

## A giant leap: The industry adopts a new version of the national e-prescribing standard

by Lisa Schwartz, PharmD, RPh;  
and Ken Whittemore, Jr., RPh, MBA

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**Upon successful completion of this article, the pharmacist should be able to:**

1. Discuss how the adoption of a new, updated version and the effective date of the national NCPDP SCRIPT e-prescribing standard is determined.
2. Discuss policy and operational aspects that led to rapid growth in e-prescribing volume between 2008-2018.
3. List the new messages in NCPDP SCRIPT 2017071 and several of the data elements or codes that will improve data exchange between prescribers and pharmacists.
4. Explain the role of independent pharmacies in adopting the full range of messages available

**Upon successful completion of this article, the pharmacy technician should be able to:**

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## STANDARDS ... WHO NEEDS THEM?

As it turns out, in this modern world, everyone does. They are found everywhere, though most people are probably unaware of their existence. For example, how is it that you can buy light bulbs from dozens of different manufacturers and they all easily fit in your fixtures at home? Because there is a national standard that specifies the width, the length, and what the thread pitch on a light bulb should be. What about tires? How is it that a variety of tires can fit on countless different vehicles? Standards. Compact discs and DVDs can be played on many different types of hardware. Why? Standards. You can send emails, texts, photos, and videos back and forth with ease between cellphones, tablets, laptops, and personal computers all because of information technology standards. And, since 1997, there has been a national standard available to transmit prescriptions electronically from prescribers to pharmacies in the U.S.

So what does the national e-prescribing standard look like? Well, it's pretty complicated — probably far more complicated than most pharmacists or pharmacy technicians would imagine. After all, the information required to be included in prescriptions by most state boards of pharmacy and the federal Drug Enforcement Administration consists of the following:

- The patient's name and address.
- Drug name, strength, and form.
- Directions for use, such as the sig.
- Number of refills, if any.
- The prescriber's name, address, and license number(s).

Yes, on occasion, regulatory authorities require a bit more than those bullet points on prescriptions, but not to the extent that it would require several hundred data fields to transmit the information. Yet that is easily the number of fields that make up just the new prescription portion of the national e-prescribing standard known as SCRIPT.

SCRIPT — which is capitalized but isn't an acronym — is the backbone of nationwide e-prescribing. It is a standardized set of data elements and codes developed and maintained by the members of the National Council for Prescription Drug Programs, or NCPDP. Another way to say it is that there is a group of people from all sides of the e-prescribing world that developed a big set of form fields and preselected codes used to quickly and accurately fill in an electronic form. The currently adopted version of this standard is known as NCPDP SCRIPT Version 10.6, but on Jan. 1, 2020, the industry will be adopting the first update in almost seven years by moving to NCPDP SCRIPT Version 2017071.

## WHY SO LONG BETWEEN UPDATES?

The members of NCPDP, which includes representatives from the pharmacy profession, are constantly working to make sure that SCRIPT is a complete and responsive standard for e-prescribing and related messages that meets the varied professional and business needs of all users (please see Table 1). You can just imagine the number of changes packed into an update when the past seven years have seen rapid adoption of e-prescribing due to prescriber use incentives, new data requirements to improve patient care, and a preference for codes instead of free text to streamline and improve automation. This said, somewhat incongruously, it is not really up to NCPDP or its members to decide when the industry will move to a new version of SCRIPT. Instead, it is actually the Centers for Medicare & Medicaid Services that makes this decision.

Why is CMS in charge when it comes to deciding which version of SCRIPT the industry will use? You have to go all the way back to 2003, when the Medicare Modernization Act — also known as Medicare Part D — was enacted. Among the 400 plus pages of the MMA, one section on one page gave the Department of Health and Human Services secretary the responsibility for determining which e-prescribing standards should be used for Medicare Part D. Given the size of that program, this effectively means that HHS, through CMS, determines which e-prescribing standard is used nationwide. Most recently, in April 2018, in response to the industry's petitions, CMS published a final rule that gave the industry until Jan. 1, 2020, to move to SCRIPT 2017071, which is what the entire industry is now focused upon. (Interestingly, SCRIPT is not the named standard in the Part D program for electronic prior authorization, or ePA, which helps explain why ePA solutions have had a harder time in terms of adoption and utilization.)

