

**UNIVERSITY OF CALIFORNIA, DAVIS
AUDIT AND MANAGEMENT ADVISORY SERVICES**

**University of California, Davis Health System
Department of Pathology and Laboratory Medicine
Pathology Charge Capture
Audit and Management Advisory Services Project #16-35**

March 2016

Fieldwork Performed by:

Victoria Owens, Principal Auditor

Reviewed by:

Leslyn Kraus, Associate Director

Approved by:

Jeremiah J. Maher, Director

**University of California, Davis Health System
Department of Pathology and Laboratory Medicine
Pathology Charge Capture
Audit and Management Advisory Services Project #16-35**

MANAGEMENT SUMMARY

Background

As part of the Audit and Management Advisory Services (AMAS) audit plan for fiscal year (FY) 2016, AMAS conducted a review of charge capture in the Department of Pathology and Laboratory Medicine (Pathology).

Pathology provides clinical tests as well as professional services to all UC Davis Health System (UCDHS) entities and to other medical organizations by referral. Pathology services are an essential part of clinical care at UCDHS; in October through December of 2015, there were an average of 38.9 tests billed for each inpatient discharge, including outpatient and emergency patients. Pathology performed an average of 815,000 tests and 30,543 professional services per quarter in 2015. Pathology's charges are similarly significant. Hospital-based (HB) charges totaled \$228.7 million through February of FY2016 and professional services (PB) charges were \$10.3 million during the same period. The Pathology department encompasses a variety of types of clinical testing with 12 distinct laboratory units, and has approximately 250 FTE.

Pathology uses a legacy system, Meditech, to track PB and HB services and charges. The Electronic Medical Record system transfers an order to Meditech. Once the test is complete, Meditech feeds test results to patient records and charge data to the Epic Resolute billing system. Meditech is difficult to use or customize and is no longer supported. The system is scheduled for replacement by Beaker, an integrated Epic module, beginning in August 2017.

After the implementation of the Epic Resolute billing system in July 2014, it was necessary to change the procedure to get data from Meditech into the billing system. Pathology's charge coding and error correction efforts did not keep pace with the increased workload resulting from the change, causing a significant increase in charge lag for both HB and PB charges with associated lost revenue. In December 2014, FY2015 year-to-date charges were significantly below the totals for the same period in the previous year. PB charges trailed FY2014 by 60%, and over 53% had a greater than 21 day lag before being coded. HB charges, which need less manual coding, were 19% below FY2014 as of December 2014.

Pathology realized the dimensions of the problem in January of 2015 and took steps to address the issues associated with their charge capture process. They transferred coding functions to the Centralized Ancillary Coding Unit in Health Information Management, and increased monitoring of the Pathology staff responsible for correcting erroneous charges. The changes were immediately effective. By the end of FY2015, charges had returned to expected levels. The annual PB charges for FY2015 exceeded FY2014 by 19%, and HB monthly charges began to exceed FY2014 monthly levels in April 2015. Charge lag also was reduced. As of February 2016, 29% of PB transactions had a lag greater than 21 days.

Purpose and Scope

The objective of our review was to assess the adequacy of processes, procedures and systems now in place to monitor and ensure appropriate charging for all patient services.

To conduct the review, we interviewed key personnel from Pathology, Centralized Ancillary Coding, Patient Financial Services and UCDHS Information Technology. We also reviewed financial information and management reports from FY2015 and FY2016, identified trends and obtained additional data as needed.

A separate report for our audit of Epic Resolute Billing (AMAS Project #16-33) was issued in April 2016. This report addressed the need for reconciliation between Meditech and Epic Resolute.

Conclusion:

Pathology and Centralized Ancillary Coding efforts have returned revenue to appropriate levels, and both PB and HB charges for FY2016 to date exceed the budget. They have also decreased charge lag, improved error correction processes and increased monitoring of charge capture and financial trends. We did find opportunities to increase coordination between the Meditech contractors and Centralized Ancillary Coding, to improve the Charge Description Master and further decrease lag for hospital-based charges.

Additional information is contained in the body of this report.

I. OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT CORRECTIVE ACTIONS**A. Communication Regarding Charge Capture****Lack of communication between Meditech contractors and staff responsible for coding and correcting charges limits the opportunity to consider improvements.**

To more efficiently and effectively process charges, in March 2015, Pathology moved its charge coding responsibilities to the Centralized Ancillary Coding Unit. At the same time, it created a separate internal billing team to correct errors in HB charges in Resolute. Together, these two groups share responsibility for charge capture in Pathology.

Pathology's current laboratory information system, Meditech, is no longer supported and is due to be replaced by Epic's Beaker module starting next year. Pathology hired outside contractors to manage Meditech until it is replaced.

The contractors have little interaction with the other groups beyond what is necessary to process charges in Meditech, and are not familiar with the complete charge cycle as it exists in Pathology. The contractors were unclear on when charges are billed, stating that charges are billed when a sample is received in Meditech. Charges are recorded in Meditech when a test sample is received, but are billed in Resolute only after the test result is final. Because of the lack of interaction between the two units, the Pathology coders in Centralized Ancillary Coding have had little opportunity to discuss challenges and possible improvements with the contractors, and have instead designed procedures to work within the constraints of Meditech. As an example, Meditech limits charges per procedure to one a day. For charges that must be billed one per line, the coders must manually add up units of service for the Meditech entry and then split them back out once the charge is transferred to Resolute. This issue has not been discussed with the current Meditech contractors to determine if a cost effective solution could be identified and implemented.

