CHANGING THE COURSE OF THE OPIOID EPIDEMIC: THE POWER AND PROMISE OF PROVEN TECHNOLOGY

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The opioid crisis ranks as the greatest public health emergency the United States has faced since the AIDS epidemic. In 2015, drug overdoses, largely fueled by illicit opioids, reached a tragic threshold—accounting for more deaths than AIDS at its mid-1990s peak.[1] In 2016, 42,200 Americans died from opioid-related overdoses,[2] nearly five people every hour. According to a 2017 Council of Economic Advisers report, the opioid crisis cost the nation $504 billion in economic losses in 2015, or 2.8 percent of GDP that year.[3]

Complex social problems require multifaceted solutions. The nation's opioid epidemic has engaged every sector of the healthcare industry. Nevertheless, the opioid overdose death rate increased by 28 percent from 2015 to 2016.[4] The surge was driven in large part by the use of fentanyl and other synthetic opioids, according to the Centers for Disease Control and Prevention (CDC).[5] What's more, the chief of the mortality statistics branch at the National Center for Health Statistics, Robert Anderson, predicts that when the 2017 statistics come out, they'll likely show as great an increase in overdose deaths, if not greater than the staggering surge seen from 2015 to 2016.[6] Clearly, much more needs to be done to address

this public health emergency. Solving the opioid epidemic will require an extraordinary degree of experimentation and creativity—with leaders across government, education, healthcare, technology, law enforcement, social work and the pharmaceutical industry, along with families and individual citizens, all having roles to play.

Employing technology can be an especially effective tactic.

Surescripts is the nation's largest health information network, transmitting nearly 13.7 billion secure health data transactions annually, including nearly 4.8 million e-prescriptions each and every day.[7] The Surescripts Network Alliance™ connects virtually all electronic health record (EHR) vendors, pharmacy benefit managers (PBMs), pharmacies and clinicians, plus an increasing number of health plans, long-term and post-acute care organizations and specialty pharmacy organizations. This cross-market experience gives us a unique perspective on the role that technology can play in providing actionable intelligence to help reduce opioid abuse while ensuring that patients receive quality care and clinically appropriate medications.

HOW CAN TECHNOLOGY HELP SOLVE SOME OF THE PROBLEMS PRESENTED BY THE OPIOID EPIDEMIC?

Broadly speaking, technology can address two of the larger problems presented by the opioid epidemic. The first is the problem of diversion, or illegal use of prescription opioids. As powerful and addictive medications, prescription opioids attract illegitimate users and people who desire to profit by selling those drugs illegally.

The second is the problem of clinical appropriateness. Opioids can be highly effective when prescribed for patients with legitimate needs. Prescribers need to know, however, whether patients are adhering to the right medications at the right dose, as well as if they're taking additional medications that may cause them harm when taken together. One of the tragic complexities of the opioid epidemic is that the addictive qualities of these pain medications can steer legitimate patients toward dangerous or even illegal behaviors.

Again, the good news is that health data and information technology exist today that can lead to better care decisions and curb fraud and abuse.

PREVENTING DIVERSION WHILE PROVIDING LEGITIMATE PATIENTS WITH PAIN RELIEF

Any prescriber of controlled substances should be able to quickly and easily view a patient's comprehensive medication history. And the prescriber should also be able to prescribe medications electronically and in compliance with privacy laws.

Having an accurate and up-to-date view of a patient's medication history at the point of prescribing and across the care continuum enables a prescriber to make more informed care decisions. As best practices, a patient's medication history should be seamlessly integrated into the prescriber's workflow, displayed in an insightful manner and list the medications—controlled or otherwise—that have been dispensed to a patient over a period of time. Without those best practices, the prescriber is flying blind, unable to foresee potential adverse drug events or interactions, unable to see gaps in adherence, unable to see patterns of abuse.

This medication history should also be digital, automated and refreshed regularly. Simply relying on patient memory or calling other prescribers or pharmacies is time-consuming and prone to human error and leaves room for inadvertent patient harm or for possible addiction or diversion to be overlooked.