**Table 1: Examples of related messages**

### Prescriber-initiated:

- Cancel Rx
- Census
- Drug administration
- Recertification
- Resupply
- Rx change response
- Rx renewal response

### Pharmacy-initiated:

- NewRx request
- RxChange request
- Cancel Rx response
- Rx fill
- Rx renewal request
- RxTransfer

## A BRIEF HISTORY OF E-PRESCRIBING

To promote a baseline level of understanding of e-prescribing before getting into the substantial upgrades included in SCRIPT 2017071, let's review the 20-plus years the standard has been available. After a relatively slow first decade, in 2009, Congress enacted MIPPA — the Medicare Improvements for Patients and Providers Act — which offered modest financial enticements for providers to adopt and utilize e-prescribing. Not long thereafter, adoption took a giant leap forward after the enactment of the Health Information Technology for Economic and Clinical Health Act, which offered huge incentives for prescribers to adopt electronic health records. All such EHRs were required to include an e-prescribing functionality. HITECH's goal was to encourage electronic health information exchange, but the rush to comply with the program's numerous certification requirements translated into some EHR systems being poorly designed and implemented, the results of which were often felt downstream in community pharmacies. Over the past several years, critical performance improvement efforts have been directed at correcting such deficiencies and perfecting the e-prescribing process.

Today, 98 percent of pharmacies and 76 percent of prescribers have adopted e-prescribing in general, and 96 percent of pharmacies and 40 percent of prescribers are now enabled for e-prescribing for controlled substance drugs. E-prescribing for controlled substances, or EPCS, was not

permitted until 2010, when the DEA published rules permitting it, and after that about half of the states had to revise their statutes and/or regulations to align with those of the DEA to allow EPCS. This delay in regulatory authorization has meant that at this time slightly fewer pharmacies are able to accept EPCSs, and prescribers in states without active EPCS mandate laws lag significantly behind in the adoption of EPCS (see Table 2). In response, both states and the federal government are adopting rules that require prescribers to adopt e-prescribing. Specifically, 28 states have now enacted legislation that will require e-prescribing across the board, e-prescribing for all controlled substances, or e-prescribing for just a subset of controlled substances, such as opioids. On the federal side, the SUPPORT for Patients and Communities Act of 2018 includes a mandate that prescriptions for controlled substances billed to Medicare must be prescribed electronically by Jan. 1, 2021.

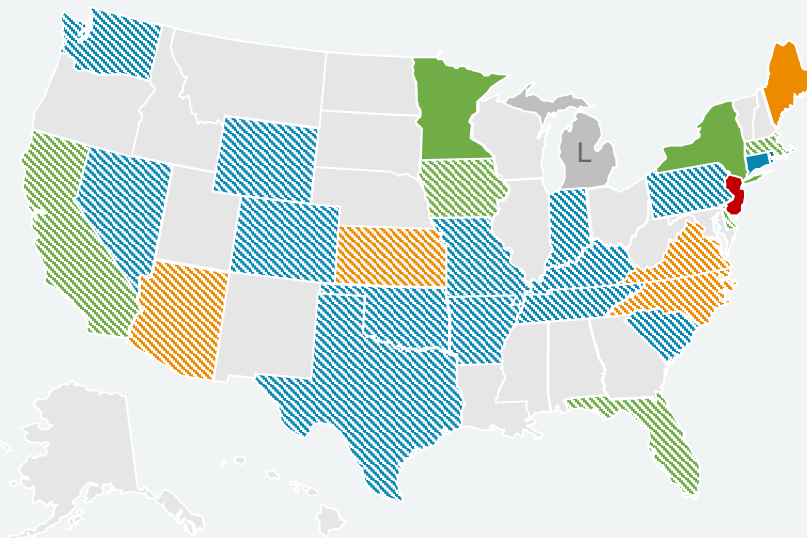
## WINTER IS COMING ... BUT FOR PHARMACIES RECEIVING E-PRESCRIPTIONS, IT'S A GOOD THING

