

Clinician's Guide to e-Prescribing

2011 Update





Introduction

Why Update the Guide?

In the fall of 2008, the American Medical Association (AMA), American Academy of Family Physicians (AAFP), American College of Physicians (ACP), Medical Group Management Association (MGMA), eHealth Initiative, and the Center for Improving Medication Management — a collaborative of the Surescripts, AAFP, MGMA, BlueCross BlueShield Association, Humana and Intel — published “A Clinician’s Guide to E-Prescribing.” The Guide provided an overview for practices seeking to understand basic e-prescribing information as well as details on how to successfully implement e-prescribing.

Given the dramatic changes in the environment in the past two years, the collaborators agreed it was time to update the Clinician’s Guide in the fall of 2010. The environmental and industry changes include continued and dramatic growth in e-prescribing adoption and use, the passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act, the Drug Enforcement Agency’s rule allowing e-prescribing of controlled substances, and healthcare reform. Each of these topics and their implications for practices and e-prescribing are discussed in more detail in this new Guide.

We hope the updated Guide will serve as a useful resource for physician practices that are looking to adopt e-prescribing. For those that are experienced with e-prescribing, we hope this guide will help support your understanding and use of e-prescribing within the new contexts of HITECH, meaningful use, and e-prescribing of controlled substances by providing specific best practices and resources.

Our Approach to This Update:

A small team from the collaborating organizations reviewed the original Guide and developed a new outline that incorporated critical new information from the last few years. The team worked to develop new content, streamline existing content, and organize the Guide into an easy to use format. Leadership from each of the collaborating organizations reviewed, modified, and signed off on the updated Guide.

In addition, a broader group of organizations was asked to provide input, review and comment on the updated Guide given their interest and experience with e-prescribing. Those additional organizations include: Quincy Medical Group, Health Information Management Services Society (HIMSS), Excellus, Walgreens, and the American Academy of Pediatrics. These organizations were participating in a work group on stakeholder education facilitated by the Center for Improving Medication Management and offered their expertise and knowledge to this effort.

How to Use the Guide

We suggest that physicians and their staff review summaries that lead each section of the guide to get a sense of the content within. Practices can then review more detailed information pertaining to their areas of strongest interest quickly, and leverage this information to help support their success with e-prescribing.

Executive Summary

Electronic prescribing is rapidly becoming a standard of practice with about one-third of office-based prescribers (over 230,000 by the end of 2010) actively e-prescribing. E-prescribing is just one aspect of a broader transformational movement within healthcare. The direction the industry is moving is toward more appropriate alignment of financial incentives to lead to a more patient-centered, coordinated, and accountable model of care delivery. Health information technology is widely viewed as an important tool to support healthcare financing and delivery reform and lead to higher quality and more effective cost management.

This Clinician's Guide to E-Prescribing describes the new environment, one where the federal government is making significant financial investments to encourage the widespread adoption and meaningful use of electronic health records, and addresses the implications for physician practices and e-prescribing. In particular it describes:

E-prescribing is rapidly becoming standard practice. About one-third of office-based prescribers now e-prescribe.

- Details regarding the financial incentives available to physicians through these incentive programs – in particular – those available through the HITECH Act, and the concept of “meaningful use” as it relates to this incentive program.
- Upcoming requirements for the use of e-prescribing that doctors will face in 2011. In particular, the Medicare Fee Schedule for 2011, published in November of 2010, which describes how the failure to use of e-prescribing in 2011 will be used to determine payment reductions in all physicians claims paid out in 2012 and 2013.
- Recent Drug Enforcement Administration rule changes that now give prescribers the option of prescribing controlled substances electronically. Related requirements demonstrate compliance requirements for prescribers. This rule addresses one of the key remaining barriers to e-prescribing and will likely lead to more adoption and use of the technology once the healthcare industry takes the appropriate steps to be in compliance with its requirements.
- Recommendations to help clinicians become successful, meaningful users of e-prescribing as a key step in eventually becoming meaningful users of EHRs. This includes the major steps that should be followed, the issues to expect and how to address them, as well as practical tips for successful deployment of e-prescribing.

This guide also includes a number of Appendices designed to offer additional tools and information to support adoption and use of prescribing technology. This includes a Buyer's Guide, frequently asked questions, and an extensive list of additional resources that may be helpful to physician practices at varying stages in this journey.

¹ Source – Surescripts

Table of Contents

Introduction	I
Executive Summary	II
Section 1: E-Prescribing as an Enabler to Transform Care.....	1
Section 2: E-Prescribing, Health Information Technology for Economic and Clinical Health Act (HITECH) and “Meaningful Use”	5
Section 3: Understanding Medicare Improvements for Patients and Providers Act (MIPPA).....	9
Section 4: Becoming a Successful, Meaningful User of E-Prescribing	13
Section 5: Electronic Prescribing of Controlled Substances (EPCS).....	24
Appendix 1: Buyers Guide	27
Appendix 2: Frequently Asked Questions.....	31
Appendix 3: Additional Resources.....	37
Appendix 4: Meaningful Use Criteria and Vision.....	38
Appendix 5: Application Requirements for the Electronic Prescribing of Controlled Substances	44



Section 1:

The New Environment – E-Prescribing as an Enabler to Transform Care

Key Takeaways:

- E-Prescribing supports a more efficient, accurate and safer method of prescribing by replacing outdated phone, fax and paper-based methods of prescribing with secure electronic exchange between prescribers and pharmacies.
- E-Prescribing empowers more informed decision making by making patient formulary, eligibility and medication history information available at the point that prescribing decisions are made.
- Two key government programs – Medicare Improvements for Patients and Providers Act (MIPPA) and Health Information Technology for Economic and Clinical Health (HITECH) – currently allow healthcare professionals to receive incentives through the adoption and use of e-prescribing technology.

What is E-Prescribing?

E-prescribing is the use of a computer, handheld device, or other hardware with software that allows prescribers to:

- With a patient's consent, electronically access information regarding a patient's drug benefit coverage and medication history.
- Electronically transmit the prescription to the patient's choice of pharmacy.
- Receive electronically transmitted prescription renewal requests from a pharmacy when the patient runs out.
- Support the entire medication management process – prescribe, transmit, dispense, administer, monitor.



Drug-drug interaction and drug-allergy checks are also supported by most if not all e-prescribing systems. For those looking to participate in the federal government's HITECH incentive program, these e-prescribing capabilities must be adopted and used in order to meet Stage 1 requirements for the meaningful use of electronic health record systems.

Section 1:

How Does E-Prescribing Work?

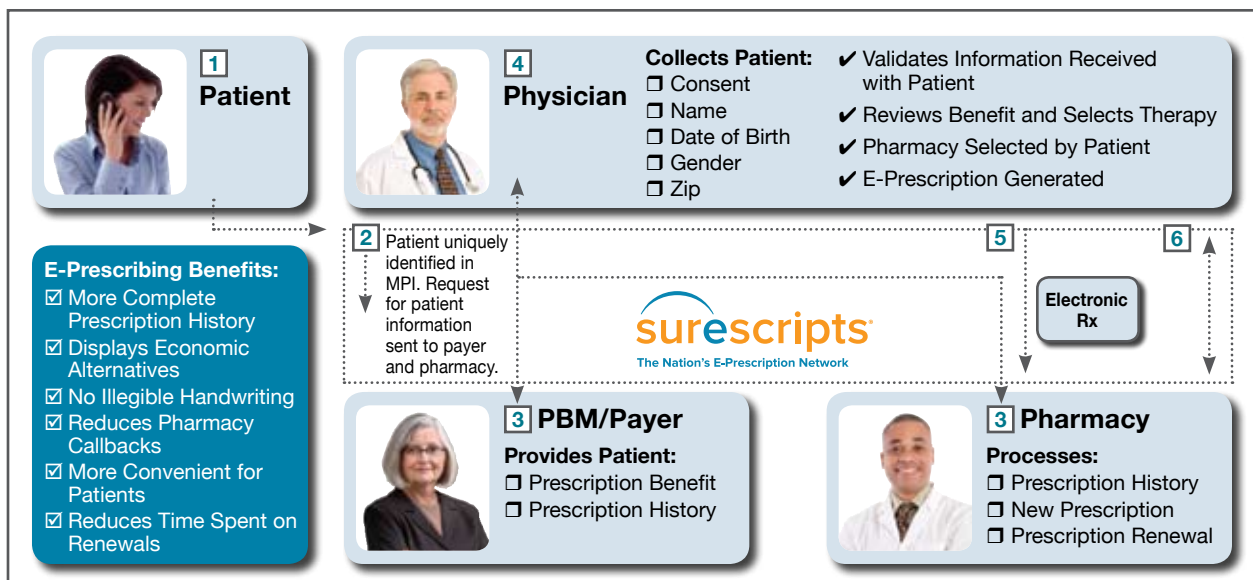
E-prescribing is made possible through a series of connections between payers and pharmacy benefit managers (PBMs), e-prescribing and EHR systems, and the nation's independent, chain, and mail order pharmacies. The typical steps in the e-prescribing process are as follows:

It starts when a patient visits a physician [1]. The physician's e-prescribing or EHR application collects the patient's consent and demographic information including name, date of birth, gender and zip code. The application, through its connectivity with the network, uniquely identifies the patient in a master patient index maintained by an e-prescribing network like Surescripts [2]. Then a request for patient information is sent to connected payers, PBMs and pharmacies [3]. The payer/PBM then returns prescription benefit, formulary and medication history information to the physician's e-prescribing or EHR application [4].

