Artificial Intelligence: Paving way for a self-learning and futuristic payment integrity model

Artificial Intelligence (AI) is all around and is now making rapid improvements across the healthcare industry too. In early detection platforms, pattern recognition in imaging and diagnostics data, improving workflow for clinical care, automatic claims processing, and many other uses. Can AI also be used to make a significant difference in the payment integrity function, which involves questioning the integrity of the payment against every claim before or after it is processed? Can AI provide additional insights that can reduce the significant loss due to fraud, waste or abuse and deliver profits? Not only do we think that it is possible, but a better, sophisticated payment integrity model can be delivered at much lower cost than traditional models.

A 2018 Gartner report says that, "From our ongoing industry conversations with US payers and the payment integrity vendors that support them, we estimate that 3% to 7% of all paid claims dollars in commercial business are improperly paid. Government programs have an even higher rate of payment errors. In 2017, the Centers for Medicare and Medicaid Services (CMS) calculated a 9.5% claims payment error rate, which contributed to $36 billion in overpayments."[1] A Gartner analyst predicts that with more complex and disruptive drugs on the way, claims processing is set to become more intricate, adding to the opportunities for fraud. Speaking to Wipro, the analyst said, "The industry has not even begun to stem the rising tide of payments fraud."

Ideally, payment integrity should allow health insurers to efficiently and transparently reimburse health insurance claims. However, traditional analytical and probabilistic systems scrutinize claims that have already been paid. The rule-based identification methods used require many hours of labor to configure and implement, requiring long turnaround times. Such investigations include a high proportion of false positives, leading to wasted efforts and rising frustration for payers and providers alike. When the analysis is incorrect, resulting in denied claims, there is the mounting risk of annoyed providers, and this directly impacts the

[1]Healthcare Payer CIOs, Look in the Mirror to Improve Payment Integrity, Mandi Bishop, Gartner, 5 September 2018

The rules-based identification methods used require many hours of labor and have large turnaround times.
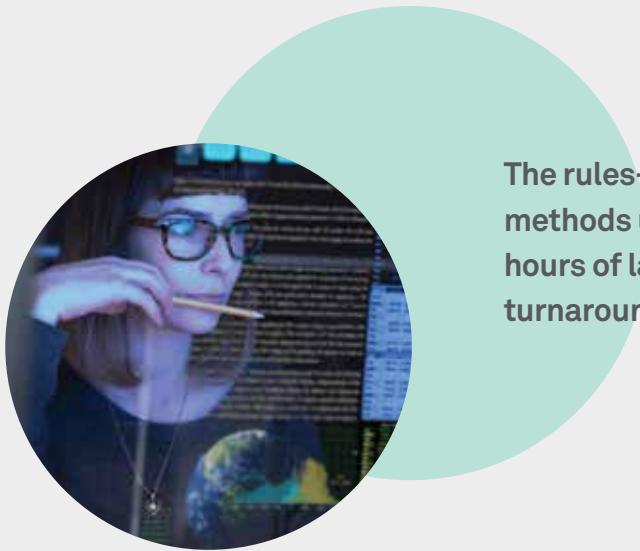
Net Promoter Scores (NPS) of the payers. On the other hand, if analysis detects a recoverable claim accurately, our experience of two decades in the industry tells us that the extent of the recovery possible is approximately 30% of the actual amount.

Clearly, the payment integrity function in healthcare is ripe for the application of AI such as Machine Learning, Deep Learning, Big Data Analytics, etc. Such predictive models will minimize revenue losses due to fraud and also improve provider experience, keeping NPS higher.

Smart and self-learning platform for payment integrity

Fortunately, there is a vast volume of data coming in from providers, members, labs, facilities, etc., which when coupled with readily available compute power for AI systems, is able to automatically and effectively recognize the patterns in these data sets, analyze outliers, and identify fraudulent claims. As the platform is fed with larger data sets, machine learning can be leveraged to improve existing analytical rules, flag risk factors, and assign risk scores to entities involved in making these predictive models even more efficient. Over a period of time this system is autonomous, capable of self-learning and becoming smarter, delivering quantum improvements in the output.

