

UCSF Audit & Advisory Services

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# Epic Workqueue Management and Oversight

Project #24-024

January 2025

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University of California  
San Francisco



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**SUBJECT: Epic Workqueue Management and Oversight**

Audit & Advisory Services ("A&AS") conducted a review of management and oversight for workqueues in Epic (UCSF's Electronic Health Record platform). The purpose of this review was to assess the processes and internal controls in place for the governance, assignment, and monitoring of workqueues to ensure effective review and clearance.

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 and the preliminary draft report was provided to department management in May 2024. Management provided final comments and responses to our observations in January 2025. 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. 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 Executive Committee, and is not intended to be and should not be used by any other person or entity.

Sincerely,

Irene McGlynn  
Chief Audit Officer  
UCSF Audit & Advisory Services



## EXECUTIVE SUMMARY

### I. **BACKGROUND**

As a planned audit for Fiscal Year 2024, Audit & Advisory Services conducted a review of Epic workqueue management to assess the governance, assignment, and monitoring of workqueues to ensure effective review and clearance. Workqueues are lists of patient accounts or encounters in Epic created by a defined set of rules. If an account or encounter meets the specific criteria of that workqueue, it will appear in the workqueue. The encounter will remain on a particular workqueue until the issue(s) requiring follow up is resolved, at which point it will automatically fall off the workqueue list. Workqueues exist at all stages of the revenue cycle process including referral, pre-registration/scheduling, authorization, charge capture, claims processing, billing, accounts receivable and claim resubmission for appeals or denials. An encounter or account requiring correction for multiple aspects of the revenue cycle process may appear in multiple workqueues. Once all issues are resolved with an encounter, the claim can be submitted for payment. Any claim denials may be researched and addressed for resubmission. Timely and active workqueue monitoring is imperative to an effective revenue cycle process.

Workqueues can be assigned to primary users who have edit access, while other users are granted “read-only” access. Workqueues which have restricted visibility can only be viewed by employees who have been granted access. Workqueues without a primary user assigned are viewable to all users.

Workqueue monitoring dashboards have been developed in Epic to assess productivity and volume, encounters approaching timely filing deadlines, and other key indicators for assessing encounters which require manual intervention. These metrics are reviewed bi-weekly by an oversight team of Revenue Integrity leadership.

### II. **AUDIT PURPOSE AND SCOPE**

The purpose of this review was to assess the monitoring processes and controls for creating, monitoring and governing workqueues.

The scope of the review covered transactions and activities for January to December 2023. Procedures performed as part of the review included descriptive analysis of workqueue statistics, analyzing volume of encounters and average days spent in workqueue processing, and reviewing a sample of workqueues to determine trends for encounters that did not meet the timeliness expectation. For more detailed steps, please refer to Appendix A.

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 2024.

### III. SUMMARY

Based on work performed, we determined the majority of workqueues are assigned to active supervisors and appear to have claims addressed in a timely manner. Opportunities for improvement exist in the areas of creating a policy and procedure to define timeliness for addressing workqueue item and establishing roles and expectations for workqueue supervisors.

The specific observations from this review are listed below.

1. While there is a regular review process for monitoring specific billing-related workqueue activities, it does not address all areas with aging or inactive workqueues or unassigned supervisors, resulting in incomplete monitoring of claims for timely filing and obsolete workqueues remaining in production.
2. There is no consistent and documented escalation or monitoring process to timely and compliantly resolve encounters in hospital accounts/workqueues.
3. The process for requesting new or edited workqueues through the ServiceNow ticketing system is not consistently enforced.

