The right prescription for provider compliance

Client story

Client	**Sector**	**Project**
Patient assistance foundation for global pharmaceutical manufacturer	Healthcare and life sciences	Advanced predictive risk monitoring tool

Client challenge

In the midst of efforts to enable thousands of uninsured and underinsured patients across the U.S. to continue receiving their medications free of charge, a patient assistance foundation for a global pharmaceutical manufacturer faced growing challenges. Using spreadsheets, it was difficult to oversee more than 50,000 physicians prescribing tablets and injectables in multiple therapeutic areas. A handful of traditional monitoring tools proved unable to spot and rectify complex risks from time to time, such as multiple physicians prescribing the same prescription at the same time. It also was time consuming to visualize results at the individual or whole-program level, which hindered insights and the ability to take action. For these reasons, the foundation turned to KPMG to create an industry-leading risk and compliance program.

Benefits to client

KPMG's advanced predictive risk monitoring tool can uncover subtle anomalies that were undetectable before, and it can find them sooner. More importantly, as behaviors change over time, it can quickly accommodate and look for those new behaviors. Already the patient assistance foundation has:

— Found three times as many violations as expected

— Differentiated between "false positives" and actual cases of abuse that merited manual investigations, thus enabling an already "stretched" investigative team to have a greater impact

— Uncovered subtle anomalies that were undetectable before—and found them sooner

KPMG response

Using the latest analytics, automation, and machine learning technologies, KPMG developed an advanced predictive risk monitoring tool that automatically scans through signals and patterns in millions of rows of data to detect potential fraud, waste, and abuse.

This automated approach goes beyond the traditional spreadsheet-based method it replaces (which could check less than one percent of the portfolio at a time and used simple rules). KPMG's capability enables ongoing, portfolio-wide risk scoring of physicians and prescriptions, including determining the reasons why a score is high or low. Effectively, the tool is able to put the individual behavior in context, illuminating what are questionable or illegitimate behaviors. It works at the prescriber, pharmacy, patient, and prescription levels and accounts for a combination of behavioral, geographic, and individual patterns.

A key component of the tool is the KPMG Signals Repository, which fuels an always-on scoring engine that continuously applies nearly 100 rules against individual and transactional data, such as prescriptions. The repository uses more than 80 internal and external signals to detect hard-to-find patterns (e.g., multiple physicians prescribing the same medication at the same time for the same patient, where the physicians are far away from the pharmacy and have different specialties).

The model identifies complex behavioral patterns that point to potential noncompliance and provides strategic insights that are displayed in easy-to-understand visualizations.

The result is a set of risk scores with comprehensible reason codes driven by a combination of machine learning and rules-based models. Users can rapidly investigate prescribers and prescriptions with full behavioral context on one screen. This creates a starting point for further investigations.

Drivers of potential red flags can be quickly showcased and mitigated with appropriately adjusted controls to decrease the potential for abuse or misuse and make additional medications available to reach the patients in need.

KPMG insights

Many of the rules for finding fraud, waste, and abuse in prescriber programs can be applied to other areas of compliance as well.
Expanding to new areas—such as physician speaker programs or travel and entertainment—requires model retraining, but the foundation remains the same.

Machine learning technologies create a behavioral fingerprint that can identify fraudulent activity even as it changes.
It's important not to focus on "the top five things to look for" because they change over time as fraudulent behavior evolves. Only machine learning is smart enough to keep up.

If you are interested in learning more about this case study, or if you are experiencing similar issues, please contact us.

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