THIS REVIEW

Kwashiorkor is a form of severe protein malnutrition. It generally affects children living in tropical and subtropical parts of the world during periods of famine or insufficient food supply. Cases in the United States are rare. The Medicare program provides health insurance coverage primarily to people aged 65 or older; however, for calendar years (CYs) 2010 and 2011, Medicare paid hospitals \$711 million for claims that included a diagnosis code for Kwashiorkor. Therefore, we are conducting a series of reviews of hospitals with claims that include this diagnosis code.

OBJECTIVE

Our objective was to determine whether Rex Hospital (the Hospital) complied with Medicare billing requirements for Kwashiorkor.

BACKGROUND

The Medicare Program

Medicare Part A provides inpatient hospital insurance benefits and coverage of extended care services for patients after hospital discharge. The Centers for Medicare & Medicaid Services (CMS) administers the Medicare program. CMS contracts with Medicare contractors to, among other things, process and pay claims submitted by hospitals.

Hospital Inpatient Prospective Payment System

CMS pays inpatient hospital costs at predetermined rates for patient discharges under the inpatient prospective payment system. The rates vary according to the diagnosis-related group (DRG) to which a beneficiary's stay is assigned and the severity level of the patient's diagnosis. The DRG payment is, with certain exceptions, intended to be payment in full to the hospital for all inpatient costs associated with the beneficiary's stay. The DRG and severity level are determined according to diagnoses codes established by the *International Classification of Diseases, Ninth Revision, Clinical Modification* (coding guidelines). The coding guidelines establish diagnosis code 260 for Kwashiorkor. Because Kwashiorkor is considered a high-severity diagnosis, using diagnosis code 260 may increase the DRG payment.

Rex Hospital

The Hospital, which is part of the UNC Health Care System, is a 433-bed acute-care not-for-profit hospital located in Raleigh, North Carolina. The Hospital received \$4,933,884 in Medicare payments for inpatient hospital claims that included diagnosis code 260 for

Kwashiorkor during our audit period (CYs 2010 through 2013) based on CMS’s National Claims History data.

HOW WE CONDUCTED THIS REVIEW

Our audit covered \$1,138,751 of \$4,933,884 in Medicare payments to the Hospital for 109 of the 333 inpatient hospital claims that contained diagnosis code 260 for Kwashiorkor. We did not review the remaining claims because the use of diagnosis code 260 did not change the Medicare payment. We also did not review managed care claims or claims that were under separate review. We evaluated compliance with selected Medicare billing requirements but did not use medical review to determine whether the services were medically necessary. This report does not represent an overall assessment of all claims submitted by the Hospital for Medicare reimbursement.

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.

See Appendix A for the details of our scope and methodology.

FINDING

The Hospital did not comply with Medicare requirements for billing Kwashiorkor on any of the 109 claims that we reviewed. The Hospital used diagnosis code 260 for Kwashiorkor but should have used codes for other forms of malnutrition or no malnutrition code at all. For 5 of the inpatient claims, substituting a more appropriate diagnosis code produced no change in the DRG payment amount. However, for the remaining 104 inpatient claims, the errors resulted in overpayments of \$392,399. Hospital officials attributed these errors to a lack of clarity in the coding guidelines.

FEDERAL REQUIREMENTS AND GUIDANCE

Medicare payments may not be made for items and services that “are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” (The Social Security Act (the Act), § 1862(a)(1)(A)). In addition, the Act precludes payment to any provider of services or other person without information necessary to determine the amount due the provider (§ 1833(e)).

In addition, the *Medicare Claims Processing Manual* requires providers to complete claims accurately so that Medicare contractors may process them correctly and promptly (Pub. No. 100-04, chapter 1, § 80.3.2.2).

INCORRECT USE OF THE DIAGNOSIS CODE FOR KWASHIORKOR

The Hospital did not comply with Medicare billing requirements for Kwashiorkor for any of the 109 claims that we reviewed, resulting in overpayments of \$392,399. The coding guidelines establish diagnosis code 260 for Kwashiorkor. For 5 of the inpatient claims, substituting a more appropriate diagnosis code produced no change in the DRG payment amount. However, for the remaining 104 inpatient claims, the errors resulted in overpayments of \$392,399. Hospital officials attributed these errors to a lack of clarity in the coding guidelines.

