



**What is electronic prescribing?** It is the computer-to-computer transfer of prescription data between pharmacies, prescribers, and payers. It is not the use of an email or a facsimile transaction. Electronic prescribing functions include messages regarding new prescriptions, prescription changes, refill requests, prescription fill status notification, prescription cancellation, and medication history.

**Who is involved in electronic prescribing?** Prescribers – individual practitioners, clinics, hospitals, provider associations; pharmacies; software vendors; trade and professional associations; labs and ancillary services; state and federal governments, standards development organizations, terminology and code set organizations; health plans, payers and processors.

The Institute of Medicine recommends that all prescribers and pharmacies use electronic prescribing by 2010.<sup>1</sup>

|   | If I'm a prescriber?  | If I'm an EMR vendor?  | If I'm a trade or professional association?                          | If I'm a pharmacy?   |
|---|---|--|--|--|
| <b>Why is electronic prescribing important</b>        | Compliance with regulatory requirements<br><br>Supports efforts to improve the standard of care<br><br>Will increase administrative efficiency<br><br>Is welcomed by patients<br><br>Is safe and secure<br><br>Is allowed in all 50 states  | Regulatory requirements of customers<br><br>Industry movement  | Support for members  | Compliance with regulatory requirements<br><br>Supports efforts to improve the standard of care<br><br>Will increase administrative efficiency<br><br>Is welcomed by patients<br><br>Is safe and secure<br><br>Is allowed in all 50 states |
| <b>What do I need to begin electronic prescribing</b> | Select an electronic prescribing or EMR vendor (if you don't have one)<br><br>Contact your vendor and request electronic prescribing<br><br>Consider development of electronic prescribing awareness information<br><br>See Meaningful Use information at <a href="http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp">http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp</a> | Contact NCPDP for messaging standards<br><br>Certify with appropriate network business partners<br><br>Contact Certification Commission for Healthcare Information Technology (CCHIT) ( <a href="http://www.cchit.org">www.cchit.org</a> ) for certification requirements.<br><br>See Meaningful | Consider development of electronic prescribing awareness information | Contact NCPDP for messaging standards<br><br>Certify with appropriate network business partners<br><br>Consider development of electronic prescribing awareness information  |

<sup>1</sup> The Institute of Medicine Reports in 1999 and 2001, "To Err is Human" <http://www.iom.edu/?id=12735> and "Crossing the Quality Chasm" <http://www.iom.edu/CMS/8089.aspx>.

|   |  |   |  |  |
|---|--|---|--|--|
|   |  | Use information at<br><a href="http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp">http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp</a> |  |  |
| <b>Where can I get more information on electronic prescribing</b> | <a href="http://www.cms.hhs.gov/EPrescribing/">http://www.cms.hhs.gov/EPrescribing/</a><br><a href="http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp">http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp</a><br><a href="http://www.cms.hhs.gov/EHealthRecords/">http://www.cms.hhs.gov/EHealthRecords/</a><br><a href="http://www.ehealthinitiative.org/">http://www.ehealthinitiative.org/</a><br><a href="http://www.surescripts.com/">http://www.surescripts.com/</a><br><a href="http://www.nationalerx.com/">http://www.nationalerx.com/</a><br><a href="http://www.thecimm.org/faq.htm">http://www.thecimm.org/faq.htm</a><br><a href="http://www.himss.org/ASP/topics_eprescribing.asp">http://www.himss.org/ASP/topics_eprescribing.asp</a><br><a href="http://www.healthtransformation.net">www.healthtransformation.net</a> |   |  |  |

### **Electronic prescribing standards**

#### **NCPDP SCRIPT Standard:**

The NCPDP SCRIPT Standard was first published in 1997 and has been updated annually based on the business needs identified by the industry. SCRIPT is a standard created to facilitate the transfer of prescription data between pharmacies, prescribers, intermediaries, and payers. The current standard supports messages regarding new prescriptions, prescription changes, refill requests, prescription fill status notification, prescription cancellation, medication history, and transactions for long term care environments. Enhancements have been added for Drug Use/Utilization Review (DUR) alerts, standardized sig (instructions), allergies, structured diagnosis information, clinical exchanges, and the use of RxNorm for standardized medication nomenclature. In the future, enhancements may be included such as lab values, patient drug profiles, prescription transfers, and formulary inquiries.

NCPDP is working with the industry to enhance the functionality available for exchanging structured and codified Sig and electronic prior authorization functionality. The ability to include the Sig (prescription instructions) in a structured and codified way is available in SCRIPT version 10.4 and above. The industry will continue testing and enhancing this complex information sharing of instructions. As electronic prior authorization efforts continue, NCPDP will work with the industry to enhance the appropriate standards to support these business functions.

