Robotic Process Automation
Revenue Cycle Management
ICD Code Correction

SphereGen Case Study

It is estimated that errors occur on 50-80% of all medical claims. One of the most common errors in claims processing results when incorrect ICD codes are assigned to a claim.

Learn how SphereGen helped a Connecticut hospital implement Robotic Process Automation (RPA) to automate the analysis of rejected claims to correct the billing codes in error and resubmit the claims for processing.

UiPath™ Partner
SILVER

OVERVIEW

Efficient claims processing is vital in the healthcare industry, ensuring timely reimbursements, accurate financial reporting, and improved patient satisfaction. However, manual errors and inefficiencies in claims processing can lead to significant delays and financial losses for healthcare providers.

To address these challenges, the implementation of Robotic Process Automation (RPA) has emerged as a transformative solution. This use case explores how SphereGen used RPA to correct claims processing errors within eClinicalWorks, a popular electronic health record (EHR) system.

Challenge

A Connecticut hospital was experiencing costly delays in their revenue cycle due to manual rework required for incorrect or missing billing codes on claims. The time needed to fix rejected claims required 6-8 minutes of manual effort per transaction. At 150 transactions per week, the time needed to address this challenge required 15 – 20 hours per week for 1 staff member.

Solution

SphereGen created an automation which analyzes rejected claims for errors within the eClinicalWorks platform. If the error relates to an incorrect or missing code assignment, the automated web bot corrects the billing code errors according to a rules-based algorithm. The corrected bills are then resubmitted for claims processing.

RESULTS

Due to the RPA automation to fix rejected claims, there is no longer any manual effort required to fix billing codes.

Enhanced Productivity

40%

Automation saves 1 FTE 15-20 hours/week

Claims Processing Time Reduced

65%

Processing time reduced from 6-8 minutes/claim to 2

Cost Savings/Year

$55K

Money saved from ability to shift FTE to other priorities

THE DETAILS

Claims processing involves a complex series of tasks, including data entry, verification, validation, and adjudication. Errors can occur at any stage, resulting in claim rejections, denials, or underpayments. Common mistakes include incorrect patient demographics, mismatched procedures, and diagnosis codes, missing or incomplete information, and inconsistent billing practices. These errors not only disrupt cash flow but also strain relationships between healthcare providers, payers, and patients.

Our client needed to reduce the manual effort and time required to review rejected claims, research appropriate codes, then correct and resubmit the claim. Implementing an RPA automation helped them reach this goal.

APPROACH

Robotic Process Automation (RPA) is a technology that uses software bots or "robots" to automate repetitive, rule-based tasks traditionally performed by humans. RPA offers several advantages for claims processing, such as increased accuracy, faster turnaround times, improved compliance, and enhanced scalability. By leveraging RPA within the eClinicalWorks platform, our client could rectify errors and streamline their claims processing workflows.

