UCIRVINE | INTERNAL AUDIT SERVICES

Physicians Billing Group

Internal Audit Report No. I2022-206

October 11, 2022

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October 11, 2022

**APRIL MONTES
DIRECTOR
SCHOOL OF MEDICINE - PHYSICIANS BILLING GROUP**

**RE: Physicians Billing Group
        Report No. I2022-206**

Internal Audit Services has completed the Physicians Billing Group review and the final report is attached.

We extend our gratitude and appreciation to all personnel with whom we had contact while conducting our review. If you have any questions or require additional assistance, please do not hesitate to contact me.

Sincerely,

Mike Bathke
Director

Attachment

C: Audit Committee
    John Gross, Vice Dean for Faculty and Clinical Affairs – School of Medicine
    Gregory Vervoort, Executive Director for Clinical Operations – School of Medicine

I.   MANAGEMENT SUMMARY

In accordance with the fiscal year (FY) 2021-2022 audit plan, Internal Audit Services (IAS) performed a review of the Physicians Billing Group (PBG) to assess business risk and internal controls. Based on the audit work performed, some internal controls need improvement and should be strengthened to minimize risks and ensure accordance with best business practices. Specifically, the following concerns were noted.

Open Patient Encounters – There were a greater number of open patient encounters that remained opened and were not closed during the first six months of FY 2021 than there were during the last six months of FY 2021. According to Management, open patient encounters should have decreased over the two periods reviewed, since Management had made a concerted effort with dedicated staff to monitor and close these open encounters during the last six months of FY 2021. Further details are provided in Section V.1.

Patient Encounters Data – IAS requested patient encounters data to perform testing of open and closed encounters data, however, some of the reports provided contained data integrity issues. Additionally, another report could not be provided to IAS upon request because the Information Security (IS) programmers needed to conduct further analysis to correctly compile this data. This issue is discussed in detail in Section V.2.

Standardized Reports Supporting Key Performance Indicators – Data supporting several key performance indicators (KPIs) listed on metrics reporting dashboards, used for purposes of keeping Executive Leadership apprised of PBG's financial and operational performance, could not be drilled-down further in a standardized reporting format to provide greater detail and to validate the KPI totals listed on the metrics. For the KPIs that were able to be drilled-down further, these reports had to be manually generated and were not readily available upon request in a standardized query-reporting format. This manual process was inefficient and required several attempts to finally generate the correct data that supported the KPI data on the metrics dashboard reports.   This observation is discussed in section V.3.

II.   BACKGROUND

Physicians Billing Group (PBG) is a department under the UCI School of Medicine (SOM) that serves as UCI's in-house physician billing unit handling and processing all physician billing (professional fee billing) to insurance companies. PBG provides professional fee billing services for approximately 900 UCI physicians and 30 departments. PBG currently has over 150 employees. Their department is located at the UC Irvine Manchester Pavilion, at 200 S. Manchester Ave in the City of Orange.

PBG's workflow billing cycle begins when physicians submit charges via the EPIC Patient Billing System. These charges are scrubbed through the EPIC Charge Router, which reviews and evaluates charges for issues and errors. Charges that are flagged as having errors or other issues are then routed to work queues where coders review, modify, and edit these charges accordingly. Clean claims are then billed to the appropriate insurance companies. If claims are denied by insurance companies, PBG reviews these denials and appeals them when appropriate. PBG also has their own accounts receivable collections team that handles collections from insurance companies that have not yet paid their claims. If patient balances exist on the claims after the insurance companies have already paid their portions, those claims are sent over to the Single Billing Office (SBO) which handles patient billing as well as patient accounts receivable collections.

PBG also processes the physician billing for "outside facilities" where UCI physicians provide services for other hospitals, nursing homes, and facilities not affiliated with UCI.

For FY 2021, physician charges totaled $909 million and payments received totaled $309 million.

III. PURPOSE, SCOPE, AND OBJECTIVES

The initial purpose of this audit was to review the roles and responsibilities relating to third-party billers as well as controls over lockboxes, which was primarily due to an IAS advisory review that occurred in FY 2020-2021 involving a third-party biller.