RECOMMENDATIONS

We recommend that the Hospital:

- refund to the Medicare program \$392,399 for the incorrectly coded claims and
- strengthen controls to ensure full compliance with Medicare billing requirements.

REX HOSPITAL COMMENTS and OIG RESPONSE

In written comments, the Hospital concurred with our findings for 91 of the 109 claims. For 17 claims, the Hospital said that the medical record included protein malnutrition and related factors but did not expressly state that the patients had severe protein malnutrition, nutritional marasmus or Kwashiorkor. Because the Hospital's documentation for the claims did not include a specific diagnosis of Kwashiorkor or another form of severe malnutrition, we maintain that our finding is valid.

In addition, the Hospital calculated a different overpayment amount for one claim. The Hospital said that its physician reviewer had determined that the principal diagnosis was incorrect, and that correcting the error would result in a higher DRG payment, thus reducing the overpayment. However, the scope of our review included only the malnutrition diagnosis codes. To correct other diagnosis codes, the Hospital should follow its normal claim adjustment process. The Hospital agreed to refund the entire \$392,399 overpayment amount.

The Hospital's comments are included as Appendix B. We did not include the Exhibit summaries that they provided because they contained personally identifiable information.

APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

Our audit covered \$1,138,751 in Medicare payments to the Hospital for 109 inpatient claims that contained diagnosis code 260 for Kwashiorkor during the period January 1, 2010, through December 31, 2013. We reviewed only claims for which removing the diagnosis code 260 changed the Medicare payment. We did not review managed care claims or claims that were under separate review.

We limited our review of the Hospital's internal controls to those applicable to the coding of inpatient hospital claims because our objective did not require an understanding of all internal controls over the submission and processing of claims. We evaluated compliance with selected Medicare billing requirements, but did not use medical review to determine whether the services were medically necessary. We established reasonable assurance of the authenticity and accuracy of the data obtained from the National Claims History file, but we did not assess the completeness of the file.

This report does not represent an overall assessment of all claims submitted by the Hospital for Medicare reimbursement.

We conducted our review from August through December 2014.

METHODOLOGY

To accomplish our objective, we:

- reviewed Federal laws, regulations, and guidance;
- extracted the Hospital's inpatient paid claims data from CMS's National Claims History file for the audit period;
- selected all paid claims that included the diagnosis code for Kwashiorkor (260);
- removed all managed care claims and any claims that were previously reviewed by a Recovery Audit Contractor;
- removed all claims for which removing the diagnosis code for Kwashiorkor did not change the Medicare payment;
- reviewed available data from CMS's Common Working File for the selected claims to determine whether the claims had been cancelled or adjusted;
- repriced each selected claim in order to verify that the original payment by the CMS contractor was made correctly;

- requested that the Hospital conduct its own review of the 109 claims to determine whether the diagnosis code for Kwashiorkor was used correctly;
- reviewed the medical record documentation that the Hospital provided to support other malnutrition diagnoses;
- discussed the incorrectly coded claims with Hospital officials to determine the underlying causes of noncompliance with Medicare requirements;
- substituted a corrected diagnosis code based on the documentation provided and calculated the correct payments for those claims requiring adjustments; and
- discussed the results of our review with Hospital officials.

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: REX HOSPITAL COMMENTS

December 22, 2014



Mr. Stephen Virbitsky
Regional Inspector General for Audit Services
Department of Health and Human Services
Office of Audit Services, Region III
Public Ledger Building, Suite 316
150 S. Independence Mall West
Philadelphia, PA 19106

Re: Report Number A-03-14-00008

Dear Mr. Virbitsky:

Rex Hospital, Inc. ("Rex") appreciates the opportunity to review and respond to the results of the review by the Office of the Inspector General ("OIG") of Rex's Medicare inpatient billing of claims with diagnosis code 260 (Kwashiorkor).

As you are aware, through its compliance program, Rex recently identified a need to internally review its Medicare billing for claims associated with diagnosis code 260 which had not previously been subject to review and had made substantial progress on its internal review at the time it first received notice of the OIG's audit of those claims. Rex has reconciled its spreadsheet of claims reviewed with the spreadsheet and conclusions provided by the OIG, and offers the following information to address the claims at issue.