Let's now return to the primary subject at hand — the aforementioned January 2020 industry move to the new version of the national e-prescribing standard known as SCRIPT 2017071. Broadly, the enhancements brought to bear by this version fall into two categories:

- The incorporation of new data segments, elements, and codes to existing messages such as new prescriptions (NewRx).

**Table 2: Electronic Prescribing requirements NOW EXIST IN 28 STATES (07/17/2019)**

- All prescription electronic requirement in effect
- All prescription electronic requirement in future
- All EPCS requirement in effect
- All EPCS requirement in future
- EPCS subset requirement (e.g., opioids) in effect
- EPCS subset requirement (e.g., opioids) in future
- EHR EPCS adoption requirement
- eRx/EPCS legislation in progress (L)



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*Note: CO and MO requirements exclude Schedule V.*

- The addition of new messages that allow the exchange of information not originally contemplated by SCRIPT, such as the ability to transfer electronic prescription information between pharmacies (Rx-Transfer).

All told, SCRIPT 2017071 makes hundreds of improvements to the e-prescribing process, but most of them are not likely of day-to-day interest to pharmacy personnel. Thus, for the purposes of this discussion, the focus will be on changes that most directly and significantly affect pharmacy practice, some of which pharmacists and pharmacy technicians have been wishing would happen for some time.

It might be going out on a limb a bit, but experience suggests that the first SCRIPT upgrade that should be mentioned is that the new standard is designed to accommodate the electronic prescribing of **compounded prescriptions**. None of the earlier versions of SCRIPT were designed to convey information about compounded prescriptions, but as many pharmacists and pharmacy technicians have experienced, prescribers have often tried to shoehorn such information into electronic prescriptions anyway, leading to much confusion among those receiving such prescriptions. This should no longer happen after January 2020, because the new version of SCRIPT is able to incorporate the drug name and quantity for up to 25 different ingredients in one electronic prescription. And if all else fails, for the applications that support it, the compounding pharmacy can request a new prescription.

Another component of electronic prescriptions that has been problematic for pharmacy personnel over the years is the sig, or patient instructions, field. All previous versions of SCRIPT have limited the length of this field to 140 characters, which in many cases was insufficient for prescribers to express their instructions to patients as they wished. This, too, often led to confusion and delays in pharmacies, requiring pharmacy personnel to reach out to prescribers to clarify what they meant. To address this e-prescribing challenge, NCPDP members approved a **sig field expansion to 1,000 characters in SCRIPT 2017071**. Hopefully there will be very few instances in which a prescriber will actually use all 1,000 characters available to write a sig, because that would cause a different type of problem at the pharmacy end (think about trying to fit all of that on a prescription label!), but the added capacity should definitely resolve more issues than it causes. It also is anticipated that pharmacy software vendors will devise methods of handling sigs that are toward the higher end of this new limit.

As was mentioned previously, there are many additional improvements contained in the new e-prescribing standard, so let's touch on several more examples from among the hundreds of changes made in SCRIPT 2017071 in the form of a "lighting round:"