This third-party biller, APS Medical Billing and Professional Consultants (APS), was a contracted agency responsible for managing all patient billings, receipts, and collections for the Referral Lab since 2015. The issues concerning this third-party biller could be traced as far back as 2018 when it was discovered that there were Medicare billing errors with certain Referral Lab tests. This resulted in Medicare conducting a claims review into the circumstances of these billing errors. Between 2018 to 2020, correspondences from Medicare regarding this claims review were sent to a lockbox that was not checked by APS or PBG for a few years. Consequently, Medicare did not receive their requested supporting documentation and the claims review was denied. Executive Leadership Medicare billing privileges were revoked due to noncompliance with the Centers for Medicare & Medicaid Services (CMS).

Subsequently, this PBG audit was initially planned to review APS and controls over lockboxes. However, during the planning phase of this audit, IAS was informed by PBG Management that Leadership had already decided to terminate APS's contract as of December 2022 and will bring the Referral Lab billing function in-house for PBG to oversee.

For this reason, IAS rescoped this audit from third-party billers, namely APS, to instead focus on PBG's roles and responsibilities and internal controls. The scope of this review focused on FY 2021 and FY 2022.

This review included the following audit objectives:

1. Evaluate KPI data from the metrics dashboards provided to Leadership and compare this data to industry benchmarks to evaluate performance. Verify these KPI metrics totals with supporting data to validate the integrity and accuracy of these KPIs.

2. Determine whether patient encounters are being closed on a timely basis. Evaluate whether open encounters are being properly monitored and managed to minimize the number of these open encounters and to also reduce the length of time that they remain open.

3. Ensure that physician charges are being billed on a timely basis according to industry benchmarks and best practices.

IV.   CONCLUSION

Many of PBG's internal controls appear to be functioning satisfactorily. Of KPI data reviewed for calendar year (CY) 2021, the following KPIs noted below were either comparable to or better than benchmark averages of the top 25% of large west coast academic hospitals that use EPIC (an electronic health records system):

- Accounts receivable over 90 days
- Net collections (i.e., ratio of matched payments to expected reimbursement amount for charges)
- Lag days (i.e., the average number of days between the service date and post date for charges posted)
- Denial rate

However, concerns were noted in the areas of open patient encounters, patient encounters data, and standardized reports supporting key performance indicators.

Observations were discussed with management, who formulated action plans to address the noted issues. These details are presented below.

V.   OBSERVATIONS AND MANAGEMENT ACTION PLANS

1. Open Patient Encounters

Background

As a patient arrives and checks in for an outpatient visit, a patient encounter is created in EPIC, which is referred to as an "open patient encounter." This open patient encounter must be closed before a charge can be generated and assigned to the encounter in order for a bill to be created. Thus, open patient encounters that remain open cannot be billed because a charge is not generated in the system. If open encounters are closed and billed to insurance companies after the insurance payers' maximum allowable billing timeframes have passed, the claims will be denied. Insurance companies have different maximum allowable billing timeframes ranging from as little as 30 days to a maximum of one year from the date of service.

IAS was informed that Clinical Operations Leadership had been working on monitoring and closing open patient encounters during the end of 2020 and start of 2021. Leadership made concerted efforts during this time to close open encounters and ensure that, going forward, open encounters would be closed on a timely basis. They also communicated and enforced this best practice of closing open encounters on a timely basis to all physician faculty.

It should be noted that not all open encounters have a charge associated with it even if they were closed. Some open encounters may be missed patient appointments that were never canceled/closed out in the system. Although these particular open encounters have no billable charges and financial impact, they should still be closed in the system to ensure good internal controls and best practices are being followed.

Observation

IAS tested open patient encounters for the first six months of FY 2021 (i.e., July 2020 through December 2020) and compared them to the last six months of FY 2021 (i.e., January 2021 through June 2021) to determine if improvements were made to reduce the number of open encounters.

