Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

MEDICARE'S REIMBURSEMENT FOR INTERPRETATIONS OF HOSPITAL EMERGENCY ROOM X-RAYS



JULY 1993

OFFICE OF INSPECTOR GENERAL

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Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

MEDICARE'S REIMBURSEMENT FOR INTERPRETATIONS OF HOSPITAL EMERGENCY ROOM X-RAYS



JULY 1993 OEI-02-89-01490

EXECUTIVE SUMMARY

PURPOSE

To assess the appropriateness of Medicare policy permitting reimbursement for reinterpretations of the same x-ray for emergency room (ER) cases.

BACKGROUND

In a typical case, an x-ray of a patient treated in an ER is interpreted both by the treating physician and by a radiologist. The latter reinterpretation often takes place after the patient is discharged.

This inspection evaluated the Medicare policy which allows payment to each physician for their interpretations. According to Section 2020G of the Medicare Carriers Manual (MCM) the service of the radiologist, even if performed after the patient is discharged, "... almost always constitutes patient care and, thus, would qualify as a physician's service." Medicare's reasoning is that the radiologist's reinterpretation is a specialist's evaluation and could affect the course of treatment initiated or cause a new course of treatment to begin.

The inspection consisted of a review of 356 medical records and telephone interviews with ER and radiology department directors at 18 hospitals in nine States. We also had discussions with directors of residency training programs in Emergency Medicine and with representatives of Internal Medicine and Family Practice specialties regarding training in x-ray interpretations in residency programs.

FINDINGS

X-RAY REINTERPRETATIONS BY RADIOLOGISTS DID NOT CHANGE PRESCRIBED TREATMENTS BY EMERGENCY ROOM PHYSICIANS

We were able to identify 158 cases (44 percent) in the sample of 356 cases where medical records clearly indicate that radiologists reinterpreted x-rays at least one day after patients had been discharged. We found that these reinterpretations had no effect on the treatments provided by ER physicians. No one among this group was recalled for further evaluation based upon the reinterpretations. The experience with these reinterpretations raises questions regarding Medicare's policy assumption that such a reinterpretation "almost always constitutes patient care."

Of the remaining 198 medical records in the sample, only 22 contain clear documentation that interpretations by radiologists were made available to the ER physician prior to the patient's discharge. In only one instance, in this group of 198 cases, was there documentation that the ER physician had specifically requested an interpretation by a radiologist before determining a plan of care; this, in fact, was the only such request

among all 356 sample records. The remaining 176 records do not document whether or not these interpretations occurred before or after patients were discharged. However, ER directors at the 18 sample hospitals estimate, that on the average, three-quarters of the interpretations by radiologists are performed after patients are discharged. As was the case with interpretations by radiologists after patients had been discharged, no one among this group was recalled to the hospital or referred elsewhere.

MOST PHYSICIANS WHO TREAT PATIENTS IN EMERGENCY ROOMS COME FROM THREE MEDICAL SPECIALTIES; THEY RECEIVE TRAINING IN INTERPRETING X-RAYS

Physicians specializing in Emergency Medicine, Internal Medicine and Family Practice represent 89 percent of the ER physicians in our sample. The majority of ER physicians (68 percent) specialize in Emergency Medicine. Physicians specializing in Internal Medicine represent 11 percent of sample cases; those in Family Practice represent 10 percent.

Physicians specializing in Emergency Medicine appear to receive substantial training in x-ray interpretation. We were informed by several directors of residency programs in Emergency Medicine that training in interpreting x-rays is an integral part of their residency programs. Physicians specializing in Internal Medicine and Family Practice also receive training in x-ray interpretation, according to representatives of the Accreditation Council for Graduate Medical Education's Residency Review Committee on Internal Medicine and of the Board of Family Practice.

RECOMMENDATION

In view of our finding that reinterpretations of x-rays by radiologists after patients had been discharged from emergency rooms: (1) did not result in the recall of patients; (2) did not affect the course of treatment initiated or cause a new course of treatment to begin; and (3) did not appear to constitute patient care, HCFA should:

Pay for reinterpretations of x-rays only when attending physicians specifically request a second physician's interpretation in order to render appropriate medical care before the patient is discharged. Any other reinterpretation of the attending physician's original interpretation should be treated and reimbursed as part of the hospital's quality assurance program. The HCFA should implement this recommendation through either regulation or by seeking legislation as appropriate.