Robust, electronic medication history data is available nationwide across multiple care settings. In fact, Surescripts delivered more than 1.46 billion medication histories to clinicians in 2017.[8] Our medication history data offers prescribers access to their patients' dispensed medication history for both controlled and non-controlled substances over the past 12 months. What's more, the data is sourced daily from a nationwide network of pharmacies and PBMs, giving prescribers the same information, regardless of location, and enabling them to spot potential doctor shopping.
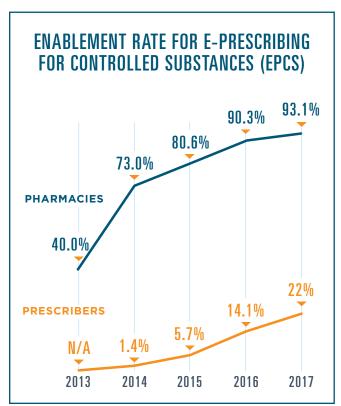
On the ambulatory side, digital medication histories are pulled into the clinician's EHR, with the patient's consent, the night before the patient's scheduled visit. The clinician has information on dispensed medications, controlled or otherwise, ready at hand and within the EHR workflow, when

the appointment begins and before any decisions are made on new drugs or refills. On the care management side, clinicians can proactively pull medication history for a population of patients who are at high risk for abuse, based on filling activity at the pharmacy.

Tom Skelton, Surescripts Chief Executive Officer, argues that "making opioid prescription data available to all prescribers at the point of care can profoundly impact the spiral of addiction, or help prevent its occurrence, because that intelligence can transform care decisions."

"And an essential companion to electronic medication history, especially when better informed opioid prescribing is more necessary than ever," says Skelton, "is the electronic prescribing of controlled substances, otherwise known as EPCS." EPCS, which can be integrated into existing technology and workflows, offers new dimensions of safety and security. In addition to helping to address opioid fraud and abuse, the use of EPCS creates workflow efficiencies, improves patient safety and ensures that prescribers are in compliance with existing technology.

Studies of drug abusers suggest that between 3 percent and 9 percent of diverted opioid prescriptions are tied to forged prescriptions.[9, 10] A real-world example of potential diversion or abuse was recently recounted by an Iowa state senator, who also happens to be a pharmacist. The episode involved a patient who, when given a paper prescription for 10 tablets, simply changed the "1" to a "4" and then brought the prescription to the pharmacist to be filled. The pharmacist caught the altered prescription, but if he hadn't, the patient could have walked away with four times the amount he was prescribed, and no one would've been the wiser.[11] Electronic prescribing for controlled substances is designed and regulated to make it impossible to alter prescriptions.

Though technology to electronically prescribe controlled substances exists and is available to healthcare practitioners today, it's still woefully underused. While 90 percent of non-controlled substances are now e-prescribed, only 21 percent of controlled substances are.[12]

Policy makers at both the state and federal level seem to agree that this technology is worthy of wider adoption and are taking action.

A handful of states have led the charge against opioid abuse by mandating the use of e-prescribing, whether for all drugs or for controlled substances specifically, which has driven a dramatic uptick in adoption of the technology. The vanguard was New York, where e-prescribing became mandatory for all substances in March 2016.[13] In 2017, 74.8 percent of New York's prescribers were enabled for EPCS, 97.8 percent of its pharmacies were enabled and more than 9 in 10 of the state's prescriptions for controlled

ENABLEMENT RATE FOR E-PRESCRIBING FOR CONTROLLED SUBSTANCES (EPCS)

PHARMACIES

93.1%
90.3%
80.6%
73.0%
40.0%

PRESCRIBERS

22%
14.1%
5.7%
N/A   1.4%

2013   2014   2015   2016   2017

FIVE TECHNOLOGIES THAT CAN HELP HEALTHCARE PRACTITIONERS NAVIGATE THE OPIOID CRISIS

We all know the bad news. The opioid epidemic is ravaging our communities from coast to coast—and if we are serious about stopping it, all sectors of society must step up. The good news is that health data and information technology exist today that can help healthcare practitioners better navigate the crisis. Here are five ways technology can help:

1. EPCS and CancelRx

A prescriber needs to be able to confidently and securely prescribe opioids to patients who are in legitimate need of pain relief. **Electronic prescribing for controlled substances (EPCS)** allows for opiate prescriptions to be tracked and securely delivered to pharmacies. The electronic nature of the prescription also helps increase patient safety and medication adherence while impeding the fraud and abuse that more easily occurs with paper counterparts. As part of electronic prescribing, the **CancelRx** transaction enables a prescriber to stop an opiate prescription with the same level of accuracy and efficiency as EPCS. These technologies allow for prescribers and pharmacists to effectively deliver appropriate pain relief and prevent potential abuse or patient harm.

