



# The Innovative Solution for Hospitals Facing a Financial Tsunami

Controlling the chaos triggered by coronavirus,  
drug diversion, and inefficiencies

 **ANiGENT.**  
all users | all medications | all locations

Few predicted the financial tsunami that hospitals are facing today.

Hospital CEOs say they're losing sleep because of multiple factors that are impacting their ability to generate revenues. Staff are overworked, under significant pressure, and beyond exhausted. Profit-generating procedures have either slowed or been suspended. Inefficiencies are rising and drug diverters are taking advantage of the crisis by swiping more than just controlled substances. The survival of hospitals is now at risk. This article focuses on the challenges CEOs face to improve their revenue cycle at a time when chaos continues to dictate their approach. The article also discusses one solution that may be able to not only capture lost revenues but also potential drug diverters.

## The cost of staffing up

Confronted with the pandemic, facilities rapidly expanded to meet the unprecedented demand for patient care. They hired retired providers, newly graduated (or about to graduate) medical and nursing students, and other essential workers. They quickly turned to private staffing agencies for clinical staff and to neighboring communities for volunteers. Unfortunately, these proactive steps were costing hospitals hundreds of thousands of dollars in recruitment fees, salaries, and supplies.

Add to this pressure the importance of providing all staff with the necessary supplies to stay safe. Initially when supplies were scarce, hospitals contacted alternative sources for their personal protective equipment (PPE). The Texas Medical Association reported that the cost of one N95 mask quickly skyrocketed in price by as much as **800%**. Multiply that by thousands of products and the cost becomes staggering.

## The loss of elective procedures

Before the pandemic began, healthcare facilities relied on certain revenues to boost their margins. According to 2019 data from the Journal of the American Medical Association (JAMA) network, hospitals in the top 25% received nearly 50% of their revenues from outpatient services — primarily from elective surgical procedures.

With elective procedures suspended, hospitals suddenly found themselves struggling. In a four-month period from March to June 2020, facilities have reported an estimated loss of **\$161.4 billion**, according to the American Hospital Association (AHA). The AHA cites that approximately 90% of hospitals may already be experiencing negative profit margins — all thanks to COVID-19. At least 47 hospitals in the U.S. have already filed for bankruptcy, as reported in *Becker's Hospital Review*.



This chart demonstrates that hospitals were significantly affected by COVID-19. Without funding from the CARES Act, damage to hospitals' profit margins would be greater.

## The complex becomes more complicated

The additional staff were necessary as facilities struggled to care for COVID-19 patients. As nursing staff turned to colleagues for help, multiple individuals became involved in the dispensing, administration, wasting, and documentation of a medication. Before the pandemic, all four actions were commonly performed by one staff member, now it is practically impossible to identify the number of people involved in the medication-use process.

As hospitals face dire shortages of beds, CEOs made the difficult decision to expand bedside care beyond the designated COVID-19 floor. In just the second week of December, one in eight hospitals had little or no ICU space, according to *USA Today* survey. Overwhelmed, they began converting chapels, cafeterias, waiting rooms, and parking lots into treatment areas. These specialized units were not originally equipped to manage bedside care, so nursing staff improvised new approaches to medication administration and wasting. The standard operating procedures began to break down, leading to a perfect environment for diversion.

## The rise of drug diversion

In the midst of the chaos, mental health experts began sounding the alarm. The long hours and the number of patient deaths have taken a toll on staff mental health. The CDC has reported a rise in mental health disorders and substance abuse. Millennium Health a drug testing laboratory, conducted an analysis of more than 500,000 drug test results and found the use of four drugs had significantly increased.

Unfortunately, the heroic steps that hospitals took to handle the growing crisis also led to a rise in opportunities to divert drugs. For example, background checks were delayed or didn't occur so facilities may not have been aware of individuals who have been discharged for diverting drugs at other locations. With a reduced number of staff, monitoring nursing personnel — especially when entering patient rooms to administer and dispose of clinical waste — has fallen to the wayside.

While the pandemic has exacerbated the inefficiencies, it also has provided an environment ripe for drug diversion. An example? The growing number of medical discrepancies that are now surfacing.

Medication discrepancies, in general, could be attributed to simple errors, such as inadequate training, the rush to administer medications at the end of a shift, and poor compliance. However, they could also be clues to potential drug diversion, such as:

- Unopened medications that were not documented as being returned to the pharmacy
- Opened and leftover substances have not been documented as being discarded

These forms of medication discrepancies have started to increase, hinting of something more ominous.

