

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

**University of California, Davis Health System  
Epic Resolute Billing Audit  
Audit and Management Advisory Services Project #16-33**

**October 2015**

**Fieldwork Performed by:**

Anya A. Vassilieva, Principal Auditor  
Janet Cox, Senior Auditor

**Reviewed by:**

Leslyn Kraus, Associate Director

**Approved by:**

Jeremiah J. Maher, Director

**University of California Davis Health System  
Epic Resolute Billing Audit  
Audit and Management Advisory Services Project #16-33**

**MANAGEMENT SUMMARY**

**Background**

In July 2014, the UC Davis Health System (UCDHS) implemented Epic Resolute for hospital and professional fee billing. This implementation marked a significant change from the previous legacy billing systems of Invision (hospital billing) and Signature (professional billing), that were in place for two decades. During the same timeframe as the implementation of Epic Resolute, UCDHS also implemented other Epic modules including Cadence (scheduling), Prelude (registration) and ADT (admissions, discharge and transfer) that also effect the revenue cycle.

These system implementations have required substantial modifications to business processes and practices. One of the most significant changes in the Epic environment is the use of work queues (WQs). WQs are a powerful tool to assist in managing all aspects of the revenue cycle as they allow for the identification and segregation of designated transactions, accounts and/or errors for further review and resolution. If not properly managed, WQs can also present a significant risk in that items in a WQ can inadvertently be overlooked and thus unaddressed.

One of the most notable changes occurring with the implementation of Epic Resolute from a patient perspective is that they now receive one bill for hospital and professional services. A single bill is more convenient for patients, and ideally increases patient satisfaction.

For the fiscal year (FY) ended June 30, 2015 net patient revenues for UCDHS were approximately \$1.7 billion. This compares favorably to \$1.6 billion in net patient revenues for the FY ended June 30, 2014.

**Purpose and Scope**

As part of planned audits for FY16, Audit & Management Advisory Services (AMAS) conducted a review of Epic Resolute Billing. The purpose of the audit was to assess internal controls over the processes and procedures in the new Epic environment to capture and bill for hospital and professional charges. After completing preliminary work designed to focus the audit on areas of greatest risk to UCDHS, the scope of the audit was narrowed to focus on:

- Reconciliations between Epic and ancillary systems
- Deleted charges
- Work queues
- Charge master

We also included Lifeline billing in the scope of our audit at the request of UCDHS management.

To conduct our audit we reviewed management reports and system documentation; assessed applicable policies, procedures and business practices; and, interviewed key personnel from Financial Services, a sampling of clinics and hospital units, and Information Technology (IT). We reviewed accounting records from FY14 and FY15, and Epic reports containing financial and operational data from its first year of operation, FY15.

### **Conclusions**

UCDHS management and staff from all areas of the organization have worked diligently to manage the conversion and it's after effects. Initially, with the implementation of Epic Resolute and the other Epic modules, there were some adverse changes in key performance indicators such as denial rates and accounts receivable aging. These changes were not surprising given the magnitude of the transition. Huron Consulting was hired to assist management in addressing these issues, and by June 2015, improvements in key performance indicators were reported.

Our audit identified opportunities to improve business processes related to the revenue cycle, including:

- Reconciling charges transmitted between ancillary systems and Epic on a regular basis in order to ensure all charges are recorded in Epic.
- Reviewing deleted charge reports in order to facilitate the identification of any erroneous deletions, as well as provide management with the opportunity to identify procedural or systemic issues that may be resulting in charge deletions.
- Assigning all WQs to current personnel in order to help ensure they are properly monitored.
- Verifying updates to the charge master are appropriately authorized to help ensure the appropriateness of those updates.
- Addressing billing and patient service concerns with the Lifeline Program.

Additional information is contained in the body of this report.

## **OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT CORRECTIVE ACTIONS**

### **A. Reconciliations Between Ancillary Systems and Epic**

**Reconciliations between ancillary systems and Epic Resolute are not being performed by the majority of units utilizing these systems.**

The Epic charge router is used for communicating charge information from ancillary systems to the Epic Resolute billing module. The charge router is used for collecting, reviewing, modifying and routing charges to the billing module. In the event that the original charges entered in the ancillary systems do not meet the charge router rules, charges are held in an error pool or can be automatically deleted.

Based on our review of the processes for transferring charges from the ancillary systems into Epic for the business units listed below, only one of the units (Radiology Oncology) had established procedures to review and reconcile charges between the systems. The remaining units had no established processes to review and reconcile the charge capture routing, errors and deletions.

<b>Business Units</b>	<b>Ancillary Systems</b>
Radiation Oncology	Mosaiq
Trauma	TraumaOne
Pathology	Meditech
Respiratory Therapy	Clinivision

The *Epic Charge Router Reconciliation Detail Report* shows the total number of charge records captured from the ancillary system, where the charges originated and the number of records that were subsequently transferred to Epic Resolute for billing, and can serve as a starting point for reconciliations by the business units. Additional support will be needed from Information Technology (IT) by the business units to develop appropriate methods to identify and resolve instances where the number of charge records sent and received do not agree.