From a report generated and provided to IAS dated January 7, 2022, IAS notes that there were only 49 open patient encounters that remained open from July 2020 through December 2020. However, from January 2021 to June 2021, there were 1,145 open encounters that remained open. This comparison shows that there were 2,200% more open encounters from January 2021 to June 2021 than there were from July 2020 to December 2020.

IAS decided to retest the same two date ranges as of June 15, 2022, six months later, to determine whether there were any noticeable improvements. From July 2020 to December 2020, there were only 14 open encounters that remained open and from January 2021 to June 2021, there were 109 open encounters. IAS notes the significant improvement of closing 1,071 open encounters in the six months between January 7 and June 15, 2022.

Although there were more open encounters in the latter half of FY 2021 as compared to the beginning of FY 2021, PBG was able to close a majority of their FY 2021 open encounters by June 15, 2022.

Note that a dollar value total could not be calculated for these open encounters that remained open because, as stated in section V.1. Background above, charges are not generated in EPIC for open encounters. It would also be difficult to assign an estimated dollar value for these open encounters because it is not known what level of services were received or whether some of these open encounters were nonbillable charges because they were missed patient appointments that were never canceled or closed out in the system. To determine what the charges would have been or whether the open encounters were nonbillable charges, each encounter would need to be individually researched by a coder or other knowledgeable staff, which would require time consuming and labor-intensive effort.

Continuous monitoring of open encounters is required to continue to improve internal controls and management of open encounters. Although the financial impact of lost revenue resulting from open encounters may be nominal in comparison to the estimated $900 million of physician charges and $300 million of payments received on an annual basis, more importantly, open encounters may negatively impact patient care. If other physicians are providing additional care to these same patients, these physicians may be unable to obtain authorizations for procedures and tests because the open encounters do not have the original physician's notes for referrals or treatments documented in the system. In this respect, open encounters can adversely impact patient care and bottleneck certain aspects of the revenue cycle in terms of preventing or delaying additional procedures and tests from being performed and billed.

Recommendation

A collaborative effort from Clinical Operations Management, PBG Management, and other applicable SOM department management (e.g., chief administrative officers, directors, and practice managers) should continue with the monitoring and management of open encounters on a consistent basis to ensure the volume of open encounters do not increase to a level where they become an administrative burden to manage. On a periodic basis, applicable management mentioned above should further their data analytic reporting and/or review of open encounters to assist with the monitoring and management of open encounters.

Clinical Operations Management had indicated to IAS that open encounters, to a large extent, are being better managed and monitored now than in FY 2020 and prior. Current open encounters primarily belong to only a few physicians. Clinical Operations Management has been working with these physicians and clinics to enforce the timely closing of open encounters.

Clinical Operations Management indicated the following steps that either have already been implemented or are in discussions of possibly being implemented to improve controls around the management of open encounters:

- Executive Leadership is in process of finalizing a new policy that would require open encounters to be closed within 30 days, otherwise the providers would be temporarily locked out of the EPIC electronic medical record system. To regain access, the physicians would have to close their patient encounters or spend time calling the Help Desk to have their access reinstated. Clinical Operations Management did mention that controls for this process need to be in place before implementation to ensure that this enforcement, of a physician being locked out of the system, does not adversely impact patient care.

- Currently, as part of the faculty incentive plans, physicians will not be eligible for incentive payments or any additional payments until their encounters are closed. This policy is being enforced across all clinical SOM departments.

- Department policies are in place that allow physicians who see a certain number of patients to qualify in hiring scribes to document notes on behalf of the physicians. The notes would then need to be edited by the physicians, as necessary, so the encounters could be closed out.

- Clinical Operations Management, along with the assistance from the UCI Health Information Services (HIS) programmers, developed a dashboard using the Tableau data visualization software application to provide an aging of encounters. This program allows reporting customization with aging parameters ranging from seven days to 90 days.

- To ensure the proper steps are taken to close encounters, process tip sheets are in place to assist practice managers.

Management Action Plan

Please refer to table section V.1 in the Appendix.