- **Allergies:** A patient's allergies can be sent using SNOMED codes.
- **Brand medically necessary:** This data element is being updated to meet CMS guidelines.
- **Codified notes:** A brief list of standardized notes, such as "Needs Appointment," is being added.
- **Do not fill:** Prescribers may indicate that the prescription should not be filled because it is a cover prescription or should be kept on file until the patient requests it.
- **International address:** A country code will be available to support international addresses.
- **Prescriber identifiers:** Additional fields are being added to accommodate multiple prescriber identifiers, such as DATA 2000/NADEAN (the 'X' DEA number).
- **Primary language:** The patient's preferred language can be indicated if other than English, which is useful in general and is a requirement in some states.
- **Prohibit refill requests & follow-up prescriber information:** Prescribers may indicate that they do not want to receive renewal requests (such as in the case of emergency rooms or urgent care) and/or they can designate an alternate prescriber for follow up.
- **Substance use:** If applicable, the patient's substance abuse history can be shared with pharmacy personnel.
- **Urgent Rx:** Allows a prescriber to request expedited dispensing of a particular prescription.
- **Weight:** Not new, but frequently requested, a patient's weight can be sent in kilograms in the "Observation" field.

All of these examples are considered to be of special interest to pharmacy personnel, but please be advised that *this list represents only a small portion of what is in store in the new version of the e-prescribing standard.*

Now let's look at just a couple of the entirely new messages being introduced in SCRIPT 2017071. As was mentioned earlier, these messages deal with unmet needs that earlier versions of the e-prescribing standard did not anticipate:

- **RxTransfer:** This message is exactly what you would think from its name — it's an electronic way to perform the age-old procedure of transferring a patient's prescription from one pharmacy to another.

Frankly, it is a little surprising that NCPDP didn't tackle this need earlier, but the oversight will be corrected soon.

From a workflow standpoint, RxTransfer is modeled on the current process in that the pharmacy where the patient would like to have his or her prescription filled initiates a message to "pull" the prescription from the pharmacy that originally dispensed it. It is important to understand this point, because there are some in the industry who have the mistaken impression that RxTransfer can also be used as a "push" message, meaning the pharmacy that originally dispensed a prescription can simply forward

it to another pharmacy at the patient's request. This is not possible with the version of RxTransfer that currently is being adopted. Once the pharmacy that originally dispensed the prescription receives the transfer request, it will send a response with the prescription information or a response denying the request (such as the prescription was already transferred, no refills remain, or the prescription was not found).

Additionally, unlike other e-prescribing messages, this communication takes place solely between pharmacies, which means that both the receiving and sending pharmacies must be enabled to handle

### An underutilized e-prescribing message becomes more muscular

There are multiple reasons why a pharmacist might want to suggest that a prescriber make a change in a patient's prescription, and traditionally such recommendations have been made in verbal or paper form. For many years, however, there has been an electronic message available for transmission via the e-prescribing infrastructure that can convey change recommendations from pharmacists to prescribers. This message is called RxChange, and thus far the pharmacy community has not taken advantage of its functionality to the degree that you might expect. SCRIPT 2017071 significantly expands the number of circumstances in which this message can be used, though, so it is hoped that dramatic increases in the use of this message will be noted in the future.

#### Presently, there are three uses cases available for RxChange:

- **Generic substitution:** This is suitable when a new generic becomes available during ongoing treatment, the prescriber has indicated dispense as written but the patient still wants a generic, a brand is not covered, a high copay or coinsurance makes the brand unaffordable, the patient desires a biosimilar that requires prescriber authorization, or the pharmacy does not carry a specific product.
- **Prior authorization:** It's used when a pharmacy receives a prescription claim reject indicating that a prior authorization number is needed from the prescriber before the prescription will be covered by a patient's insurance.
- **Therapeutic interchange:** It's appropriate whenever a pharmacist determines a change in therapy would benefit the patient.

#### These are beneficial to be sure, but the industry has added several more valuable use cases in the new version of SCRIPT:

- **Drug use evaluation:** This is applicable when a pharmacist determines there are alternative drugs that could be dispensed with fewer adverse effects.
- **Script clarification:** This is employed when a pharmacist or pharmacy technician needs clarification to the medication information contained in a prescription to be able to dispense it.
- **Out of stock:** The pharmacy does not have any of the medication in stock and does not anticipate it will obtain it soon enough for the patient.
- **Prescriber authorization:** This is useful when the pharmacist wishes to confirm the prescriber's authority to prescribe (a limited use case).