Review of Claims

Rex understands that the OIG reviewed inpatient hospital claims filed by Rex during 2010 through 2013 and concluded that Medicare overpaid Rex for 104 of the 109 claims that included a diagnosis of Kwashiorkor.

Rex agrees with the OIG that the documentation associated with five (5) of the 109 claims includes "severe protein malnutrition." Thus, those claims were properly coded and paid.

Rex does not dispute the OIG conclusion that Medicare overpaid Rex for 86 claims totaling \$318,453.61. However, for the reasons set forth below, Rex maintains that Medicare overpaid \$341.61 for one (1) claim where an alternative principal diagnosis should have been applied and appropriately paid it for the remaining 17 claims, totaling \$73,604.03.

Documentation Supports Protein Malnutrition

The medical record documentation associated with 17 claims includes protein malnutrition and related factors but does not expressly state "severe protein malnutrition," "nutritional marasmus," or "Kwashiorkor." However, a physician reviewer concluded that the documentation associated with these 17 claims does include factors consistent with the medical literature and guidance on protein malnutrition to support a physician's diagnosis of severe protein malnutrition (diagnosis code 262), nutritional marasmus (diagnosis code 261), or Kwashiorkor (diagnosis code 260). Because diagnosis codes 261 and 262 are associated with major complications or co-morbidities ("MCCs"), like code 260, the DRGs associated with these claims would not have changed regardless of which of these three diagnosis codes was assigned. A summary of the literature and guidance supporting these conclusions is attached as Exhibit A. Medical record documentation and summaries were also submitted to support payment.

Rex coded and billed the claims subject to this review between January 1 and September 30, 2010. During that time period, the ICD-9 Index of Diseases and Tabular List led coding specialists to assign diagnosis code 260 (Kwashiorkor) when medical record documentation indicated "protein malnutrition." It is therefore Rex's view that it is appropriate to consider the totality of the documentation to determine the severity.

Documentation Supports Alternative Principal Diagnosis

Additionally, a physician reviewer concluded that one (1) claim included documentation supporting an alternative principal diagnosis of malignant neoplasm of the kidney (DRG 687). Thus, Rex removed diagnosis code 260 from this claim and recalculated the appropriate payment based on DRG 687, amounting to a revised overpayment of \$341.61. Medical record documentation and a summary were also submitted to support this revised payment.

The OIG has indicated that it is outside the scope of this review for it to change any diagnosis code other than 260 because it cannot review the claims from a medical standpoint. However, because a physician has confirmed that the documentation supports this alternative principal diagnosis and DRG, Rex maintains that it has appropriately revised and recalculated the overpayment associated with this claim.

Analysis of Corrective Action to Address Kwashiorkor Billing Errors

As stated above, Rex coded and billed the claims subject to this review between January 1 and September 30, 2010. During that time period, the ICD-9 Index of Diseases and Tabular List led coding specialists to assign

diagnosis code 260 (Kwashiorkor) when medical record documentation indicated "protein malnutrition."

As of October 1, 2010, after reviewing updated industry guidance regarding the code at issue, Rex implemented an edit in its PwC SMART coding review program to alert the coding specialist reviewing a claim's coding that assignment of diagnosis code 260 going forward would rarely be appropriate and required express documentation of "Kwashiorkor" from the physician prior to billing. This intervention has proved effective. Rex has very few collections related to billing diagnosis code 260 since September 26, 2010.

Refund

Although Rex maintains that it was properly paid for 17 of the 104 claims that the OIG concluded were overpaid, and overpaid less than the OIG has concluded with regard to one (1) additional claim, Rex intends to refund the amount of \$392,399 for all 104 claims consistent with the OIG's review and conclusions. Rex will work with the OIG and Palmetto GBA to accomplish a prompt refund.

We thank you again for the opportunity to comment. Should you have any further questions or concerns, please do not hesitate to contact me at (919) 784-6552.

Sincerely,

A black rectangular redaction box covering the signature of Lisa Lauffer.

Lisa Lauffer
Compliance Officer

Attachment

Kwashiorkor in the United States Elderly Hospital Population

Christopher Nelson, MD, Hospitalist, Rex Hospital

I have reviewed the medical records associated with 109 claims submitted by Rex Hospital for payment with diagnosis code 260 (Kwashiorkor) and concluded that 22 of those of claims contained documentation in the medical record supporting a diagnosis of Kwashiorkor. Alternatively, these records also support a diagnosis of "other severe protein-calorie malnutrition" (diagnosis code 262) or "nutritional marasmus" (diagnosis code 261). Summaries and supporting documentation are attached for each of these claims.¹ The following summarizes the evidence on which I based these determinations.

