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Dealing With Claims Denial the Smart Way

An AI-powered platform helps healthcare overcome challenges posed by claims denial
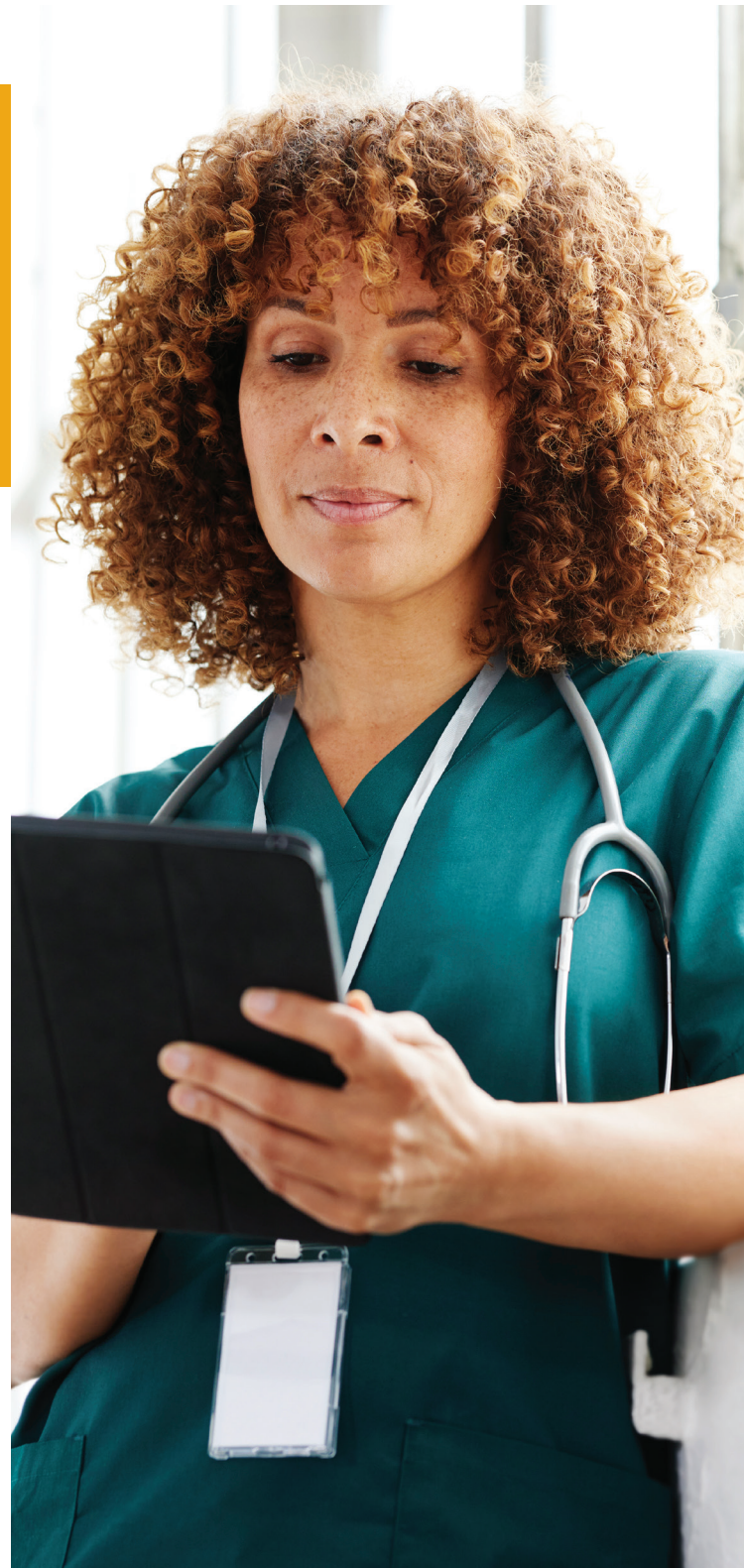
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Introduction

Claims denial is a harsh reality in healthcare, undercutting the bottom line of companies in this industry. According to Healthcare Financial Management Association (HFMA), up to 65% of claim denials are never worked, resulting in an estimated 3% loss of net revenue. For those that are reworked, the average cost is $25 per claim.[1]

Quantitative data aside, the constant rework that claims denials induces also distracts health systems from improving patient care and hampers their revenue cycle management (RCM) initiatives.