Without a detailed reconciliation between charges captured in the ancillary system and the charges transferred to Epic Resolute for billing, there is a risk that valid charges will not be billed.

### **Recommendations**

1. Unit managers should develop and implement procedures to ensure charges from ancillary systems are appropriately passed to the charge router in Epic Resolute and that any systemic issues are appropriately addressed.

**Management Corrective Actions**

- a. The Trauma Unit has already begun to review and reconcile charges passed between TraumaOne and Epic Resolute.
- b. Pathology will be transitioning from Meditech to Beaker (an Epic module) in 2017. In the interim, Pathology will take the following steps to ensure there are appropriate controls in place over the transmission of charge information from Meditech to Epic Resolute:
  1. Work with Navin, Haffty & Associates (the consultant managing the Meditech system) to obtain an extract of charges transmitted from Meditech to Epic in a format (i.e., not text or PDF) that can be readily compared to transactions received in Epic by June 15, 2016.
  2. Work with IT to obtain an extract of charges received in Epic during the same period covered by the extract obtained from Meditech per (1) above by June 15, 2016.
  3. Work with AMAS through a request to the AMAS Director for a small consultation to perform an initial reconciliation of 1-2 months' worth of charges passed between Meditech and Epic per (1) and (2) above by July 15, 2016.
  4. Based upon the results of the comparison performed in (3), implement procedures to review and ensure the reasonableness of charges passed between Meditech (the laboratory information system or LIS) and Epic Resolute no less than monthly, and escalate any systemic issues by September 15, 2016. Pathology will initially perform a reconciliation of the number of charges passed from Meditech and Epic via (3) above. Due to the complexity of performing the reconciliation, once a baseline reconciliation is established, Pathology will assess the risks versus benefit of utilizing key performance indicators such as revenues for common and/or costly tests to monitor each month for anomalies that indicate a need for follow-up on charges passed between the LIS and Epic Resolute.
- c. Respiratory Therapy has discontinued the use of Clinivision and is now entering charges directly into Epic.

**B. Deleted Charges****Policies, procedures and practices related to review of deleted charge reports can be improved.**

Daily charge review processes often require that charges be deleted by the billing managers, coding/abstracting unit, department/unit managers, or through the charge router automated process. These deletions are captured on the Epic Monthly Deletions reports that are available through Report2Web for Professional Billing and Hospital Billing. Currently, these reports are consolidated and contain deleted charges for all business units.

Hospital Policies and Procedures (HPP) require that manager's review deleted charges. In the outpatient setting, HPP 1205, "Outpatient Charge Submission" says it is the role of the Practice Manager to review deleted hospital and professional charge reports for appropriateness. In the inpatient setting, HPP 1919, "Medical Services Abstracting (MSA) Unit Charge Submission" also requires the unit manager review deleted charge reports. While these policies refer to reports generated in the legacy systems before the Epic implementation, the need for review of deleted charges is still applicable in the Epic environment.

Our discussions with unit managers indicates deleted charge reports are not being reviewed as required by the HPP. None of the unit managers we asked said they review deleted charge reports to provide oversight for deleted charges. Some of these managers were not aware of and/or did not have access to the deleted charge reports in Reports2Web. Other managers said they review charges deleted from their assigned Work Queues (WQs), though this does not address charges deleted in other areas of the organization that impact their business unit.

While reviewing deleted charge reports, AMAS noted instances where charges were being deleted by unit managers who would also be responsible for reviewing the deleted charge reports under current HPP, if the reviews were actually being performed.

Review of deleted charge reports can help facilitate the identification of erroneous deletions, as well as provide management with the opportunity to identify procedural or systemic issues that may be resulting in charge deletions.

### **Recommendations**

1. Update Hospital Policy and Procedures (HPP) to incorporate the current Epic environment and related deleted charge reports.
2. Ensure unit managers understand review requirements for deleted charges, and the need to maintain an appropriate separation of duties during the review.
3. Establish oversight procedures to ensure appropriate reviews of deleted charge reports are occurring as required by the updated HPP.

### **Management Corrective Actions**

- a. Financial Services will oversee revision of HPP 1205 by Clinical Operations to reflect changes resulting from Epic conversion by June 15, 2016.

- b.** Financial Services will oversee revision of HPP 1919 by Medical Services Abstracting to reflect changes resulting from Epic conversion by June 15, 2016.
- c.** The Revenue Integrity Unit of Patient Financial Services began providing deleted charges reports to UCDHS division leaders for further distribution within their units on a monthly basis in January 2016. Patient Financial Services included a communication with the reports that addressed responsibility of division leaders for ensuring deleted charge reports are reviewed, and that an appropriate separation of duties is maintained over the review process.
- d.** By June 15, 2016 Clinical Operations will establish and implement procedures for the timely review of deleted charges within the division while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.
- e.** Perioperative Services has established and implemented procedures for the timely review of deleted charges within the division while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.
- f.** By January 15, 2017 Pharmacy will establish and implement procedures for the timely review of deleted charges within the division while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.
- g.** Professional Services has established and implemented procedures for the timely review of deleted charges within the division while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.
- h.** By April 15, 2016 Health Information Management (HIM) will establish and implement procedures for the timely review of deleted charges in conjunction with Emergency Medicine while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.
- i.** By May 15, 2016 Patient Care Services will establish and implement procedures for the timely review of deleted charges within the division while ensuring: 1) an appropriate separation of duties between the deletion of charges and their subsequent review, and 2) oversight of the deleted charge review process at the division level.