2. Patient Encounters Data

Background

As the volume of "big data" increases along with the sophistication and complexity of data logic, the importance of and reliance on data integrity also increases. Data integrity is the overall accuracy, validity, completeness, and consistency of data. Data integrity is a vital and critical component of data analytics allowing businesses and its stakeholders to rely on their data to make sound business decisions.

In addition to the open patient encounters data that IAS was provided and tested in V.1. above, IAS was also provided closed patient encounters data showing all encounters that had been closed. This data also included the dates the encounters were opened and closed.

IAS was also to be provided a "dummy" code report showing all closed encounters with billable charges that had exceeded the insurance payers' maximum allowable billing threshold timeframes for claims submissions and that could not be billed. These encounters have a specific code assigned to them to separate them from charges that were actually billed. This code allows these encounters to be maintained in the system in case a physician questions why a particular encounter and corresponding charge was not billed.

Observation

IAS was provided with closed patient encounters data from HIS using Tableau, a data visualization software application. The date ranges of the data sets requested showed one data set of closed encounters from July 2020 to December 2020 and the other data set showing closed encounters from January 2021 to June 2021. IAS tested and compared the two date ranges to determine whether encounters were closed on a timely basis and whether the timeliness improved from the first six months of FY 2021 against the last six months of FY 2021.

While IAS performed testing of the closed patient encounters data, IAS discovered that there were integrity issues with the data provided. For the data set of closed encounters from July 2020 to December 2020, the open encounter dates would not go back further than July 1, 2020, the start of FY 2021, even though there were no limiting date parameters for the open encounter dates.

IAS requested a new data table with correct open encounter dates, however, when the new data table was provided, it still had the same data integrity issues. As a result, the closed patients encounter data could not be relied upon and no further testing was conducted.

As mentioned in section V.2. Background above, IAS was supposed to be provided a "dummy" code report but the HIS programmers tasked with this data request had indicated that more time was needed to analyze the data logic to determine how to correctly pull the data. Due to earlier delays in this audit caused by data integrity issues mentioned above and other data issues discussed in section V.3. below, IAS management decided to no longer hold off closing this review while waiting for the "dummy" code data because the HIS programmers could not provide a definitive date to provide it.

Recommendation

Clinical Operations Management should work with the HIS programming team responsible for generating open and closed encounters reports in the Tableau data visualization software to resolve integrity issues with the closed encounters data. This step is important in ensuring that the encounters data that Leadership reviews is accurate and reliable.

PBG Management should also work with their programmers to ensure that any data logic issues with "dummy" code reporting is resolved for this report to be generated upon request at any time. Reviewing this report would help in monitoring those unbilled closed encounters that exceeded the claims timeframe.

Management Action Plan

Please refer to table section V.2 in the Appendix.

3. **Standardized Reports Supporting Key Performance Indicators**

Background

PBG Management utilizes metrics dashboard reporting sent to Executive Leadership on a periodic basis to keep them apprised of PBG's financial and operational performance. This metrics dashboard includes key performance indicators (KPIs) such as the following:

- Charges
- Payments
- Work RVUs (i.e., physician work relative value units is a neutral method of quantifying and comparing the productivity of physicians by eliminating certain variables)
- Accounts Receivable (AR) numbers (includes AR dollars and AR over 90 days)
- AR days
- Net collections (i.e., ratio of matched payments to expected reimbursement amount for charges)

- Lag days (i.e., the average number of days between the service date and post date for charges posted)
- Denial rate

Additionally, the metrics dashboard also includes information showing how PBG's KPIs compare to benchmarks of the median and top 25% of large west coast academic hospitals that use the EPIC system.

IAS validated and tested the accuracy of the metrics KPI data provided. IAS also compared PBG's KPIs to the benchmarks of the top 25% of hospitals' KPI to determine PBG's performance relative to others in the same industry.

