NewYork-Presbyterian Battles the Opioid Crisis With Splunk

Key Challenges

Needed to track data from electronic health records, pharmacy dispensing systems and other sources to see if drugs are being diverted for potentially illegitimate purposes.

Key Results

By partnering with Splunk®, NewYork-Presbyterian built a platform to closely safeguard controlled substances and other medications, helping to reduce opioid diversion.

NewYork-Presbyterian

Industry: Healthcare

Solutions: Security

NewYork-Presbyterian is on the frontlines of the opioid epidemic.

As one of the nation's most comprehensive, integrated academic healthcare delivery systems, NewYork-Presbyterian is dedicated to providing the highest quality, most compassionate care to patients in the New York metropolitan area, nationally and across the globe. NewYork-Presbyterian is consistently recognized as a leader in medical education, groundbreaking research and innovative, patient-centered clinical care.

By wielding the power of Splunk technology, NewYork-Presbyterian has built a platform to closely safeguard controlled substances and other medications, ultimately benefiting the greater healthcare community.

Protecting Patient Data and Privacy

Initially, NewYork-Presbyterian turned to Splunk to fulfill a variety of security use cases, including preventing phishing attacks, bolstering account security and automating critical security workflows. "Fast-forward a couple of months, and we started building our security operations center [SOC]," says Jennings Aske, senior vice president and chief information security officer at NewYork-Presbyterian. "Now, we have a team of six individuals that spend all day looking at dashboards and visualizations that integrate all the data sources we need for security," says Aske.

But that was just the beginning. "In the course of building our SOC, we realized we needed to think about business problems related to patient privacy. In particular, we wanted to have a platform to help us make sure people weren't snooping, looking at too many records or accessing the wrong records," continues Aske. "So I said, 'Let's go talk to Splunk and suggest that we build a privacy platform for us and other Splunk customers that would integrate with clinical systems like EPIC.'"

Together, NewYork-Presbyterian and Splunk made this vision a reality, creating a platform that allows for immediate investigation by alerting privacy officers if patient records are inappropriately accessed. Yet the hospital soon realized that the platform's potential extended far beyond what they initially envisioned.

Turning Data Into Outcomes

- Safeguards against the diversion of opioids and high-cost medications, such as certain anti-cancer drugs, that can be priced at tens of thousands of dollars per month

- Monitors IT security operations to ensure controlled substances and other medications aren't being used or prescribed illegally

- Creates possibilities for peer institutions to bring the same monitoring and diversion techniques to their hospitals

Battling Opioids on a Global Scale

Soon, NewYork-Presbyterian realized that the same Splunk capabilities of correlation and machine learning that helped power the patient platform could also help identify opioid diversion — a critical contributor to the opioid epidemic ravaging the United States.

"When we think about the role that hospitals play in terms of the opioid crisis, we have employees who actually suffer from higher addiction rates than the general public," says Aske. "We know from looking at CDC statistics that at certain points in time, hospitals have been a primary source of some drugs on the street. One year, about 25% of the street's OxyContin came from hospitals. We have an ethical and moral obligation to not simply rely on manual auditing, but to build a platform to help catch potential diversion."

Helping fulfill this mission, the medication analytics platform will allow NewYork-Presbyterian to track data from electronic health records (EHRs), Electronic Prescription of Controlled Substances (EPCS) platforms, pharmacy dispensing systems and other sources, delivering insights to guard against the diversion of these medications. For example, the platform will immediately alert NewYork-Presbyterian if a physician prescribes a controlled substance to a patient who isn't in the care of the hospital, or if a pharmacy technician uses an automated dispensary cabinet more often than his or her peers.

"When I think about the medication analytics platform, I think about the fact that if you go outside of your or your family's six degrees, you can find family members affected by this," says Aske. "I think about when I've been offered opioids for gum surgery and didn't need it. I have a young daughter, and I want to make sure that if she's ever in a situation in which opioids are prescribed, it's for a legitimate reason, and they're not diverted."

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> **Jenning Aske,** Senior VP and Chief Information Security Officer

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> We often see our CEO and president consulting the many dashboards displayed throughout our office. These insights will change the course of the workday."
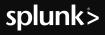>
> **Jennings Aske,** Senior Vice President and Chief Information Security Officer

A Promising Future

As NewYork-Presbyterian continues to provide compassionate care around the world, it's exploring new uses for Splunk across the hospital system, including potentially leveraging Splunk to faster detect issues with insurance coding and better investigate denied reimbursement claims. "Splunk is a platform that leverages and explores data in ways that might not be obvious," says Aske. "By bringing Splunk to more questions like insurance billing, we could potentially save the hospital millions of dollars."

With Splunk and NewYork-Presbyterian working together, "the possibilities are pretty much limitless in terms of how we can think about the hospital's data," says Aske. "We want to double down on our use of Splunk to really push this partnership — not only for us, but for healthcare organizations around the country."

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