IV. OBSERVATIONS AND MANAGEMENT CORRECTIVE ACTIONS (MCAs)

No.	Observation	Risk/Effect	Recommendation	MCA																																																
1	<p><b><i>While there is a regular review process for monitoring specific billing-related workqueue activities, it does not address all areas with aging or inactive workqueues or unassigned supervisors, resulting in incomplete monitoring of claims for timely filing and obsolete workqueues remaining in production.</i></b></p> <p>A data extract from Epic identified 6,039 workqueues are monitored by 448 supervisors. Of the total population of workqueues, 1,350 had an unassigned supervisor and were accessed on average 326 days ago, indicating unassigned workqueues may not be monitored for resolution or escalation.<sup>1</sup> Of the 1,350 workqueues with unassigned supervisors, only six had a financial balance, which totaled roughly \$275k<sup>2</sup>. Three of the workqueues with unassigned supervisors were for tracking purposes only and would not be expected to have activity.</p> <p>Below is a summation of the workqueue types with unassigned supervisors:</p> <table border="1"> <thead> <tr> <th rowspan="2">WQ Type</th><th rowspan="2">Average days in workqueue<sup>3</sup></th><th colspan="3">Days since last access (# WQs without assigned supervisor)</th></tr> <tr> <th>Current-90</th><th>91-180</th><th>180+</th></tr> </thead> <tbody> <tr> <td>Appointment Request</td><td>92</td><td>152</td><td>32</td><td>167</td></tr> <tr> <td>Charge Router Review</td><td>341</td><td>3</td><td>0</td><td>0</td></tr> <tr> <td>Deficiencies</td><td>383</td><td>26</td><td>2</td><td>11</td></tr> <tr> <td>HB Claim Edit</td><td>11</td><td>4</td><td>0</td><td>0</td></tr> <tr> <td>Patient</td><td>110</td><td>202</td><td>34</td><td>305</td></tr> <tr> <td>PB Claim Edit</td><td>144</td><td>1</td><td>0</td><td>1</td></tr> <tr> <td>Provider</td><td>30</td><td>4</td><td>0</td><td>2</td></tr> <tr> <td>Referrals</td><td>131</td><td>233</td><td>45</td><td>126</td></tr> </tbody> </table> <p>There are 288 workqueues with no record of any access date (197 without assigned supervisors and 91 with assigned supervisors). Six of the workqueues with no record of being accessed had a financial balance of approximately \$12k. Accounts on workqueues requiring manual follow-up</p>	WQ Type	Average days in workqueue <sup>3</sup>	Days since last access (# WQs without assigned supervisor)			Current-90	91-180	180+	Appointment Request	92	152	32	167	Charge Router Review	341	3	0	0	Deficiencies	383	26	2	11	HB Claim Edit	11	4	0	0	Patient	110	202	34	305	PB Claim Edit	144	1	0	1	Provider	30	4	0	2	Referrals	131	233	45	126	<p>Lack of assigned supervisors can lead to missing claim filing deadlines and delayed claim issue resolution.</p>	<p>A secondary supervisor should be assigned in Epic, or reassignment should be conducted as part of employee offboarding process. Additionally, Epic workqueues should be reviewed annually to ensure the assigned supervisor remains active, and inactive workqueues are assessed to determine whether they are obsolete and should be archived.</p> <p>Expectations should be set for what monitoring of workqueues should be performed by supervisors, and the review performed by Revenue Integrity should be expanded.</p>	<p>Revenue Cycle will review the list of workqueues in the audit findings. Revenue Cycle will scope and prioritize WQs that impact Revenue Cycle workflows, and updates will be provided to A&amp;AS. Revenue Cycle will work with Clinical Systems for WQs in scope, and the WQs will be prioritized and assigned target dates for remediation. Clinical systems will explore leveraging the Epic Refuel and tracking tools to assist management in conducting a review in stages to evaluate and remediate/optimize or eliminate outdated or duplicative UCSF Health Revenue Cycle workqueues related to timely filing and billing for adult, pediatric, and</p>
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<sup>1</sup> One unassigned system workqueue was identified and removed from the final count.

<sup>2</sup> This does not necessarily reflect unique accounts, as accounts may appear on multiple workqueues at the same time.

<sup>3</sup> Only workqueues with accounts during the time period were used to calculate average days in workqueue.



