

Tackle Denied Claims Challenges, Improve Cash Flow and Increase Administrative Savings

NTT DATA Denial Management with Artificial Intelligence Platform

Benefits:

- Make contextual predictions (with up to 95% accuracy) and forecasts based on historical data and future scenarios
- Improve decision-making capabilities by applying intelligent insights to data
- Provide key contextual analytics to data and information
- Increase process efficiency while reducing turnaround time
- Improve cash flow through improved first-time claim filing

Healthcare organizations have tried to address the revenue leakage issues that denied claims cause with varying success, as technology and process-based solutions seem to solve only part of the problem. And as the rapidly changing healthcare industry gets even more complex, denied claims can have multiple causes — given the ever-increasing number of insurance plans and products available — making it more difficult than ever to remediate denials.

What's more, an increase in denied claims means higher costs for patients. The constant rework of denied claims not only distracts you from improving patient care but can also hamper your revenue stream. You need a trusted provider to help you resolve accounts and refile denied claims.

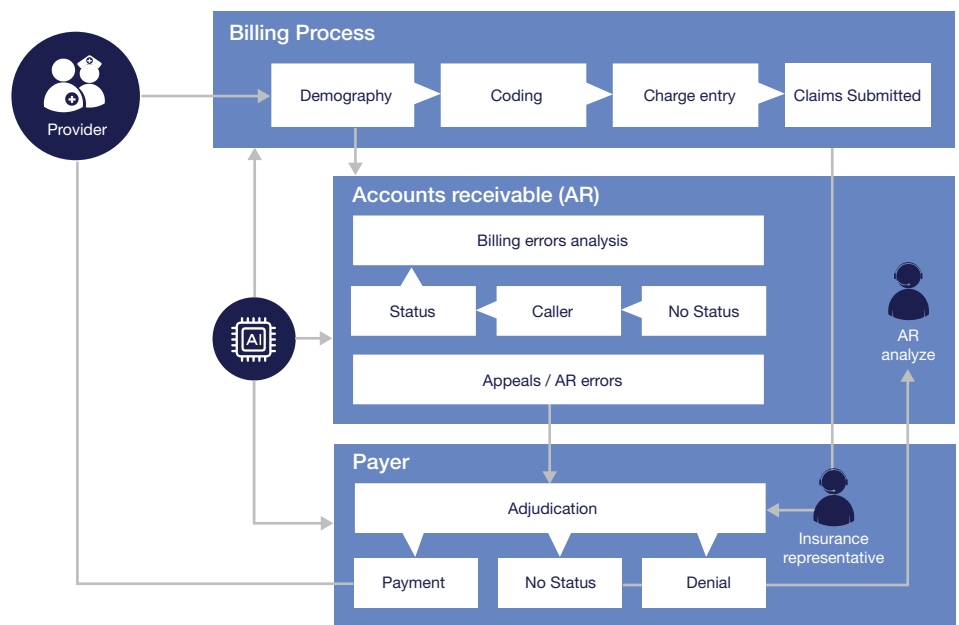


Figure 1: Denial prediction and prevention with NTT DATA

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Transforming denial management with NTT DATA Services

The NTT DATA Denial Management Artificial Intelligence (AI) Platform transforms denial management end to end and helps speed up the process. It uses machine learning and intelligent automation to simplify the denial management process. This intelligent platform actively learns, constantly adapting and evolving — far beyond human thinking and capabilities. It can help you:

- Discover insights using advanced machine learning algorithms, deep learning neural networks, and prescriptive and predictive modeling, and then apply those insights to your core business processes
- Build and optimize prediction models using an intuitive, user-friendly interface for reinforcement learning and self-guidance



Figure 2: NTT DATA Denial Management AI Platform

The NTT DATA Dynamic Business Process Management Suite (DBPMS) is the automated workflow engine of our Denial Management AI Platform, and is compatible with leading business process management solutions. DBPMS can manage and prioritize denials based on your preferences (such as by claim value or age) — in real-time. The suite uses a predefined configuration that automatically uploads claims and then routes them based on denial type and age, enabling faster turnaround of denial follow-up actions. As part of accounts receivable operations management, DBPMS has built-in dashboards to view denials by dollar value, aging days, payer and other variables.

Saving costs and improving claim payments

As the industry trends toward preventing denials, our customizable AI Platform seizes that opportunity to make advanced predictions using the NTT DATA Robotic Context Processor. An AI-based analytics modeling tool, the processor reads and analyzes information from heterogeneous data sources, image files and documents. The AI Platform then takes the most basic knowledge gathered through the processor and provides insights and denial reduction guidance to increase future claim acceptance rates. After extracting denied claims data from your practice management system, the AI Platform uses a machine learning algorithm — which creates a “brain of its own” with an advanced neural network — to develop predictive and prescriptive denial analysis.

