

Geisinger addresses
opioid abuse while
achieving cost savings of
about \$1M per month
with EPCS

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Geisinger Health System is a 767-bed health system that serves three million patients in Pennsylvania and New Jersey. Geisinger employs 2,400 physicians and has approximately 4,000 affiliated physicians across their 12 hospitals and 700 clinics.

One of Geisinger's core pillars is innovation – specifically, they aim to constantly seek new and better ways to care for their patients, their members, their communities, and the nation. One way Geisinger has innovated and led the way is with their holistic approach to reducing opioid abuse, a national public health crisis that claimed the lives of more than 42,000 people in the U.S. in 2016¹ (including nearly 4,000 people in Pennsylvania²).

Among the initiatives Geisinger implemented to address the opioid abuse epidemic is electronic prescribing for controlled substances (EPCS).

EPCS takes the prescription out of the patient's hands, instead sending it directly to the pharmacy. This improves security and decreases the risk of fraud, drug diversion, forgery, and DEA number theft associated with paper prescriptions.

But EPCS delivers a number of additional benefits, including improved workflow efficiency, increased provider and patient satisfaction, and better prescription quality and accuracy.

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This paper outlines Geisinger's drivers for implementing EPCS and the technologies and strategies it deployed. It also shares Geisinger's experience with meeting the DEA requirements for EPCS, and highlights how EPCS has resulted in significant cost savings as well as qualitative and quantitative return on investment (ROI).

Motivating factors

Combatting the local opioid crisis

In 2016 alone, 42,249 people in the US died from opioid overdoses – more than 10% of those deaths occurred in Pennsylvania, where Geisinger is based. What's more, the counties served by Geisinger have some of the highest overdose deaths per capita in the state.

For Geisinger, addressing opioid abuse – specifically the abuse of prescribed opioids – continues to be a multi-pronged, holistic effort. Geisinger continues to spearhead various initiatives and take tangible steps at their hospitals and clinics, and within their communities:

- Encourage effective, non-opioid reliant therapies
- Leverage the Pennsylvania state prescription drug monitoring programs
- Link their provider dashboard to their Epic EHR
- Integrate data from their pain application into the dashboard and the patients' medical records
- Establish drug take-back programs
- Enable EPCS

“The opioid crisis is a national problem, of course, but Pennsylvania is particularly vulnerable,” says Dr. Richard Taylor, Chief Medical Information Officer at Geisinger. “We wanted to make sure that we were doing our best to provide quality care while still being part of a solution to the abuse epidemic.”

Ensuring fast, secure, and convenient workflows for care providers

For Geisinger, implementing an EPCS solution was a way to further cement their commitment to providing quality care to patients, but doing it in a safe, scalable way. Like many other healthcare organizations, prescribing controlled substances on paper presented a number of challenges.

Paper prescriptions allowed for the possibility of drug diversion, prescription forgery, DEA numbers being exposed and/or stolen, and “doctor shopping,” all of which contributed to the opioid epidemic.

At Geisinger, paper prescriptions also led to:

- Physician dissatisfaction, due to manual prescribing processes
- Dual-prescribing workflows when both controlled and non-controlled substances needed to be prescribed
- Workflow inefficiency, due to convoluted prescribing workflows for prescribers as well as nurses and other clinical staff
- Patient dissatisfaction and safety, due to long wait times at pharmacies and prescription errors
- Increased cost, due to phone calls to the pharmacy call center for prescription clarification as well as increasing need for diversion control resources

Geisinger identified EPCS as a solution to these challenges, as it would

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President of Enterprise Pharmacy,
Geisinger

enable providers to quickly and securely prescribe controlled substances, which boosts clinician satisfaction and increase patient safety.

