



**University of Texas Southwestern Medical Center
Charge Description Master Audit – University
Hospitals**

Internal Audit Report 14:08B

November 7, 2014

Table of Contents

I. Executive Summary	3
• Background/Scope and Objectives	3
• Conclusion	3
II. Detailed Observations and Action Plans Matrix	5
III. Appendices	11
• Appendix A – Risk Classifications and Definitions	11

Executive Summary – Key Improvement Opportunities

Background

The Revenue Cycle consists of several interrelated components that are necessary to ensure appropriate billing and reimbursement following the provision of patient care. One of the primary components of the Revenue Cycle includes the accuracy and maintenance of the Charge Description Master (CDM). The CDM is a fundamental part of reimbursement, as it provides many of the necessary data elements for compliant claims submission to the payors for reimbursement of services, including UB-04 revenue codes, charge or service codes, narrative charge descriptions, Healthcare Common Procedure Coding System/Current Procedure Terminology (HCPCS/CPT) codes and modifiers, and charge amounts. The accuracy of these data elements serves as a link between service delivery, billing, and optimal reimbursement.

Routine maintenance of the CDM includes the implementation of annual HCPCS/CPT code changes, the addition of charges applicable to new programs, procedures, and supplies at the hospital, the elimination of incorrect or outdated codes and other data elements, and the validation of proper interfacing between applicable systems. It is important to maintain the CDM across all hospital departments, including Surgery, Radiology, Clinical Laboratory, Supplies, and Pharmacy. An effective CDM maintenance process supports accurate pricing and charges for services, procedures, and supplies, and can ultimately increase savings and financial performance for the facility. At the University of Texas Southwestern Medical Center (Medical Center), a Decision Support team performs CDM maintenance and analysis. Hospital pharmacy CDM maintenance is performed by pharmacy staff and a pharmacy IR team. Ancillary (i.e., other hospital support areas) system crosswalks, which define a link between procedures in the ancillary systems and charge codes in the Epic system, are maintained by an Epic Ancillary Information Resource (IR) team. These various teams play a vital role in the overall Revenue Cycle at UTSW.

Scope and Objectives

As part of the 2014 Internal Audit Plan, a CDM audit was performed for the Medical Center University Hospitals. Fieldwork was initiated, performed, and completed during July to September 2014 and consisted of the following primary objectives:

- Gain a baseline understanding of the management/maintenance processes for the CDM and assess the processes implemented to evaluate the sufficiency of controls to ensure proper maintenance of the CDM for overall integrity.
- Perform limited testing of the CDM to ensure compliance with the company's established policies and procedures and to ensure accuracy or congruency with regulatory updates.
- Determine the process used to establish and review prices and assess whether the processes are appropriate to ensure that the prices are competitive with the market, consistent with cost and fee screens, and reviewed on an annual basis.

Conclusion

Strengths were identified within the CDM maintenance process. Overall, the CDM appears to be well maintained based on testing procedures performed. In addition, CDM change requests sampled were resolved expediently (i.e., within 0 to 3 days) and efficiently through the use of an automated Service Now work flow tool for add/edit requests. The CDM team also proactively addresses potential CDM issues by actively working charge code errors identified through various Epic work queues. The Decision Support team has refreshed and implemented revised CDM pricing effective October 1, 2014, taking price transparency into consideration.

Executive Summary – Key Improvement Opportunities

Included in the table below is a summary of the observations noted, along with the respective disposition of these observations within the UTSW internal audit risk definition and classification process. See Appendix A for Risk Rating Classifications and Definitions.

High (0)	Medium/High (0)	Medium (1)	Low (5)	Total (6)
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The key improvement opportunities noted and risk-ranked as medium are summarized below.

- **Pharmacy CDM Maintenance** – Although a process currently exists for CDM maintenance, opportunities exist to enhance the work flow infrastructure, implement documentation retention standards to provide an audit trail for changes made, and create QA/monitoring controls to ensure Pharmacy CDM integrity.

Management has begun to address the issues identified in the report and in some cases, implemented recommendations. These responses, along with additional details for each of the key improvement opportunities listed above and other lower risk observations are listed in the Detailed Observations and Action Plans Matrix (Matrix) section of this report.

We would like to thank the departments and individuals included in this audit for the courtesies extended to us and for their cooperation during our review.