Over the years, healthcare companies have tried to resolve the challenges of denial management with various solutions, including manual bookkeeping and lean processes; some have even introduced analytics-based solutions. But because these solutions either address only part of the larger problem or are narrow in their intent, denial management continues to be problematic.

While the challenges related to the business processes of payers, plans and products will continue — issues over which organizations might have little control — what healthcare companies can do is use analytics, robotics and artificial intelligence (AI) to overcome the problems and limitations IT and process systems cause.

> Healthcare companies can overcome claims denial challenges with analytics, robotics and AI.

What's behind the denials?

Each denied claim can have multiple causes. And each of those causes can have further issues associated with it. The exponential nature of this situation results in a complex system with varied data types and data sets. This is why managing denials continues to be extremely challenging. The ever-increasing number of insurance plans and products, as well as the proliferation of high-deductible health plans aren't helping either. This means that patients are now paying more than ever and hospitals are seeing a significant increase in patient cash collection.

Disjointed systems, processes and workflows within health provider organizations, as well as incompatible IT systems, often lead to untimely denial filings and increased cost to collect. Most importantly, companies don't have the right reporting and diagnostic tools to review denials data. These tools are the first step in denial resolution management. Even as healthcare systems work toward identifying the root cause of denials, traditional analytics have been reactive at best. Companies devote a lot of time, money and resources just to reviewing trends and analyzing denials manually, and to attempting fixes after the fact. As a result, certain types of denials continue, hurting healthcare's bottom line.
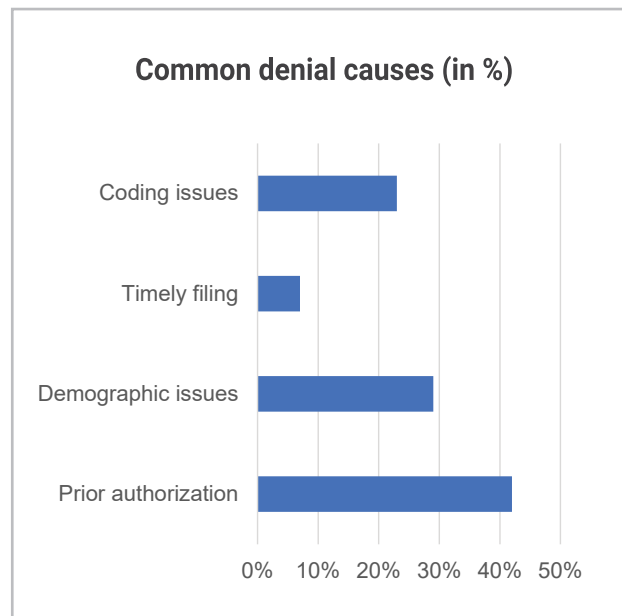

Common denial causes (in %)

Figure 1: Common causes of claim denials [2]

Many healthcare companies use a claim scrubber or rules-based protocols to help flag any incorrect coding issues, payer-specific guidelines or other user-defined scenarios. However, these rule-based scripts filter out denials based on specific criteria and don't cover all denial causes. Some of the challenges of such scripts include:

- **Poor efficiency.** The program often includes manual processes, relying on the expertise of the denials officer. This makes the system only as efficient as the most inefficient employee.
- **Inadequate denial coverage.** The program does not include non-coding denials, such as duplicate claims, eligibility issues, untimely filings and authorizations/pre-certifications.
- **Looping learning back into the system.** Even as claims edits are implemented, there's no guarantee that the system has resolved the issue and learned from it.
- **Constantly changing payer thresholds.** Although the criteria for a denial might be spelled out, thresholds are dynamic and often change over time. A static rules-based engine isn't able to deal with this fluidity

In the case of coding denials, once a denial trend is identified, the knowledge should cascade down to the coders, improving the healthcare system's efficiency. The reality, however, is quite different; coders don't always meticulously follow or implement the necessary steps. Plus, insurance companies address denied claims via different methods (such as refile, reconsider and appeal), which can include manual processes, and the accrued knowledge fails to loop back into the system.