Pathology will use the Meditech system for at least another 18 months. If the relevant groups share their concerns and questions with the contractor, it may be possible to make processing of charges more efficient, and make the transition to Beaker less complicated.

Recommendation

- a. Pathology coders should identify the key issues in Meditech that affect efficiency and discuss them with the Meditech contractors.

Management Corrective Action

1. By October 15, 2016, Pathology coders in the Centralized Ancillary Coding unit will develop a list of the issues in Meditech they think most affect the efficiency of coding and reviewing charges.
2. By October 15, 2016, Centralized Ancillary Coding unit will send the list of key issues to the Meditech contractors with a request that the issues be reviewed for the possibility of alleviating some of the issues within Meditech. The Centralized Ancillary Coding unit staff will copy the Pathology CAOs on this communication.

3. By November 15, 2016, the Meditech contractors will respond to the Centralized Ancillary Coding unit with a determination of whether changes can be made in Meditech to improve workflow for each of the key issues. The Meditech contractors will copy the Pathology CAOs on this communication.
4. By December 15, 2016, Pathology management will review the response from the Meditech contractors and determine whether it would be cost effective or be high priority to implement any of the changes, considering the upcoming implementation of Beaker.

B. Maintenance of Charge Description Master (CDM)

The Pathology CDM includes a large number of codes that have not been used in FY2016.

Each possible test or service has a unique charge code in the CDM. Included in the Pathology CDM are 449 codes that have not been used in FY2016. More than 80% of these codes are from the Outside Labs cost center.

Pathology has a procedure for adding charge codes to the CDM for new tests or services. The procedure does not include deleting the code for a test being replaced, because the old test may still be used on occasion. Retaining unused codes unnecessarily increases the effort required to maintain the CDM, and can increase the possibility of errors.

Recommendations

- a. Pathology should regularly review its CDM for anomalies and unused charge codes.

Management Corrective Action

1. By November 15, 2016, Pathology will annually review its CDM and verify the accuracy of all codes. For any charge code that has not been used in six months, the review will include verifying with the appropriate section supervisor the necessity of retaining that charge code.
2. By November 15, 2016, Pathology will generate a monthly CDM bill code deletion request for any test inactivation in LIS that occurred one year prior. Pathology will send the CDM request to Pathology Billing to forward to Patient Financial Services and they will then delete the bill code.
3. By November 15, 2016, Pathology will revise the internal Lab Administrative Policy and Procedure # No 832.A *Periodic CPT Review and Update* to include the periodic reviews listed in 1. and 2. above.

C. HB Charge Lag**HB Charge Lag Does Not Meet UCDHS Goals.**

Pathology has established internal goals for charge lag that are not equivalent to UCDHS goals. UCDHS goals are that no more than 7.5% of inpatient charges and 24% of outpatient and emergency room charges have a lag greater than four days. These goals are used by UCDHS Finance to monitor departments' performance. The goals Pathology uses are significantly different – charge lag of two days for inpatient charges and eight days for outpatient and emergency room charges. While the Pathology goal for inpatient charge lag is stricter than the UCDHS goal, its goal for outpatient and emergency room patients is more relaxed than the UCDHS goal. Pathology has been using different criteria because of a misunderstanding of the requirements and the reports available.

Pathology charge lag has decreased substantially since its high in early 2015, but average lag for both HB inpatient and outpatient charges still exceed the UCDHS goal. Increased charge lag can affect revenue, and longer periods between the order date and the billing date make it more difficult to correct any errors in a charge.

For the six-month period from October 2015 to March 2016, inpatient charge lag averaged 5.7 days, while charge lag for outpatient and emergency charges was 6.4 and 3.7 days. Pathology therefore achieved the internal goals it used for outpatient and emergency charges, but met the UCDHS goals only for emergency charges.

The time needed to get a test result varies widely among the separate units and tests in Pathology. Some Pathology units, such as Surgical Pathology, conduct tests that require long turnaround times, which increases average lag. Patients needing these longer tests most often are admitted as inpatients, keeping emergency charge lag low. In other cases, charges may be stopped in the workqueue of another unit, increasing the charge lag. UCDHS summary data reports on charge lag do not contain enough detail to determine the specific reason for or test contributing to the lag.

Recommendations

- a. Pathology should take steps to more specifically identify areas and/or tests where charge lag routinely exceeds the UCDHS goal.

Management Corrective Action

1. By September 15, 2016, Pathology will request a custom report from IT that details charge lag by CPT code and test name in addition to cost center. Pathology will request IT to use a one-month report period and provide data for the previous two months at a minimum.
2. By October 15, 2016, Pathology will review two months of the custom reports, and determine if there are particular tests whose time to result causes an unusually long charge lag.
3. By November 15, 2016, the Pathology CAOs will review the results of the custom report and determine whether the charge lag is reasonable based on the type of test, or whether procedures could be improved to be more efficient.

4. By December 15, 2016, Pathology will create a monthly charge lag monitoring report that separately measures tests with a necessarily long lag for test results.