2. Medication History

Any prescriber who is prescribing controlled substances should be able to readily and easily understand what medications a patient is taking. Have they been prescribed opioids multiple times? Are they on a medication that might provoke an adverse reaction? PBMs and pharmacies make **medication history data** available nationwide across multiple care settings. This data is then seamlessly integrated into the EHR workflow, enabling prescribers to view a patient's comprehensive, up-to-date medication history—at the point of care.

3. Clinical History

Prescribers and clinicians also need to know where a patient seeking pain relief has recently been seen and what kind of care they have received. Surescripts **Record Locator & Exchange** locates and exchanges clinical records from across the U.S., regardless of EHR or care setting, allowing a prescriber or clinician to quickly pick out normal care patterns as well as suspect ones.

4. Clinical Direct Messaging

If the patient's clinical or medication history raises concerns, that prescriber or clinician may want to contact the healthcare practitioners who've recently treated the patient, whether in an office setting or an emergency room. **Clinical direct messaging** supports secure communications between healthcare practitioners who may suspect a particular patient is encountering addiction.

5. Insights for Medication Adherence

Finally, given the addictive nature of opioids, prescribers need to know whether patients in need of pain relief are adhering to the right medications at the right dose. Does the patient's prescription filling seem suspicious? Are they taking additional medications that may cause them harm? **Medication adherence alerts** give clinicians and prescribers personalized messages about a patient's medication habits in real-time, at the point of care.

When used together, these technologies empower healthcare practitioners to make the best care decisions for patients seeking pain relief while preventing potential diversion and patient harm.

substances were delivered electronically.[14]

Maine also has experienced increases since its mandate went into effect in July 2017. The percentage of controlled substance prescriptions processed electronically increased more than 33 percent and the number of prescribers enabled to use EPCS increased nearly 48 percent in 2017.[15]

Seven other states—Arizona, Connecticut, Minnesota, New Jersey, Virginia, North Carolina and Rhode Island—have enacted e-prescribing or EPCS legislation. Fourteen other states are now actively pursuing such legislation.[16]

In July 2017, the Every Prescription Conveyed Securely (EPCS) Act, a measure that mandates electronic prescribing of controlled substances for the Medicare Part D program, and which Surescripts supports, was introduced in the U.S. House of Representatives.[17] In February of this year, a companion bill to the EPCS Act was introduced in the U.S. Senate. Surescripts also expressed strong support for the Senate legislation and thanked the policy makers who have championed the bipartisan bill.[18]
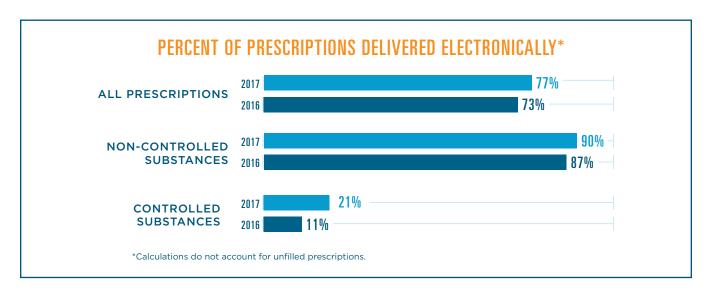
This legislative movement is necessary and commendable. But even if more laws are enacted, it may still be some years before the statutes go into effect. Clearly, there's still work to be done, but at Surescripts our network data shows there are reasons to be hopeful. Last year, more than 77 million electronic prescriptions for controlled substances were sent across our network, representing a 71 percent increase over 2016. Prescriber enablement for EPCS nearly tripled, rising from 14.1 percent in 2016 to 22 percent in 2017. And pharmacy enablement increased from 90.3 percent to 93.1 percent.[19]

In a world where it's easy to send automated, electronic prescriptions, prescribers also need to be able to cancel them with the same level of accuracy and efficiency.

The CancelRx transaction does just that, so when a prescriber is ready to stop an electronic prescription, it's cancelled quickly and securely, eliminating any confusion at the pharmacy or continued patient use.

When the complementary relationship of electronic medication history and EPCS is augmented by the ability to electronically cancel prescriptions, the prescriber is armed with a trifecta of powerful tools. Together, these EHR-integrated technologies

PERCENT OF PRESCRIPTIONS DELIVERED ELECTRONICALLY*

ALL PRESCRIPTIONS
- 2017: 77%
- 2016: 73%

NON-CONTROLLED SUBSTANCES
- 2017: 90%
- 2016: 87%

CONTROLLED SUBSTANCES
- 2017: 21%
- 2016: 11%

*Calculations do not account for unfilled prescriptions.

http://surescripts.com/news-center/intelligence-in-action

present some distinct advantages in the fight against opioid abuse. They:

- Enable a prescriber to quickly access an up-to-date list of the medications that have been dispensed to a patient over time and across the U.S.