Deployment of Imprivata Confirm ID for EPCS

While EPCS would help to solve the challenges of paper prescriptions and address the opioid crisis, implementation would come with challenges of its own – specifically, complying with the DEA Interim Final Rule (IFR), which outlines the requirements for EPCS, including:

- Checking government-issued photo IDs of all prescribers before enabling EPCS
- Establishing EPCS permissions within the prescribing software application through a two-step logical access process
- Two-factor authentication for order signing
- Tracked and auditable records of all EPCS activities

For their EPCS needs, Geisinger selected Imprivata Confirm ID™, the most comprehensive secure signing solution for EPCS. Imprivata Confirm ID provides a complete, end-to-end solution for EPCS and also seamlessly integrates with Geisinger’s Epic EHR to enable a fast, convenient workflow for providers.

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Imprivata Confirm ID helps Geisinger and other healthcare delivery organizations comply with DEA requirements for EPCS by delivering:

- Integrated provider identity proofing
- Seamless supervised enrollment of credentials
- EPCS access approval to validate logical access control
- Innovative and convenient two-factor authentication options
- Comprehensive reporting

“There is no one hard part of implementing EPCS – it’s all hard, and it’s imperative that you get it all right,” says Taylor. “Imprivata has thought through the compliance requirements, audit considerations, and identity proofing workflows to securely streamline all of those processes.”

Identity proofing

A key component of the DEA requirements for EPCS is provider identity proofing. Organizations must validate the identity of all providers — including those already credentialed and prescribing controlled substances using paper today — through an in-person check of a provider’s government-issued photo ID.


Geisinger leveraged the supervised enrollment workflows included with Imprivata Confirm ID to streamline the process and ensure compliance with the DEA requirements for provider identity proofing. During the identity proofing process – which must be conducted in person – providers can also enroll two-factor authentication credentials and modalities to be used for EPCS, which binds the identity of the provider to the credentials they will use for EPCS.

Workflow and two-factor authentication

Imprivata Confirm ID for EPCS supports the most complete set of innovative, convenient, and DEA compliant two-factor authentication methods, enabling organizations to implement the best possible authentication workflow in any given prescribing scenario.

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Something you are	Something you have						Something you know		
Fingerprint Biometrics	Hands Free Auth	Push Notification	SMS	Soft Token	Hard Token	Proximity Badge	Password	PIN	Q&A
									
DEA Compliant	DEA Compliant	DEA Compliant		DEA Compliant	DEA Compliant		DEA Compliant		

“You need two-factor authentication for legal reasons, as well as to prevent abuse and diversions, but making it as fast as possible is key,” says Evans. “Anything we can do to remove barriers and save them time is vital. And with Imprivata Confirm ID for EPCS, we can save them even more time by making it hands free.”

Geisinger elected to focus on enrolling and implementing Imprivata ID, Imprivata’s cloud-based token service, to enable Hands Free Authentication and push token notification:

- **Hands Free Authentication** – Unique to Imprivata, Hands Free Authentication leverages Bluetooth technology to wirelessly complete the second factor of authentication for EPCS. After Geisinger providers enter their password as the first factor, Hands Free Authentication will wirelessly detect and verify the Imprivata ID token code running on the provider’s mobile device. This completes the second factor of authentication without providers needed to interact with their devices.

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Geisinger

- **Push token notification** – Where Hands Free Authentication is not available, Geisinger providers have the ability to use push token notification to complete the two-factor authentication for EPCS. After entering their password, providers receive a notification on the lock screen of their mobile device. Providers simply press “approve” and the authentication is complete. This eliminates the need to unlock the phone, open the Imprivata ID application, and manually type the token code.

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Results

With Imprivata Confirm ID for EPCS, in conjunction with other initiatives aimed at combatting the opioid epidemic, Geisinger has been able to help combat opioid abuse in a secure, convenient way.

“We have found that the electronic prescribing process has led to quality improvements in care while reducing opioid prescriptions, drug diversions, prescription forgery, and reducing total cost of care,” Kravitz says.