### TOP FOUR COMMONLY ABUSED DRUGS IN US from March 13 to July 8, 2020



- 31.96%** Fentanyl
- 19.96%** Methamphetamine
- 10.06%** Cocaine
- 12.53%** Heroin

*Millennium Health's Signals Report™ COVID-19 Special Edition Reveals Significant Changes in Drug Use During the Pandemic.*

Not surprisingly, medications related to the treatment of COVID-19 may be the new targets of drug diversion. According to Premier, Inc., a large purchasing group for 4,000 hospitals in the US, there was **300% week-over-week increase** in orders of drugs used for treating COVID-19. While these products were not normally the preferred medications for drug diversion before the pandemic, they are now more likely to be taken, especially when supplies run low.

Recently, a medical center in West Carson, California charged a pharmacy technician with the theft of more than 700 hydroxychloroquine tablets, azithromycin, morphine, PPEs, and other items. In Indianapolis, two women stole morphine, PPEs, and sanitizers. The city's police department reported that they had planned to sell the items online.

## A decision to install or update DD prevention programs

Given the chaos that hospitals are experiencing — healthcare facilities' frenetic response to the pandemic and the toll it is taking on healthcare workers — it would seem that hospitals may want to delay any investment in a new drug diversion (DD) prevention platform until after the turmoil has subsided because of cost.

On the contrary, it may be prudent to implement a DD program now. Its use would slow the downward spiral that hospitals are experiencing; recapture revenues lost by reducing discrepancies and improving efficiencies; and identify potential diverters before a crime or patient harm occurs.

Proactively installing an effective, comprehensive DD prevention program would also be less expensive than the cost of a federal fine. Recently, McLaren Health Care Corporation has agreed to pay the federal government **\$7.75 million** — the largest in US history — for alleged violations of the Controlled

Substances Act. The health system, which has more than a dozen hospitals across Michigan, is now taking steps to rebuild its reputation. To survive in this new era financially, facilities need a platform that has the capability to:

- Identify opportunities for improving costly inefficiencies
- Correct all false positives and negatives — including administration, wasting and documentation of transactions involving multiple administrators
- Protect hospital staff and patients from harm caused by impaired employees

Reduce the risk of giving drug diverters new opportunities by tracking, monitoring and predicting their behavior.

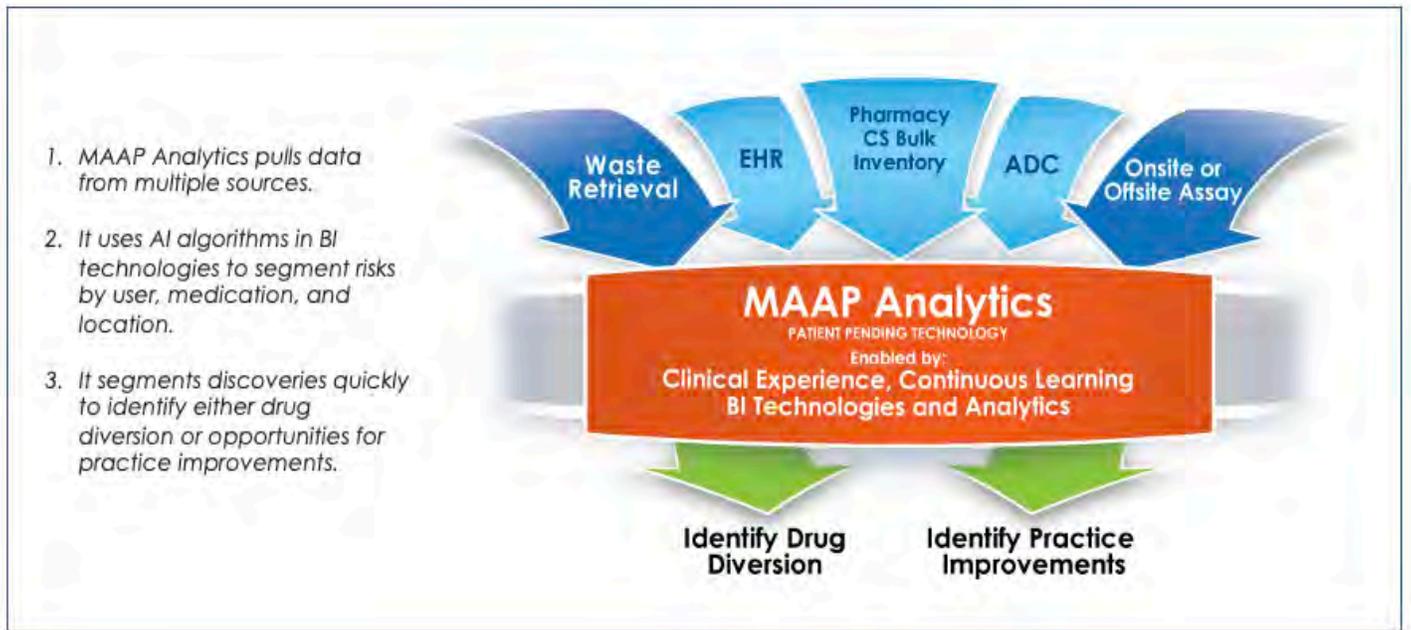


## MAAP Analytics™ as a solution

MAAP Analytics was built and tested from the clinical ground up, which means that every potential drug diversion case must begin with a clinical investigation. Applied from this lens, all information is mined from five key sources:

