The Evolving EPCS Landscape
A Prescription for Stopping Opioid Abuse
Published March 2016
The Evolving EPCS Landscape: 2016
A Prescription for Stopping Opioid Abuse

Published March 2016

Table of Contents

Challenges Facing E-Prescribing - The Problem 1
The State of EPCS Adoption 2
EPCS Enablement in Retail Pharmacies 2
EPCS Adoption by Physicians 3
Why Are Physicians Slow to Adopt EPCS? 4
The Role of PDMP Interoperability 6
New York's I-STOP Law 7
Key Benefits of E-Prescribing 9
About DrFirst 10
Challenges Facing E-Prescribing – The Problem

More than 15 million people in the U.S. abuse prescription drugs regularly and 52 million Americans over the age of 12 have used prescription drugs non-medically in their lifetime. Accordingly, the U.S. Centers for Disease Control has declared prescription painkiller abuse a national “crisis,” and warns that people who take prescription painkillers can become addicted with just one prescription. Each day, 44 people in the United States die from an overdose of a prescription painkiller. In 2010, more Americans died from pharmaceutical drug overdoses (38,329) than from either car crashes (22,134) or firearms (31,672).¹

Opioid overdose deaths more than tripled between 1990 and 2010. The amount of prescription painkillers prescribed and sold in the U.S. has nearly quadrupled since 1999, yet there has been no overall change in the amount of pain reported. Drug overdoses are now the leading cause of death from injury in the U.S., with nearly 44,000 overdose deaths annually.²

E-prescribing – the direct digital transfer of patient prescriptions from provider to pharmacy – is a long-accepted practice that has proven to

1. www.cdc.gov/drugoverdose/epidemic
2. www.cdc.gov/drugoverdose
help reduce prescription misuse and enhance patient safety. Nationally, most doctors (70 percent or more, according to the Office of the National Coordinator for Health Information Technology) already transmit most prescriptions electronically. The unfortunate twist is that most of those doctors are only e-prescribing non-controlled substances, known as “legend drugs.” Conversely, electronic prescribing of controlled substances (Schedule II – V drugs as defined by DEA) is only used by about 5 percent of doctors nationwide at this time. And of course, it is the misuse of controlled substances that is driving the epidemic of prescription drug abuse.

With pressure mounting on law enforcement, legislators and healthcare providers to stem prescription drug abuse, we envision EPCS, prescription drug monitoring programs and other best practices may finally become mainstream.

**The State of EPCS Adoption**

Retail pharmacies and some practitioners are increasingly embracing EPCS to help address the prescription drug abuse crisis. EPCS eliminates the risk of forged or altered paper prescriptions and sets up important safeguards against fraud, “doctor shopping,” overprescribing and improper dispensing of medications due to misinterpreted handwriting.

Because of its value as an important clinical tool, EPCS was first made legal on a federal level in 2010, under the DEA’s interim final ruling (IFR) legislation. However, EPCS is also subject to state legal requirements, and it was not until 2015 that the last of the states in the U.S. legalized EPCS.

**EPCS Enablement in Retail Pharmacies**

Retail pharmacies exhibited accelerated adoption of the technology necessary to facilitate controlled substance e-prescribing in 2015. Eighty-two percent of U.S. retail pharmacies are now EPCS-enabled, a 21 percent increase over 2014. Further, almost all states have at least 60 percent of pharmacies EPCS-enabled, and more than half of all states have more than 80 percent of retail pharmacies ready and able to receive and process EPCS orders.3

This rapid expansion is driven in part by the increase in EPCS enablement by large national chains, such as CVS, Walgreens and supermarket-based pharmacies. It’s also due to increased recognition among pharmacy executives that EPCS is now legal in their respective states.

---

3. Pharmacy data from DrFirst’s Rcopia e-prescribing system, CY 2014 - CY 2015. All EPCS pharmacy data in this report refers to retail pharmacies that are electronically enabled.
Five states – Massachusetts, Michigan, Oklahoma, Rhode Island and New York – now have 90 percent or more of their pharmacies EPCS-enabled. Among this group, Massachusetts (90 percent pharmacy-enabled for EPCS) was the first state to pursue EPCS as a result of collaboration between the Agency for Healthcare Research and Quality (AHRQ), the Department of Public Health in Massachusetts, Brandeis University, Emdeon and DrFirst, who together successfully implemented the three-year EPCS pilot in western Massachusetts which led to EPCS being legalized at the federal level in 2010. And in March 2016, New York (96 percent pharmacy-enabled for EPCS) will become the first state to enforce a legal mandate that all medications – legend drugs and controlled substances – must be prescribed electronically.