Improved patient safety and satisfaction

Geisinger is all about “caring,” which includes a commitment to providing high-quality, cost-effective, and irritation-free care. With Imprivata Confirm ID for EPCS in place, Geisinger has been able to honor that commitment, improve patient safety, and increase patient satisfaction:

- In their first six months with EPCS, Geisinger reduced opioid prescriptions by approximately 50%, from about 60,000 prescriptions per month down to 31,000, which heightens patient safety
- Approximately 75% of controlled medications are prescribed electronically, reducing wait times at doctor’s offices and pharmacies and increasing patient satisfaction

The average Geisinger patient travels 22 miles to their provider, though some patients may need to travel as much as 300 miles. From a patient perspective, that means that an already arduous process – including multiple calls, numerous stops, and lots of waiting time – could actually take an entire day.

“Now, a patient just needs to call in to their prescriber, and they’ll basically just be told when they can go in to pick up their prescription,” says Evans. “Imprivata Confirm ID has been a real patient satisfier, because we’ve essentially been able to eliminate all of the steps and stops.”

Increased provider satisfaction

With Imprivata Confirm ID for EPCS, providers get a fast, secure, seamless e-prescribing experience that empowers them to do their jobs without sacrificing security or patient safety.

“In extreme cases, before implementing EPCS, it could take a provider up to 10 minutes to print and sign just one prescription,” Evans says. “Now, with Imprivata Confirm ID, providers don’t have to worry about printing a physical script – and possibly needing to trek across a building to find the printer it was sent to. It’s a really easy workflow, and it makes it easier on the pharmacy staff, too.”

Cost savings and ROI

In addition to improving provider and patient satisfaction, increasing patient safety, and reducing opioid prescribing, Imprivata Confirm ID for EPCS has generated significant cost savings and ROI. Specifically, Geisinger has calculated cost savings in four areas:

- Reduced time providers spend on prescriptions for controlled substances
- Reduced time LPNs spend on prescriptions for controlled substances
- Fewer FTEs (RNs) required for diversion control
- Fewer callbacks to the pharmacy call center



\$6.3M/year

Provider time

EPCS reduces the average time physicians spend on each prescription for a controlled substance from 3 minutes to just 30 seconds, saving more than 1,000 hours per month of provider time



\$3.6M/year

LPN time

EPCS eliminates LPN time spent on prescriptions for controlled substances altogether, which averaged about 5 minutes per prescription using paper



\$225k/year

RNs for diversion control

By creating an auditable digital record of prescriptions for controlled substances, EPCS reduces the need for full-time equivalent RNs for diversion control purposes by 50%



\$920k/year

Callbacks to pharmacy support center

EPCS reduces the number of calls into Geisinger’s pharmacy call center to clarify prescription information by about 50%, from about 55,000 calls/month to about 28,000



\$10.7M

Total annual savings



\$895k

Total monthly savings

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About Imprivata

Imprivata, the healthcare IT security company, enables healthcare securely by establishing trust between people, technology, and information to address critical compliance and security challenges while improving productivity and the patient experience.

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Conclusion

Geisinger's commitment and choice – to “do good” – also allowed them to “do well.” By implementing Imprivata Confirm ID for EPCS in conjunction with other safety and security measures, Geisinger realized huge qualitative and quantitative ROI.

“With Imprivata Confirm ID for EPCS in place, we've reduced opioid prescriptions by half, we've realized cost savings, and we've seen a decrease in the time it takes for a provider to write an opioid prescription on paper, from three minutes to 30 seconds,” Kravitz says. “We're truly able to honor our commitment to our patients, ensure patient safety, and achieve ROI with EPCS.”

1. <https://www.hhs.gov/opioids/sites/default/files/2018-01/opioids-infographic.pdf>
2. https://www.overdosefreepa.pitt.edu/wp-content/uploads/2017/07/DEA-Analysis-of-Overdose-Deaths-in-Pennsylvania-2016.pdf_-1.pdf