The physician then validates the information with the patient, reviews the patient's eligibility and formulary information, selects the appropriate medication therapy, selects the patient's pharmacy, and generates the e-prescription [5]. The prescriber may modify the prescription depending on any drug-drug or drug-allergy alerts. The prescription is then sent electronically to the pharmacy system [6].

Bi-directional electronic connectivity between the physician's system and the pharmacy system also allows the prescription renewal process to be automated. In other words, when the patient's refills run out, the pharmacy can send an electronic message to the physician's application to request a prescription renewal authorization and the physician can reply electronically to authorize or deny the prescription renewal. This can save significant time in the practice by replacing time consuming phone calls and faxes – used to manage this process in a non electronic environment – with secure electronic messaging.

The diagram below illustrates these steps in the e-prescribing process.



Section 1:

Benefits of E-Prescribing

E-prescribing has the potential to:

- Reduce the potential adverse drug events.
- Reduce drug costs through increased formulary compliance, use of generics and other low cost alternative medications.
- Enable payers to communicate information to prescribers that may lead to improved quality, and better patient experience — formulary alerts, safety alerts, adherence reminders, gaps in care alerts.
- Enable payers to communicate information to patients that will more fully engage them in their care – condition and therapy education, medication adherence education, care reminders.
- Save time in practice and pharmacy.
 - Time spent managing prescription renewals is significantly reduced by reducing phone calls and faxes.
 - Issues related to formulary, generic substitution, dosage and legibility are reduced, and communications needed for resolution avoided.
 - A study by MGMA's Group Practice Research Network estimated that the time spent managing unnecessary administrative complications related to prescriptions is estimated at approximately \$15,700 annually for each full time physician².
- Improve consumer convenience. Only one trip is needed to the pharmacy to pick up a prescription rather than one needed to drop it off and another to pick up. Renewal requests can be expedited in less time.
- Support improved medication adherence. A study by IMS and Walgreens showed an 11 percent increase in prescriptions reaching the pharmacy when e-prescribing was used³.

E-prescribing has the potential to reduce adverse drug events, lower drug costs and save time in the practice and pharmacy.

² MGMA – Analyzing cost of administrative complexity in group practice. 2004

³ Source - Walgreens and IMS Health Press Release - New Research Suggests That, When Sent Electronically, More New Prescriptions Make it From Doctors' Office To Pharmacy to Patient. - October 15, 2007

Section 1:

E-Prescribing Landscape: Adoption Statistics and Trends⁴

Adoption and use of prescription benefit, medication history, and electronic routing of prescriptions has more than doubled during each of the past two years.

- The vast majority—more than 75 percent — of e-prescribing is taking place in the context of full EHRs.
- At the end of 2010, over 230,000 physicians and other clinicians or about one-third of practicing physicians are actively e-prescribing.
- Prescription eligibility, formulary and medication history information can be sourced from over 240,000 patient records held by payers/PBMs.
- More than 90 percent of pharmacies — including the major mail order pharmacies are electronically enabled.
- Approximately 10 state Medicaid plans are connected for e-prescribing.

The remaining gaps in adoption include some state Medicaid plans and about 25 percent of the independent pharmacies. State specific e-prescribing statistics are available on the Surescripts website at: www.surescripts.com.

E-Prescribing Adoption and Implementation Challenges

Cost and workflow change are the primary challenges. It may also be a challenge to ensure that practices communicate effectively with patients about e-prescribing to help with their acceptance and trust of the technology. Practices may also need to communicate with pharmacies if they receive questions or concerns from patients that may arrive in the pharmacy and be told their prescription has not arrived. It can be challenging for the practice to understand how to get to the root cause for certain issues and who is responsible for resolving them.

As e-prescribing has grown substantially in recent years, there is growing evidence that these challenges can and are being overcome. More detailed information on best practices for implementation and overcoming these challenges will be described in Section 4 and in the Appendices.

At the end of 2010, over 230,000 prescribers or about one-third of all office-based prescribers were actively prescribing.

⁴ Source — Surescripts

Section 2:

E-Prescribing, HITECH And Meaningful Use

Key Takeaways:

- The Health Information Technology for Economic and Clinical Health Act (HITECH) makes incentive payments available to assist hospitals and individual physicians in adopting electronic health record (EHR) technologies
- To receive incentive payments, physicians must prove that they meet government requirements for meaningful use of EHR technology which will evolve over 3 “Stages” from 2011 through 2015.
- E-Prescribing is a key component of meaningful use. Most notably, Stage 1 of meaningful use requires that at least 40 percent of eligible prescriptions are prepared and sent to pharmacies electronically
- Future stages of meaningful use place increasing importance on the send and receipt of clinical information between health care providers to inform patient care.
- This includes the receipt and use of patient formulary and eligibility information from payers — accessed through use of e-prescribing technology certified for this communication.
- It also includes increasing requirements for the percentage of eligible prescriptions prepared and sent to pharmacies electronically.

Overview of HITECH

The HITECH Act passed in early 2009 seeks to improve American healthcare delivery and patient care through an unprecedented investment in health information technology. The provisions of the HITECH Act are specifically designed to work together to provide the necessary assistance and technical support to providers, enable coordination and alignment within and among states, establish connectivity to the public health community in case of emergencies, and assure the workforce is properly trained and equipped to be meaningful users of EHRs.



HITECH introduced the concept of meaningful use of EHRs to ensure that use of the technologies adopted under its incentive program could be measured. Many of the HITECH programs are designed to continue to drive e-prescribing adoption and successful use within the broader context of EHRs and health information exchange. E-prescribing is an important component of meaningful use.

Section 2:

HITECH Provider Incentives

HITECH allows for an estimated \$34 billion in incentives to hospitals and physicians under Medicare and Medicaid who use certified EHRs and comply with the requirements for meaningful use. Physicians can receive up to \$44,000 under Medicare or \$63,750 under Medicaid. Incentive payments can begin in 2011 and be spread over five years for Medicare and six years for Medicaid. Penalties start in 2015 for those eligible for Medicare incentives who have not yet achieved meaningful use.

Meaningful Use

In order to qualify for incentive payments, participating physicians need to demonstrate they are using certified EHR technology in ways that can be measured in both quality and quantity.

Certified EHR technology used in a meaningful way is one piece of a broader Health Information Technology (HIT) infrastructure needed to reform the health care system and improve health care quality, efficiency, and patient safety. The Office of the National Coordinator of (ONC) issued a final rule establishing a temporary certification program for HIT on June 24, 2010 and issued the interim final rule establishing a permanent certification program on October 13, 2010.

Physicians can receive up to \$44,000 under Medicare or \$63,750 under Medicaid. Incentive payments can begin in 2011 and be spread over five years for Medicare and six years for Medicaid.

CMS' goal is for the definition of meaningful use to be consistent with applicable provisions of Medicare and Medicaid law while continually advancing the contributions certified EHR technology can make to improving health care quality, efficiency, and patient safety. To accomplish this, CMS' final rule would phase in more robust criteria for demonstrating Meaningful Use in three stages:

- 1) Capturing and sharing of data – current phase, Stage I (2011)
- 2) Advanced care processes with decision support – Stage II (2013)
- 3) Improved outcomes and population management – Stage III (2014 – 2015)

Section 2:

How Does E-Prescribing Fit with Meaningful Use?

E-prescribing is one of the more mature and successful components of the meaningful use criteria established by CMS. The following aspects of Stage 1 meaningful use are supported by e-prescribing:

- 40 percent of prescriptions must be transmitted electronically
- Drug-drug and drug-allergy interaction checking must be performed
- Active medication lists must be maintained
- Allergy list must be maintained
- Medication reconciliation must be performed
- Information must be exchanged electronically
- Formulary checking (menu option in Stage 1, expected to be required in Stage 2)

Phasing in Meaningful Use: Consider Starting with E-Prescribing First

Trying to demonstrate meaningful use of their certified EHR system may seem like a daunting challenge. Physician practices will need to develop a roadmap or project plan in order to achieve meaningful use for 90 consecutive days within the calendar year. So — if a physician wishes to participate in the program in 2011, he or she must demonstrate meaningful use of their certified EHR technology for 90 consecutive days in 2011, beginning no later than October 1, 2011.

Acquisition and Implementation Approaches:

Approaches to achieving meaningful use include:

- Implementing full EHRs
- Implementing best of breed modules for key functions that, combined, fulfill meaningful use requirements.