No.	Observation	Risk/Effect	Recommendation	MCA
	<p>(i.e., workqueues assigned to a person, not system workqueues) without a supervisor assigned spent an average of 121 days in various revenue cycle workqueues, compared with a slightly lower average of 102 days for accounts with a supervisor assigned.</p> <p>There is no policy to define roles and responsibilities for the workqueue supervisor, resulting in a decreased level of accountability. A policy should be created to define the appropriate number of workqueues, and appropriate outstanding dollar threshold assigned to each supervisor. 30 supervisors have an outstanding workqueue balance over \$10 million (ranging from \$10 million to \$619 million), and 79 supervisors are assigned over 15 workqueues (ranging from 15 to 95 workqueues).</p> <p>778 workqueues had a start and ending qualifying amount and encounter count of zero, indicating no activity in the scope period.</p>			<p>Faculty Practice services.</p> <p><b>Responsible Party:</b> VP, Revenue Cycle, Director, Business Applications, CS, VP, Operations for Health IT, Director, Revenue Management</p> <p><b>Target Completion Date:</b> 11/30/2025</p>
2	<p><b><i>There is no consistent and documented escalation or monitoring process to timely and compliantly resolve encounters in workqueues.</i></b></p> <p>Open encounters which appeared on at least one workqueue during the months of September and October 2023 were extracted from Clarity (a database containing all data from Epic) in March 2024. As of the data extraction date, there were 24,227 unique unresolved encounters<sup>4</sup> in hospital account workqueues from October 2023. 1,774 duplicate hospital accounts were removed from the final count, indicating the account appeared on multiple workqueues. There were 5,935 unique unresolved hospital encounters in the charge router review workqueues associated with hospital billing.</p> <p>Of the associated professional billing workqueues, there is significantly less volume of unresolved encounters requiring review, with a total of 963 unique unresolved encounters which met a charge review workqueue rule and 341 unique unresolved encounters which met a charge router review workqueue associated with professional billing in October 2023. There is a documented process for RFI reporting, and PB Stakeholder calls are held monthly,</p>	<p>Workqueues which are not regularly monitored or appropriately monitored may not meet timely filing deadlines and result in lost revenue opportunities.</p>	<p>Policies, procedures or formal guidelines should be established to define timeliness expectations of claims in workqueues and escalation or prioritization processes for accounts approaching timely filing deadlines.</p> <p>Processes that have been implemented for improving professional billing workqueue timely</p>	<p>Clinical Systems will facilitate/create reporting and / or dashboards to ensure visibility required for monitoring, escalation, and resolution. Clinical Systems and Revenue Cycle will collaborate and propose policy and procedure for addressing timely resolution of WQs in scope of Observation 1. Clinical Systems will also explore Epic standard tools for opportunities to implement enhanced governance around</p>

<sup>4</sup> An encounter meeting multiple workqueue rule criteria would appear on separate workqueues, which was addressed in this analysis by removing duplicate encounters.

No.	Observation	Risk/Effect	Recommendation	MCA
	<p>contributing to continued improvement in professional billing workqueue volume.</p> <p>Review of a 10 sample of transactions each in hospital account, charge router hospital billing, charge router professional billing and charge review professional billing workqueues identified:</p> <ul style="list-style-type: none"> <li>• In workqueue 17105 – Hospital Billing Coding Review Needed<sup>5</sup> (a hospital account workqueue) 8 of 10 sampled encounters did not meet timely refiling deadline (180 since last processed date for appeals and resubmissions, or 365 days from date of service for initial claim submission). Write off balances for the selected samples totaled approximately \$4k. Additional review of this workqueue identified 4 of 10 denials were due to diagnostic code and HCPCS code mismatches.</li> <li>• In workqueue 9775 – HB ONLY PROVIDER – CHARGES POINTING TO PB<sup>6</sup> (a charge router review workqueue associated with hospital billing) 10 of 10 sampled encounters did not meet timely refiling deadline (180 since last processed date for appeals and resubmissions, or 365 days from date of service for initial claim submission). Write off balances for the selected samples totaled roughly \$2.5k.</li> <li>• In the charge router review workqueues associated with professional billing<sup>7</sup> 10 of 10 sampled encounters did not meet timely refiling deadline (180 since last processed date for appeals and resubmissions, or 365 days from date of service for initial claim submission). Write off balance for the selected sample totaled approximately \$5k. Note 3 of 10 samples could not be assigned an amount due to the use of pseudo-codes without assigned prices.</li> <li>• In charge review workqueues associated with professional billing<sup>8</sup> 10 of 10 sampled encounters did not meet timely refiling deadline (180</li> </ul>		<p>action should be leveraged or expanded to hospital billing workqueues.</p> <p>An escalation policy to define unresolved claims approaching filing deadlines or high-dollar workqueues would minimize risk of financial loss due to lack of supervision.</p> <p>Performing root cause and trend analysis to determine growing workqueue volume may help identify common HCPCS codes and denial reasons leading to inundated workqueues, improving workqueue efficiency, reducing encounter denials</p>	<p>workqueue management, and evaluate Epic tools to analyze and restructure high priority workqueues to ensure appropriate revenue is being captured and enhance capabilities for addressing encounters timely. Clinical Systems will present these opportunities to Revenue Cycle. Clinical Systems will collaborate with Revenue Cycle to implement and leverage appropriate Epic tools to monitor WQs periodically per drafted policy.</p> <p><b>Responsible Party:</b> VP, Revenue Cycle, Director, Business Applications, CS, VP, Operations for Health IT,</p>

<sup>5</sup> 17105 - Hospital Billing Coding Review Needed was selected for testing due to the high volume of aging encounters identified.