Figure 1 highlights the most common causes of claims denials across front-office and back-office systems, , including claims not filed on time, incorrect demographic data, failure to obtain authorization and other issues like coding and billing errors or inaccuracies.

Adding intelligence to data

The revenue cycle mangement (RCM) industry could use data analytics, robotic process automation (RPA) and AI to overcome denial challenges. In fact, the vast amount of data generated in the claims industry can open doors to key insights and provide the answer that RCM has been seeking — AI-based solutions for denial management.

With unmatched speed, breadth and depth, AI can learn to view, classify, analyze and discern patterns in data sets in ways that were previously impossible. Such an engine could compile denial data and then:

- Classify based on how an agent addresses denials
- Review based on parameters (such as paid, denied again for the same reason or denied for a different reason)
- Sort based on payer, denial code, client and specialty
- Provide basic inferences on areas of concern or those that need focus
- Predict future denials and provide solutions in advance
- Predict future collections to ensure consequential financials
- Improve both overall turnaround time and claims cycle time
- Determine correlations with multiple variables to find the root cause

Using automated discovery and analysis of patterns, AI can help insurance companies nip issues in the bud, pull up denials that have a low chance of being accepted and guide agents to close out claims that have a higher chance of being approved.

Denial management at NTT DATA

NTT DATA developed a denial management platform that uses machine learning and intelligent automation to significantly simplify the denial management process.	**The platform:** • Discovers insights using advanced machine learning algorithms, deep learning neural networks, and prescriptive and predictive modeling, applying that insight to core business processes • Builds and optimizes prediction models using an intuitive, user-friendly interface for reinforcement learning and self-guidance

The denial management platform is compatible with leading business process management (BPM) solutions and, based on customer needs, can be plugged into the NTT DATA Nucleus Workflow. As the brain of the automation engine, Nucleus Workflow enables the denial management system to work with other tools within its scope, such as NTT DATA Nucleus Intelligent Data Processing (IDP). Nucleus IDP bolsters the system by collecting data from heterogeneous sources, including image files and documents, and providing the system with the data needed to reveal critical, timely insights into the claims process. Eventually, the platform can guide the system to reduce denial rates while increasing future claim acceptance rates.

The platform helps claims agents by analyzing data in various stages and identifying the root cause of a denial. It also provides details for the reasons behind and the stages of denials. With specific information on denial spread, as well as detailed analysis of the processes that impact denials, the platform can determine the regions, providers and insurance types that have the highest denial rates. It can also check claims in real time and verify patient diagnoses and medical codes to ensure compliance before submission.

Unlike other AI platforms available in the market that are primarily tool-based and require data scientists to operate, business analysts or subject-matter experts can operate the denial management platform, thanks to its easy-to-use graphical user interface. This platform also integrates with all current RCM software.