Within SCRIPT, basic business operations such as the communication of prescription information between prescriber and pharmacy and medication history information between entities can all be handled electronically (computer to computer).

| <b>PHARMACY</b><br>The pharmacy typically will:   | <b>PRESCRIBER</b><br>The prescriber typically will:  | <b>Entities</b> (pharmacy, prescriber, intermediary, payer/health plan) typically will:  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• initiate a request for a refill</li> <li>• initiate a request for a change to a new prescription</li> <li>• initiate a request for a password change</li> <li>• initiate a notification of a dispensed, not dispensed, or partially dispensed prescription</li> <li>• initiate a response to a cancel prescription request</li> <li>• initiate a request for a medication</li> </ul> | <ul style="list-style-type: none"> <li>• initiate a request for a new prescription</li> <li>• initiate a response to a refill request from a pharmacy</li> <li>• initiate a response to a prescription change request</li> <li>• initiate a request for a password change</li> <li>• initiate a request to cancel a prescription that has already been transmitted</li> <li>• initiate a request for a medication history to a pharmacy</li> <li>• initiate a request for a medication history to</li> </ul> | <ul style="list-style-type: none"> <li>• request medication history request from another entity</li> <li>• provide medication history</li> </ul> |

|   |   |  |
|---|---|--|
| <p>history to a prescriber</p> <ul style="list-style-type: none"> <li>• initiate a request for a medication history to a payer or other entity</li> </ul>   | <p>a payer</p> <ul style="list-style-type: none"> <li>• notify the pharmacy about census events (acting as a facility in a long term care environment)</li> <li>• modify the prescription order and notify the pharmacy (in long term care environments)</li> <li>• send a refill request from a facility to a pharmacy</li> <li>• notify an entity of a medication event for a medication dispensed and administered</li> <li>• notify an entity of a sample medication</li> </ul> |  |
| <p>Intermediaries/Switches/Clearinghouses/Aggregators are entities that accept an electronic transaction from another organization and electronically routes the transaction to a receiving entity.</p> |   |  |

**NCPDP Formulary and Benefit Standard:**

The NCPDP Formulary and Benefit Standard provides patient benefits information to physicians at the point of care. The goal is to enable the physician to consider the following kinds of information during the prescribing process, so that he/she could make the most appropriate drug choice for the patient. Formulary and benefits data can consist of the following types: Formulary Status, Payer-specified Alternatives, Coverage Information, Copay Information, and Drug Classifications. Lastly, a Cross-Reference may be used to tie the different types of information to a particular benefit plan or group.

- Information about which drugs are considered to be “on formulary,” and alternative medications for those drugs not on formulary.
- Limitations that may impact whether the patient’s benefit will cover a drug being considered (such as age limits, gender limits, step therapy rules, benefit-specific coverage exclusions, etc.)
- The cost to the patient for one drug option versus another.

**ASC X12N 270/271:**

ASC X12N 270 Health Care Eligibility/Benefit Inquiry and ASC X12N 271 Health Care Eligibility/Benefit Response used for a prescriber system to request eligibility information about a patient, in this case, specifically for pharmacy benefit eligibility information. This standard is maintained by the Accredited Standards Organization (ASC) X12. [www.x12.org](http://www.x12.org).

**Continuity of Care Record (CCD):**

The HL7 Continuity of Care Document (CCD) Component describes the document content that summarizes a consumer's registration/medication information. See HL7 Implementation Guide: CDA Release 2 - Continuity of Care Document (CCD), April 01, 2007. [www.hl7.org](http://www.hl7.org) The ability to include a clinical information attachment has been added in SCRIPT and the Specialized Standard.

**National Provider ID (NPI):**

On April 7, 2008, CMS released 42 CFR Part 423 “*Medicare Program; Standards for EPrescribing Under Medicare Part D and Identification of Backward Compatible Version of Adopted Standard for EPrescribing and the Medicare Prescriptions Drug Program (Version 8.1); Final Rule*”<sup>2</sup>. In this rule, the NPI is adopted for electronic prescribing to identify an individual health care provider to Medicare Part D sponsors, prescribers and dispensers, in electronically transmitted prescriptions or prescription-related materials for Medicare Part D covered drugs for Medicare Part D eligible individuals. **It is important to note that the NPI is used to identify the individual prescriber and dispenser in the electronic prescription process. The NPI was not created to be used for routing of transactions.**

The electronic prescribing standards are not **HIPAA covered transactions** and as such are not required to use the NPI. Entities covered by the Medicare Modernization Act are required to comply with the MMA, including the NPI usage.