We project that a minimum of \$20.4 million was paid for reinterpretations in 1990 for the 38 sampled HCPCS codes. Our projection does not take into consideration the apparently infrequent instances in which radiologists' interpretations are specifically requested by the treating physician prior to treatment.

AGENCY COMMENTS AND OIG RESPONSE

We received comments on this report from HCFA. We met with HCFA staff to discuss their comments and offer additional information. As a result, HCFA agreed to share copies of our draft report with members of the Technical Advisory Committee on National Coverage Issues which would consider the report's recommendations at its next quarterly meeting.

The HCFA noted that its current policy on emergency room x-rays is based on three assumptions: (1) reinterpretations almost always constitute patient care; (2) radiologists are recognized experts, therefore, x-rays should be read by them; and (3) the qualifications of the interpreting physician are more important than the exact timing of the interpretation in determining whether a substantive physician service has been provided. Our findings question all three assumptions and are the basis for our recommendation that a policy based on these assumptions be revised. Based upon our finding that in no case did radiologists' interpretations affect the course of treatment by the ER physician, we question whether reinterpretations "almost always constitutes patient care." We also found that other physician specialists believe they are qualified to interpret x-rays.

In its comments, the HCFA also raised several concerns, including the medical necessity of the services provided to patients in our sample and the sharing of radiologists' interpretations with attending physicians. These concerns and OIG's responses are detailed in an expanded comments and response section in the report. The complete text of HCFA's comments appears in Appendix A.

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INTRODUCTION

PURPOSE

To assess the appropriateness of Medicare policy permitting reimbursement for reinterpretations of the same x-ray for emergency room (ER) cases.

BACKGROUND

An Emergency Room Visit

An elderly man, while putting his lawn mower away, experienced chest pains, shortness of breath and dizziness, and fell heavily upon his left wrist. He was driven by his wife to the emergency room (ER) of the local hospital. While there, he was examined by an ER physician who ordered an x-ray and other tests. This physician, upon review of the x-ray film, diagnosed a simple fracture and applied a splint. Finding everything else normal, he gave instructions to the patient and discharged him.

The following day, in keeping with hospital policy, a radiologist reinterpreted the x-ray film. She prepared a report for the patient's medical record confirming the ER physician's diagnosis. Several days later, this same patient's x-ray was selected for review by a second radiologist as part of the hospital's quality assurance program.

How Medicare Pays

The fictional story above, typical of the manner in which Medicare patients receive treatment for injuries in hospital emergency rooms, would have resulted in the following claims actions.

The ER physician and the radiologist who confirmed the diagnosis would have submitted separate bills to a Medicare carrier. The radiologist would be paid for her interpretation based on a radiology fee schedule. The ER physician's bill for his services would not, however, contain a separate charge for his x-ray interpretation. This is because Medicare considers its payment for his interpretation to be part of the attending physician's overall workup and treatment of the patient (Medicare Carrier Manual Section 2020G). This same section does permit payment to the first radiologist, stating that:

... when a hospital radiologist interprets an x-ray that has already been interpreted by another physician, that interpretive service almost always constitutes patient care ... and the radiologist's findings could affect the course of treatment initiated or cause a new course of treatment to begin. The fact that the particular patient was not on the hospital premises at the time the radiologist interpreted the x-ray is not controlling in deciding whether there was a physicians service, since the patient may be recalled. If on the other hand the radiologist is interpreting the x-ray for "quality

control" purposes ... the service should be considered a hospital service reimbursable under Part A of the Medicare program.

The carrier would have paid the ER physician and the first radiologist 80 percent of Medicare's allowed charge. Both physicians would have billed the patient for Medicare's 20-percent coinsurance amount.