Also noteworthy are states well behind the EPCS-enabled curve in 2014 that made significant course corrections over the last twelve months. These include North Dakota, growing from just 22 percent of pharmacies enabled in 2014 to 73 percent in 2015, and Montana, rising from virtually zero enabled pharmacies in 2014 to 68 percent in 2015.

The chart illustrates prescription volume for the top controlled drugs prescribed in 2015. Unsurprisingly, narcotic analgesics are the most prescribed controlled substance therapeutic category. Prescriptions for medications used for narcotic withdrawal are on the rise and corroborate a growing and serious health concern regarding the use of narcotic analgesics. This category now represents the fourth highest therapeutic category of controlled substance prescriptions. Future studies on the ratio of prescriptions for narcotic analgesics and medications for narcotic withdrawal may provide valuable insight into the safety of these medications.

**EPCS Adoption by Physicians**

Growth in EPCS-enabled pharmacies nationwide has been followed by an even more dramatic increase in the use of EPCS technology by physicians, albeit across a very narrow subset of prescribers.
DrFirst provides EPCS functionality to more than 250 electronic health record (EHR) and hospital information system (HIS) vendors, as well as to thousands more medical practices and physicians nationwide. Nationally across our customer base, providers notched a 274 percent increase in total volume of EPCS prescriptions transmitted in 2015 versus prior year. Not surprisingly, providers in New York state increased EPCS prescription volume nearly 3,225 percent over the prior year. Removing New York’s growth from the national figures shows that the balance of the country’s users increased their use of EPCS by 204 percent over the prior year. Clearly, this represents substantial growth in EPCS by those who have adopted the technology.

However, EPCS is not widely adopted by doctors. On average, just 5.8 percent of all U.S. practitioners are currently EPCS-enabled. Even in New York on the eve of its I-STOP mandate, only 27 percent of practitioners are EPCS-enabled to-date.4

**Why Are Physicians Slow to Adopt EPCS?**

Consider New York a “perfect storm” of sorts as relates to EPCS adoption: legislation mandating its use, a clear need for better control of opioids to stem abuse and misuse, a majority of pharmacies able to accept EPCS prescriptions, and a large body of physicians who already e-prescribe for legend drugs. In January 2015 in advance of the original I-STOP deadline, DrFirst research showed that more than 80 percent of ambulatory EHR vendors and more than 85 percent of acute HIS vendors serving New York providers were ready to provide EPCS capability to their users. Even still, providers and interest groups pushed legislators to delay the start of the law.

Today with likely 90 percent of EHRs and HISs having EPCS capability, and a host of stand-alone e-prescribing systems widely available to providers, grumblings continue. The Medical Society of the State of New York (MSSNY), in collaboration with DrFirst, surveyed MSSNY physician members about their EPCS readiness in December 2015. Among more than 900 respondents who said they do

---

4. Surescripts data
prescribe controlled substances, 44 percent said they were not ready for EPCS. The reasons for not being EPCS-ready are in the chart on the previous page.

“The slow rate of provider adoption of EPCS is surprising, given the compelling patient safety benefits and convenience of EPCS,” says Tom Sullivan, MD, a board-certified cardiologist and DrFirst’s chief strategy officer. “I expected that once EPCS was made legal in all states and EPCS-enabled pharmacies became prevalent, providers would quickly adopt this important tool. Clearly, more education is needed about the significant benefits of EPCS.”

In addition to improved education and awareness, one of the most frequent hurdles to starting EPCS is the prescriber identity proofing process. Prescriber identity proofing is required by DEA regulations. Many physicians don’t take this into account as they prepare to adopt EPCS. For prescribers who are employed by hospitals or other large healthcare delivery systems, as well as independent physicians on staff at hospitals, their organization’s credentialing office can work with the e-prescribing vendor to facilitate institutional identity proofing. However, for smaller practices and solo practitioners, identity proofing requires individual physician participation. While typically facilitated by the e-prescribing services vendor, the actual identity proofing and authentication are conducted under DEA rules by independent third parties, such as Experian and Symantec that require the prescriber to correctly answer several questions to prove his or her identity, register a token and bind it to the identity and software application.

