

# Advancing AI in PI: When to Harness Its Power and When to Exercise Caution

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A Success Kit on Payment Integrity in the Age of Advancing AI

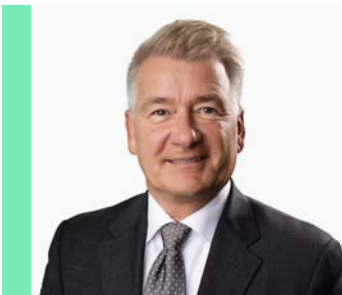


# Foreword

In an era defined by technological advancements, the landscape of payment integrity is rapidly evolving. As transactions become more complex, organizations face increasing challenges to maintain accuracy, efficiency, and security. However, with the advancement of Artificial Intelligence (AI) and Machine Learning (ML), new opportunities continue to arise to enhance payment integrity.

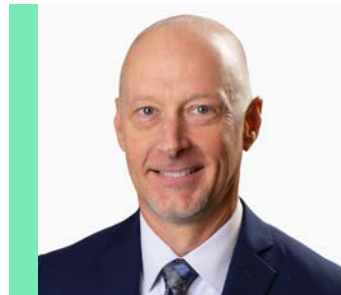
AI and ML tech play a pivotal role in revolutionizing payment integrity processes. By analyzing vast amounts of data sets, detecting patterns, and learning from historical transactions, AI can identify anomalies, predict issues, and automate decision-making with unprecedented speed and accuracy. These capabilities enable organizations to streamline operations, reduce manual errors, and detect potentially fraudulent activities more effectively. However, they can also create additional burdens and there are areas where efficiency could come at a price that includes more false positives, increased provider abrasion, and reduced patient satisfaction.

The impact of AI and ML on healthcare payment integrity is profound, offering opportunities to improve accuracy, efficiency, and cost-effectiveness while facing challenges that must be carefully managed. As the tech advances, we must continue to monitor these tools to determine where they are integral to the healthcare payment system and where expert humans in the loop must continue to be deployed. In this article, we take a deeper look at how we can harness AI power now and where we should be cautious about utilizing it without more extensive governance. We hope it helps you navigate the complexities with confidence.



**Greg Dorn**

President



**Steve Sutherland**

SVP of Information Systems

# Harnessing Its Power

Healthcare payment integrity (PI) aims to ensure claims are paid correctly and potential fraud is minimized. Advancements in AI and ML have significantly impacted the PI process in several key areas including:



## **Prepay prevention:**

AI and ML algorithms can analyze large data sets, identify patterns, and predict potential for errors or potential fraudulent activity. Traditional methods may require manual audits of a small percentage of claims, which can be inefficient and prone to error. AI can continuously monitor all transactions at all times and flag anomalies much more quickly and at a greater scale than humans. This allows organizations to prioritize review processes and focus resources on the claims that are most likely to have issues.

## **Coding inconsistencies:**

AI algorithms are excellent at detecting billing and coding inconsistencies that can lead to incorrect payments. By learning from historical data, AI systems can predict and identify an inconsistent method of billing across large billing data sets before payments are made.

## **Cost containment:**

AI and ML contribute to cost containment by identifying wasteful spending, such as the overutilization of services or the use of higher-cost services when lower-cost alternatives are available. AI systems can ensure services rendered are consistent with efficient, cost-effective care that follows evidence-based guidelines.

## **Data quality improvement:**

Good data is the backbone of any payment integrity program. AI can assist in cleaning and normalizing data, which is crucial for accurate analysis. AI systems can process unstructured data, such as doctors' notes or lab results, converting them into structured data that can be analyzed for payment integrity purposes.

## **Targeted training and billing modification:**

AI can identify providers who frequently submit erroneous claims and detail where aberrancies are found. Health payers can then engage with these providers to educate them about proper coding and billing practices to prevent future errors.

## **Routine efficiencies:**

Routine tasks associated with payment integrity, such as data entry, claim status checks, and pre-authorization of procedures can be automated with AI. This automation increases efficiency and allows humans to focus on more complex tasks that require judgment and expertise.

### Personalized healthcare management:

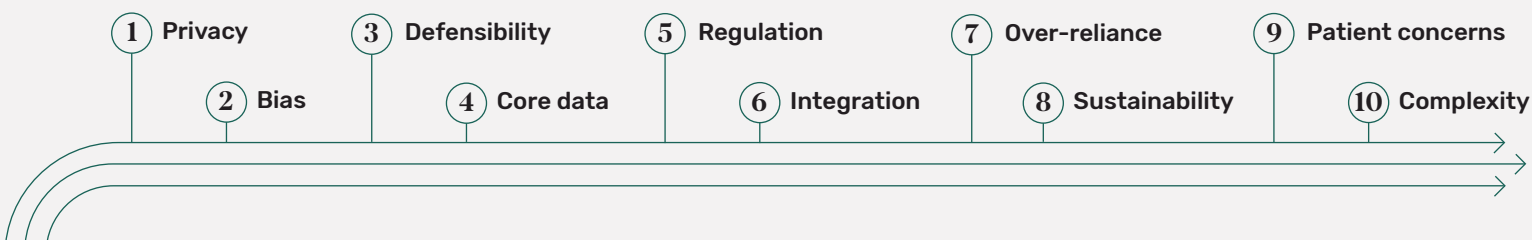
By analyzing individual patient data, AI can help tailor healthcare plans to individual needs and proven treatment plans, potentially lowering costs by avoiding unnecessary treatments and ensuring patients receive appropriate care for their specific conditions.



