

**UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
AUDIT AND ADVISORY SERVICES**

**UCSF Health
Radiology Charge Capture & Reconciliation Review**

July 2018

University of California
San Francisco



Audit and Advisory Services

July 31, 2018

David Sostarich

Operations Director, Department of Radiology
UCSF Health

James Bennan

Vice President & Chief Operating Officer, Adult Services
UCSF Health

SUBJECT: Radiology Charge Capture & Reconciliation Review

As a planned internal audit for Fiscal year 2018, Deloitte & Touche LLP, in conjunction with Audit and Advisory Services (“A&AS”), conducted a review of charge capture and reconciliation processes for Radiology. Our services were performed in accordance with the applicable International Standards for the Professional Practice of Internal Auditing as prescribed by the Institute of Internal Auditors (the “IIA Standards”).

Our review was completed in June 2018 and the preliminary draft report was provided to department management in June 2018. Management provided us with their final comments and responses to our observations in July 2018. The observations and corrective actions have been discussed and agreed upon with department management and it is management’s responsibility to implement the corrective actions stated in the report. In accordance with the University of California audit policy, A&AS will periodically follow up to confirm that the agreed upon management corrective actions are completed within the dates specified in the final report.

This report is intended solely for the information and internal use of UCSF management and the Ethics, Compliance and Audit Board, and is not intended to be and should not be used by any other person or entity.

Sincerely,

A handwritten signature in black ink, appearing to read 'Irene McGlynn', with a horizontal line extending to the right.

Irene McGlynn
UCSF Audit & Advisory Services

EXECUTIVE SUMMARY

I. BACKGROUND

As a planned audit for Fiscal Year 2018, Audit & Advisory Services (A&AS) partnered with Deloitte & Touche LLP and conducted a Radiology Charge Capture Internal Audit at UCSF to assess the charge capture and charge reconciliation processes specific to the Radiology departments at the following locations: UCSF Imaging Center at China Basin ("China Basin"), UCSF Medical Center at Mount Zion ("Mount Zion"), UCSF Medical Center at Mission Bay ("Mission Bay"), and Parnassus Campus – Moffitt Hospital ("Parnassus").

Radiology at UCSF performs over 600,000 exams annually generating over \$110M in annual income across seven San Francisco locations (including outpatient clinics). Departments utilize Epic Radiant for imaging documentation and charge capture, with some exceptions for pharmaceuticals (Medication Administration Record) and supplies (Pyxis or Charge Router Charge Entry).

Due to the nature of the charge capture processes, there is an inherent risk that charges are inaccurate / missing which may lead to billing issues and a potential loss in revenue. This was factored into our scope and internal audit procedures performed.

II. AUDIT PURPOSE AND SCOPE

We performed an internal audit to assess the Radiology Charge Capture processes related to the UCSF Medical Center. The internal audit included a review of policies and procedures and testing of operational effectiveness of internal controls. The internal audit included both professional and technical Radiology charges, but excluded charges related to specialized Radiology service lines including but not limited to Radiation Oncology. The internal audit focused on the consistency of processes related to charge capture at various UCSF Radiology sites including China Basin, Mount Zion, Mission Bay and Parnassus.

The internal audit procedures included the following:

- Reviewed policies and procedures related to Charge Description Master ("CDM") maintenance, charge capture, and reconciliation processes specific to Radiology.
- Interviewed personnel within the organization responsible for charge capture to understand charge practices (i.e. manual and automated controls/processes).
- Assessed the current charge capture processes including the charge capture entry reconciliation process.
- Identified risks that may be present within the processes, identified and evaluated the design effectiveness of existing controls that mitigate these risks (control gaps);
- Tested charge capture controls, based on judgmentally selected sample of claims to assess the completeness and accuracy of the charge capture process; specifically, evaluated the below:
 - Evaluated whether documented services were billed.
 - Evaluated whether clinical documentation supports the code(s) selected and units billed.
 - Evaluated appropriate inclusion and/or exclusion of modifiers.

The sample selection focused on areas identified as having potential areas of concern including bills that appeared to have no supplies billed, pediatric magnetic resonance imaging (MRI), and computed tomography (CT) or MRI for epilepsy.

Work performed was limited to the specific activities and procedures described above. As such, this report is not intended to, nor can it be relied upon to provide an assessment of compliance beyond those areas specifically reviewed. Fieldwork was completed in May 2018.