- Inventory from pharmacy bulk storage
- Electronic medical records
- Automated dispensing cabinets
- Waste retrieval
- Waste assays

The acronym MAAP stands for **Medication Administration Analysis Program**. It is the result of a partnership between the Mayo Clinic and ANiGENT, the creators of MAAP.



MAAP Analytics is different from current products in the marketplace. It offers a multi-dimensional approach, applying machine learning to harmonize data and enable facilities to *find and predict* occurrences of drug diversion. No drug diversion product has been able to collect these various data points into one repository for analysis. The innovative platform leverages machine learning to:

- Continually capture and analyze data
- Rapidly identify and prevent drug diversion
- Pinpoint areas that need process improvement
- Improve standard operating procedures in managing patient medication

Additionally, MAAP Analytics also has the capability to help facilities recoup lost revenues. Proof of concept for this DD prevention platform began surfacing in 2013. Data research studies executed at Mayo Clinic Arizona demonstrated significant discrepancies, or large variances, of medication administration that were undetectable using report-based monitoring. The team at Mayo Clinic knew that solving discrepancies created an immense opportunity for cost savings. After implementing MAAP

Analytics, the facility was able to significantly decrease the variance rate over three years to less than 1%, recovering millions of dollars.

### ***The four modules that lead to performance outcomes***

ANiGENT has enhanced MAAP Analytics with four key modules that synergistically work in harmony:

- Variance Module. It correlates transactions across systems and automatically resolves >99% of discrepancies
- Auditor Module. This is the platform's watch list and action board
- Waste Module. This module provides a portal to reconcile collected waste and onsite/offsite assay results
- Business Intelligence Module. This offers a bird's eye view of performance and peer-to-peer analytics

Not all discrepancies uncovered by MAAP Analytics are a result of drug diversion. Most variances can be attributed to poor training, inefficient processes, or missed opportunities. MAAP Analytics can pinpoint these variances by location and by user, enabling facilities to identify areas of practice improvement. This alone can save hospitals hundreds of thousands of dollars annually.

## Looking beyond the pandemic

Hospitals are struggling. In their efforts to manage the pandemic, they've added temporary workers to help overworked staff; purchased overpriced supplies to keep employees safe; and suspended elective procedures and tests to protect patients. These efforts, unfortunately,

have also led to a financial tsunami, placing greater pressure on hospital CEOs to find new ways to keep their facilities open and profitable. Already, 47 hospitals have filed for bankruptcy. ANiGENT, through its partnership with the Mayo Clinic, has designed a patent-pending, comprehensive DD prevention platform capable of helping facilities solve multiple

**How most DD software view ADC and EHR transactions**

**Transactions in the Real World are more complex, which MAAP Analytics is designed for**

**Most drug diversion software view data transactions simply. In reality, data transactions are much more complicated, leading to unaccounted variances.**

When it comes to medication “wasting,” the typical protocol for controlled substances (CS) requires two clinical staff members — one for wasting the CS, the other as a witness. In this time of chaos, there are reports of staff not being available to witness waste, leading to opportunities for diverters to pocket the CS. MAAP Analytics utilizes a one-person wasting process, which saves a considerable amount of staff time by eliminating the interruption of a colleague's patient care to witness a CS waste.

It's important to emphasize the MAAP Analytics is the only solution that is capable of integrating waste reconciliation and assay scoring into its surveillance platform. While some hospitals may not require this type of cutting-edge feature, it is available for facilities to use when needed.

challenges. It's an automated solution that improves inefficiencies, protects patients and employees, and captures lost revenues. Importantly, it can also predict and prevent drug diversion from occurring. MAAP Analytics is the only DD prevention platform that is capable of collecting, analyzing and harmonizing data to deliver a comprehensive view of all users, all medications in all locations.

Given the current chaos that facilities are experiencing, hospitals may consider delaying any investment of a new platform. However, implementing a comprehensive drug diversion prevention program now not only would help protect hospital staff and patients from potential drug diverters, but it could also help slow the downward spiral that hospitals are experiencing financially.

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287 N. Lindbergh Blvd.  
St. Louis, MO 63141  
ANiGENT.com