If the latter option is chosen, it may be a good idea to implement e-prescribing as the first step toward meaningful use. It is important, however, to take into consideration the importance and potential added cost to integrate modular technologies.

Whether a practice chooses to implement a comprehensive EHR or modular approach, a staged implementation may also make sense.

For example, the practice could buy an EHR and implement its practice management system functionality, then e-prescribing, then the more robust medical record functionality.

Physician practices will need to develop a road map or project plan in order to demonstrate Meaningful Use of their certified EHR for 90 consecutive during the calendar year.

Section 2:

For Practices That Are Already E-Prescribing:

Practices should ensure that they meet all of the objectives and measures associated with meaningful use listed above and that their product is certified for Meaningful Use (discussed below). This may only require some minor modifications in workflow to ensure that the practices are fully using the medication history information as well as the formulary checking so they can get credit for that menu option. It may also require some effort to make sure that physicians are in fact transmitting at least 40 percent of their prescriptions electronically and identifying and addressing any barriers to making this threshold.

For Practices That Have Not Yet Implemented E-Prescribing:

Implementing e-prescribing at the outset may be a good first step toward meaningful use. These practices should consider working with their vendors on an overall plan to achieve meaningful use that starts with e-prescribing. That will give the practices experience with a relatively mature technology that will result in immediate patient safety, practice efficiency, and patient convenience benefits. Then it may be less intimidating to tackle the remaining aspects of meaningful use.

In either case, practices must use an EHR technology that is certified for meaningful use. As of January 2011, ONC has identified six organizations as authorized testing and certification bodies:

Implementing e-prescribing at the outset may be a good first step towards achieving meaningful use.

The Certification Commission for Health Information Technology (CCHIT), Chicago, Illinois; the Drummond Group, Inc. Austin, Texas; ICSA Labs, Mechanicsburg, Pennsylvania; InfoGard Laboratories, Inc., San Luis Obispo, California; SLI Global Solutions, Denver, Colorado; and Surescripts LLC, Arlington, Virginia (e-prescribing and associated privacy/security functionality only). As of January 2011, 209 ambulatory EHRs, 83 inpatient EHRs have been certified.

The list of certified EHRs is available at: <http://onc-chpl.force.com/ehrcert>.

Section 3:

Overview of the Medicare 2011 E-Prescribing Incentive Program

Key Takeaways

- An incentive program from the Centers for Medicare and Medicare Services (CMS) offers eligible professionals the opportunity to receive an extra one percent reimbursement in 2011 on total allowed Medicare charges to those that use e-prescribing technology.
- To receive payments, eligible prescribers must use qualified e-prescribing technology and send at least 10 e-prescriptions during the reporting period.
- Those that do not establish this use by June 30, 2011 will face a 1 percent payment penalty on total allowed Medicare charges submitted throughout 2012.

Overview:

The Centers for Medicare and Medicaid Services (CMS) offers an incentive program for eligible professionals to facilitate the use of electronic prescribing (e-prescription). This program delivers additional Medicare payments for prescribers that qualify as successful e-prescribers per program requirements. The incentive program was authorized under the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) and was implemented in 2009 and 2010. The following changes were made to the program for 2011 in comparison to 2010



- The amount of the incentive has changed from 2 percent to 1 percent of total allowed charges for professional services covered by the Medicare Part B Physician Fee Schedule during 2011.
- A payment adjustment (penalty) has been introduced for eligible professionals that have not implemented and employed a qualified e-prescribing system by June 30, 2011. The penalty is 1 percent of total allowed charges submitted throughout 2012 and a 1.5 percent payment cut for 2013 for the failure to e-prescribe.
- Practices that successfully participate in the Medicare and Medicaid Health Information Technology for Economic and Clinical Health (HITECH) Act's electronic health record (EHR) incentive program will not be eligible for the MIPPA incentive, but will still be eligible for imposition of the e-prescribing payment adjustment.

Section 3:

Eligibility Requirements for MIPPA E-Prescribing Incentive Payment

Eligible professionals (EPs) include physicians and other recognized practitioners under the Medicare Act who have prescribing authority within their scope of practice are eligible to participate.

The incentive is limited in 2011 to eligible professionals whose estimated allowed charges for “e-prescribing measure” procedural codes (defined below) are at least 10 percent of their total Medicare Part B Physician Fee Schedule allowed charges for the reporting period. Most office-based general internal medicine physicians and subspecialists should easily meet this 10 percent threshold.

Eligible professionals must use qualified e-prescribing systems in order to participate.

Eligibility Requirements – Patient Encounters

This incentive only applies to services provided to patients within the Medicare Part B Fee-for-Service program. It does not apply to patients covered under a Medicare Advantage program.

Eligibility Requirements – Use of a “Qualified” E-Prescribing System

Eligible professionals must use a “qualified” e-prescription system defined as a system that meets the following criteria. Prescribers should ask the vendor that provides their e-prescribing system if it is qualified per CMS E-Prescribing Incentive Program requirements.

The system must be able to:

- Generate a complete active medication list incorporating electronic data received from applicable pharmacies and benefit managers (PBMs) if available.
- Select medications, print prescriptions, electronically transmit prescriptions, and conduct all alerts defined as “written or acoustic signals to warn prescribers of possible undesirable or unsafe situations including potentially inappropriate dose or route of administration of a drug, drug-drug interactions, allergy concerns, or warnings and cautions.”
- Provide information on lower-cost, therapeutically-appropriate alternatives if there are any. (The availability of an e-Rx system to receive tiered formulary information electronically would meet this requirement).
- Provide information on formulary or tiered formulary medications, patient eligibility, and authorization requirements received electronically from the patient’s drug plan if available).
- Convey the above information using the messaging and interoperability standards currently in effect for the Medicare Part D e-prescription program.

Section 3:

Eligibility Requirements – “Successful Electronic Prescriber” Defined

A successful e-prescriber is one who meets all eligibility requirements and generates and reports at least one e-prescription during 25 or more unique patient visits during the reporting year.

A successful e-prescription reporting event consists of submitting the G-code (G8553) when performing one of the service codes defined below during the patient visit. This G-code reflects that at least one prescription created during the encounter was generated and transmitted using a qualified e-prescription system.

The applicable service codes for the electronic prescribing measure are:
90801, 90802, 90804, 90805, 90806, 90807, 90808, 90809, 90862, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99324, 99325, 99326, 99327, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

The applicable G codes are: G0101, G0108, G0109.

The measure has no diagnosis codes or age/gender requirements in order to be included in the denominator.

Successful E-Prescriber Determination and Payment Procedure

Determination of eligible professionals who are successful e-prescribers for 2011 will be at the individual professional level, based on their National Provider Identifier (NPI). However, payment will be made to the practice represented by the Tax Identification Number (TIN) to which payments are made for the individual’s professional services. For providers associated with more than one practice, determination of a successful e-prescriber for 2011 will be made for each unique NPI-TIN combination. Incentive payments for 2011 will be made by mid-year 2012.

Prescribers must electronically prescribe at least 10 times by June 30, 2011 to avoid Medicare payment penalties.

How to Avoid Medicare Payment Cuts in 2012 and 2013

In order to avoid Medicare payment cuts in 2012 prescribers must be using e-prescribing by June 30, 2011 in order to avoid a one percent payment penalty. The Medicare Fee Schedule for 2011, which was published in November of 2010, requires that prescribers to e-prescribe 10 times by June 30, 2011. To avoid a 2013 penalty of 1.5 percent, prescribers must e-prescribe 25 times by December 2011. Prescribers report such activity by submitting G-code G8553 on their claims.

Section 3:

Individuals can get an exemption to the payment cuts if the following apply:

- The EP is not a physician (includes MDs, DOs, and podiatrists), nurse practitioner, or physician assistant as of June 30, 2011
- The EP does not have at least 100 cases (that is, claims for patient services) that contain the applicable e-prescription service code (as defined above) for dates of service between January 1, 2011 through June 30, 2011.
- The EP is a successful electronic prescriber as defined by reporting a minimum of 10 successful e-prescription events during the 6 month period of January 1, 2011 to June 30, 2011.
- The EP's (or group practice) claims reflect that less than 10 percent of their estimated total allowed charges for the January 1, 2011 through June 30, 2011 reporting period are comprised of applicable e-prescription service codes.

In addition, an EP (or group practice) can be considered for a “Significant Hardship Exemption” from the penalty if during January 1, 2011 through June 30, 2011, one of the following circumstances applies:

- The EP or group practice practices in a rural area with limited high speed Internet access (G8642).
- The EP or group practice practices in an area with limited available pharmacies for electronic prescribing (G8643).

An EP or group practice must submit one of the related G codes indicated above during the first 6 months of 2011 to be considered for this hardship exemption.