III. SUMMARY

The results of the internal audit identified opportunities for UCSF to enhance the current design of internal controls relating to the charge capture process. The areas of potential improvement in the design of internal controls are briefly summarized below and discussed more thoroughly in the "Observations and Management Corrective Actions ("MCA")" section that follows:

The specific observations from this review are listed below.

1. Charges are not appropriately captured on the final bill.
2. Referring non-UCSF physicians are utilizing outdated order forms, which are available online.
3. Identified instances of inconsistent processes related to charge capture entry for Interventional Radiology supplies.
4. There is a lack of clarity in the role(s) and responsibilities for Revenue Management in Radiology.
5. Reconciliation is not part of daily department operations.

Additionally, during this review, potential opportunities for improvement were noted for enhanced process efficiency.

- No centralized electronic mailbox for scheduling exists.
- There is an opportunity to enhance communication between UCSF Radiology departments.
- Imaging ("IMG") codes may not be maintained proactively.

IV. OBSERVATIONS AND MANAGEMENT CORRECTIVE ACTIONS

A. Radiology Charge Capture & Reconciliation

No.	<u>Observation</u>	<u>Risk/Effect</u>	<u>Recommendation</u>	<u>Management Action Plans</u>
1	<p>Charges are not appropriately captured on the final bill.</p> <p>Reviewed a sample of 50 claims, 25 radiology and 25 interventional radiology, for services performed. The sample selection focused on areas identified as having potential areas of concern including bills that appeared to have no supplies billed, pediatric magnetic resonance imaging (MRI), and computed tomography (CT) or MRI for epilepsy. Noted the following discrepancies:</p> <p><u>Interventional Radiology</u></p> <ul style="list-style-type: none"> For 10 samples, there were missing supplies on the final bill, with an estimated gross charge impact of \$12,497. Supplies that were missing included: needles, dilators, and guidewires. For three samples, the final claim had included charges that were not documented in the medical record, which may lead to overcharging. The estimated gross charge impact was \$2,015. Charges that were included that should have been removed included an extra catheter and chest x-rays. <p><u>Radiology</u></p> <ul style="list-style-type: none"> For two samples, there were missing charges for services performed based on the clinical documentation, with an estimated gross charge impact of \$222. Charges that were missing included ultrasound and transcranial ultrasound charges. 	<p>If charges are not appropriately captured, there is a risk that UCSF may be overbilling or under billing payers. As such, there is a financial risk of lost revenue if charges for services that were performed are not correctly captured on the final bill.</p> <p>Additionally, there is a risk of billing for services without the appropriate documentation, which may result in future recoupment.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> Analyzing whether inaccuracies were caused by manual intervention (i.e. coders, billers, or other personnel) or by systematic malfunction. If the inaccuracies were derived by individuals (i.e. coders, billers, etc.), management should develop and provide the appropriate training to the responsible individuals. If the inaccuracies were developed from a system or interface issue, management should collaborate with the Information Technology (“IT”) department to pinpoint and resolve the issue. Review the identified claims that were inaccurately billed to identify opportunities for training and/or work flow implementation to capture missed charges. Perform a review of final claims based on a sample 	<p>Management Response: Radiology, in conjunction with Revenue Integrity, will perform a root cause analysis for the identified claims that were inaccurately billed to develop a training plan on charge capture documentation. Quarterly reviews of final claims based on a sample selection approach will be conducted.</p> <p>Responsible party: Radiology, Department Chair</p> <p>Target completion date: January 2019</p>