As mentioned above in section IV. Conclusion, after reviewing KPI data for CY 2021, the following PBG KPIs were either comparable to or better than benchmarks of the top 25% of large west coast academic hospitals that use EPIC:

- Accounts receivable over 90 days
- Net collections
- Lag days
- Denial rate

Observation

As part of the process of validating and testing the accuracy of the KPIs included on the metrics dashboard, PBG was requested to provide the raw data drill-down detail to support the KPI metrics amounts for CY 2021. To ensure the validity and accuracy of charges, payments, and work RVUs, these particular KPIs were reviewed and tested for the entire FY 2021 (Jul 2020 through Jun 2021), in addition to the first six months of FY 2022 (Jul 2021 through Dec 2021). The following KPIs were compared to and validated against the raw data detail provided by PBG Management:

- Charges
- Payments
- Work RVUs
- AR dollars
- Denial rate

IAS notes that raw data detail for Net collections and AR days (including AR over 90 days) could not be generated at all to validate and support the KPI amounts on the metrics dashboards. Furthermore, Lag days raw data, as generated, included original and reposted charges (i.e., reposted charges are billed charges that were initially denied and needed to be reposted and rebilled again) that were indistinguishable from each other. The Lag days data posted on the metrics dashboard, however, only included original charges. Therefore, the posted data could not be validated to the raw data detail.

The raw data detail reports IAS did receive validated their respective KPI amounts on the metrics dashboards. However, these raw data reports had to be customized and were not standardized reports that could be readily available upon request. This process is inefficient and took several trial-and-error attempts to finally receive the correct data, since these raw data requests were not typical and frequent requests. Going forward, having these raw data reports readily available in a saved query that management could use to drill-down on specific data elements, would be beneficial.

Management should be able to run raw data reports supporting metrics KPIs, on a readily available basis, for purposes of not only validating the accuracy of the metrics dashboard data but also for the ability to drill-down on the data to determine and highlight certain analytical information such as which areas performed the best and worst for KPIs. This ability would benefit PBG Management and Executive Leadership by allowing them to focus their time and resources on areas in need of improvement.

The metrics dashboard did include certain useful summarized drill-down data, such as the top ten Denials, Denials by category, Charges per payor mix, and Payments per payor mix. While these specific data elements provide useful detail to management and leadership, having the ability to drill-down on all KPIs for analysis and validation purposes should still be pursued.

Recommendation

The raw data reports mentioned above were not typical requests since these reports were not already standardized, "canned" reports. However, now that some of these reports have been generated, the queries should be saved so that detailed reports can be generated upon request simply by inputting a date range. Having KPI raw data detail easily accessible for analysis and validation purposes not only improves internal controls and promotes best practice, but also encourages and increases data optimization usage and capabilities.

For the KPI raw data that could not be generated to support the KPI amounts on the metrics dashboards, PBG Management should work with their programmers to resolve these issues. If additional help is needed, assistance from EPIC's Financial Pulse application team or applicable data support contact(s) may resolve these data issues.

Management Action Plan

Please refer to table section V.3 in the Appendix.

APPENDIX

V.1. Open Patient Encounters

1. Goal: Under the direction and review of the Strategic Operating Plan - Enterprise Revenue Cycle Management, collaborate with Ambulatory Operations and SOM Departments to monitor and manage open encounters.

Action Steps	Responsible	Timeline/ Timeframe	Resources Required	Success Criteria/Results
A. Begin education and training with SOM Leadership – Chairs and Department Administrators, partnering with Ambulatory Operations team, on the Open Encounters Dashboard	Revenue Cycle Management SOP Team: Dr. Sunil Verma, April Montes, Becky Cloud-Glaab, Gregory Vervoort Ambulatory Operations: Douglas Niedzwiecki, Branden Manuel SOM Department Administrators	January 31, 2023	EPIC Access Team	Current FY23 Open Encounters greater than 7 days: - FY22/FY23 Combined: 7,162 Reduction in number of active open encounters greater than 90 days By end of FY23, reduction in no encounters open greater than 30 days.