**Progress to Date (as of 11/2011)**

<sup>2</sup> The rule was published in the Federal Register on April 7, 2008

## **DEA ISSUES RULE ON ePRESCRIBING**

March 31, 2010 - The Drug Enforcement Administration (DEA) issued an Interim Final Rule (IFR) with Request for Comment to provide practitioners with the option of writing prescriptions for controlled substances electronically and permit pharmacies to receive, dispense and archive these electronic prescriptions. See <http://www.ncdpd.org/eprescribing.aspx>. The effective date is June 1, 2010. The DEA has published guidance at [http://www.deadiversion.usdoj.gov/ecommm/e\\_rx/index.html](http://www.deadiversion.usdoj.gov/ecommm/e_rx/index.html)

September 9, 2010 – The DEA solicited public comments on how best to standardize the specific internal code number associated with each individual practitioner permitted by the hospital or other institutional practitioner to administer, dispense, or prescribe controlled substances using that institution's DEA registration. DEA is taking this action in response to comments it received to its Notice of Proposed Rulemaking regarding electronic prescriptions for controlled substances. 21 CFR Part 1301 [Docket no. DEA–321a] RIN 1117–AB22 Identification of Institution-based Individual Practitioners. [http://www.access.gpo.gov/su\\_docs/fedreg/frcont10.html](http://www.access.gpo.gov/su_docs/fedreg/frcont10.html)

October 19, 2011 – 21 CFR Parts 1300, 1304, 1306 and 1311 [Docket No. DEA–360] Electronic Prescriptions for Controlled Substances Clarification - The DEA wishes to emphasize that third-party audits of software applications for Electronic Prescriptions for Controlled Substances (EPCS) must encompass all applicable requirements in our regulations, including security, and must address “processing integrity” as set forth in our regulations. Likewise, where questions or gaps may arise in reviewing a particular application, DEA recommends consulting federal guidelines set forth in NIST Special Publication 800–53A. DEA is also announcing the first DEA approved certification process for EPCS. Certifying organizations with a certification process approved by DEA pursuant to the regulations are posted on DEA's Web site once approved. [http://www.access.gpo.gov/su\\_docs/fedreg/frcont11.html](http://www.access.gpo.gov/su_docs/fedreg/frcont11.html)

## **SCRIPT 10.6**

July 1, 2010 - The Centers for Medicare and Medicaid Services (CMS) published to the Federal Register July 1, 2010 an Interim Final Rule (IFR) entitled, "Identification of Backward Compatible Version of Adopted Standard for E-Prescribing and the Medicare Prescription Drug Program (NCPDP SCRIPT 10.6)." The regulation names NCPDP SCRIPT 10.6 effective for use July 1, 2010 and continues to support NCPDP SCRIPT 8.1. See <http://www.ncdpd.org/eprescribing.aspx> (As of 06/2011 the regulation to sunset SCRIPT 8.1 has not been scheduled for release by CMS. The regulation when published is expected to provide the sunset date for SCRIPT 8.1 based on industry input, and include the lifting of the eprescribing exemption for long term care.)

October 24, 2011 - Centers for Medicare & Medicaid Services 42 CFR Chapter IV [CMS–9070–P] RIN 0938–AQ96 Medicare and Medicaid Program; Regulatory Provisions To Promote Program Efficiency, Transparency, and Burden Reduction - section 4. E-Prescribing which proposes to move from the ASC X12 270-271 version 4010A1 to the 5010, and from the NCPDP Telecommunication Standard version 5.1 to D.0, to be aligned with the HIPAA regulations for January 1, 2012. The industry had requested this regulatory update so that the electronic prescribing and claims processing environments would be in sync for versions of standards used. [http://www.access.gpo.gov/su\\_docs/fedreg/frcont11.html](http://www.access.gpo.gov/su_docs/fedreg/frcont11.html)

## **Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) – Eprescribing Incentive Program**

This program authorizes a new and separate incentive program for eligible professionals who are successful electronic prescribers (e-Prescribers) as defined by MIPPA. This new incentive is separate from and is in addition to the quality reporting incentive program authorized by Division B of the Tax Relief and Health Care Act of 2006 - Medicare Improvements and Extension Act of 2006 (MIEA-TRHCA) and known as the Physician Quality Reporting Initiative (PQRI). Information is available at <http://www.cms.gov/ERxIncentive/>

The MIPPA legislation is at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110\\_cong\\_bills&docid=f:h6331eh.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6331eh.txt.pdf)

### **NCPDP Work Underway**

Task Groups are open to *any interested party* (NCPDP member or non-member) who is willing to participate and work