Section 4:

Becoming a Successful, Meaningful User of E-Prescribing

Key Takeaways:

Important Considerations Include:

- Assessing your practice readiness to adopt e-prescribing technology.
- Choosing an e-prescribing application that works for the particular dynamics of your practice (specialty, size, workflow).
- Understanding the availability and requirements for public and private incentive programs that can assist with your adoption of e-prescribing technology.
- Deploying the technology in a way that best acclimates doctors and staff to adjustments in workflow.
- Monitoring use of the technology to ensure that incentive program requirements are met and that allows your practice to best leverage the benefits of this technology.
- Proactively reaching out to pharmacies to make them aware of your shift to e-prescribing and keeping your vendor in the loop regarding any issues that might occur.

Introduction:

There are a number of important steps to becoming a successful e-prescriber. It is very important when implementing e-prescribing systems that practices focus on using all aspects of e-prescribing functionality including drug benefit checks, formulary checks, medication history checks, and bi-directional routing of prescriptions (both new and renewal authorizations). Failing to fully use the complete e-prescribing functionality will diminish the value and benefits to all participants in the process including physician practices, patients, payers/pharmacy benefit managers (PBMs).

This section summarizes the key steps and highlights available resources. Additional detailed information that can help practices be successful is available in the Appendices.



Section 4:

Step 1: Assess Practice Readiness

The first step when considering technology implementation is to determine whether your practice is ready for the changes ahead. To be successful, the practice must believe that improvements can be made and be willing to change in order to achieve those improvements. Information technology is a tool that can enable your practice to manage and access information and clinical decision support. However, without changes in the way you work, the benefits of technology will be limited.

Important Considerations Include:

- Are your practice staff members and leadership ready to change? Do they seek opportunities for process improvement or do they resist change?
- Has your practice endured unsuccessful technology implementations in the past? Is there a good understanding of why the projects were not successful?
- Are there other major projects underway in the practice that would compete with deploying electronic health records (EHRs)/ e-prescribing? Can you devote the necessary staff time and resources to ensuring successful technology implementation?
- Does the practice agree that becoming meaningful users of EHRs and starting with e-prescribing will lead to clinical and operational improvements?
- Is the practice prepared to deal with the challenges that are likely to be encountered along the way? Potential challenges include cost, workflow change, hardware and software selection, connectivity issues, and patient concerns.
- Does the practice have a culture of open, honest communication? Do practice staff members feel comfortable expressing opinions to leadership? Are the opinions received in a constructive and respected manner? Implementing EHRs/e-prescribing will impact virtually everyone in the practice and listening to feedback will help lead to success.

Information technology is a tool that can enable your practice to manage and access information and clinical decision support. However, without changes in the way you work, the benefits of technology will be limited.

Section 4:

Step 2: Define Practice Needs

The second step when considering e-prescribing or any technology implementation is to determine what improvements the practice hopes to gain with the use of technology. In order to realize the benefits, the practice must clearly define its needs and how e-prescribing will address those needs.

Important considerations include:

• Planning

- Set a clear vision for what you hope to accomplish through e-prescribing as well as specific objectives that are grounded in realistic expectations with achievable, measurable results.
- Identify a project team to play a role in adapting practice workflow to ensure the benefits of e-prescribing are fully achieved.
- Choose a project leader who becomes extremely knowledgeable about the practice and the technology and will help overcome barriers as they are encountered.
- A prescriber champion should work closely with the project leader to address issues and maintain the commitment of physicians to the success of the project.
- Identify a super user who will become an expert on the technology and provide ongoing training to staff.
- Plan for known e-prescribing challenges (Page 21).

• Workflow and Change Management

- Delineate the practice's specific medication management needs and ensure that the plan addresses areas of inefficiency and safety concerns.
- Think through how the processes and workflow will change with e-prescribing.
- In addition to clinical and operational needs, the practice will have technical needs. Do the prescribers need to be able to carry a device in the exam rooms? Should there be computers in the exam rooms? The technology should be accessible from outside of the office and should be integrated with the practice management system.
- Consider hardware and network needs including a high speed Internet connection.
- Who will be responsible for maintenance of information technology systems.
- The technology should be certified for meaningful use.

Choose a project leader who becomes extremely knowledgeable about the practice and the technology and will help overcome barriers as they are encountered.

Section 4:

- **Communication**

- The entire practice should understand the vision and objectives and understand their role in the project
- All parts of the practice should be involved in defining needs as everyone will be impacted by a change to the prescribing process and will need to understand any dependencies (e.g., a change in one area's workflow impacts another area)

Step 3: Understand Costs and Financing Options

The next step is to understand the upfront and post-implementation costs for e-prescribing and EHR systems and options for financing that might be available. With the focus on meaningful use and the growth in EHR adoption, more financing options are available.

Technology vendors are offering financing options, and hospitals and health systems are increasingly assisting practices with EHRs. Incentive payments are available under Medicare, Medicaid and some private insurers to encourage the use of information technology including e-prescribing. Some health plans have announced that they will model their pay-for-performance programs after meaningful use. IBM, Nextgen, athenahealth, HP and Quest are examples of organizations that have announced financing options. Aetna, Highmark, UnitedHealth Group, and WellPoint announced that they will offer additional financial incentives for meaningful use. Some states are setting up low interest loan programs for EHR acquisition.

Technology vendors are offering financing options, and hospitals and health systems are increasingly assisting physician practices with acquiring EHR technology.

Important Considerations Include:

- Identifying a member of the project team to research the costs and potential subsidies or reimbursement programs available to the practice
- Identifying existing national and state initiatives for which the practice may qualify including state governments, payers, medical associations, health systems, regional extension centers which may have special programs to encourage physician practices to adopt e-prescribing and EHRs
- Calculating the practice's projected reimbursement under meaningful use and research pay-for-performance programs for which the practice is eligible to participate
- Comparing prices for EHRs and e-prescribing system including all hardware, software, interfaces, networking, and maintenance costs

Section 4:

Step 4: Select a System

There are many e-prescribing systems and EHRs to choose from and evaluating them may seem difficult. Be sure that you select a system(s) that is certified for meaningful use and has robust, easy to use e-prescribing, including drug-benefit checking, eligibility and formulary checking, medication history from outside sources, drug-drug and drug-allergy checking, and bi-directional electronic routing with pharmacies. Use the Buyer's Guide in Appendix I when comparing vendor offerings.

Important Considerations Include:

- Involve the entire project team in system selection and use specific evaluation criteria to guide the process to compare products. Let the team openly discuss the pros and cons of each product.
- Develop your own use cases or test scenarios that reflect the practice's common workflows and ask each vendor to demonstrate how their product would work in those scenarios because this will help you compare features and usability across systems.
- Contact other practices that use the products you are evaluating and ask what unexpected challenges they have faced, how responsive the vendor has been, and why they chose the product.
- Make sure you understand what training is offered by the vendor (e.g., onsite or not, how many days, hands on, interactive, follow up training, cost).
- Ensure that the hardware (desktop, tablet, laptop, handheld) supports the practice's desired workflow and the software and that the devices are efficient, secure, and allow rapid synchronization to other electronic systems and with printers and other devices or networks. Insufficient hardware or network connectivity will inhibit system performance and ultimately practice productivity.

Develop your own use cases or test scenarios that reflect the practice's common workflows and ask each vendor to demonstrate how their product would work in those scenarios.

Note: Once a system is selected, take advantage of pre-training offered via pre-recorded webinars and other prepared materials provided by the vendor.

Section 4:

Step 5: Deploy E-Prescribing

The final step is deployment. Implementing e-prescribing successfully and achieving meaningful use requires commitment and effort. It takes time to adapt to new workflows and to use health information technology effectively.

Important Considerations Include:

Planning

- Commit staff time during implementation for training and workflow integration. You may want to decrease the patient load for the first few days of implementation to ensure that staff has time to work with the new system.
- Ensure that all impacted members of the practice receive appropriate training. On-site training is most effective. In preparation for training, think about specific questions that may not be covered. Sample questions specific to e-prescribing include:
 - How do I search for certain medications within the database?
 - What do I do when I do not find a particular medication in the database?
 - Can I create customized SIGs?
 - How do I handle pediatric dosing and SIGs?
 - How do I write prescriptions for medical supplies?
 - How do I write for tapering dose SIGs or write prescriptions that have SIGs that don't fit in the designated SIG section?
 - What do I do when I want to write a prescription for a compound medication?
 - Why can't I find this particular pharmacy in my system?
 - Why do I get this error message when I write this particular prescription?
- Pace yourself. Do not attempt to learn everything at once. It is difficult to learn all the details of the system in one training session. An incremental approach to training over several days works better. It is also a good idea to schedule a few additional training sessions over the next few months. There will be more questions after the practice has practical experience with the system.
- Ask the vendor if they provide learning material such as webinars, online tutorials or implementation guides, and make full use of all available resources to maximize the experience and impact of e-prescribing.

Pace yourself. It is difficult to learn all the details of the system in one training session.