The hospital would have sent its bill for providing emergency room services to a Medicare intermediary. These services include such items as salaries of employees, facility maintenance, medical supplies and equipment. The intermediary's payment to the hospital would cover the costs associated with the services of the second radiologist. These services would be treated as administrative costs relating to the hospital's quality assurance program.

How much Medicare Pays

In 1990, Medicare allowed charges for all outpatient department (OPD) interpretations, including the ER, amounted to \$175 million. Medicare data does not separate charges of radiologists for interpretations of ER x-rays from their charges for other OPD interpretations. The costs hospitals incur for their quality assurance programs are not separately identified and are reimbursed as a part of the reasonable costs included in OPD cost reports.

Related Study

A study of 23,500 x-rays, conducted from October 1984 to September 1985 at George Washington University Medical Center, evaluated patient care outcomes in those instances where post-discharge radiology department interpretations differed from ER physician interpretations. As reported in the Journal of the American Medical Association, the study found an overall error rate of 1.8% (424 patients) in the accuracy of ER interpretations. There were no undesirable patient care outcomes as characterized by preventable death, permanent loss of function, suboptimal restoration, or prolonged recovery identified by delayed radiological diagnosis.

Medical Societies' Positions

The policy of the American College of Emergency Physicians is that emergency physicians should initially interpret and record the results of diagnostic studies and tests they order for which they are trained and competent to interpret. When appropriate, such interpretations should be made in consultation with other specialists. The College notes that ER physicians are entitled to charge and be reimbursed for these services.

The American College of Radiology considers the radiologist responsible for the radiological services within the hospital. This responsibility cannot be delegated to other physicians. The College feels that regardless of when the interpretation is available to the

attending physician, the radiologist's interpretation of previously interpreted ER x-rays constitutes patient care and is compensable as a physician service.

METHODOLOGY

The inspection consisted of a review of 356 medical records from 311 hospitals, telephone interviews with ER and radiology department directors at 18 hospitals in nine States and discussions with directors of programs offering residency training in Emergency Medicine. We also spoke with representatives of Internal Medicine and Family Practice specialties regarding training in x-ray interpretations in residency programs.

This study examined a random sample of cases where Medicare paid for interpretations by radiologists of x-rays on ER patients. In this report, these services are referred to as "reinterpretations," when performed after the patient was discharged from the ER. The ER cases were identified among all OPD claims by matching ER visit codes with 38 codes for x-ray interpretations occurring within five days of the ER visit. This time lapse match was established based on preinspection findings that interpretations by radiologists frequently occur after patients are discharged. The 38 procedures cover several anatomic sites: head and neck, chest, spine and pelvis, and upper and lower extremities. Thirty-six of these diagnostic procedures deal with skeletal traumas; the other two were x-rays of the chest which may or may not be related to chest injuries. The procedures were chosen because they represent x-rays commonly taken in hospital ERs. We obtained reimbursement data on the 38 codes in order to calculate projected savings.

A multi-stage sampling technique was used. The first stage of this sample used 1990 BMAD data to randomly select ten carriers, with replacement, proportionate to the total number of cases in each carrier. The second stage originally called for a minimum of 30 cases to be randomly selected from each of the ten carriers to assure adequate precision. However, pre-inspection data indicated that oversampling was necessary because many of the ER patients would not have an outpatient bill associated with every physician bill due to some ER patient admissions as inpatients. Therefore, based on our pre-inspection calculations, 73 cases were randomly selected from each of the ten carriers (730 total cases).

Outpatient records were then obtained from the 1990 Medicare Automated Data Retrieval System (MADRS) for the ten sampled carriers. These records enabled us to eliminate cases where the patient had an inpatient admission immediately following the emergency room visit. The 730 sample cases were then compared to the MADRS data. In order to allow for delays in billing information and billing errors, we decided that any outpatient department bill with a date of service within three days of the ER physician's bill was a valid match. This comparison reduced the sample to 452 cases which had a matching outpatient department bill within three days of the emergency department service. These 452 cases constituted the study sample.