<sup>6</sup> 9775 - HB ONLY PROVIDER - CHARGES POINTING TO PB was selected for testing due to the high volume of aging encounters identified.

<sup>7</sup> Multiple workqueues were chosen for charge router review associated with professional billing, as there were no clear outliers. The workqueues reviewed were 521 CODING DERM FAC, 3666 INPATIENT CODING PEDS CARDIOLOGY, 1762 CODING PEDS SPECIALTIES, 3390 FRONT END ORTHOPEDIC SURGERY DIVISION, 3651 INPATIENT CODING DOM IP ID, 1745 PED FRONT END, 120 PROCEDURE RELATED ERRORS, 17586 PB ASAP CHARGE HOLDING, 4625 DEPARTMENT ERRORS, and 15538 BCH OAK PB Provider has no Billing Agent.

<sup>8</sup> Multiple workqueues were chosen for charge review associated with professional billing, as there were no clear outliers. The workqueues reviewed were 132 ADMIN EMPTY PRICE/FSC REVIEW, 132 ADMIN EMPTY PRICE/FSC REVIEW, 132 ADMIN EMPTY PRICE/FSC REVIEW, 1097 PB BACK END

No.	Observation	Risk/Effect	Recommendation	MCA
	<p>since last processed date for appeals and resubmissions, or 365 days from date of service for initial claim submission). Write off balances for the selected samples is approximately \$28k.</p> <p>Report capabilities within Epic for workqueue monitoring can include metrics for timely filing.</p> <p>Upon review of the workqueues and trends, it was identified that 57% of unresolved workqueue volume in October 2023 originates from 2 HCPCS codes which appear to be temporary “99XIP – PR Hospital Care, Level TBD by Coder” and “99999 – PR Office Outpatient Visit, Procedure Only”.</p>		and appeals requiring resubmission, and reduce the need for manual reviews.	<p>Director, Revenue Management</p> <p><b>Target Completion Date:</b> 12/31/2025</p>
3	<p><b><i>The process for requesting new or edited workqueues through the ServiceNow ticketing system is not consistently enforced.</i></b></p> <p>A complete population of new or edited workqueues for the scope period could not be obtained, as there has not been a consistent and formally tracked process for intake of new workqueue or workqueue change requests. A new request form for creating or editing existing Epic workqueues was created in Q4 2023 and implemented in ServiceNow; however, its use for new or edited workqueues was not clearly communicated, resulting in inconsistent understanding as to when to use it. Additionally, the new form does not require approval, and authority for approving new workqueue or workqueue change requests is not defined.</p>	Unenforced use of ServiceNow change request form may result in duplicate, unnecessary or unapproved changes implemented into the system.	A standardized, enforced process for submitting ServiceNow requests should be established.	<p>Clinical Systems will provide and review their ServiceNow ticketing process for creating new workqueues or editing/deactivating existing workqueues. Clinical Systems, with help of Revenue Cycle, will evaluate existing ServiceNow request form, define criteria for approval and communicate this for types of WQs in scope of Observation 1. Clinical Systems will implement the improved ServiceNow ticketing process and make the form mandatory for workqueue requests.</p>

DOM, 1140 PB FRONT END PEDS, 1130 PB BACK END PRIMARY CARE, 4627 PB CHARGES THAT MAY NEED TO GO TO HB, 6147 PB BACK END PSYCH (CODING/BILLING), and 7246 UCSF PB GOVERNMENT PAYER ENROLLMENT HOLD



<u>No.</u>	<u>Observation</u>	<u>Risk/Effect</u>	<u>Recommendation</u>	<u>MCA</u>
				<b>Responsible Party:</b> Director, Business Applications, CS VP, Operations for Health IT, Director, Revenue Management, VP, Revenue Cycle  <b>Target Completion Date:</b> 10/31/2025

**APPENDIX A**

There are limited policies, procedures, and state regulations for workqueue management. To conduct our review, the following procedures were performed for the areas in scope:

- Extracted encounter-level hospital and professional billing Clarity data and judgmentally sample-selected encounters in hospital account, charge review and charge router review workqueues based on volume, aging or unassigned supervisor.
- Determined encounters requiring write-off due to untimely resolution.
- Extracted workqueue data from Epic to perform analysis of appropriate supervision of workqueues, assessing the total financial responsibility and volume of workqueues assigned to each supervisor.
- Performed descriptive analysis of the population of Epic workqueues by identifying a population of workqueues with an unassigned supervisor, high-dollar (\$10M+) workqueues, and determining potentially obsolete workqueues based on the last access date.
- Interviewed key department personnel in Revenue Integrity and Clinical Systems