Section 4:

Technology

- Set default routing to electronically send prescriptions to the pharmacy rather than faxing them. Systems that provide the option for prescribers to decide whether to fax, print, or electronically send prescriptions tend to result in under use of electronic transmission. Electronic transmission of prescriptions to pharmacy is a requirement under meaningful use. At least 40 percent of eligible prescriptions must be transmitted electronically under Stage 1 requirements. Clinicians should, however, always have the ability to print the prescription or a receipt of the prescription order for the patient.
- Utilize the full e-prescribing functionality — prescription benefit, medication history, and bi-directional prescription routing. This is the only way you will achieve the full benefits of e-prescribing. Prescription benefit and medication history will inform the prescribing decision and lead to the lowest cost, safest medication being prescribed. Bi-directional electronic routing of prescriptions improves safety by eliminating illegible hand writing and improves efficiency by automating prescription renewal authorizations, streamlines communications and reduces the volume of phone calls and faxes between the physician practice and the pharmacy.
- Designate a prescriber or staff person to retrieve and manage responses for electronic renewal authorization requests that are sent from pharmacies. This person can help to successfully implement the electronic renewal process by checking the prescribing system for renewal requests several times a day. Consider distributing patient education materials on e-prescribing that remind them to contact their pharmacy for refill requests or displaying signage in the office to remind patients of the best process.
- Make sure you know how to select your patient's pharmacy of choice using the e-prescribing application. You should be familiar with how to select both the name and location of the patient's pharmacy of choice and how the pharmacy information is displayed and updated in the e-prescribing application. Once you start e-prescribing, make it a practice to ask your patients to select or confirm their pharmacy when they check in for their appointment. You or your staff can then add the pharmacies' names to the patient's electronic record and speed the process of preparing their prescriptions electronically. As an added step, you may wish to build a favorites list of pharmacies within your application, using your patients' favorite pharmacies, for quick selection during the check-in process.
- Respond to electronic renewal requests as soon as possible and always within 24 hours on business days. If pharmacies do not see a response within that time frame, they may send duplicate renewal authorization requests. This may also happen if the patient is waiting in the pharmacy to pick up a renewed prescription that has not yet been authorized. It helps to designate someone to manage the electronic renewal response process.

Once you start e-prescribing, make it a practice to ask your patients to select or confirm their pharmacy when they check in for their appointment.

Section 4:

- Avoid queuing or batching prescriptions before sending them to pharmacies electronically. Sending prescriptions to pharmacies as soon as possible after they are prepared ensures that the pharmacy has adequate time to receive and process the prescription before a patient arrives to pick it up. Otherwise, the practice may receive unnecessary calls from pharmacies asking where the prescription is, further delaying the patient's receipt of the medication.
- Follow DEA regulations related to e-prescribing of controlled substances. These requirements are described in more detail in Section 5.
- Keep your software vendor informed about any problems. The project leader, or a designee, should be in contact with your vendor on a regular basis to fix any technical problems or usability issues. Be sure that everyone who uses the e-prescribing system is aware of and follows the support process provided by the vendor.
- Log support cases with the technology vendor. If the issue is related to a pharmacy or network issue rather than an application issue, the technology vendor should notify Surescripts for resolution. Common issues that should be reported include when a practice is informed by a pharmacist or patient that their prescription or prescription renewal is not there (commonly referred to as a mishandled prescription); and faxed renewals from pharmacies that are electronically enabled. It is important to report adequate detail on these issues and contact your vendor immediately.

The project leader, or a designee, should be in contact with your vendor on a regular basis to fix any technical problems or usability issues.

Communications

- Your vendor will register e-prescribers with Surescripts. Surescripts, in turn, has a process to notify the pharmacies which physicians are e-prescribing and the pharmacies update their records accordingly. It is still a good idea for someone in the practice to communicate directly with the pharmacies to inform them that the practice will be e-prescribing.
- Independent pharmacies in particular appreciate hearing directly from practices that are planning to e-prescribe. This can help encourage those independent pharmacies that are not yet e-prescribing to get connected to Surescripts. A letter template is available to help you make this announcement and it can be found in the Resources section of the Surescripts website at www.surescripts.com.
- Communicate with patients about e-prescribing and its benefits. Remind them to call the pharmacy rather than the practice when they need their prescriptions renewed. To help practices communicate with patients about e-prescribing, a patient notification card is available and can be found in the Surescripts website.

Section 4:

Issues That May Occur and What to do About Them

E-prescribing can offer practices a more efficient, accurate and secure way of managing prescription information. However, there are three main issues which may occasionally occur with the transmission of e-prescriptions. It helps to understand what they are, why they occur, and what the practice should do about them.

Issue #1: Patient arrives in pharmacy and is told the e-prescription is not there so the patient or pharmacy calls the practice.

Why this issue may occur:

- A technical issue with your electronic prescribing software, the pharmacy computer system, or network connectivity may have caused you to receive an error message on the prescription's transmission.
- The prescription may have arrived to the pharmacy's fax machine instead of their computer. Reasons can include the medication being a controlled substance, a temporary loss of network connectivity, or the fact that the pharmacy is not yet enabled for e-prescribing.
- The prescription may have been successfully received but put "on hold" due to an out-of-stock medication, an interruption during dispensing, or other issue. A simple miscommunication between staff members to the patient or to your office may have reported it as "not received."
- If the pharmacy or staff member is inexperienced with e-prescribing, the staff member may not have adequately checked their pharmacy system for the successfully delivered prescription.

What to do about this issue:

- To ensure that the patient's needs are taken care of, provide the pharmacy with the verbal order for the prescription so it can be dispensed immediately.
- Review your e-prescribing system for any errors that may indicate the prescription was not successfully delivered and that it was addressed to the correct pharmacy.
- If the prescription was successfully delivered, ask the pharmacy to ensure that, in the future, they review their computer system, their fax machine, and all points within their workflow before calling for a verbal order.
- Report the incident to your e-prescribing software vendor so that they can open a support case on your behalf which will help reduce the chance of a future occurrence.

Understanding potential issues that may occur will help your practice smooth the implementation of e-prescribing.

Section 4:

Issue #2: Pharmacies that are able to send electronic prescription renewal requests continue to deliver them by fax.

Why this issue may occur:

- If the pharmacy is connected for e-prescribing, they should send renewal requests electronically.
- Automating renewal authorizations is a key benefit of e-prescribing.
- Fax renewal requests from connected pharmacies may occur if the prescriber is not enabled for electronic renewals.
- Fax renewal requests from connected pharmacies may occur if the prescriber is not properly matched in the pharmacy system.

If you receive faxed renewal requests from connected pharmacies, log a support case with your vendor in a timely manner with all the necessary details.

What to do about this issue:

- If you receive faxed renewal requests from connected pharmacies, log a support case with your vendor in a timely manner with all the necessary details.
- The vendor should, in turn, pass the support case through to Surescripts who will work with the pharmacies to ensure that:
 - The prescriber is appropriately enabled for electronic renewals.
 - The prescriber is properly matched in the pharmacy system.
- This should lead to a reduction in fax renewals and an improved e-prescribing experience.

Issue #3: Multiple phone, electronic and fax requests for renewal authorizations

Why this issue may occur:

- Patients may call the practice rather than the pharmacy when they need their prescription renewed resulting in unnecessary calls.
- Practice may not be responding in a timely manner to pharmacy requests for renewal authorizations prompting additional requests that may occur automatically.
- Patient may arrive in pharmacy before prescription renewal has been authorized, prompting additional requests from the pharmacy in order to respond to the patient waiting in the pharmacy.
- Duplicate fax renewal requests may occur if the prescriber is not properly matched in the pharmacy system.

Section 4:

What to do about this issue:

- Encourage patients to call the pharmacy rather than the practice when they need their prescription renewed.
- If you receive multiple renewal requests from pharmacies, ensure that the practice has a process in place to respond to renewal requests multiple times during business days and always in less than 24 hours.
- If you receive fax renewals from connected pharmacies, log support cases with your vendor who should pass the case through to Surescripts who will work to ensure that the prescriber is enabled and matched properly in the pharmacy systems.



Section 5:

E-Prescribing of Controlled Substances

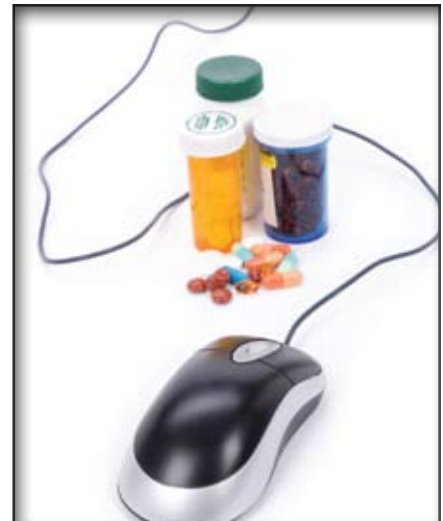
Key Takeaways:

- The DEA now permits prescriptions for controlled substances to be issued as long as its regulatory requirements are met
- Prescribers that wish to manage these prescriptions electronically must use technology that has been certified for this transmission
- Prescribers themselves must undergo an ID Proofing process before they begin to submit prescriptions for controlled substances electronically
- Prescribers must use a 'two-factor authentication process' each time they send a prescription for a controlled substance electronically.