## C. Work Queues

### 1. Work Queue (WQ) Ownership

#### **Opportunities exist to improve the review and maintenance of Epic WQs.**

Epic WQs are a powerful tool to assist in managing all aspects of the revenue cycle as they allow for the identification and segregation of designated transactions, accounts and/or errors for further review and resolution. WQs can be broadly categorized into: Patient WQs, Charge Review WQs, Claim Edit WQs, Insurance Follow-Up WQs and Account WQs. Responsibility for review and resolution of items in a WQ can be assigned to a particular individual or group.

WQs serve as a preventive control to minimize denials by helping to ensure errors are corrected before the related claim is submitted to a payer. WQ activity reporting is also important for monitoring productivity, and revenue cycle managers review WQs to identify and prioritize high risk and aging accounts.

Our audit identified the need to improve internal controls over WQ ownership. Review of detailed WQ reports identified WQs with owners who were former employees that had left UCDHS months prior to the audit. While these WQs did not appear to represent a significant percentage of the WQ population, there is still a risk that items needing follow-up and resolution could go unaddressed, ultimately leading to claim denials.

#### **Recommendations**

1. Institute controls to ensure WQ ownership is periodically reviewed.

#### **Management Corrective Actions**

- a. IT will develop a report that identifies any WQs assigned to former employees for distribution to the UCDHS Operations Compliance Committee on a quarterly basis by October 15, 2016. The report and actions to be taken by committee members will be discussed at the Operations Compliance Committee meetings.

## D. Charge Description Master Modifications

#### **Modifications are being made to the Charge Description Master without proper approvals.**

The Charge Description Master (CDM) is one of the critical components of the revenue management process, as it contains a comprehensive listing of hospital charges that can be billed for by UCDHS including pricing, procedure codes and revenue codes. Typically, changes to the CDM are initiated by the department or a billing unit manager. The reasons for changes to the CDM may include adding a new procedure, updating the revenue code to meet payor or regulatory requirements, or other changes driven by the claims reimbursement cycle.

HPP 1809, "Updating the Hospital Charge Description Master" states:

*"Requests for price changes must be approved by the service area manager, the appropriate associate director, or designee, or the Health System Rate Review Committee. Changes outside of approved and established mark-up polices must be approved by the Chief Financial Officer or designees: An Assistant Director of Finance."*

Our review found that departments email requests to the Systems Billing Support Analyst to update the CDM, but there is not always documentation to support review and approval of the changes by the appropriate level of management. When CDM changes are not reviewed by the responsible managers, there is an increased risk of erroneous changes being made.

### **Recommendations**

1. The Systems Billing Support Manager (Revenue Cycle) should ensure requests for updates to the CDM are appropriately authorized by responsible managers.

### **Management Corrective Actions**

- a. The Systems Billing Support Manager (Revenue Cycle) will ensure that proper management authorization for changes to the CDM is obtained and documented effective immediately.

## **E. Lifeline Program**

### **Current practices to facilitate billing for the Lifeline Program are causing operational difficulties and confusion for patients.**

UCDHS Volunteer Services unit is currently managing a "Lifeline" program serving the elderly and persons with impaired mobility to assist in cases of emergency while at home. The vendor, Philips Lifeline, provides monitors which are installed by the UCDHS Volunteer Services staff. During FY2015, the program had 260 subscribers and generated approximately \$94,000 in revenue.

Lifeline clients make payments directly to UCDHS, and UCDHS in turn pays the vendor. In the legacy billing system, separate accounts were set up for each client to track Lifeline billing. With the transition to Epic, establishing a separate account to track Lifeline billings was no longer possible. As a "workaround", Volunteer Services began establishing "dummy" appointments each month so billing could occur. The use of these "dummy" appointments creates several challenges. First, as other departments have realized that the appointments are not real in the sense that they do not require a patient visit, they cancel the appointments and billing may not occur. Second, some patients have received reminder notices for these "dummy" appointments, causing confusion and potential stress for an already vulnerable patient population.

Our review also found that a lack of separation of duties exists, in that the same person who is responsible for setting up Lifeline patient charges is also authorized to receive payments from insurance companies or clients and adjust patient accounts.

**Recommendations**

1. Volunteer Services should find an alternative means to bill for Lifeline services.
2. Volunteers Services should ensure appropriate separation of duties for billing, receipt of payments on client accounts, and making adjustments to client accounts.

**Management Corrective Actions**

- a. The Lifeline Program is being closed effective March 31, 2016.

\*\*\*\*\*