Major P&C insurer uncovers medical provider fraud with innovative analytic solution
AI-powered analytics identify outlier billing trends

Insurers primarily face two challenges in detecting medical provider fraud, waste, and abuse in their claims: finding which providers are billing for questionable treatment and determining the reasons why. Verisk’s MedSentry® solution solves those issues. It uses AI and industrywide billing data to piece together the puzzles of provider treatment and billings to identify outlier trends in patterns of practice.

Discovering a suspect medical provider

When a Massachusetts physical therapy practice billed a top ten insurance company a total of $173,575 for 29 patients over two years, the carrier submitted the claims data to us. MedSentry quickly uncovered a significant case of potential medical provider fraud and abuse.

Leveraging big data to benchmark providers vs. peers

Practitioners from the physical therapy clinic saw 29 patients injured in auto accidents a total of 661 times between November 2019 and November 2021. MedSentry analyzed the practice’s bills against the Aggregated Medical Database (AMD), which contains medical bills from more than 40 carriers and over 2 million medical providers. The solution discovered the clinic’s average amount billed per patient was 28 percent higher than their peer group across the state.

Treatment billed was benchmarked with industry data across Massachusetts and compared to the other 182 physical therapists in the AMD. This physical therapist group was ranked No. 2 against 728 peers in the state for concerns over treatment billed during the same time frame.

Determining specific questionable billing practices

MedSentry identified multiple behaviors and outlier trends indicative of fraud, waste, and abuse:

1. Boilerplate treatment/billing risk
2. Excessive modalities/procedures per patient
3. Questionable modalities-passive without active
4. CPT 97110 billed with CPT 97530
5. Excessive physical therapy re-evaluations
6. High average dollars and/or visits
7. Unbundling CPT coding
8. Unattended E-stim risk

A medical provider should treat a patient for their specific injuries. Variance in procedures and services is expected among patients with different injuries, and who have incurred different forces in different types of accidents.

Yet, in this instance, boilerplate treatment was recognized when 93 percent of patients had the same sets of CPT codes submitted together on 62 percent of all individual patient visits. Additionally, the number of modalities and therapeutic procedures per visit should decrease throughout a patient's treatment, but that wasn't the case in many instances. Also, passive modalities didn't progress to active treatment modalities after the acute injury phase. Passive modalities accounted for 81 percent of patient visits.

Deep analysis: Predictive models reveal treatment issues

Without MedSentry and its powerful analytic modeling, the specifics of the treatment patterns billed would likely have gone undetected. A further example was hidden in the clinic's treatment data when they were billing for therapeutic procedures and therapeutic activities for the same patient on the same dates of service.

CPT 97110 is a therapeutic procedure code used for muscle weakness, stiffness, and decreased range of motion. The procedure is performed to strengthen and mobilize for self-care and functional activities. Documentation should be targeted to the deficit area and the specifics of treatment. CPT 97530 is a therapeutic activity code that covers a broad range of rehabilitative techniques involving movement of the entire body such as bending, lifting, carrying, and reaching to improve progressive functional performance. The documentation requirements are similar. The primary difference between the two codes is the number of target areas addressed during the activity.

While billing CPT 97110 and CPT 97530 codes on the same date for the same patient may occur, those treatments usually aren't performed on the same patient on the same date of service. Yet, 38 percent of all patients were billed this code combination on the same date of service on 100 percent of individual patient visits on which CPT 97530 was billed.

The National Insurance Crime Bureau (NICB) issued a MedAware Alert for this medical provider after a MedSentry referral.
Case Details

$173.5K
FWA billing exposure

28%
Higher average bill per patient than peers

8
Outlier billing trends

81%
Of patient visits included passive modalities

MedSentry: Empowering investigators, preventing FWA

This case demonstrates how extensive industry data and powerful analytics can drive investigations and detect fraud, waste, and abuse trends. MedSentry advanced predictive analytics help identify questionable medical treatment and score providers for the propensity for fraud. The solution generates actionable data to help SIU and casualty claim investigators set the trajectory for their investigations by identifying outlier patterns of practice and benchmarking industry data.

MedSentry is changing the landscape for detecting suspect medical providers and their behaviors across the property and casualty industry. And it’s delivering significant ROI for carriers in the form of increased FWA detection, improved investigative cycle times, risk mitigation, increased loss avoidance, and more.

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