At a minimum, once a claim is processed through such a self-learning platform, the AI platform should be able to detect member eligibility and benefits problems, contractual gaps, or pricing errors, etc., providing a targeted list of claims or providers that the Special Investigation Units (SIUs) can take up for further investigation. An AI system can also offer additional insight to analyze top providers at risk for errant billing, their relationship with a set of members and interaction with them. Such a system can also provide geospatial analysis of providers and their members. Such analysis is helpful in identifying members that are located far from providers and have high occurrences of visits for routine services. A dashboard offers a 360° view of a provider such as services offered, top areas served, performance over time around claim volume, amount paid, amount denied, anomalies detected in the past. Access to such insights serves as a powerful tool for the SIU during investigations.

Complementary heuristic intelligent analytics should discern many other unusual patterns of claims submission and processing, thus making it possible to distinguish between true positive versus false positives claim errors. If such systems can reduce the number of false positives or suspicious cases to be investigated by a mere 10-20%, it will afford the SIU the time to focus on a greater number of appropriate cases, which can result in higher recovery.

AI is applicable for the pre-payment cost avoidance model too

An emerging trend in the industry is the shift from a post-payment recovery to a pre-payment cost avoidance model. This model helps avoid 100% of false claims costs in contrast to recovering only around 30% in the post-payment model, provided the anomaly detection process is advanced and agile enough to detect the fraudulent claims before they are processed for payment.

The pre-payment review of claims also reduces the cost that goes into reworking, reprocessing and recovering claims. However, despite the advantages, payers are very cautious to adopt this model as there aren't many good options. The primary reason for the caution lies in the fact that the model does not have a proven and well-demonstrated path to success. There is a limited window of time to examine a large volume of claims before they are processed and a delay in processing beyond statutory timelines could result in late payment penalties for the payers. The initial success we have seen shows that an AI based payment integrity function is uniquely positioned, in terms of agility and accuracy, to make the pre-payment cost avoidance model a reality soon.

Advancing into the future of payment integrity

While the pre-payment cost avoidance model has clear benefits, payers cannot make a 100% shift to this model due to its nascent nature. If they do, they will face varying challenges before the system becomes robust, quick and reliable. On the other hand, the post-pay model has known inefficiencies and needs modernization.

In the ideal scenario, a payer must seek to deploy both pre and post-payment models in tandem, maintaining a balance between the two without causing business disruption. Such an approach is possible when powered by an AI-based payment integrity platform and this is the inevitable future of the payment integrity function.

About the authors

Ajay Gupta
Client Partner, Health Business Unit,
Wipro Limited.

Ajay Gupta is Client Partner at Wipro's Health Business Unit, managing strategic account relationships; helping payers and providers along the transformation journey towards consumerism of healthcare by leveraging new age technologies and ideas such as Digital, Big Data Analytics, AI or Blockchain.

Robert S. Eichler
Managing Consultant, Health Business Unit,
Wipro Limited.

Rob Eichler provides Healthcare industry expertise and strategy in the areas of Analytics and Operations improvement. He brings 30 years' expertise in project leadership, process improvement, information analysis, technology implementation, healthcare operations and data management. His career experience spans the healthcare delivery and reimbursement continuum.

Wipro Limited
Doddakannelli, Sarjapur Road,
Bangalore-560 035,
India

Tel: +91 (80) 2844 0011
Fax: +91 (80) 2844 0256
wipro.com

Wipro Limited (NYSE: WIT, BSE: 507685, NSE: WIPRO) is a leading global information technology, consulting and business process services company. We harness the power of cognitive computing, hyper-automation, robotics, cloud, analytics and emerging technologies to help our clients adapt to the digital world and make them successful. A company recognized globally for its comprehensive portfolio of services, strong commitment to sustainability and good corporate citizenship, we have over 175,000 dedicated employees serving clients across six continents. Together, we discover ideas and connect the dots to build a better and a bold new future.

For more information, please write to us at **info@wipro.com**