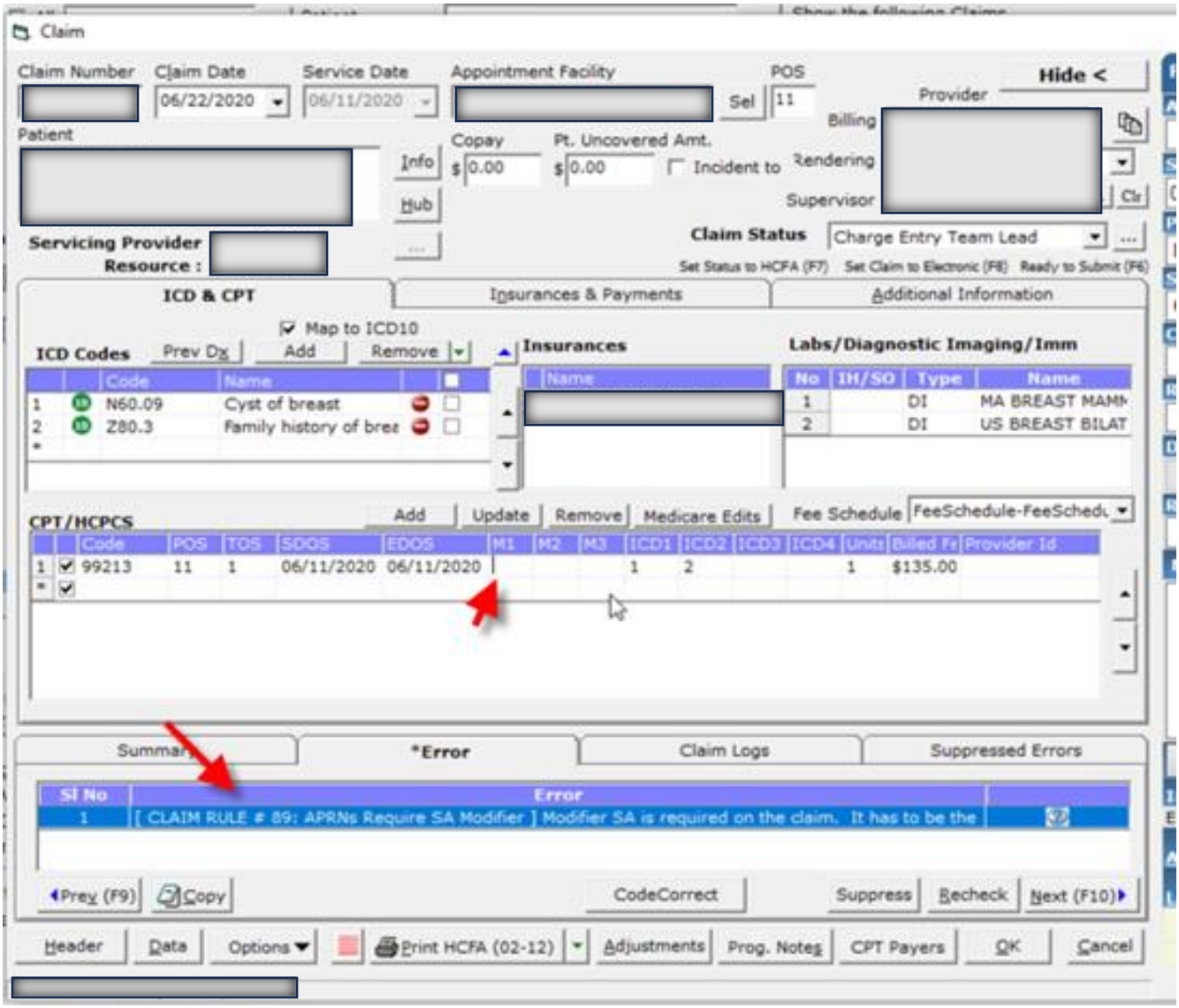
Error Identification and Data Validation

An unattended bot reviews any claims data within eClinicalWorks which has been rejected. The bot then compares this data against predefined rules and regulations. Logic within the automation identifies errors such as missing or inconsistent information, and validates the accuracy of patient demographics, procedure codes, and insurance details.

When processed manually, the time required to complete each claim correction took upwards of 7 min per transaction. The automation can retrieve, correct and resubmit each flagged claim in 2-2.5 minutes. Additionally, the Bot can continually run to keep processing back errors, significantly reducing the transaction backlog.

