

**UNIVERSITY OF CALIFORNIA, DAVIS
INTERNAL AUDIT SERVICES**

**University of California, Davis Health System
Electronic Matching of Hospital and Physician Charges
Internal Audit Services Project #10-52**

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MANAGEMENT SUMMARY

Background

There are two main components to patient charges, hospital charges and physician charges. These charges are billed separately, in some instances by different departments, and recorded and tracked in separate systems. Due to these factors, there is risk that one of the components of the charge may not be billed.

Purpose and Scope

The purpose of this audit was to develop a software tool that would perform an electronic comparison of hospital and physician charges to identify if any physician charges are potentially missing.

To develop the tool, Internal Audit Services (IAS) needed to obtain an understanding of the coding and billing logic. A similar review was previously performed for the Gastrointestinal (GI) Lab by personnel from Internal Medicine (IM), Patient Financial Services (PFS), and Decision Support Services (DSS). To leverage their methodology, IAS met with personnel from these respective departments. The logic that was utilized entailed comparing charge codes billed by the hospital to the codes billed by the physicians for each medical record number and date of service. Due to the inherent differences in billing rules for hospitals and physicians, it was understood an exact match was not expected for all charge codes such as for devices and supplies that are billed by the hospital but not the physician, and evaluation and management codes that are based on different criteria for the hospital and physician. However, we believed the previous effort for the GI Lab was a good baseline method for identifying potentially missing charges and utilized this logic for designing our tool. With this understanding we further refined the comparison logic by filtering out the types of charges that are not expected to have an exact match. Due to the complex nature of medical coding, it was acknowledged that any software tool would not be able to eliminate all false positive non-matches. Therefore, the Medical Services Abstracting (MSA) Unit agreed that a manual review of the output would be necessary to confirm if charges are truly missing.

Based on input from the IM Department, we piloted our review for the Cardiology Department, and more specifically to areas within Cardiology where the hospital and physician charges were being coded by two separate departments at the time of our review. The two areas selected were the Cardiac Catheterization Lab and the Electrophysiology (EPS) Lab for which the hospital charges were coded by the Heart and Vascular Center and physician charges coded by the MSA Unit. We ran a comparison for the Cardiac Catheterization and EPS Labs for encounters with dates of services from July 1, 2009 – February 28, 2010. As of July 1, 2010, the billing of hospital and physician charges has been combined for the Cardiac Catheterization and EPS labs, with the Heart and Vascular Center responsible for both sides.

Conclusion

There were a total of 1,589 encounters for the Cardiac Catheterization Lab and 517 for the EPS Lab during the period of July 1, 2009 – February 28, 2010. Because of the limitations of our electronic comparison we expected the results to contain false positives where there would not be a corresponding physician charge for each hospital charge. We asked for a coding review of our results and, based on the sample reviewed and actual realized reimbursement from accounts subsequently rebilled, we project the annual reimbursement impact of these errors to be \$120,000 for the Cardiac Catheterization Lab and \$45,000 for the EPS Lab.

Based on the missing physician charges, assessment of current quality assurance sampling, and an electronic reconciliation process that has recently been developed and is being rolled out by the MSA Unit, we are recommending that those methods be enhanced to improve physician coding and abstractor accountability. In addition, we are recommending that the MSA Unit continue to perform root cause analysis if errors are found to ensure appropriate steps are being taken to minimize recurrence of coding errors.

OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT CORRECTIVE ACTIONS

There were a total of 1,589 encounters for the Cardiac Catheterization Lab and 517 for the Electrophysiology Lab during the eight month period of July 1, 2009 – February 28, 2010. Our electronic comparison identified 821 encounters in the Cardiac Catheterization Lab as potentially missing physician charges. Because of the difficulty in eliminating false positives using an electronic match, not all of these 821 encounters will actually have missing charges. The MSA Unit reviewed 45% (368) of the 821 encounters and found that 62 of the 368 encounters reviewed actually had missing physician charges. The missed charges for the 8 month period reviewed have since been billed resulting in additional net physician fee reimbursement of approximately \$36,000. Note the additional realized reimbursement is based on only the MSA Unit's 45% sample of Internal Audit identified potentially missing charges for an 8 month period; the fully realized impact is projected to be greater. Of the 62 encounters where physician charges were missed, 50 were due to Abstractor error, 5 were the result of late documentation without notification, 3 because the original physician codes selected were incorrect, 2 were missed because the encounter was not on the census report, and 2 were missed for other miscellaneous reasons.