Judging by feedback that has been received from pharmacy personnel over the years, script clarification might end up being the most helpful of all of the new RxChange use cases. Pharmacy owners and managers interested in using RxChange for this new purpose should reach out to their pharmacy software vendor to ensure that this new feature is going to be made available to them with their SCRIPT 2017071 update.

RxTransfer messages. For this to happen, pharmacy software vendors must incorporate RxTransfer message capabilities into their applications. Pharmacy owners and managers who have an interest in using RxTransfer messages should therefore have a conversation with their pharmacy software vendors sharing their interest. Finally, pharmacists must consider whether such electronic prescription transfers are allowed by their state's laws and regulations.

- **NewRxRequest:** This, too, is a message designed to attend to a previously unmet need, although this type of communication is not as commonplace as transferring prescriptions. It allows a pharmacist to request a new prescription from a prescriber with either minimal information or expired prescription information. For example, a patient might come to the pharmacy saying that his or her physician was going to send a prescription for an antibiotic to the pharmacy, but no such prescription is in the pharmacy's records. In this case, a NewRxRequest can be sent to the prescriber indicating simply that the patient has requested an antibiotic, and then the prescriber can respond as they see fit. Another possible use for this transaction is related to prescriptions for which patients have an ongoing — yet very intermittent — need, such as allergy medications or asthma inhalers. If a patient's prescription is too old, or the information about the prescription is incomplete, a NewRxRequest will probably be the best choice to attempt to attend to the patient's medication need.

Again, similar to the data elements mentioned earlier, these are just two out of the 10 new messages made available by SCRIPT 2017071, but they are likely the ones that will be of the greatest interest to pharmacy personnel.

### **TAKING ADVANTAGE OF ALL THAT SCRIPT 2017071 HAS TO OFFER**

The adoption and utilization of e-prescribing over the past two decades has delivered on much of the technology's promise of increased accuracy and safety, greater pharmacy and prescriber efficiencies, more robust communication between medical professionals, and reduced costs. This said, as is the case with virtually every modern technology, regular updates are critical to maintaining relevance, delivering enhanced capabilities, and yes, remediating deficiencies and imperfections.

Because the industry is constrained by federal requirements in terms of how often it can move to new versions of the SCRIPT standard, it is that much more important that maximum utility and value are wrung out of every upgrade. EHR vendors, pharmacy software vendors,

and e-prescribing intermediaries have been preparing intently for more than a year for CMS's Jan. 1, 2020 deadline, and most industry participants should be ready for the cutover on that date. It is hoped that by sharing information in this article on the most noteworthy new features to be delivered by SCRIPT 2017071, practicing pharmacists and pharmacy technicians will come to understand the importance of this critical transition and will be encouraged to do what they can to participate in the process and fully utilize the new and/or enhanced technological tools that they will be given. ■

*Lisa Schwartz is NCPA senior director, professional affairs.*

*Ken Whittemore is Surescripts vice president of professional and regulatory affairs. Questions of a technical nature should be sent to Whittemore at [ken.whittemore@surescripts.com](mailto:ken.whittemore@surescripts.com).*

*Other questions may be sent to [lschwartz@ncpanet.org](mailto:lschwartz@ncpanet.org).*

# CE QUIZ

## Continuing Education Quiz

Select the correct answer.

1. The SCRIPT standard is used to transfer data between which of the following:

- a. Prescribers and pharmacies
- b. Pharmacies and PBMs
- c. Pharmacies and LTC facilities
- d. Prescribers and PBMs
- e. All of the above

2. Starting Jan. 1, 2020, pharmacies should not fill paper prescriptions for controlled substances for Medicare patients.

- a. True
- b. False

3. Which federal agency is responsible for determining which e-prescribing standard is used for the Medicare Part D program?