We then requested medical records from the 311 hospitals where the x-rays were taken and received 404 records, for an 89 percent response rate. We did not include 48 of the

404 records in the study because either the records were incomplete (12) or the ER patients (36) had been admitted as inpatients. Hospitals also provided the medical specialty of the attending ER physician for the sample cases.

We abstracted and reviewed data from the remaining 356 medical records. This review included the frequency of patients recalled to the hospital based on radiologists' reinterpretations of x-rays and whether subsequent evaluations resulted in changes in patients' courses of treatment.

In a separate data collection activity, nine States with the largest number of OPD x-ray interpretations were identified. A purposive sample of 18 hospitals (two in each State) based on bed size was selected and their ER and radiology department directors were interviewed by telephone. Our discussions in November and December 1991 focused on (1) how often radiologists interpret x-rays before patients are discharged and how often after discharge, and (2) the frequency of recalling discharged patients for further evaluation based on these delayed reinterpretations by radiologists.

We wrote to the American College of Radiology and the American College of Emergency Physicians, asking them to designate someone who could provide their views on the respective roles of ER and radiology departments in interpretation of ER x-rays. Neither organization designated a spokesperson, but they did provide their written positions.

Lastly, discussions were held with directors of five programs offering residency training in Emergency Medicine and with representatives of national accreditation organizations for Internal Medicine and Family Practice specialties, regarding training in x-ray interpretations in residency programs.

FINDINGS

X-RAY REINTERPRETATIONS BY RADIOLOGISTS DID NOT CHANGE PRESCRIBED TREATMENTS BY EMERGENCY ROOM PHYSICIANS

All Instances Where Patients Were Clearly Discharged Before Reinterpretation Do Not Appear To Constitute Patient Care

We identified 158 cases where medical records clearly indicate that radiologists reinterpreted x-rays after patients were discharged. These reinterpretations had no effect on the treatments provided by emergency room physicians. The medical records of these 158 patients (44 percent) in the sample of 356 records, document that the reinterpretations of x-rays by radiologists occurred at least one day after patients had been discharged. No one among this group was recalled to the hospital, or referred elsewhere, for further evaluation of their condition based upon the reinterpretations by radiologists.

The experience with these reinterpretations raises questions regarding Medicare's policy assumption that such a reinterpretation "almost always constitutes patient care." Our analysis is supported by the ER directors at the 18 sample hospitals who estimate that, on the average, less than two percent of radiologists' reinterpretations result in recall of patients for further evaluation of the conditions for which they sought care.

Most Instances Where Patients Were Discharged On The Same Day As The Interpretation Were Probably Interpreted After Discharge And Appear Not To Constitute Patient Care

Of the remaining 198 medical records in the sample, only 22 contain clear documentation that interpretations by radiologists were made available to the ER physician prior to the patient's discharge. In only one instance, in this group of 198 cases, was there documentation that the ER physician had specifically requested an interpretation by a radiologist before determining a plan of care; this is the case with all 356 sample records.

The remaining 176 records indicate either that a radiologist interpreted x-rays on the same day of treatment (160), or the date of interpretation was not recorded (16). There is no indication whether or not these 176 interpretations occurred before or after the patients were discharged. However, the ER directors at the 18 sample hospitals estimate, on the average, that three-quarters of all interpretations by radiologists are performed after patients are discharged. This suggests that a majority of these 176 interpretations were probably performed post-discharge. As was the case with interpretations by radiologists clearly documented as having occurred after patients were discharged, no one among this group of 176 patients was recalled to the hospital or referred elsewhere.

MOST PHYSICIANS WHO TREAT PATIENTS IN EMERGENCY ROOMS COME FROM THREE MEDICAL SPECIALTIES; THEY RECEIVE TRAINING IN INTERPRETING X-RAYS

Physicians specializing in Emergency Medicine, Internal Medicine and Family Practice represent 89 percent of the ER physicians in our sample. The majority of ER physicians (68 percent) specialize in Emergency Medicine. Physicians specializing in Internal Medicine represent 11 percent of sample cases; those specializing in Family Practice represent 10 percent.

In response to our questions about the training that physicians in these three specialties received in x-ray interpretation in residency programs, we learned the following.