“The ID proofing and authentication process is not unduly arduous, but providers do need to allow time for Experian or another registration authority to verify their identity,” says Sullivan. “Over 25 percent of doctors fail to answer the questions correctly on the first try; you’d be surprised how many doctors get the exact amount of their home mortgage payment wrong during that process.”

“Education for prescribers is key to moving the industry from paper to electronic prescriptions for controlled substances,” says Peter Kaufman, MD, a board-certified gastroenterologist who also serves as DrFirst’s chief medical officer. “For example, credible EPCS technology vendors can guide doctors through the DEA’s required identity-proofing process so that EPCS enrollment can be completed in just a few days. Use of two-factor authentication for each controlled substance prescription, another DEA-requirement, does add one step to the e-prescribing workflow, but it is not particularly intrusive. So at the end of the day, the incremental EPCS requirements, particularly for doctors who already e-prescribe legend drugs, are relatively insignificant when compared to the patient safety benefits EPCS affords.”
Whether in New York or on a national level, many physicians are simply unaware that they can now prescribe all substances electronically. Others resist adapting to the new technology or mistakenly believe it will be costly and time-consuming to implement. However, clearly the technology is available and many thousands of doctors are making use of it.

The Role of PDMP Interoperability

Increased drug information exchange among state prescription drug monitoring programs (PDMPs) will also help speed provider adoption of EPCS. Forty-nine states (Missouri is the exception) have created these programs, which collect data from pharmacies on dispensed controlled substance prescriptions, digitize it and make it accessible to prescribers, pharmacies and law enforcement officials.

“Prescription drug monitoring programs create an environment of accountability for prescribers and dispensers,” says Nick Barger, PharmD, RPh, principal pharmacist at DrFirst. “Many controlled substances are uniformly recognized as high-risk medications. PDMPs provide an opportunity for prescribers and dispensers to collaborate on management of patients taking these high-risk medications.”

Nearly half (22) of states with PDMP programs in place require providers to access the state PDMP...
before prescribing painkillers, although each state’s laws vary widely in their specific rules, enforcement and penalties. Arizona, for example, requires prescribers to query the PDMP for worker compensation cases only, but has no specific penalty for noncompliance. Kentucky mandates that prescribers query the PDMP prior to dispensing any Schedule II controlled substance or a Schedule III controlled substance containing hydrocodone, and threatens licensure discipline for noncompliance.

There is strong indication that these requirements can be effective. One year after New York began requiring providers to check its online registry, the number of prescriptions for all opioids decreased by 10 percent. The largest decreases were seen in hydrocodone (down 20 percent) and codeine 5 (down 33 percent).5

Still, many providers are critical of PDMP use. Providers who practice near state borders, in particular, argue that taking time to check the PDMP database impedes clinical workflow and doesn’t necessarily provide information about drugs prescribed for patients in adjacent states. Efforts are underway at the state level to address these and other concerns. One initiative is spearheaded by the National Association of

---

New York’s I-STOP Law

New York’s Internet System for Tracking Overprescribing (I-STOP) Act takes full effect March 27, 2016, and is aimed at combating the rising rates of prescription drug abuse. The law requires:

- **Mandatory PMP Queries**: Medical providers must query the state prescription monitoring system (PMP) and review a patient’s recent medication history prior to writing any prescriptions for Schedule II-V controlled substances. This phase became effective in 2013.

- **Mandatory E-Prescribing**: All prescriptions, non-controlled or legend drugs as well as Schedule II-V controlled substances, must be sent electronically beginning March 27, 2016.

New York’s I-STOP law carries severe penalties for non-compliance, including potential loss of license, civil penalties and/or criminal charges. To qualify for a waiver, New York providers must show economic hardship, technological limitations outside of their control, or other exceptional circumstances.