- Collaborative, focused, problem solving activities
- Work done via conference calls, email

To see the list of conference calls and events – <http://www.ncdp.org/events.aspx>

To see the list of Task Groups

- NCPDP Task Groups link on the Events Calendar <http://www.ncdp.org/events.aspx> or [http://www.ncdp.org/get\\_involved.aspx](http://www.ncdp.org/get_involved.aspx) - under Task Groups

### **Structured and Codified Sig**

- The WG10 Structured and Codified Sig Task Group is enhancing the structured and codified format incorporated into SCRIPT for the Sig (instructions) on electronic prescriptions. They are enhancing the structure and guidance based on pilot feedback.
- The MC Modeling & Methodology Task Group is looking at “grammar” tools for implementers to use in deconstruction/construction of structured and codified sigs.

### **Risk Evaluation and Mitigation Strategies (REMS) and ePrescribing Task Group**

- Analysis underway of impacts to electronic prescribing

### **Allergy Value Set Task Group (completed work)**

- Meeting to create a sustainable medication allergy value set comprised of interoperable terminologies. Goals include
  - Recommend building “starter sets” of that meet the vast majority of observed class-based documented medication allergies within surveyed enterprises (likely the top 50 terms with code references).
  - Recommend the types of concepts and vocabulary sources that should be used when a clinical drug, therapeutic ingredient or inactive ingredient requires interoperable allergy expression (for example, if clinical drug, use RxNorm BPCK, GPCK, SBD or SCD as appropriate; if ingredient use RxNorm PIN or IN if available; use FDA UNII only if ingredient not found in RxNorm)
  - Recommend a preferred publication process in which the VA could uniquely identify NDF-RT classes with a medication allergy “role” for compilation by NLM with “class” relationships to “child” concepts (e.g., RxNorm clinical drugs and ingredients)
  - Recommend a starter set of SNOMED-CT clinical findings that may be used for the documentation of allergy or drug sensitivity reactions (likely the top 100 with SNOMED-CT references)

### **Other work:**

#### **Electronic Prior Authorization**

- Topic was the focus of NCPDP industry task work in past years
  - Task Group worked with CMS and AHRQ on pilot
  - Recommendations formed a new XML-based transaction exchange for pilot testing
  - *Other topics began getting more attention*
  - Recently some states are being lobbied for prior authorization regulations that are confusing, can be incomplete, and could cause each state to regulate and implement differently.
  - Industry pilot or two are popping up.
  - NCPDP convened a focus group October 2011 for entities that are implementing or serious about testing transaction exchange. The WG11 ePA Workflow to Transactions Task Group will begin conference calls again in late Nov/Dec 2011.

### **History of NCPDP**

NCPDP, located in Scottsdale, AZ, is a not-for-profit ANSI-accredited Standards Development Organization consisting of over 1,600 members who represent chain and independent pharmacies, consulting companies and pharmacists, database management organizations, federal and state

agencies, health insurers, health maintenance organizations, mail service pharmacy companies, pharmaceutical manufacturers, pharmaceutical services administration organizations, prescription service organizations, pharmacy benefit management companies, professional and trade associations, telecommunication and systems vendors, wholesale drug distributors, and other parties interested in electronic standardization within the pharmacy services sector of the health care industry.

NCPDP Standards have been instrumental in enhancing the technical connectivity of the health care industry; from pharmacy claims submission to electronic prescribing. These Standards have been named in various state and federal laws and regulations including HIPAA and MMA. Developed by NCPDP members to address business needs, the existing standards are continually evolving and new standards are created as needed to support new business requirements.

### **Case Studies of Interest/Articles of Interest**

CDN Eprescribing Pilot Project

<http://www.eclinician.org/ePrescribing/>

Get Connected Program

<http://www.aafp.org/online/en/home/publications/news/news-now/practice-management/20080306getconnected.html>

Government Health IT

<http://www.govhealthit.com/DisplayTopic.aspx?tid=77>

National Eprescribing Patient Safety Initiative

<http://www.nationalerx.com/>

Rhode Island Quality Institute

[http://www.rqi.org/matriarch/MultiPiecePage.asp\\_Q\\_PageID\\_E\\_24\\_A\\_PageName\\_E\\_StrategicInitTTCEPrescribing](http://www.rqi.org/matriarch/MultiPiecePage.asp_Q_PageID_E_24_A_PageName_E_StrategicInitTTCEPrescribing)

### **References**

Surescripts National Progress Report on Eprescribing

<http://www.surescripts.net/e-prescribing-statistics.html>

Emdeon electronic prescribing

<http://www.emdeon.com/eprescribing/>