THE DETAILS

Bot processing Claim Error – Missing SA Modifier

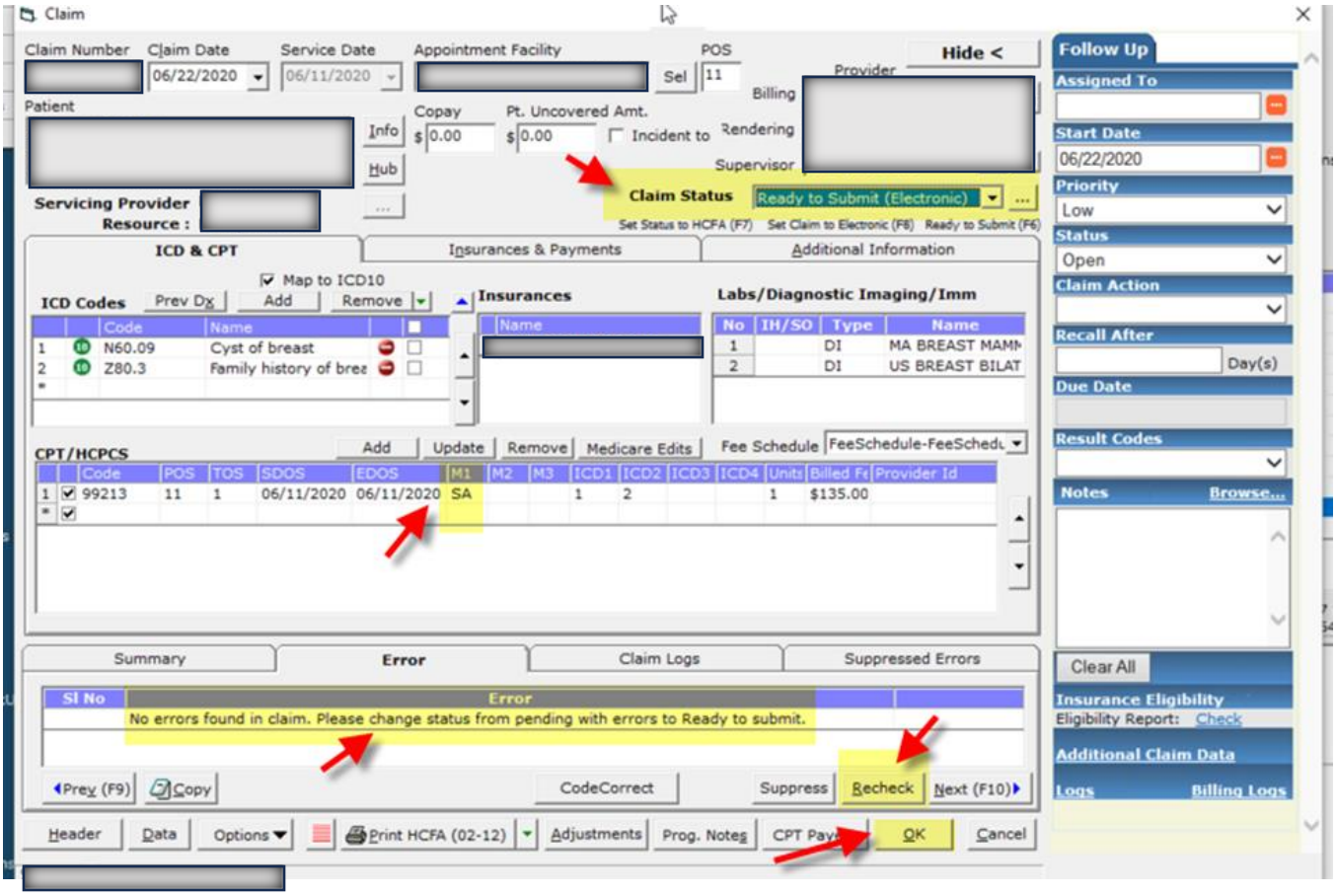


THE DETAILS

Error Correction and Resubmission

Once errors are identified, the automation corrects them within the eClinicalWorks system. Patient records are updated with revised billing codes and any discrepancies are rectified, ensuring that claims are resubmitted with accurate information. Once all appropriate corrections have been made, the automation electronically resubmits the claim to the intended target platform.

Bot has fixed Claim Error – Claim is ready for resubmission



Processing Time

This automation runs consistently on a 24/5 basis. On average, the bot processes about 150 claims per week in 5 hours time. Since the bot runs unattended there is no manual interaction required, thereby saving our client 15-20 hours per week. By automating error correction, RPA significantly reduced the time and effort previously required, accelerating the overall claims resolution process.

CONCLUSION

The integration of Robotic Process Automation (RPA) within eClinicalWorks proved to be a powerful solution for correcting claims processing errors for our client. By automating error identification, data validation, correction, and resubmission, RPA streamlined the claims workflow, reduced manual intervention, and enhanced accuracy. In addition, the issue of scalability can be addressed, as the bot immediately addresses any increased processing caused by peak claims transaction flows.

The areas where our client is able to see substantial savings:

- **Enhanced Productivity –** by gaining 15-20 hours/week, 1 staff member now has much more time to focus on other areas which may enhance patient satisfaction.
- **Faster Turn Around Time –** decreasing processing time by 60-75% translates into shortening the revenue cycle.
- **Cost Savings –** decreasing rework saves an average of $55,000/year.

This automation has been running for over 2 years. In fact, the process has been running so smoothly, the staff has actually forgotten that the task used to be a source of aggravation!

As healthcare providers continue to strive for operational excellence and financial stability, embracing RPA to facilitate integration of EHR platforms emerges as a key strategy to optimize claims processing and enhance overall performance. This particular automation was built to interact with the EHR platform eClincalWorks, however RPA automations can be adjusted to work with any EHR platform.

SphereGen is a technology company that specializes in developing innovative solutions in Healthcare to improve patient experiences and outcomes. Our customer-centric approach focuses on finding the right solution to meet the need at hand, using technologies like Robotic Process Automation (RPA) to improve workflow and productivity. In support of general Healthcare requirements, we also offer custom software services in Application Modernization/Support and Extended Reality.