Action Step	Responsible	Timeline/ Timeframe	Resources Required	Success Criteria/Results
B. Develop an automated email system via EPIC In-Basket deficiency notification process.	Dr. Sunil Verma Becky Cloud-Glaab	January 31, 2023	EPIC/ Revenue Cycle Team	Roll out of automated email system consistent with current process of incomplete operative notes.

| 2. **Goal/Expectation:** *Good Citizenship Criteria: Complete encounters and submit charges through the electronic health record (EPIC): 90% within 5 business days from date of service; 100% within 7 days unless on leave/vacation.* ||||||

Action Step	Responsible	Timeline/ Timeframe	Resources Required	Success Criteria/Results
A. SOM Good Citizenship Criteria adherence for faculty compensation. At time of Z-Payment submission by the Department Administrators, they are responsible for reviewing and holding faculty accountable to the Good Citizenship Criteria and overdue encounters. As an additional review measure, Clinical Affairs will review Open Encounters Dashboard and identify those faculty currently not in standards.	Greg Vervoort SOM Department Chairs and Administrators SOM Finance Portfolio Managers SOM Clinical Affairs team: Courtney Fisher	January 31, 2023	Z Payment Submission Tool	Faculty will have an opportunity to correct and close encounters to be eligible for next Z Payment submission date. Results with adherence to policy would reflect all charges through the electronic health record (EPIC) would be 90% complete within 5 business days from date of service, or 100% within 7 days.

V.2. Patient Encounters Data				

1. Goal: Enterprise Revenue Cycle Management (ERCM), in collaboration with SOM Clinical Affairs and PBG, will work with EPIC IT team to resolve data integrity issues with reports related to open and closed encounters. Develop a report of those encounters closed greater than 360 days and/or those encounters assigned a "dummy" code due to untimely filing.

Action Step	Responsible	Timeline/ Timeframe	Resources Required	Success Criteria/Results
A. Data Management: Align providers and templates to SOM Departments to eliminate "Null" category	Gregory Vervoort Clinical Affairs: Courtney Fisher, Cristina Navarro Ambulatory Operations: Douglas Niedzwiecki, Branden Manuel	January 31, 2023	EPIC Team: Audrey Walker PBG Team: Templates: Maria Martinez	Dashboards should populate with no "Null" categories in the filters.
B. Develop a report/dashboard to provide information on closed encounters with denials related to timely filing or those closed greater than 360 days due to untimely filing.	April Montes, Becky Cloud-Glaab	January 31, 2023	EPIC Reporting Team	A validated report/dashboard with encounters closed automatically at 360 days, along with those encounters closed that were denied due to timely filing.

V.3. Standardized Reports Supporting Key Performance Indicators				
1. Goal: Increase data optimization and capabilities by developing raw data reports or saved queries for PBG for specific KPI reports to allow easy access to analyze and validate.				
Action Step	**Responsible**	**Timeline/ Timeframe**	**Resources Required**	**Success Criteria/Results**
A. PBG currently uses a data warehouse which allows PBG, departments, and others to get to these metrics and drill down to the raw data. Key metrics such as Net collections, AR days, and Lag days, are derived from the EPIC's Financial Pulse which currently does not have capability to drill down to the raw data. Due to the volume and complexity of PBG data, obstacles can arise when calling large volume of records. Often, we are dealing with records exceeding in the millions, and this is too much for tools such as Excel to handle. These types of requests need other database tools to extract and other types of delivery to deliver the data in a safe and secure method. One of our plans to alleviate this issue is to create more targeted date searches in our reporting tool to allow for smaller date range requests. This can be completed by April 30, 2023.	April Montes PBG Decision Support Services (DSS) Team, SOM – PBG; Business Office	April 30, 2023	EPIC Reporting Team	Improved data review and reporting to Executive Leaders for better review, validation, and analysis.

Action Step	Responsible	Timeline/ Timeframe	Resources Required	Success Criteria/Results
B. For the Financial Pulse detail, our plan is to move the derivation of this KPI to our own comparable calculation within our own data warehouse which allows us to retrieve the raw data easily. The plan can be completed within the date range of April 30, 2023 and July 31, 2023.	April Montes PBG Decision Support Services (DSS) Team, SOM – PBG; Business Office	Date Range: from April 30, 2023 to July 31, 2023	EPIC Reporting Team	Improved data review and reporting to Executive Leaders for better review, validation, and analysis.