Physicians specializing in Emergency Medicine appear to receive substantial training in x-ray interpretation. Directors of five residency programs in Emergency Medicine reported that training in interpreting x-rays is an integral part of their residency programs. While each program was not structured in the same manner, training characteristically consisted of working in the radiology department for about a month, reading x-rays in the ER with trained ER physicians and attending didactic lectures on radiology.

Physicians specializing in Internal Medicine and Family Practice also receive training in x-ray interpretation. A representative of the Accreditation Council for Graduate Medical Education indicated that a typical residency in Internal Medicine consists of a three-month assignment to the ER in two- to four-week blocks over the course of three years. During these periods training in x-ray interpretation is provided by an experienced ER physician. A representative of the Board of Family Practice indicated that, while each residency program is different, it provides "ample opportunity" to learn to read x-rays. Some programs have residents assigned to the radiology department for varying amounts of time.

RECOMMENDATIONS

In view of our finding that reinterpretations of x-rays by radiologists after patients had been discharged from emergency rooms: (1) did not result in the recall of patients; (2) did not affect the course of treatment initiated or cause a new course of treatment to begin; and (3) did not appear to constitute patient care, HCFA should:

Pay for reinterpretations of x-rays only when attending physicians specifically request a second physician's interpretation in order to render appropriate medical care before the patient is discharged. Any other reinterpretation of the attending physician's original interpretation should be treated and reimbursed as part of the hospital's quality assurance program. The HCFA should implement this recommendation through either regulation or by seeking legislation as appropriate.

We project that a minimum of \$20.4 million was paid for reinterpretations in 1990 for the 38 sampled HCPCS codes. Our projection does not take into consideration the apparently infrequent instances in which radiologists' interpretations are specifically requested by the treating physician prior to treatment. Nevertheless, we consider this to be a conservative estimate due to (1) difficulties in establishing a universe of ER x-ray interpretations by radiologists encountered in drawing our sample and (2) to the fact that our projection is based on only 38 interpretation codes. It is probable that substantially more dollars are involved. During this same period Medicare allowed charges for all outpatient department interpretations, including the ER, amounted to \$175 million.

AGENCY COMMENTS AND OIG RESPONSE

We received comments on this report from HCFA. We met with HCFA staff to discuss their comments and offer additional information. As a result, HCFA agreed to share copies of our draft report with members of the Technical Advisory Committee on National Coverage Issues which would consider the report's recommendations at its next quarterly meeting. A summary of HCFA's comments and our response appears below. The complete text of HCFA's comments appears in Appendix A.

The HCFA suggests that if x-rays were not medically necessary it would be unlikely that either the ER physician or the radiologist would have identified any medical problem when reading the x-rays. Our review of medical records did not examine the medical necessity of x-rays ordered for ER patients. Rather, it focused on whether radiologists' interpretations affected patient care; in no instance did this occur regardless of patients' reasons for seeking medical attention. Our sample consisted of 164 cases (40 percent) covering diagnostic procedures of several anatomic sites which normally deal with skeletal traumas. The remaining 212 cases (60 percent) were chest x-rays of which 34 represented traumas. Regarding non-trauma chest x-rays, we reviewed a subsample of 30 cases.

Twenty-five patients came to the ER with complaints of chest pain. The remaining five patients were seen for conditions other than chest conditions; one could question the necessity of these x-rays.

The HCFA comments state that results of radiologists' interpretations possibly were forwarded to patients' attending physicians rather than to ER physicians. While this may have been the case in some instances, our review of records compared radiologists' interpretations with those of ER physicians. The fact that results may have been sent to private physicians would not alter our comparative analysis. We found that radiologists' interpretations confirmed those of ER physicians in all cases.

The HCFA also noted that its current policy is based on three assumptions: (1) reinterpretations almost always constitute patient care; (2) radiologists are recognized experts, therefore, x-rays should be read by them; and (3) the qualifications of the interpreting physician are more important than the exact timing of the interpretation in determining whether a substantive physician service has been provided. Our findings question all three assumptions and are the basis for our recommendation that a policy based on these three assumptions be revised. Based upon our finding that in no case did radiologists' interpretations affect the course of treatment by the ER physician, we question whether reinterpretations "almost always constitutes patient care." We also found that other physician specialists believe they are qualified to interpret x-rays.