- a. Food and Drug Administration
- b. Center for Medicare & Medicaid Services
- c. National Institute of Standards and Technology
- d. Federal Communications Commission

4. The NCPDP SCRIPT standard is *only* capable of transmitting data that is required by state boards of pharmacy and Drug Enforcement Administration regulations.

- a. True
- b. False

5. It has been approximately \_\_\_ years since the industry has moved to a new version of the NCPDP SCRIPT standard for e-prescribing?

- a. Two
- b. Three
- c. Five
- d. Seven

6. The NCPDP SCRIPT standard includes many types of messages in addition to new prescriptions.

- a. True
- b. False

7. Which federal legislation was *most* responsible for stimulating the adoption of e-prescribing in the U.S.?

- a. Health Information Technology for Economic and Clinical Health Act
- b. Medicare Improvements for Patients and Providers Act
- c. SUPPORT Act for Patients and Communities of 2018
- d. None of the above

8. Currently, at the national level, what percent of pharmacies and prescribers are enabled for e-prescribing in general?

- a. 55 percent of pharmacies and 27 percent of prescribers
- b. 72 percent of pharmacies and 52 percent of prescribers
- c. 98 percent of pharmacies and 76 percent of prescribers
- d. 100 percent of pharmacies and 95 percent of prescribers

9. As of September 2019, what number of states have adopted mandates requiring e-prescribing in general, e-prescribing for controlled substances, or e-prescribing for a subset of controlled substances?

- a. Eight
- b. 15
- c. 22
- d. 28

10. The new version of the NCPDP SCRIPT standard will:

- a. Incorporate new data segments, elements, and codes to existing messages such as new prescriptions.
- b. Add new messages that allow the exchange of information not originally contemplated by SCRIPT.
- c. Both of the above
- d. Both of the above, but (a) will occur one year before (b)

11. Which of the following is true with respect to NCPDP SCRIPT Version 2017071?

- a. Compounded prescriptions will finally be properly transmitted using e-prescribing.
- b. The sig field will be expanded from 140 to 1,000 characters.
- c. A patient's primary language will be transmittable.
- d. All of the above

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**12.** The new version of the NCPDP SCRIPT Standard will include the ability to indicate “Do Not Fill” and “Urgent Rx” in an e-prescription.

- a. True
- b. False

**13.** Which of the following is true regarding the new NCPDP SCRIPT standard message known as RxTransfer:

- a. Unlike the current telephone method of transferring prescriptions, it is a “push” message.
- b. This new message can be used to transfer prescriptions between pharmacies and from pharmacies to payers and pharmaceutical companies.
- c. The receiving pharmacy must accept an RxTransfer when it is “pushed” to it.
- d. Pharmacists must ascertain whether their state’s rules allow the electronic transfer of prescriptions prior to using RxTransfer.

**14.** The NewRxRequest message is sent by patients to their prescriber when they would rather not schedule a face-to-face encounter.

- a. True
- b. False

**15.** Of the currently available NCPDP SCRIPT standard messages, which is the least utilized:

- a. New prescriptions
- b. Refill renewal requests
- c. Prescription change requests
- d. Prescription cancellations

**16.** The new RxChange (prescription change request) use case that will likely be of most value to pharmacists is:

- a. Drug use evaluation
- b. Script clarification
- c. Out of stock
- d. Prescriber authorization

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	1. Paid/Requested Outside-County Mail Subscriptions	9,550	9,353
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	3. Sales Through Dealers	None	None
	4. Other Classes Mailed through USPS	None	None
	C. Total Paid and/or Requested Circulation	9,550	9,353
	D. Free Distribution by Mail	None	None
	1. Outside-County	5,497	5,032
	2. In-County	None	None
	3. Other Classes through USPS	None	None
	4. Nonrequested Distribution Outside the Mail	None	None
	E. Total Nonrequested Distribution	5,497	5,032
F. Total Distribution	15,048	14,385	
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H. Total	15,048	14,385	
I. Percent Paid and/or Request Circulation	63%	65%	