No.	Observation	Risk/Effect	Recommendation	Management Action Plans
	<ul style="list-style-type: none"> For one sample, there were missing supplies (i.e. contrast) on the final bill, with an estimated gross charge impact of \$835. <p>Additionally, noted opportunities to improve documentation related to charges entered. Specifically, in 11 samples, identified minor errors in charges entered, including:</p> <ul style="list-style-type: none"> Documentation was located in “Encounters” rather than “Imaging” There were typographical errors found within notes and charge descriptions (i.e. “PLEVIS” instead of “PELVIS”) Quantities were incorrectly documented (i.e. Quantity “0” instead of “100”) 		<p>selection approach on a periodic (e.g., monthly, quarterly) basis to confirm charges are appropriately supported by clinical documentation. Identify the root causes and provide the applicable trainings to the appropriate parties to mitigate future occurrences (if applicable).</p>	
2	<p>Referring non-UCSF physicians are utilizing outdated order forms, which are available online.</p> <p>Noted medical referral forms used by out-of-network providers are outdated and were last updated in 2009. The outdated referral form can be located on the Radiology department’s website. The forms do not reflect procedures currently performed at UCSF.</p> <p>Due to the outdated nature of the forms, providers are manually writing their respective order(s) in the notes section of the form. As a result, the Scheduling department is required to interpret the provider’s orders accordingly.</p>	<p>Outdated referral forms pose the risk of inefficiencies within the scheduling department. Due to the outdated form, schedulers are required to manually interpret a physician’s order, which may be interpreted inaccurately during scheduling.</p> <p>There is a risk that referrals are not legible and require manual intervention and interpretation by schedulers.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> Updating referral forms to reflect the actual services offered at UCSF. Developing a periodic (i.e. annual) process to review and/or update referral forms to reflect current Radiology services offered within the organization. Updating the UCSF Radiology website to reflect the updated Radiology order form. Additionally, providing education and/or communication to providers regarding the updated form utilized for referrals. 	<p>Management Response: Radiology will assess the referral form located on the UCSF Radiology website, and solicit feedback from Operations managers at all locations performing Radiology to determine current services being offered to be reflected on the form. Once this assessment has occurred, the form will be updated, and communication of the updated form to all providers occur.</p> <p>Responsible party: Radiology, Department Chair</p> <p>Target completion date: January 2019</p>

No.	Observation	Risk/Effect	Recommendation	Management Action Plans
3	<p>Identified instances of inconsistent processes related to charge capture entry for Radiology procedures.</p> <p>3-1 During walkthroughs of Radiology departments, noted that Interventional Radiology (“IR”) at Mission Bay is manually charging supplies utilized during a procedure. It was noted that other UCSF campuses are utilizing Pyxis to scan supply charges. Per discussion with management, the Pyxis machine was not initially configured upon initiation of IR cases at Mission Bay.</p> <p>3-2 Identified inconsistencies of processing test cancellation(s). Noted that Radiology techs can cancel appointments directly, however, noted that techs may also leave a cancelled appointment on the schedule for schedulers to address if a patient cannot proceed with the study. As a result, there may be inconsistencies in the tracking of cancelled procedures that should be rescheduled.</p> <p>3-3 Identified instances during walkthroughs in which physicians may select the incorrect order for a procedure, however, noted that Radiologists can correct the order during protocoling.</p>	<p>There is a risk that the manual process to charge supplies could result in illegible documentation, manual errors, and/or missing documentation. As such, supply charges may be lost and/or incorrectly captured which may further constrain the charge capture process and lead to a loss in revenue.</p> <p>Inconsistency of test cancellations poses the risk that schedulers may not be able to identify instances in which a patient should be rescheduled for a future appointment.</p> <p>Incorrect orders pose the risk that charges may not be captured appropriately if the Radiologist does not reconcile the order appropriately. This may lead to inappropriate charging of procedures.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Configuring the Pyxis machine at Mission Bay to include supplies utilized during IR procedures. Management should coordinate with Radiology departments from various UCSF campuses to understand the resource commitment to configure Pyxis. • Conducting training for IR techs by rotating staffing between campuses to cross-train employees on the processes to enter charges into Pyxis. • Conducting training and/or education for Radiology techs regarding the processes for cancelled procedures. 	<p>Management Response: Radiology will review other charge capture entry workflows at UCSF, including Surgery and Cardiology, to establish written, standardized policies are procedures on charge capture entry. Subsequent in-person training of Radiology techs in all modalities will be conducted on the policies and procedures.</p> <p>Responsible party: Radiology, Department Chair</p> <p>Target completion date: January 2019</p>