The HCFA notes that our recommendation to limit coverage of radiologists' interpretations to those performed before a patient is discharged would discriminate against small- and medium-sized hospitals which do not have radiologists available 24 hours a day. We cannot respond directly to this concern, as we did not include the availability of radiologists in our study. However, we again note that no reinterpretations in our random sample resulted in a change in patient care.

The HCFA points out that it would be difficult to enforce our recommendation on a prepayment basis. We note that HCFA has overcome other prepayment difficulties by using such techniques as code modifiers and identification of referring physicians for certain services in order to make coverage determinations. The HCFA can also enforce this policy, as it does many policies, on a post-payment basis using focused medical review.

The HCFA states that our savings estimate appears to assume that Medicare would not pay ER physicians separately for interpretations if there were no payment to radiologists. This is a correct assumption. Medicare is currently paying for ER physicians' interpretations as part of the total work-up of the patient.

APPENDIX A

COMMENTS ON THE DRAFT REPORT



Memorandum

Date

From

William Toby, Jr.

Acting Administrator

Subject

Office of Inspector General (OIG) Draft Report: "Medicare's Reimbursement for Interpretations of Hospital Emergency Room X-rays," (OEI-02-89-01490)

To

Bryan B. Mitchell Principal Deputy Inspector General

We reviewed the draft inspection report which evaluates the appropriateness of Medicare reimbursement for radiologists' interpretations of x-rays which have been previously interpreted by hospital emergency room (ER) physicians.

OIG recommends that the Health Care Financing Administration (HCFA) pay for reinterpretations of x-rays only when the ER physician specifically requests a second physician's interpretation in order to render appropriate medical care to the patient before discharge. Any other reinterpretation should be treated and reimbursed as part of the hospital's quality assurance program.

HCFA defers comment on the recommendation pending OIG clarification of several concerns outlined in the attachment. Once this information is provided, we will consider presenting OIG's findings and recommendation to the HCFA Technology Advisory Committee for their evaluation and comment.

Thank you for the opportunity to review and comment on this report.

Attachment

Comments of the Health Care Financing Administration (HCFA) on the Office of Inspector General (OIG) Draft Audit Report: Medicare's Reimbursement for Interpretations of Hospital Emergency Room X-rays (OEI-02-89-01490)

Recommendation 1

HCFA should pay for reinterpretations of x-rays only when attending physicians specifically request a second physician's interpretation in order to render appropriate medical care before the patient is discharged. Any other reinterpretation of the attending physician's original interpretation should be treated and reimbursed as part of the hospital's quality assurance program. HCFA should implement this recommendation through either regulation or by seeking legislation as appropriate.

HCFA Response

HCFA defers comment on the recommendation pending receipt of OIG clarification of several concerns outlined below:

- We are concerned about whether all x-rays ordered for ER patients were medically necessary. It is not clear from the report if OIG considered this factor. If the x-rays were not needed, it is not likely that either the ER physician or the radiologist would have identified any medical problem when reading the x-rays. (See Coverage Issues Manual section 50-28 for the medical necessity guidelines that contractors are expected to apply to diagnostic procedures, such as chest x-rays, upon admission to the hospital.)
- Additionally, it is not clear if OIG examined the possibility that copies of radiologists' written interpretations were forwarded to the patients' attending physicians with offices outside of the hospital (for example, general practice physicians or orthopedists) rather than to the ER physicians who initially treated the patient. We understand that many hospitals discourage ER patients from returning to those facilities to receive the results of their x-rays after they have been discharged and that many radiologists send copies of their written interpretations directly to the attending physicians rather than the ER physicians.

Upon receipt of this additional information, we will consider presenting OIG's findings and recommendation to the HCFA Technology Advisory Committee for their evaluation and comment.