Overview:

The Drug Enforcement Administration issued an interim final rule allowing electronic prescribing of controlled substances. While it will take the industry some time to be ready to comply with the new requirements, it is a breakthrough that will increase adoption and use of e-prescribing.

The rule gave prescribers the option of signing and transmitting prescriptions for Schedule II through V controlled substances electronically on June 1, 2010. E-prescribing for controlled substances (EPCS) is voluntary from DEA's perspective—written, manually signed, and oral prescriptions for controlled substances, where applicable, are still permitted. The rule also permits pharmacies to receive, dispense, and archive electronic prescriptions for controlled substances.



Prescriber Requirements

In order for a prescriber to transmit prescriptions for controlled substances to pharmacies, the following requirements must be met:

1) Use of an E-Prescribing Application Certified for EPCS

- The prescriber must use an e-prescribing application that has been certified to manage these prescriptions electronically.
- Prescribers unsure of the status of a current or prospective e-prescribing application should ask that application's vendor of the status of this compliance.

For further information see Appendix Section:

E-Prescribing Application Requirements and Notifications of Non-Compliance

Section 5:

2) ID Proofing

- The prescriber must complete an ID Proofing Process conducted by credential service providers (CSP) or certification authorities (CA) approved by the federal government.
- Prescribers should be informed by their e-prescribing application vendor or practice administrator as to which CSP or CA they should work with.
- CSP or CA may also issue a two-factor credential to the prescriber.
- Remote identity proofing is permissible.
- Institutional prescribers may conduct identity proofing in-house and in person.

3) Two-Factor Authentication

- The prescriber must use a “two-factor authentication” credential each and every time they issue a prescription for a controlled substance.
- Credentials are designed to protect prescribers from misuse of credentials by insiders and/or from external threats because prescribers retain control of a biometric or hard token.
- Two-factor credentials will be used for two purposes:
 - To approve access controls.
 - To sign prescriptions.
- The two-factor authentication requirement is designed to protect prescribers from misuse of credentials by insiders and/or from external threats because prescribers retain control of a biometric or hard token.
- Two-factor credentials include two of the following:
 - Something you know—password, PIN.
 - Something you have—hard token separate from computer being accessed.
 - Something you are—any biometric that meets the DEA’s requirements (e.g., must operate at a false match rate of 0.001 or lower, etc.).
- Prescribers must retain sole possession of hard tokens (if used) and must not share passwords, other knowledge factors, or biometric information with anyone.

Failure by prescribers to secure these items may be the basis for revocation or suspension of their DEA registration.

- **In The Event of A Lost or Stolen Hard Token:** Prescribers must notify designated individuals within one business day of discovery that a hard token has been lost, stolen, or compromised or the authentication protocol has been otherwise compromised.

- Failure to comply may result in prescribers being held responsible for any controlled substance prescriptions written using their credentials.

The prescriber must use a “two-factor authentication” credential each and every time they issue a prescription for a controlled substance.

Section 5:

4) Other Requirements:

- Prescribers have the same responsibilities when issuing EPCS as when issuing paper or oral prescriptions.
- Prescribers are obligated to write prescriptions for controlled substances only for legitimate medical purposes while acting in the usual course of their professional practices.
- **If a prescriber is notified that an EPCS was NOT successfully delivered:** Any paper or oral prescriptions issued as a replacement must indicate that the prescription was originally transmitted electronically to a particular pharmacy and that the transmission failed.
- **Of a prescriber discovers that an EPCS was issued fraudulently using their credentials:** Prescribers must notify both the designated individuals and the DEA within one business day of the discovery that prescriptions issued under their DEA registration were ones they had not signed or were not consistent with ones they had signed.
- **Use of Agents to Issue EPCS:** If agents enter information at the direction of prescribers, the prescribers are responsible in case the prescriptions do not conform in all essential respects to the law and regulations.

Intermediary Support of EPCS

- Restrict EPCS messaging to applications that have passed DEA Part 1311 audit certification as well as Surescripts EPCS certification.
- Enhance new prescription, refill, and change message formats to support DEA requirements:
 - Prescriber DEA numbers will be validated at sign up.
 - Electronic faxing of controlled substance prescriptions to pharmacies will be blocked.
 - NDC codes will be required on all prescriptions to facilitate controlled substance checking.
 - Controlled substance, compound drug, and supplies flags will also be utilized.
 - Support for state EPCS rules will be developed.
- Add the EPCS service to the Surescripts directory (additional validation for DEA and NPI numbers).

Important Note: State Regulations

As of January 2011, some states had not yet aligned their prescribing regulations with that of the DEA. Please inquire with your state board of pharmacy as to the specific status of EPCS regulations in your area. Note that DEA regulations do not pre-empt regulations issued by states.

Specific areas of focus include:

- Regulations that do not permit any EPCS.
- Regulations that permit EPCS except for Schedule II Medications.
- State regulations that control medications not on DEA schedules.
- Longer record retention cycles than the DEA's 2-year requirement.
- Regulations limiting transfers of EPCS between pharmacies.

Appendix 1: Buyer's Guide

Electronic Prescribing Solution Buyers Guide

This guide has been designed to support those that are searching for new electronic prescribing technology for their practice. All functionality below is deemed essential to meet the definition of a system that supports a complete e-prescribing solution.

Category	Feature or Function	Questions to Ask Vendor
Functionality	Refill authorization	Will the solution enable me or my staff to receive refill requests from pharmacies directly on my computer instead of by fax or phone and send back approvals or denials electronically with a few key strokes?
	New** prescriptions	Can I send a new prescription directly to the pharmacist's computer through my PDA, Desktop, Laptop or Tablet PC instead of to their fax machine?
	Two-way** communication	Is the solution enabled for two-way communications with pharmacies or just one-way fax transmission of new prescription information?
	Reporting	Does the solution include reporting capability about prescription history for the patient and practice?
	User tools	Does the solution provide aids such as favorites-lists or chart-labels to aid system and practice workflow?
	Drug* interaction checking	Does the solution provide alerts for drug-drug, drug-allergy and other checks for patient safety?
	Drug benefits display**	Does the solution display drug benefits information related to patient's drug coverage to help manage patient cost?
	Medication** history	Does the solution display prescription history from retail pharmacy and/or PBM data sources (across provider)?
Related Functions (EHR Solutions)	Modules	Is the e-prescribing solution and any related modules such as lab results or charge capture, approved for meaningful use?
	EHR	Does the solution provide a comprehensive EHR approved for meaningful use that can be implemented in stages beginning with electronic prescribing?
Hardware	Mobile	Can the solution run on a device such as a PDA or tablet in the exam room?
Architecture	Desktop	Does the solution provide applications that run on a desktop, requiring just an Internet connection, or additional software?
	Remote computing	Does the solution provide access when prescribers are away from the office?

Continued on next page

Appendix 1: Buyer's Guide

Continued from previous page

Category	Feature or Function	Questions to Ask Vendor
Services	Initial training	Does the vendor provide training for the physicians and staff in the use of the application? Is the training on-site or remote?
	Ongoing support	Does the vendor provide ongoing support and customer service to assist after implementation?
	System interfaces	Does the vendor provide the ability to retrieve demographic information from the billing system?
	Updates	Does the vendor send periodic updates to the system for ongoing improvements and enhancements?
	Hardware	What are the costs of all recommended hardware including networking equipment?
Costs	Software and services	What are the one-time and ongoing costs for the software and any training and interfacing services?
	Special offers	Are there any special offers such as free trials, rebates or discounts?

*Functionality required of a qualified e-prescribing system for the CMS e-Prescribing Incentive Program authorized through MIPPA. For more detail, visit http://www.cms.gov/ERxIncentive/03_How_To_Get_Started.asp#TopOfPage

**Functionality required for meaningful use of certified EHR technology for the CMS EHR Incentive Program authorized through ARRA/HITECH. For more detail, visit http://www.cms.gov/EHRIncentivePrograms/25_Certification.asp#TopOfPage

Appendix 1: Buyer's Guide

Paths to Electronic Health Records (EHR) Technology Adoption

There's more than one way to implement IT in your practice. You might be thinking that you'll start with a stand alone e-prescribing module and eventually upgrade to a fully functional EHR. Or, perhaps you already e-prescribe and you're researching next steps. So, how do you get there? In the most basic sense, there are two paths:

- 1) Add more functionality to your existing technology via components or modules;
- 2) Replace existing technology or systems with a complete, single application EHR system.

Both of the above technology options might qualify as "Certified EHR Technology" and will help you meet criteria specified in the Health Information Technology for Economic and Clinical Health Act (HITECH), if you so choose. So which approach to EHR software will be best for you? When answering this question, consider both modular and complete EHRs. Find out what it will take to integrate any potential EHR with your practice management or billing system (PMS), and consider any specific requirements necessary to your specialty or subspecialty.

If you choose separate vendors for your PMS, EHR or other health IT modules, you will need to carefully examine what it will take to make sure these separate systems can "talk to" each other.