Kwashiorkor has historically been used to describe a form of severe protein malnutrition in children residing in third world countries. However, Kwashiorkor has also been identified in the elderly in the United States. According to an article published by a physician in a well respected periodical, severe malnutrition occurs in two forms, marasmus and Kwashiorkor.² The article identified the incidence of Kwashiorkor in the elderly population in this country as 20-60% of those who are hospitalized or institutionalized and 5-10% of those who live in the community. In addition, the author notes that physicians are often unaware that their elderly patients are malnourished and cites a study in which only 36% of elderly individuals in a malnourished hospital population were recognized as malnourished, only 8% received nutritional support, and none had a diagnosis of malnutrition at the time of discharge. Other studies have also demonstrated that protein-energy malnutrition is common in the elderly, with between 23-62% of hospitalized elderly patients having this condition.³

Anthropometric measurements typically relied upon to assess malnutrition in a younger population are not as reliable in the elderly and should be "interpreted carefully because an overweight state can coexist with protein-calorie malnutrition."⁴ Since aged individuals with protein calorie malnutrition can be overweight, percentage of ideal body weight and triceps skinfold thickness measurements can be misleading. Additionally, visceral protein nutriture is traditionally assessed by serum albumin and transferrin levels. However, transferrin levels may be misleadingly high in the elderly because their iron stores are generally higher regardless of nutrition status, while serum albumin levels decrease slightly with aging but remain a more reliable predictor of malnutrition in the elderly.

Given the lack of detail associated with assignment of the Kwashiorkor diagnosis code, physicians and hospital coding staff self-identified sources of guidance on identifying malnutrition and its severity level. The Merck Manual of Diagnosis and Therapy⁵ has provided such parameters since at least 2007, which Rex Hospital coding specialists have used to review medical record documentation and, when necessary, to generate queries to physicians to obtain documentation clarifying severity of a diagnosis of protein malnutrition. Since normal weight, body mass index (BMI), and serum transferrin levels are unreliable malnutrition indicators in the elderly, the Merck Manual suggests that these measurements should be carefully considered along with other information about the patient's nutritional status. Total lymphocyte count is sometimes helpful but cannot

always be obtained because it requires a calculation based on the total white blood cell count and differential, and a differential is not often ordered. The serum albumin, a more reliable measurement, is almost always measured and documented on hospitalized patients. Thus, physician, dietician, and nursing documentation of protein malnutrition in an elderly patient that takes into account the patient's albumin level in addition to anthropometric measurements, clinical examination and observations, and patient history can support a diagnosis of Kwashiorkor.

Additionally, in May 2012, ASPEN published criteria, consistent with those criteria described above, to assist providers in identifying and scoring the severity of malnutrition.⁶ If two or more of the following criteria are met, a diagnosis of malnutrition is indicated:

- 1) Insufficient energy intake;
- 2) Weight loss;
- 3) Loss of muscle mass;
- 4) Loss of subcutaneous fat;
- 5) Localized or generalized fluid accumulation that may sometimes mask weight loss; and/or
- 6) Diminished functional status as measured by handgrip strength.

The severity of the malnutrition is then defined by value ranges, such as serum albumin, within each of these parameters, depending on context (acute illness/injury, chronic illness, and social/environmental circumstances).

The attached summaries highlight these factors documented in each patient's medical record, which support the diagnosis of Kwashiorkor in each case.

¹ The medical record associated with one additional claim supported coding of a new principal diagnosis, which resulted in the same DRG following removal of diagnosis code 260. A summary and supporting documentation is also attached for this claim.

² Hoffman, N: Diet in the Elderly. Med Clin N Am 77:745, 1993.

³ Chapman, IM: Nutritional Disorders in the Elderly. Med Clin N Am 90:887, 2006.

⁴ See FN 1.

⁵ Merck Manual of Diagnosis and Therapy, 18 111 Ed. June 2007.

⁶ White, JV., et al.: Consensus Statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition). J Parenteral and Enteral Nutr. 36:275, 2012.