No.	Observation	Risk/Effect	Recommendation	Management Action Plans
4	<p>There is a lack of clarity in the role(s) and responsibilities for Revenue Management in Radiology.</p> <p>Identified gaps in oversight of revenue management processes within the Radiology department due to vacancies in staffing. At the time of fieldwork, noted that there was no designated Revenue Manager for the Radiology department. Specifically, there is no oversight over the following processes:</p> <ul style="list-style-type: none"> • Determining the cost of providing a new service and thoroughly establishing how the new service could be provided, coded (if applicable) and charged. • Monitoring of departmental revenue, including denial root cause and remediation. • Conducting departmental reviews to determine if the revenue management processes are operating efficiently, charges and order sets are appropriate, etc. <p>As a result, the above highlighted processes are occurring on an ad-hoc basis, but without true ownership and proactive leadership.</p>	<p>There is an operational risk of revenue management processes not being performed efficiently and proactively without leadership. As such, there may be opportunities regarding revenue recognition for Radiology departments.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Evaluating the feasibility of designating a Revenue Manager to oversee the revenue management processes for the Radiology department. • Evaluating the feasibility of incorporating identified processes in other roles established within the Radiology department. 	<p>Management Response: Radiology will collaborate with the Revenue Integrity Team to ensure consistency in the expectations of Radiology Revenue Management, and document the expectations in a roles and responsibility matrix.</p> <p>Responsible party: Radiology, Department Chair</p> <p>Target completion date: January 2019</p>
5	<p>Lack of consistent departmental charge reconciliation processes, including reporting to facilitate charge reconciliation processes.</p> <p>Currently, there is a lack of consistency in performing a reconciliation of patients seen against charges that are billed for Radiology departments.</p> <p>Additionally, there is an opportunity to improve reporting of key performance metrics related to the charge capture and charge entry reconciliation processes in Radiology. The Radiology departments do not receive reports that summarize key performance metrics related to charge capture, including late / denied charges.</p>	<p>Without standardized reporting to facilitate charge reconciliations within Radiology departments, there is a risk of missing or erroneous charges that are not identified by the department prior to billing.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Identifying the level of reconciliation expected by clinical department (line by line versus total volume). • Identifying an appropriate resource to perform reconciliation and provide education to identified resources and department managers. 	<p>Management Response: Radiology, in collaboration with Revenue Integrity and Department managers, will identify reconciliation needs, tools and reports to ensure that accurate charge reconciliation is occurring.</p> <p>Responsible party: Radiology, Department Chair</p> <p>Target completion date: January 2019</p>

V. OPPORTUNITIES FOR IMPROVEMENTS

No.	Observation	Risk/Effect	Recommendation
1	<p>There is no centralized electronic mailbox for scheduling.</p> <p>Currently, orders are received through fax and there is no centralized mailbox and/or mechanisms for physicians and patients to communicate via email.</p>	<p>Without a centralized electronic mailbox, there is a risk that physicians may be affected by the inability to access a fax machine to provide orders to UCSF. Additionally, there is an operational risk of inefficiencies in the receiving and/or tracking of paper faxes received in scheduling.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Creating a centralized electronic mailbox for receiving referrals / orders from physicians and/or patients. • Updating the UCSF website to reflect updated mechanisms to receive orders via electronic mailbox. • Leveraging existing technologies (i.e. RightFax) at UCSF to centralize scheduling mechanisms.
2	<p>There is an opportunity to enhance communication between UCSF Radiology departments.</p> <p>Noted that the Radiology departments at UCSF campuses do not meet periodically to discuss charge capture opportunities / best practices. Communication can be enhanced to provide education, updates on standards / best practices, and overall knowledge transfer between campuses.</p> <p>Additionally, it was noted that Radiology staff do not currently rotate campuses for educational opportunities.</p>	<p>There is a risk that Radiology departments are working in silos and are not coordinating to address best practices and lessons learned.</p> <p>Lack of coordination between Radiology departments may leave gaps / opportunities within charge capture processes.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Initiating periodic meetings between Radiology leadership to discuss opportunities, challenges, and updates related to charge capture. • Developing training materials regarding charge capture best practices, system updates, and updated standards for charge capture across Radiology procedures. • Utilizing existing meetings and/or forums to communicate charge capture opportunities. Examples of committees include: Operations Meetings, Scheduling Operations Meeting, Quality and Safety Committee).
3	<p>Imaging (“IMG”) codes may not be maintained proactively.</p> <p>IT initiates changes at the beginning of the year for code changes for modifiers, Epic All Procedures (“EAPs”), and Current Procedural Terminology (“CPTs”), as well as procedures. However, noted that the corresponding IMG codes are not consistently updated.</p>	<p>There is an operational risk of over- or under-charging if elements of a study are either bundled or broken out inaccurately.</p>	<p>Management should consider:</p> <ul style="list-style-type: none"> • Conducting a review of the IMG codes associated with the most frequently performed studies.