## Exercising Caution

While the benefits are substantial, there are challenges to the widespread adoption of AI in healthcare payment integrity, including data privacy concerns, high-quality data, clinical and coding human expertise to build sound and defensible programs, and the potential for bias in AI algorithms. Also, there are significant costs associated with implementing these advanced technologies, and the benefits must be balanced against these costs.

While AI offers substantial benefits to healthcare payment integrity, there are long lists of concerns and challenges associated with their adoption, including these key areas:



### Data privacy and security:

Implementing AI requires access to large volumes of sensitive patient data. Ensuring the privacy and security of this data is paramount to complying with laws like HIPAA. There is also a risk of data breaches, which can have severe consequences.

### Algorithmic bias and ethics:

AI systems are only as unbiased as the data they are trained on. If the underlying data has biases, the AI can perpetuate or amplify these biases, leading to unfair or discriminatory practices. There are ethical considerations regarding the extent to which decision-making should be outsourced to AI, particularly decisions that could significantly impact patient care.

**Transparency and defensibility:**

Many AI models are often seen as "black boxes," where the decision-making process is not transparent. This lack of transparency can be problematic in healthcare, where stakeholders need to understand the basis for decisions that impact patient care and payment decisions to be able to defend why steps were taken, and bills were reduced.

**Dependence on data quality:**

The accuracy of AI predictions and the effectiveness of machine learning are highly dependent on the quality of data. Inaccurate, incomplete, or inconsistent data can lead to incorrect conclusions and actions.

**Regulatory challenges:**

As AI in healthcare is still an evolving field, there may be gaps in the regulatory framework. There is uncertainty about liability if an AI system makes an error that leads to financial or clinical harm. Also, healthcare regulations are complex and ever-changing. And AI systems must be updated quickly to reflect new regulations, ensuring that claims are always reviewed in light of the most current legal framework.

**Integration with existing systems:**

Integrating AI tools with current healthcare IT systems can be complex and costly. These systems often operate in silos and may use different standards and formats for data.

**Over-reliance on technology:**

There is a risk that healthcare providers and payers might become overly reliant on AI, potentially ignoring or undervaluing human expertise and intuition.

**Long-term sustainability:**

As AI systems require continuous learning and updating to remain effective, there is a need for ongoing investment in resources and expertise to build models that work best within a payer's specific ecosystem.

**Patient consent:**

There may be concerns about consent, particularly in how patient data is used to train AI models. Patients may be unaware of how their data is utilized in AI-driven processes. Also, in today's environment of security breaches there is heightened data usage sensitivity by all healthcare consumers.

**Complexity of healthcare claims:**

Healthcare claims can be incredibly complex, and AI systems may not always be adept at navigating the nuances of different cases, leading to errors in judgment.

These concerns require careful consideration, transparent governance, and the development of robust ethical frameworks to guide the responsible use of AI in healthcare payment integrity. Addressing these issues is critical to maintaining trust among all stakeholders and ensuring that the benefits of AI are realized without unintended negative consequences.



# Harnessing Its Power

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Implementing AI solutions to advance existing payment integrity models requires a strategic approach tailored to the challenges of a specific payer. Five key steps in the process should include:



**Assessment:**

Evaluate current payment integrity processes, identify the main pain points, and define objectives that you feel AI can support without hindering outcomes.



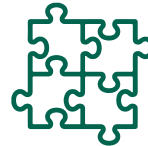
**Data Prep:**

Review data quality, document data access points, and determine data relevance and needs for your AI model training.



**Model Development:**

Develop AI algorithms tailored to address the challenges you have strategically documented, considering factors such as fraud patterns, compliance regulations, and transactional complexities.



**Integration:**

Integrate AI solutions into existing systems and workflows to ensure seamless operation and compatibility without hindering human processes and decision-making.



**Monitoring and Optimization:**

Continuously monitor AI performance and refine models based on real-world feedback, and adapt to evolving threats and regulatory changes.

# Summary

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As AI and ML technologies continue to advance, the future of payment integrity holds exciting possibilities. Key evolving trends to watch include the integration of AI with blockchain technology for enhanced security, the rise of explainable and defensible AI clinical decision-making and regulatory compliance, and AI-driven proactive risk management.

As AI advancements continue, we also must be hyper-vigilant about when and where it is being implemented and test our processes once AI models are in place to ensure there are no unintentional consequences.

**CERIS has partnered with payers across the nation to support their payment integrity program and help them advance where they are in their journey.**

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