Remember, one size does not fit all practices. Much depends on your current health IT use, your readiness to adopt additional technology and your assessment of the workflow and financial implications of EHR adoption.

If you are already happy with your PMS and other components, such as e-prescribing, you may want to add modules rather than replacing what you already have in place. Modular solutions can combine to meet all the requirements for meaningful use and may be a solid choice for some practices. Other practices may wish to move to a single, complete solution immediately so that they can achieve the full benefits of replacing the paper chart as early as possible.

Systems integration — It is important to consider the integration of any potential new health information technology (HIT) software with your current PMS. If you are considering a new PMS, this is a good time to look at vendors that offer combined or integrated PMS and EHR technology. If you choose separate vendors for your PMS, EHR or other HIT modules, you will need to carefully examine what it will take to make sure these separate systems can "talk to" each other. If they can't share data (known as "integration" or "interfacing") then you and your staff may need to perform duplicate data entry and generate reports from separate systems. Whether interested in a single, complete EHR solution or a modular approach, you should discuss how data will be shared with your existing HIT solution(s).

Appendix 1: Buyer's Guide

EHRs in your community — You may want to consider using the software and infrastructure of a trusted organization you do business with today, such as your local hospital or health system physician organization (e.g., IPA). Adopting their EHR may be advantageous in terms of efficiency, system reliability and cost of implementation. However, systems adopted by your these organizations may or may not meet the needs of your practice. You should rely on your readiness assessment and evaluation matrix to determine what solution will best meet your needs. Even if it is different from that chosen by others in your community, there are requirements in place to support data sharing among different certified EHR technologies.

Specialty considerations — Another consideration is your specialty. Some vendors may have richer content, such as progress note templates or decision support logic, specifically designed to support your specialty, subspecialty or special area of interest. Talk to your colleagues, consultants and your professional associations to find a short list of vendors that are best suited to your practice.

Appendix 2:

Frequently Asked Questions

How much does e-prescribing cost?

Costs vary depending on which kind of hardware and software (electronic health record (EHR) systems vs. a stand-alone e-prescribing system) a practice chooses. Stand-alone e-prescribing applications range from free to approximately \$2,500 per year per prescriber. Be sure to look for local, state, or national initiatives (such as the Medicare Improvements for Patients and Providers Act (MIPPA) and Health Information Technology for Economic and Clinical Health (HITECH) Programs offered by the Centers for Medicare and Medicaid Services (CMS) to encourage e-prescribing and EHR use) that provide incentives for physicians to adoption and use the technology. There may be additional fees to integrate patient demographic information from your practice management system into the e-prescribing application; however, the alternative means that you will need to enter each patient into the system as you prescribe which can be time consuming and may be a barrier to using the system.

EHR systems offer more comprehensive functionalities, but are more costly, complex and time consuming to implement. According to the Congressional Budget Office, office-based EHR systems cost about \$25,000 to \$45,000 per prescriber. Estimated annual costs to operate and maintain an EHR system (e.g., software licensing fees, technical support, and updating and replacing used equipment), range from \$3,000 to \$9,000 per physician per year. For more information, please visit: http://www.ama-assn.org/assets/eprescribing/downloadable_resources/standalone-versus-emr.pdf

Be sure to ask vendors specific questions about any incremental fees related to e-prescribing functionality as well as training. The figures above do not include the initial costs of the hardware required to support either an e-prescribing or an EHR system, or the costs of temporary decreases in productivity resulting from training or workflow redesign, practice management interfaces, customization, maintenance, upgrades, or data conversion.

Whether you choose a stand-alone e-prescribing application or an EHR system with integrated e-prescribing, cost is only one part of the equation. You should compare the costs — both direct and indirect, start-up and ongoing — with expected benefits such as improved efficiency and productivity, decreased administrative expenses and staff utilization to fully understand the value of e-prescribing to your practice.

What is Meaningful Use?

The Health Information Technology for Economic and Clinical Health (HITECH) Act is a key component of the American Recovery and Reinvestment Act of 2009 (ARRA). Under the Act, eligible prescribers can receive incentive payments by meeting qualitative and quantitative standards for the 'meaningful use' of a certified EHR starting in 2011. The Act also makes provisions for incentive payments to support the acquisition and use of certified EHR technology for prescribers who see high volumes of Medicaid patients, and makes federal matching funds available for some state Medicaid plans for programs that encourage adoption and use of EHR technology. E-prescribing is a key component of 'meaningful use'. Prescribers who wish to participate in this program should ensure that their chosen EHR system is certified for meaningful use and includes e-prescribing functionality that establishes an electronic connection with payers and pharmacies for Prescription Benefit, Medication History and Prescription Routing services.

Appendix 2:

Frequently Asked Questions

Are there transaction fees for e-prescribing?

There are no transaction fees for prescribers to access or use the networking services provided by Surescripts.

However, prescribers must use an electronic prescribing system that is certified to connect to the Surescripts network before they can send and receive prescription information. A practice may be using a certified application already or it may need to acquire a new certified application. Costs for these systems are set by the companies that provide them.

The only time your practice would incur transaction fees for e-prescribing would be if the vendor you select charged your practice a transaction fee. Most vendors do not charge practices a transaction fee, but be sure to ask your potential vendors about this during system selection.

What Is the Medicare Improvements for Patients and Providers Act?

The Medicare Improvements for Patients and Providers Act (MIPPA) went into effect January 1, 2009. Prescribers who use a qualified e-prescribing system to prepare and send electronic prescriptions as defined by MIPPA are eligible to receive higher levels of reimbursement under Medicare through 2013, with a maximum reimbursement rate of 2 percent available in 2009 and 2010. **Prescribers who do not send a minimum of 10 electronic prescriptions by June 1, 2011 will suffer a penalty on their Medicare reimbursements starting at one percent.**

Qualified systems include the ability to generate a medication list (with information from payers or pharmacies, if available); select medications, transmit prescriptions electronically using the applicable standards and warn the prescriber of possible undesirable or unsafe situations; provide information on lower-cost therapeutically appropriate alternatives; and provide information on formulary or tiered formulary medications, patient eligibility and authorization requirements received electronically from the patient's drug plan.

Does e-prescribing cost patients more money?

Patients pay the same amount and can use the same payment methods for electronic prescriptions as they do for traditional paper ones. With e-prescribing, however, prescribers will likely have information about the patient's formulary at the time of prescribing, which may allow prescribers to prescribe a medication with a lower co-pay or cost to the patient if paying out of pocket.

Appendix 2:

Frequently Asked Questions

Which retail and mail-order pharmacies can accept e-prescriptions via the Surescripts network?

In October of 2010, approximately 90 percent of community pharmacies in the U.S. were connected for prescription routing, and six of the largest mail order pharmacies were able to receive prescriptions electronically. More than 97 percent of chain pharmacies and 70 percent of independent pharmacies were connected to the Surescripts network for prescription routing in 2009. Of community pharmacies that are not connected, approximately 97 percent have pharmacy management software that has been certified for e-prescribing.

In addition, the following mail order pharmacies can accept e-prescriptions via the Surescripts network:

- CVS Caremark
- Express Scripts
- Medco Health Solutions
- MedVantx Pharmacy Services
- Prescription Solutions
- Prime Therapeutics
- Walgreens Mail Service
- Wellpoint Pharmacy

For an updated list of pharmacies and to find a list of e-prescription-enabled pharmacies in your area, please visit: www.surescripts.com.

How will I know if pharmacies are properly loaded in my e-prescribing system?

It is best to provide your e-prescribing vendor with a comprehensive list of pharmacies that your patients frequently use. The vendor can then match this list with the pharmacy records information in your application. This will help ensure that your frequently used pharmacies are appropriately matched to the master pharmacy file from the beginning, and thus are enabled for electronic prescriptions. If your practice application allows you to create customized pharmacy records (customized name, address, or phone and fax number), then it is also important to ensure that the application system matches such records in the master pharmacy lists provided by the Surescripts network.

Appendix 2:

Frequently Asked Questions

Can I reply to a faxed prescription renewal request with a new e-prescription?

Yes — although this process can make it difficult for pharmacies to match the new prescription order to the original request. As a result the pharmacy may send a duplicate renewal request or follow-up with a phone call to your office to ensure that the request is responded to. To prevent this from happening, please place a note on your new e-prescription that states that the prescription is a response to a separate renewal request and include the original prescription number; for example “Relates to Rx#123456” or “Relates to faxed Rx#123456”

How is electronic prescribing viewed by the Medicare requirement to submit prescriptions using serialized/tamper-proof prescription forms?

On October 1, 2008, the Centers for Medicare & Medicaid Services (CMS) enacted a regulatory change requiring that all written Medicaid prescriptions be on a tamper-resistant blank. Electronic prescriptions are exempt from this requirement.

How can I be certain that the pharmacy will receive my new prescription or renewal authorization when I send it electronically?