- Enable a prescriber to identify potential adverse drug events or interactions, gaps in adherence and patterns of abuse, both at the point of prescribing and across the care continuum

- Help ensure that controlled substances are prescribed only by those authorized to do so

- Help ensure that patients who truly need opioid pain relief receive appropriate medications, dosages and quantities

- Help reduce fraud and impede diversion of opioid prescriptions

- Enable a prescriber to electronically cancel a prescription quickly and securely to prevent patient harm and potential diversion

But actionable intelligence can do more than inform controlled-substance prescribing. In addition to EPCS and digital medication histories, a number of other tools can help healthcare practitioners provide the best care possible while navigating the opioid crisis.

BRINGING ACTIONABLE PATIENT INTELLIGENCE TO THE FIGHT

The nation's decentralized and fragmented healthcare system makes it hard for prescribers to learn where, when or why a patient may have received care outside of the immediate setting,

even if the treatment occurred within the same health system. Studies show that:

- 48 percent of diagnostic errors occur because the clinician lacks access to critical patient data.[20]

- 58 percent of regional referrals happen outside of the region's largest hospital.[21]

- Only 12 to 34 percent of hospital discharge summaries reach outpatient care teams in time for appointments.[22]

While private industry and the government are working towards greater healthcare interoperability and data liquidity, in the meantime patients are often experiencing siloed care, with all the attendant consequences. Consequences that can be deadly when we're talking about opioids.

Technologies that deliver clinical patient data help address the challenges, beyond medication management, posed by a fragmented healthcare system. These tools enable clinicians to better understand the treatment and care a patient has received and respond accordingly.

A national record locator and exchange service locates and exchanges clinical records from across the U.S., regardless of EHR or care setting, allowing a prescriber or clinician to quickly pick out normal care patterns as well as suspect ones. In 2017, Surescripts exchanged an annualized total of 16 million clinical documents and 65 million documents listing where patients had previously received care via its Record Locator and Exchange service.[23]

With the patient insights that a national record locator and exchange service provides, a prescriber or clinician might then want to communicate with a doctor who's also recently seen the patient—or maybe contact the emergency room clinician

who treated the patient for a drug overdose. Our clinical direct messaging service supports secure communications between healthcare practitioners who may suspect a particular patient is encountering addiction. In 2017, the Surescripts network transmitted 25 million clinical direct messages, enabling more than 529,000 individuals and organizations to securely compare patient notes.[24]

And given that one in five patients become addicted to opioids even with just a 10-day prescription,[25] prescribers need to know whether patients in need of pain relief are adhering to the right medications at the right dose or taking additional medications that may cause them harm. Is the patient on a high-risk medication, such as an opioid? Are they taking an unsafe dose? Have they been prescribed both opioids and benzodiazepines, a potentially deadly combination? Is the patient's prescription filling suspicious? Medication adherence alerts could help address these questions by giving clinicians personalized messages about a patient's medication habits in real time, at the point of care. Delivered within an EHR workflow, these alerts include patient-specific adherence summaries and care-gap insights from PBMs and health plans. This technology also alerts clinicians if a patient has received a new diagnosis, so that the clinician can review medication needs or adjust treatment plans. In 2017, Surescripts delivered more than 197,000 medication adherence messages.[26]

Taken together, these technologies create a more complete picture of a patient's health. They provide the sort of actionable intelligence that gives the clinician or prescriber the information they need to make the best care decisions possible while reducing potential fraud and drug diversion.

TURNING THE TIDE WITH MORE INFORMED, RESPONSIVE CARE

Technology can help fight the opioid epidemic, but only when it's deployed and used in the course of delivering care. In its absence, clinicians and prescribers are robbed of crucial insights and forced to forage for data manually—trying to make optimal care decisions and deliver adequate pain management without the best intelligence to do so.

The consequences are stark.

The opioid epidemic has cost the U.S. more than 1 trillion dollars since 2001.[27] On an average day, 116 Americans die from opioid related drug overdoses.[28] And we know—perhaps from talking to friends, neighbors, even our own family members—that this scourge doesn't discriminate.

Let's ensure healthcare practitioners are armed with the best technologies to make informed care decisions on appropriate pain relief. Doing so will save lives, improve health outcomes, and reduce rampant fraud and abuse. And perhaps help curtail a public health emergency the likes of which this nation hasn't seen in decades.

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