Prior to the development of the current policy in the Medicare Carrier Manual (MCM) section 2020G, Medicare paid for the most meaningful x-ray interpretation that was done for ER patients. The result was an administrative nightmare because of

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the various competing Medicare claims for payment and the difficulty in deciding which interpretation services were reasonable and necessary for the patient.

Currently, MCM section 2020G provides that "when a hospital radiologist interprets an x-ray that has already been interpreted by another physician, that interpretative service almost always constitutes patient care and, thus, would also qualify as a physician's service." The only situations in which a radiologist's interpretation of an ER x-ray is not covered under Medicare is: (1) where the ordering of the x-ray was not medically necessary in the first place, and (2) where the patient died before the interpretation was performed. This policy is based on the assumption that it is the radiologist who is the recognized medical expert in reading x-rays and that x-rays appropriately ordered for ER patients should be read by such experts. In addition, our current policy is based on the assumption that the qualifications of the interpreting physician are more important than the exact timing of the interpretation in determining whether a substantive physician service has been provided that can be billed separately under the program.

We see several limitations to OIG's recommendation. If as OIG suggests, we limit coverage of radiologists' x-ray interpretation in the ER setting to those performed before patients are discharged, such practice would discriminate against small- and medium-sized hospitals. Such hospitals do not have radiologists available 24 hours a day as is the case at large urban hospitals.

Additionally, we would like to point out that it would be difficult to enforce OIG's recommended policy on a prepayment basis since the information required to make payment (i.e., whether the interpretation of the x-ray was specifically requested by the ER physician) is not captured on the physician's billing form. Currently, the only way to determine whether the ER physician requested the specialist's reinterpretation is to look at the medical records.

Similarly, the issue of bundling electrocardiogram interpretations into medical visits was a policy change enacted by the Omnibus Budget Reconciliation Act (OBRA) of 1990. Given the controversy about that provision, particularly the disproportionate effects by specialty, it is likely to be repealed by Congress. It appears highly doubtful that we would have much success in persuading Congress to reenact a similar proposal.

Lastly, we are concerned with OIG's savings estimate of \$20 million. It appears that this projection assumes that Medicare would not pay the ER physicians for interpretations if there were no payment to the radiologist. We do not believe that the recommendation would achieve this result since it does not appear that OIG has taken into account the offsetting costs that would probably result from the demands of ER physicians for higher payments for their interpretation services. It is highly probable that ER physicians would argue that they deserve separate coverage and payment for their interpretation services if they, rather than the radiologists, are determined to be legally responsible to the hospitals and patients (as well as the Medicare program) for providing these services.

APPENDIX B

PROJECTED SAVINGS FOR 38 SAMPLED HCPCS CODES

	1990 Allowed C	1990 ER Savings		
Carrier-Sample	All X-Rays	Studied X-Rays	Projection	
FLORIDA BS	\$11,023,700	\$4,001,500	\$1,344,378	
IOWA BS	\$1,933,100	\$391,800	\$189,173	
MICHIGAN BS	\$8,339,200	\$2,739,600	\$973,721	
MASS BS FOR NH/VT	\$1,162,900	\$219,100	\$120,225	
PA BS FOR NJ	\$5,347,600	\$1,859,800	\$592,422	
PENN BS-FIRST	\$15,040,300	\$4,681,700	\$1,734,855	
PENN BS-SECOND	\$15,040,300	\$4,681,700	\$1,515,649	
EQUITABLE IDAHO	\$477,400	\$129,200	\$41,468	
NW OHIO-FIRST	\$9,422,100	\$3,034,800	\$1,322,389	
NW OHIO-SECOND	\$9,422,100	\$3,034,800	\$1,196,953	
National Total	\$174,953,900	\$53,912,000	\$20,371,162	

The projected national savings were calculated using standard statistical formulas for a two-stage cluster sample and are not the sum of the 10 samples from the carriers.

APPENDIX C

	IDENCE INTERVALS FOR AVINGS PROJECTIONS	\$20,371,162
90 % Confidence Interval	Precision	8.16%
	Lower	\$18,708,726
	Upper	\$22,033,599
95 % Confidence Interval	Precision	9.72%
	Lower	\$18,390,387
	Upper	\$22,351,938