Medical management company improves process efficiency and recovers costs faster		
Business Need	**Solution**	**Outcomes**
A medical management company serving midsize physician practices (up to 100 providers) in multiple clinical specialties across the U.S. faced stiff competition from software-as-a-service providers. It had several manual processes, high administrative expenses and low customer satisfaction. The company also needed to reduce delivery costs by half, to enable enterprise growth.	NTT DATA introduced the claims denial management platform and other RPA tools, integrating them into the client's business process and IT systems. It improved efficiencies, quality and productivity through application rationalization, testing and our proprietary Nucleus Workflow. The new model is flexible and can incorporate additional claims volume, as well as integrate seamlessly with new systems.	• Helped the client identify claims with up to 97% accuracy • Provided case-level suggestions to fix claims, generating 30% in cost savings through automation • Saved 50% overall through integrated RPA delivery over an 8-month transition period • Enabled flexibility to incorporate additional claims volume and integrate with new systems

Our top 10 recommendations

As NTT DATA continues to help healthcare companies navigate the complex world of denial management, here are our top 10 recommendations for clients:

1. **Focus on first-pass resolution.** Metrics like first-pass resolution ratios help track denials after claims are transmitted from the clearinghouse. A sub-classification of coding and non-coding is also beneficial.

2. **Perform deeper analysis.** A standard deviation analysis, apart from a trend analysis, provides a deeper understanding of the variations, including physician, payer and issue code analysis.

3. **Create pre-work edits.** Before sending claims to the clearinghouse, edits based on observations from coding denial trends and analysis can add new rules based on previously observed denial trends.

4. **Perform basic clearinghouse edits.** Edits should be checked prior to the clearinghouse process by working in tandem with the clearinghouse.

5. **Analyze non-coding denials.** This includes denials related to eligibility, credentialing, timely filing and duplicates.

6. **Bill eligibility denials.** Specific eligibility-related issues, including claims adjustment reason codes and remittance advice remark codes, should be billed directly to the patient, because insurance will reject them. Doing so saves billing time and cost.

7. **Conduct advance checks.** Developing more eligibility-related edits can help track and identify denials in advance by comparing when eligibility begins versus the date of service.

8. **Hold non-credential claims.** Charges for non-credentialed claims should be held, not transmitted. Once the credentialing step is completed, claims can be released.

9. **Load timely filing claims.** These deadlines should be added to the system based on the payer, and alerts should be sent to accounts receivable in advance of the filing limit.

10. **Code denials.** Additional trending analysis of denials should focus specifically on current procedural terminology, international classification of diseases, place of service, provider type and modifiers.

Conclusion

Claims denial in healthcare is a complex and challenging problem. Over the years, the industry has had limited success dealing with it. But with new AI-based solutions that use data analytics and RPA, companies have a real chance at overcoming claims denial problems.

NTT DATA created an AI-based denial management platform to help companies in the healthcare industry manage claims denials. The platform pre-empts issues, pulls up denials that have a low chance of being accepted and guides agents on closing out claims with a higher chance of approval. We've deployed this solution for a number of healthcare companies and are seeing positive results.

About the authors

Dr. Harsh Vinayak, Senior Vice President, NTT DATA Services
Harsh Vinayak leads the Intelligent Automation and Data Services group that is responsible for developing NTT DATA's Nucleus Intelligent Enterprise Platform. Dr. Vinayak has extensive expertise in designing and executing innovative solutions for wide ranging fields, from process automation, deep learning artificial intelligence and military drones to rotary wing vehicles. His background in advanced research and development uniquely positions him to provide clients with informed solutions based on cutting-edge technology.

Dhurai Ganesan, Senior Director, Intelligent Automation and R&D, NTT DATA Services
Dhurai's interests include AI and cognitive automation. He has helped build end-to-end RPA creation, deployment and management ecosystems for identifying automation opportunities through an enterprise innovation program. Dhurai has scaled businesses, teams and operations, delivering more than 4,500 FTE savings in the healthcare payer, provider, life insurance, hospitality, life sciences and banking domains.

Babu Pallipat, Senior Director, BPO, NTT DATA Services
Babu has over 25 years of experience in the U.S. healthcare industry, managing operations and service delivery for provider and hospital-based clients. Over the past two-and-a-half decades, he has helped healthcare clients deal with more than 40 different practice management systems, 30 specialties and 60 service lines in the RCM cycle. Babu continues to help clients improve cycle time, collections and overall revenue by focusing on their processes, productivity, quality and service-level agreements.

Sources

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