---

5. PDMP Center of Excellence at Brandeis University
Boards of Pharmacy (NABP), which launched the Prescription Monitoring Program (PMP) InterConnect in 2011. InterConnect enables interoperability and interstate data sharing among state PDMPs that participate in the program. The use of PMP InterConnect to share data has grown from just a few thousand interstate transactions in 2011 to more than 1 million per month. To date, 35 states (including New York) have executed memoranda of understanding with NABP to participate and 30 of those states are now live.6

“Twenty years ago most people who were diverting or abusing drugs were getting their prescriptions illegally from stolen or forged and altered paper prescriptions,” Sullivan says. “Today, most of the diversion and drug abuse comes from licensed physicians writing legitimate prescriptions for patients with acute and chronic pain problems. Pharmaceutical companies have manufactured more and more powerful opioid analgesics that are easy to administer, inexpensive and with a plentiful supply. Patients can easily become addicted if not properly monitored.”

Using Healthcare Technology to Help Solve the Opioid Abuse Crisis

With societal pressure mounting on law enforcement, legislators and healthcare providers to stem the growing epidemic of opioid drug abuse, it is critical that physicians and retail pharmacies leverage healthcare technology to help mitigate this crisis. Bringing a well-known, well-adopted tool – such as e-prescribing – to bear on this problem through the use of EPCS will provide much needed controls and safeguards against prescription fraud, forged or altered paper prescriptions, overprescribing, and improper dispensing of medications due to misinterpreted handwriting.

6. National Association of Boards of Pharmacy
Key Benefits of E-Prescribing

**Improves Patient Safety.** E-prescribing typically enables clinical alerts to guard against drug-to-drug and drug-to-allergy interactions, inappropriate dosing, duplicate therapies as well as patient status, such as pregnancy or breast-feeding. E-prescribing also reduces common errors inherent in paper-based prescribing, including illegible handwriting, misinterpreted abbreviations and unclear dosages. E-prescribing systems also offer clinical decision tools such as medication adherence monitoring, real-time benefit checking, electronic prior authorization and other patient support services that lead to better clinical outcomes.

**Saves Time.** While controlled substances only represent about 10 percent of prescribed medications, 90 percent of practitioners write prescriptions for controlled substances. For doctors who prescribe legend drugs electronically, adopting EPCS integrates all prescribing into a single workflow (versus electronic for some meds and paper for others). This streamlines workflow for prescribers and staff, and reduces waiting time for patients when they pick up their prescriptions.

**Drives ROI.** Studies have found that e-prescribing can save a medical practice an estimated $15,769 per full-time physician, per year due to increased efficiency.\(^7\)

**Increases Security.** E-prescribing provides pharmacists with the assurance that the prescription they receive is exactly what the provider originally ordered and has not been tampered with on the way to the pharmacy. Certified, audited application vendors are the only entities that can conduct EPCS transactions to pharmacies. And because e-prescriptions travel direct-to-pharmacy, the physician’s DEA number is not exposed to the patient or other parties.

**Reduces Doctor-Shopping.** E-prescribing technology can be configured with a medication history module and, in the future, access to interstate PDMP data. This allows providers and clinical staff to capture and view comprehensive prescription histories at the point of care, reducing the likelihood of doctor shopping as well as adverse drug events.

**Enables Prescriber Pattern Analysis.** EPCS analytics reporting can reveal variations in controlled substance prescribing patterns among peers. This allows providers to identify and address reasons for outlier patterns, perhaps avoiding unexpected inquiries from law enforcement other regulators and news media.

**Enhances Patient Satisfaction.** Real-time patient clinical decision support combined with transparent drug pricing models, enables providers to not only select the most therapeutically appropriate medications for their patient, but also the most cost-effective. Having medications ready when the patient arrives at the pharmacy, with the formulary compliance check already in place, provides a more convenient, streamlined experience for patients and paves the way for better medication adherence.

---

About DrFirst

DrFirst (www.DrFirst.com) pioneers healthcare SaaS solutions that inform the doctor-patient point of encounter, optimize provider access to patient information, enhance the doctor’s clinical view of the patient, and improve care delivery and clinical outcomes. Our growth is driven by a commitment to innovation, security and reliability across a wide array of e-medication management and secure communication and collaboration services. We are proud of our track record of service to over 330 EMR/EHR/HIS partners and an extensive network of hospitals, post-acute care facilities, ambulatory practices and pharmacies nationwide.