For the EPS Lab, our comparison identified 250 encounters as potentially missing physician charges. The MSA unit reviewed 50% (126) of these encounters. Based on this review, there were 51 encounters where physician charges were missed, of which 22 were due to Abstractor error, 17 were because the encounters were not on the census reports, 7 because the original physician codes selected were incorrect, and 5 were missed for other miscellaneous reasons. The missed charges have since been billed, resulting in additional net physician fee reimbursement of approximately \$15,000. As noted above, the additional identified reimbursement is only based on the sample reviewed and the impact is projected to be higher.

Reviews for Missing Physician Charges

Current quality assurance reviews of coders include a process to identify missing physician charges. If coders in the MSA Unit show a pass rate of 90% or greater, 40 encounters of the several thousand average they code each year (depending on the area of responsibility) are independently reviewed (10 encounters per quarter). The MSA Unit is also reviewed by the Compliance Office on a biennial basis.

In addition, an automated review has been recently developed by the Health Information Management (HIM) Department, which encompasses a monthly comparison of procedures and services with completed and signed physician notes including history and physicals, operative reports, progress notes, consultations, and discharge summaries within Epic Electronic Health Record system to the physician fee billing system. The first phase was to develop the comparison for the services billed by the MSA Unit, the second phase is to develop and share the electronic reconciliation tool with services handled outside of the MSA Unit such as the Cardiac Catheterization Lab, Electrophysiology Lab, Gastrointestinal Lab, Pulmonary Lab, and Interventional Radiology. The tool will also eventually be used to validate capture of physician charges pertaining to Inpatient Bedside procedures.

Beginning in July 2010, coding for physician and hospital charges were consolidated under one group; the billing department in the Heart and Vascular Center. Management indicates

they believe this will reduce the risk of missing charges. Employing an electronic comparison on an ongoing basis will validate this conclusion.

Earlier we indicated that some charges were missed because encounters did not appear on the census reports. Specific to the Cardiac Catheterization and EPS labs, this is no longer an issue because the Heart and Vascular Center does not rely on the census reports for identification of services to be billed. Rather, they rely on the records from their scheduling system of appointments completed and as a secondary check, their lab systems for add-on cases or overnight cases that may not have been added to the scheduling system.

Between April – June 2010, the MSA Unit implemented a computerized abstracting and coding tool called QuadraMed Quantim, which allows for custom edit checks and alerts that will identify if certain professional service charges may be missing or inaccurate. The MSA Unit has programmed some of these edit checks and continues to refine them. In addition, Quantim allows for data capture of reasons why charges were not billed, which will be utilized for reconciliation and root cause analysis.

Recommendation

Develop monitoring to ensure the completeness of physician coding and abstractor accountability. Continue to perform root cause analysis to ensure appropriate steps are being taken to minimize recurrence of coding errors. If sampling is to be used for monitoring, the cost of sampling needs to be relevant to the potential for lost revenue.

Management Corrective Actions

1. The MSA Unit will continue their efforts to develop an electronic reconciliation tool to identify and rebill missing physician charges. The first phase of the reconciliation tool which encompasses professional services billed by the MSA Unit started in January 2011 for dates of service beginning October 1, 2010 and is ongoing. The second phase which encompasses developing and sharing the electronic reconciliation tool with services handled outside of the MSA Unit such as the Cardiac Catheterization Lab, Electrophysiology Lab, Gastrointestinal Lab, Pulmonary Lab, Interventional Radiology, and Inpatient Bedside procedures will be completed by September 15, 2011, pending availability of data access and participating department support.
2. The MSA unit will continue to provide quality assessments to identify encounters not fully or completely coded. In addition the HIM automated reconciliation will be performed to identify any EMR notes without a matching charge in Signature or noted no charge in Quantim. This reconciliation started October 1, 2010 and is continuing.
3. Sampling will be used to provide a continuous assessment of coding. The MSA Unit will confer with the Compliance Office by July 15, 2011 to reassess sampling methodologies including defining appropriate sample sizes sufficient to assess coding accuracy and continue to provide feedback to coders as is currently being done. The results of this reassessment will be shared with the Abstracting and Coding Work Group no later than July 15, 2011.

4. For services coded by the MSA Unit, confirmation reports will be distributed monthly to Department Chairs indicating that all physician charges have been validated against source databases with charge capture confirmed. Exception lists of confirmed services that were not billed will be included with root cause analysis and reasons. These monthly reports will be distributed starting June, 15 2011.

5. In addition, for services coded by the MSA Unit, summary reports of identified missing physician charges with root cause analysis and reasons will be provided to the Abstracting and Coding Work Group on a quarterly basis for review. These summary reports will be distributed by August 30, 2011.