Sincerely,



Valla Wilson, Assistant Vice President for Internal Audit

Audit Team:

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Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<p>Risk Rating: Medium ●</p> <p>1. Pharmacy CDM Maintenance</p> <p>Although a process currently exists for CDM maintenance, opportunities exist to enhance the work flow infrastructure, implement documentation retention standards to provide an audit trail for changes made, and create QA/monitoring controls to ensure Pharmacy CDM integrity. Specifically:</p> <ul style="list-style-type: none"> • There is not a standardized process to ensure change request detail contains all necessary information to ensure the appropriate change is made by the Epic IR team. • The current change request process does not support a QA function for reviewing pricing documentation and request approval communication, which would be lost in the event of employee turnover. • Oversight and additional QA by the hospital CDM team is not currently built into the change request and annual update processes. 	<ol style="list-style-type: none"> 1. Create a formalized policy/procedure regarding the Pharmacy CDM change request process, including the appropriate protocols and approval required for the various add/edit chargemaster request processes. 2. Implement an automated request form in Service Now for the Pharmacy CDM adds/edits. The form should require specific fields be completed to create an IR ticket and Service Now incident. Service Now should be utilized to document all correspondence and pricing analysis detail within each incident to ensure communication and approval from all parties is maintained. 3. Develop tracking metrics and goals, such as timeliness of turnaround for charge add/edit requests. Track, trend, and report metrics to the appropriate individuals as necessary and implement action plans to improve as needed. 4. Implement additional QA processes across the Pharmacy CDM add/edit processes to ensure appropriate oversight of the Pharmacy CDM and to review updated codes on a periodic basis for accuracy. 	<p><u>Action Plan Owners:</u></p> <p>Director, University Hospitals & Clinics Decision Support Director, Information Resources Reporting & Analytics Manager, Pharmacy Operations, St. Paul Hospital Manager Ancillary Systems, Health Systems Information Resources Programmer Analyst IV, Health Systems Information Resources Software System Specialist, Health Systems Information Resources Financial Analyst, Pharmacy Operations, St. Paul Hospital</p> <p><u>Target Completion Dates:</u></p> <ol style="list-style-type: none"> 1. December 15, 2014 2a. December 15, 2014 2b. January 31, 2015 3. February 28, 2015 4. January 15, 2015 <p><u>Management Action Plans:</u></p> <ol style="list-style-type: none"> 1. Pharmacy will create a standard policy/procedure documenting the Pharmacy CDM change request process. This will be updated on a regular basis as changes occur. This will be completed by December 15, 2014. 2a. The Pharmacy team will meet with the Software System Specialist to discuss the Service Now business requirements/build. This will be completed by December 15, 2014. 2b. The add/edit process will be built within Service

Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
		<p>Now and Service Now will be utilized to process all add/edit requests. This will be completed by January 31, 2015.</p> <p>3. Once Service Now work flows are established, we will work with Jennifer Emerson to establish reporting parameters to monitor Pharmacy add/edit request turnaround times. This will be completed by February 28, 2015.</p> <p>4. A new report is being developed that will help the CDM team identify changes that occurred and audit as needed. Once this report is finalized, the CDM team will define monitoring and QA practices. This will be completed by January 15, 2015.</p>
<p>Risk Rating: Low ●</p> <p>2. Potential Revenue Code/Charge Code Errors</p> <p>Items were identified with missing revenue codes and charge code numbers. In addition, one item was identified with an inaccurate revenue code assignment. Based on review by the impacted departments, it was determined these items had virtually no usage.</p> <p>Revenue codes are numbers used on hospital bills to tell the insurance companies either where the patient was when they received treatment, or what type of item a patient received. A medical claim will not be paid if this is missing from a bill. Missing charge code numbers could result in chargeable items not being charged to the patient account.</p>	<ol style="list-style-type: none"> 1. Review the code identified with an inaccurate revenue code assignment to determine the most appropriate revenue code. Update to the appropriate revenue code as needed. 2. Determine any billing impact from inaccurate revenue code assignments and evaluate whether rebill is necessary. 3. Review items with no revenue code or charge code number assigned to determine whether the charge codes are chargeable. If the codes are chargeable, create and/or link the appropriate EAP numbers so the codes are charged in the future. 	<p>Action Plan Owners:</p> <p>Director, University Hospitals & Clinics Decision Support</p> <p>Manager of Surgery and Materials</p> <p>Manager Ancillary Systems, Health Systems Information Resources</p> <p>Charge Master Analyst, University Hospitals & Clinics Decision Support</p> <p>Target Completion Dates:</p> <p>1-3b. Complete</p> <p>Management Action Plans:</p> <ol style="list-style-type: none"> 1. The charge code with a confirmed inaccurate revenue code assignment has been updated in the CDM with the correct revenue code. This has been completed. 2. A billing impact analysis will be performed by the CDM team, and follow-up will occur as needed based on the results. This will be

Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
		<p>completed by October 1, 2014.</p> <p>3a. The 1,300 OR Supply items identified will be reviewed by Mary Lou Walker to determine whether they are chargeable based on current policies/ procedures. Requests will be submitted based on the outcome of the review. This will be completed by December 1, 2014.</p> <p>3b. The 14 Pharmacy items identified did not have usage in 2013 or 2014 and were removed from Willow (the Pharmacy ancillary system). This has been completed.</p>
<p>Risk Rating: Low ●</p> <p>3. Change Request Process</p> <p>A documented and periodic QA process for Service Now CDM change requests does not occur. In addition, reporting does not exist to quantify timeliness and other change request metrics tracked within Service Now. If change request errors occur and the charge is not activated or the charge screens appropriately changed, this could result in missed charges.</p>	<ol style="list-style-type: none"> 1. Establish a documented and periodic QA process for Service Now CDM change requests to ensure all aspects of a request (i.e., pricing, applicable cost centers and departments, fee schedules, preference lists) are implemented appropriately by all parties facilitating the change. 2. Develop tracking metrics and goals, such as timeliness of turnaround for the charge add/edit requests. Track, trend, and report metrics to the appropriate individuals as necessary and implement action plans to improve as needed. 	<p>Action Plan Owners:</p> <p>Director, University Hospitals & Clinics Decision Support</p> <p>Senior Business Analyst, Health Systems Information Resources</p> <p>Software System Specialist, Health Systems Information Resources</p> <p>Target Completion Dates:</p> <ol style="list-style-type: none"> 1. February 1, 2015 2. Complete <p>Management Action Plans:</p> <ol style="list-style-type: none"> 1. A new report is being developed that will help the CDM team identify changes that occurred and audit as needed. Once this report is finalized, the CDM team will define monitoring and QA practices. This will be completed by February 1, 2015. 2. The Software System Specialist worked with the CDM team to define reporting parameters for change requests and new code requests. A report has been created to automatically run for the CDM team's monitoring/ reporting purposes.

Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<p>Risk Rating: Low ●</p> <p>4. Ancillary System Crosswalk and CDM Review</p> <p>There is not a Quality Assurance (QA) process in place within the Epic OpTime/Radiant IR teams or the CDM team to ensure ancillary system procedures and supplies are mapped to the correct charge code, which impacts charge capture.</p> <p>An annual review process is currently in place to review the complete CDM, which is a best practice. However, the current annual review is documented manually in a way that does not support a reliable and straightforward audit trail.</p>	<ol style="list-style-type: none"> 1. Implement a QA process as new items are added or modified within the OpTime Supply/Radiant to Epic crosswalk to ensure appropriate mapping occurs. 2. Continue to review all CDM items, especially those items crosswalked within ancillary systems, on an annual basis. This review should ensure all items are being charged in the most appropriate manner. Document the review by electronically retaining any documentation from the departmental meetings, including meeting notes, emails, attendance, etc. Perform a QA process to ensure all necessary changes are made completely and accurately. 3. Review the item identified to be mapped incorrectly and determine the appropriate charge code mapping. Update the crosswalk based upon this review. Determine any billing impact. 	<p>This has been completed.</p> <p>Action Plan Owners:</p> <p>Director, University Hospitals & Clinics Decision Support Manager Ancillary Systems, Health Systems Information Resources Imaging Informatics Manager, Health Systems Information Resources Senior Business Analyst, Health Systems Information Resources Charge Master Analyst, University Hospitals & Clinics Decision Support</p> <p>Target Completion Dates:</p> <ol style="list-style-type: none"> 1. Complete 2. March 30, 2015 3. Complete <p>Management Action Plans:</p> <ol style="list-style-type: none"> 1. A second automated task in Service Now (i.e., OpTime Reconciliation and Radiant Reconciliation) will be created for the OpTime and Radiant IR Teams following the change request task. The reconciliation task will ensure the supply or procedure charge code being linked in Epic will be reviewed for accuracy by someone other than the person who completed the change task. 2. Going forward, the CDM team will meet with the owners of ancillary system mapping for review purposes during the annual CDM review process. In addition, IR representatives will be invited to all CDM review meetings. This will be completed by March 30, 2015. 3. A request was submitted to update this code

Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
		and the appropriate mapping has been established in Epic. This has been completed.
<p>Risk Rating: Low ●</p> <p>5. CPT/HCPCS Code Errors</p> <p>The MedAssets CDM Master software is not utilized to scrub the CDM for invalid codes. Other tools are utilized to perform the CDM scrub, including MedAssets Knowledge Source.</p> <p>Charge codes were identified with expired or invalid CPT/HCPCS codes. Invalid codes may not be paid by the payor. Although there was virtually no usage on these codes, the risk remains that these codes could be charged in error. Examples identified impact Laboratory, Operating Room (OR), Supply, and Pharmacy areas.</p>	<ol style="list-style-type: none"> 1. Review the invalid charge codes for validity, appropriateness, and usage to determine the appropriate action (e.g., whether the code should remain active, be deactivated, or updated by replacing with a valid code). 2. Determine any billing impact from invalid codes and evaluate whether rebill is necessary. 3. Continue to review MedAssets CDM Master or other tools utilized to identify invalid codes on a quarterly basis. 4. Perform a cost-benefit analysis to determine whether MedAssets CDM Master should continue to be utilized as a subscribed service going forward. Going forward, MedAssets should be utilized on a monthly basis to identify any additional QA issues within the CDM. 	<p>Action Plan Owners:</p> <p>Director, University Hospitals & Clinics Decision Support Manager, Pharmacy Operations, St. Paul Hospital Manager Ancillary Systems, Health Systems Information Resources Senior Business Analyst, Health Systems Information Resources Financial Analyst, Pharmacy Operations, St. Paul Hospital</p> <p>Target Completion Dates:</p> <p>1-3. Complete 4. February 28, 2015</p> <p>Management Action Plans:</p> <ol style="list-style-type: none"> 1. The CDM team and IR will review all potentially invalid codes identified and update them in the CDM by November 1, 2014. 2. Perform an impact analysis to determine whether rebill is required based on the codes identified by November 1, 2014. 3. We will continue to monitor for outdated codes and update them in the CDM as needed. This is complete. 4. We will perform a cost-benefit analysis and evaluate the continued usage of MedAssets CDM Master after Epic 2014 enhancements are rolled out. This will be completed by February 28, 2015.

Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<p>Risk Rating: Low ●</p> <p>6. Revenue and Usage Reports by Charge Code</p> <p>While monthly/fiscal year to date (FYTD) Revenue reports are available (i.e., HB016 and HB017), a monthly/FYTD Revenue and Usage report by charge code is not available for departmental management to perform usage analysis by charge code. . This makes it difficult to perform month-to-month trending analysis and identify potential charging errors and waste.</p>	<p>1. Develop a Revenue and Usage report for management, showing revenue and usage data at the charge code level for a rolling twelve month period, organized by month. Make this report available for departmental management's usage, similar to the existing Revenue reports. Provide training on report availability and report indicators.</p>	<p><u>Action Plan Owners:</u></p> <p>Director, Information Resources Reporting & Analytics Director, University Hospitals & Clinics Decision Support Senior Business Analyst, Health Systems Information Resources</p> <p><u>Target Completion Date:</u></p> <p>1a. February 28, 2015 1b. February 28, 2015</p> <p><u>Management Action Plan:</u></p> <p>1a. Reporting Services and IR will work together, with input from Decision Support, to determine the information needed within the Revenue and Usage reports by charge code and the most appropriate way to present this information. This will be completed by February 28, 2015.</p> <p>1b. Reporting Services will write the Revenue and Usage report by charge code and provide this report to departmental management. This will be completed by February 28, 2015.</p>

Appendix A – Risk Classifications and Definitions

As you review each observation within the Detailed Observations and Action Plans Matrix of this report, please note that we have included a color-coded depiction as to the perceived degree of risk represented by each of the observations identified during our review. The following chart is intended to provide information with respect to the applicable definitions and terms utilized as part of our risk ranking process:

Risk Definition - The degree of risk that exists based upon the identified deficiency combined with the subsequent priority of action to be undertaken by management.	Degree of Risk and Priority of Action	
	High	The degree of risk is unacceptable and either does or could pose a significant level of exposure to the organization. As such, immediate action is required by management in order to address the noted concern and reduce risks to the organization.
	Medium/High	The degree of risk is substantially undesirable and either does or could pose a moderate to significant level of exposure to the organization. As such, prompt action by management is essential in order to address the noted concern and reduce risks to the organization.
	Medium	The degree of risk is undesirable and either does or could pose a moderate level of exposure to the organization. As such, action is needed by management in order to address the noted concern and reduce risks to a more desirable level.
	Low	The degree of risk appears reasonable; however, opportunities exist to further reduce risks through improvement of existing policies, procedures, and/or operations. As such, action should be taken by management to address the noted concern and reduce risks to the organization.

It is important to note that considerable professional judgment is required in determining the overall ratings presented on the subsequent pages of this report. Accordingly, others could evaluate the results differently and draw different conclusions.

It is also important to note that this report provides management with information about the condition of risks and internal controls at one point in time. Future changes in environmental factors and actions by personnel may significantly and adversely impact these risks and controls in ways that this report did not and cannot anticipate.