The AI Platform can predict with up to 95% accuracy the probability of a claim being denied. It also enables your billing team to take corrective action before claims are submitted to an insurance clearinghouse. The platform:

- Helps classify newly denied claims and prioritize them for correction with prescriptive guidance based on historical trends
- Derives the root cause and solution using historical claims information with direct integration with your organization’s platform using AI and deep learning technology
- Predicts claim denial status and provides prescriptive solutions before submission

Key features

Real-time predict and prescribe: The AI Platform generates contextual predictions and forecasts based on historical data and future scenarios. It improves decision-making capabilities by applying intelligent insights to data. The platform provides key contextual analytics to data and information, and increases process efficiency while reducing turnaround time. It prescribes the top three probable and potential reasons with confidence levels, and the diagnostic module lists the impacted data fields. Users can try alternative inputs for each field manually, as well as check potential outcomes in real time. The platform compares diagnostic results to initial predictions for final user-specified actions. Users can also select the best combination and redo predictions for updated entries. The prescriptive capabilities empower users to confidently perform diagnostic validation with various possible input combinations before making any changes or necessary corrections.

Automated appeals writing: On average, denial analysts spend at least 5 to 8 minutes drafting appeal letters that require standard information, such as processed date, claim number, payor name and address, and dispute type. The personal robotic assistants (PRAs) bundled in the AI Platform create these letters by gathering these inputs, reducing processing time up to 30%.

A screenshot of the Heuri AI Platform interface. The interface is split into two main sections: 'Predictive' and 'Diagnostic'. The 'Predictive' section shows a table of predicted results for a claim with CPT code G0480. The 'Diagnostic' section shows a table of diagnostic results for the same claim. Below these tables, there is a 'Denial Code Details' section and a 'CPT Specific Info' section with a 'Diagnose' button. The interface is modern and user-friendly, with a blue and white color scheme and clear data presentation.

Predictive Result				Diagnostic Result			
#	CPT	Denial Code	Confidence	CPT	Denial Code	Confidence	
1	G0480	CO-87	82.4%	G0480	CO-87	82.4%	
2	80348	CO-181	29.0%	80348	CO-181	29.0%	
3	80355	CO-181	25.4%	80355	CO-181	25.4%	
4	80341	CO-244	22.4%	80341	CO-244	22.4%	
5	80354	CO-181	20.8%	80354	CO-181	20.8%	
6	80360	PR-14	32.8%	80360	PR-14	32.8%	
7	80362	PR-14	31.4%	80362	PR-14	31.4%	
8	83992	PR-14	29.4%	83992	PR-14	29.4%	

Predictive Result				Diagnostic Result			
Rank	Denial Code	Confidence	Result	Rank	Denial Code	Confidence	Result
Top-1	CO-87	82.4%	PAID	Top-1	CO-87	82.4%	PAID
Top-2	PAID	41.3%	PAID	Top-2	PAID	41.3%	PAID
Top-3	CO-14	2.0%		Top-3	CO-14	2.0%	

Denial Code Details:

- CO-181: Procedure code was invalid on the date of service.
- CO-244: This non-payable code is for required reporting only.

CPT Specific Info:

DiagnoseCode: 279.091 ✓
CPTCode: G0480 ✓
Mod1: ✓
Mod2: ✓
Mod3: ✓
Mod4: ✓
POS: 11-Office ✓

Diagnose

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Automatic web status verification:

The AI Platform enables automated verification of claim status from payer portals. DBPMS integration with your practice management software enables the platform to automatically pull the required data points — like claim number, patient name, policy number, date of service and billed amount — to perform automated verification by logging into payer web portals. This helps improve the turnaround time of status reports for claims with higher aging days, reducing potential revenue loss.

Automated pre-call analysis: PRAs help create an account/claim summary by reading and analyzing claim history to determine the next required step. This improves the time it takes to complete denial analysis on an account.

Security framework: The Denial Management AI Platform provides enhanced security features, including static and dynamic analysis of code and manual pen testing. Code security can be measured using industry-standard security tools, such as IBM AppScan, for security certification.

The Denial Management AI Platform gives your organization the ability to:

- Assist claims agents on the job by analyzing data in various stages
- Pinpoint the root cause of the claim denial
- Provide detailed information on denial spread and detailed analysis of the processes that impacted the denials
- Offer details on the reason(s) and stage(s) creating a delay
- Determine the regions, providers and insurance that have the highest denial rate

- Ensure on-time claims submission, improving overall turnaround time and collection efficiency
- Effectively track denial activity, identify new rules, and generate an exhaustive and automatically distributed set of rules over the entire network for comprehensive claims qualifications
- Check claims in real-time to verify patient diagnosis and medical codes to ensure compliance before submission
- Automatically alert for events such as denied claims, claim resubmissions and date tracking
- Seamlessly integrate with your existing software

Unlike other AI platforms available in the market that are primarily tool based and require data scientists to operate, our AI Platform is based on graphic user interface and automated model builder concepts so domain experts, such as business analysts and subject-matter experts, can easily operate it.

The Denial Management AI Platform leverages a multi-layer deep learning architecture to discover invisible global relationships and patterns between unrelated elements to provide valuable, concurrent insights to healthcare organizations on medical claims submission and processing. This helps reduce the cycle time of denied claims with effective follow-up — so accounts can be resolved quickly and seamlessly.

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-service providers. It had several manual processes, high administrative expenses and how 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 in to the client's business process and IT systems. It improved efficiencies, quality and productivity through application rationalization, testing and our proprietary DBPMS. The new model is flexible and can incorporate additional claims volumes, as well as integrate seamlessly with new systems.	<ul style="list-style-type: none"> • Helped the client identify claims with up to 97% accuracy • Provided case-level suggestions to fix claim, 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

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