Surescripts manages a central directory of pharmacies and physicians that have signed up for electronic prescribing, and the technology vendors they use work closely with Surescripts and their customers to stay in sync. The chances of the pharmacy not receiving a prescription sent electronically are very small. However, if a pharmacy you are sending to is not enabled to accept a prescription electronically, the request will be sent by fax. If you send an electronic prescribing message that cannot be delivered to the destination within a certain time period (a specified number of minutes) because of other issues, Surescripts will send an error message notifying you that the message could not be delivered. Please make sure that you are familiar with how to find these messages in your system.

What should I do if I receive an error message that my electronic prescription didn't go to the pharmacy?

If the electronic prescription did not go to the pharmacy because the pharmacy is not enabled to accept electronic prescriptions, it will automatically be sent by fax. For all others, depending upon the urgency of the prescription, you may want to call the pharmacy and arrange for an alternate way of sending the prescription. You should also contact your physician technology vendor to report the error so it can work to limit the chance of a reoccurrence.

Appendix 2:

Frequently Asked Questions

How are the prescribing messages that I send handled at the pharmacy?

Pharmacies generally have a centralized area to which all pending prescriptions are routed. From there, the pharmacy personnel can see the incoming prescriptions and refills and prioritize them accordingly. Pharmacies usually handle prescriptions and renewal authorizations in the order in which they arrive, but because electronic prescriptions are sent electronically, they can get into the dispensing area quicker than if patients were to drop them off. Still, patients should leave sufficient time for the pharmacy to receive process and dispense their prescription orders. Two or three hours is normally sufficient.

Does electronic prescribing offer the patient advantages?

For patients, an important advantage of a prescription being sent electronically is that the message is already formatted in such a way that the pharmacy computer can assimilate the information for rapid dispensing. You also have the comfort of knowing that an accurate, legible prescription will arrive at the pharmacy and that it won't get lost, misplaced, destroyed or forgotten by the patient. Plus, patients can avoid making one trip to the pharmacy to drop off a prescription and another to pick it up.

If certain local pharmacies do not accept electronic prescriptions today, how can I get them to start?

Contact your local pharmacies and let them know that you are using an electronic prescribing application that is connected to the Surescripts network. More than 95 percent of the nation's pharmacies have software that is enabled to connect, although some may not have activated their connections yet. Urge pharmacies that have not yet activated their connections to contact their vendors to activate them or tell them when their software will be enabled.

Can electronic prescribing be used for Medicaid prescriptions? What restrictions apply?

Doctors can prescribe electronically for most Medicaid prescriptions. However, if a physician wants to prohibit generic substitution by specifying "dispense as written (DAW)" or "brand medically necessary," the federal government requires the physician to hand-sign a hard copy of the prescription as a pharmacy audit copy. This requirement prevents e-prescribing from being an acceptable transmission option for the small percentage of Medicaid prescriptions that are DAW.

How do I introduce e-prescribing to my patients?

Introducing e-prescribing to patients is important, as well as communicating its benefits and implications. Some patients may express initial reluctance in response to a new system, but prescribers can make patients more comfortable by explaining how e-prescribing works and its benefits to patients, providers and pharmacies.

Appendix 2:

Frequently Asked Questions

In the initial phases, it's important for you and your practice staff to educate and reinforce the benefits of e-prescribing with your patients. Talking points include:

- **Fast** — E-prescribing allows you to electronically send prescriptions directly to the patient's choice of pharmacy. The prescription travels from your computer to the pharmacy's computer before the patient leaves the exam room, giving that prescription a head start. However, this does not necessarily mean that the prescription will be at the pharmacy when the patient arrives. Patients should leave a few hours between their visit and the trip to the pharmacy to pick up their prescriptions.
- **Convenient** — The patient no longer has to make an additional trip to the pharmacy to drop off his or her prescriptions.
- **Safe and Secure** — Prescription information is not sent over the open Internet and is not sent via e-mail. E-prescriptions are sent electronically through a private, secure and closed network — the Surescripts network.
- **Legible** — The staff in the pharmacy no longer has to spend time interpreting handwriting or dealing with blurry faxes.
- **Informed** — The availability of formulary information from health plans allows for a choice of medications that are more affordable and e-prescribing allows drug-to-drug interaction checking and allergy-drug interaction checking for safer choices. In addition, prescribers have access to medication history information on patients from other prescribers so they are better informed about their patients at the time of prescribing.

If an e-prescribing physician leaves the practice, who should be notified of the change?

The physician should communicate this change to his/her software vendor. The vendor will disable the prescriber's record in the Surescripts Directory so that no additional prescription renewals will be sent to the prescriber from pharmacies. Any additional new prescriptions sent by this prescriber would be returned in error by Surescripts.

Who should I contact if I am having technical problems with my e-prescribing/EMR system?

Your e-prescribing/EMR vendor representative should always be your first point of contact for technical support. If your vendor is not being responsive to your inquiry, Surescripts is able to open support tickets on your behalf for a limited number of issues such as e-prescriptions that cannot be located by the pharmacy or faxed refill requests that should be arriving electronically.

Appendix 3:

Additional Resources

There are many resources available to help physician practices become successful e-prescribers. Below are descriptions and links to some of these resources.

- ONC's website provides a great deal of information related to HITECH, meaningful use, certification of EHRs, policy updates, and much more. Here is a link to the ONC website: http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__home/1204.

You may also want to contact your medical society, hospital, health information exchange, or state Medicaid plan for additional information or resources.

- ONC has provided significant funding for the creation of Regional Extension Centers (RECs). RECs are focused on assisting practices in becoming meaningful users of EHRs including e-prescribing. Here is a link to a map of the RECs: <http://www.ama-assn.org/assets/html/state-initiatives.html>.
- CMS has detailed information on this website describing the Medicare Improvements for Patients and Providers Act (MIPPA), an e-prescribing incentive program that went into effect in January 2009: https://www.cms.gov/E-prescriptionIncentive/01_Overview.asp#TopOfPage.
- The Agency for Healthcare Research and Quality provides e-prescribing resources at the following website: <http://www.innovations.ahrq.gov/content.aspx?id=2818>.
- ACP created American EHR Partners, a website with information on EHRs and e-prescribing. Here is a link: <http://www.americanehr.com/Home.aspx>.
- MGMA's e-prescribing resource center can be found at: <http://www.mgma.com/policy/default.aspx?id=27064>.
- AMA has health information technology resources available at the following link: <http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/health-information-technology/hit-resources-activities.shtml>.
- AMA also provides an e-prescribing learning center available at the following link: <http://www.ama-assn.org/ama/pub/eprescribing/home.shtml>.
- A significant amount of e-prescribing information, communication tools and resources are available on the Surescripts website: <http://surescripts.com/about-e-prescribing.aspx>.
- HIMSS has created an e-prescribing wiki available at the following website: <https://himsseprescribingwiki.pbworks.com/>.
- eHealthInitiative has worked with many interested stakeholders to develop practical resources on e-prescribing. Here is a link to those resources: <http://www.ehealthinitiative.org/electronic-prescribing-resources.html>.

Appendix 4:

Meaningful Use Criteria and Vision

Development of Stage 1 Criteria for Meaningful Use

The meaningful use criteria is the culmination of an intensive process that involved input from several Federal Advisory Committees (the National Center for Vital Health Statistics, the HIT Policy Committee, and the HIT Standards Committee) and a notice of proposed rulemaking (NPRM) published on January 13, 2010. There were more than 2,000 comments on the proposed rule for the Medicare and Medicaid EHR incentive programs. Review of these comments led to several changes to the NPRM Stage 1 criteria of meaningful use. Most notably, there is an option to select some objectives/measures from a menu set and the evaluation of the applicability of some objectives/measures to eligible providers (EPs) and eligible hospitals.

Stage 1 Criteria for Meaningful Use

The Stage 1 criteria for meaningful use focus on:

- Electronically capturing health information in a coded format
- Using that information to track key clinical condition
- Communicating that information for care coordination purposes
- Initiating the reporting of clinical quality measures and public health information

The criteria for meaningful use are based on a series of specific objectives, each of which is tied to a measure that allows EPs and hospitals to demonstrate that they are meaningful users of certified EHR technology.

For Stage 1, which begins in 2011, there will be 25 objectives/measures for EPs. The objectives/measures have been divided into a core set and menu set. EPs must meet all 15 objectives/measures in the core set and an additional five objectives/measures from the menu set of the remaining ten objectives/measures.

Each objective/measure was evaluated for its potential applicability to all EPs. When it is determined to be impossible for an EP to meet a specific measure, an exclusion is defined in the final rule. If an exclusion applies to an EP, then such professional does not have to meet that objective/measure in order to be determined a meaningful EHR user. For example, if an EP has two exceptions (one for a core objective/measure and one for a menu objective/measure), the EP would need to meet the remaining 14 objectives/measures in the core set and four of the remaining nine objectives/measures in the menu set.

The following table summarizes the meaningful use objectives and measures.

Appendix 4:

Meaningful Use Criteria and Vision

Summary Overview of Meaningful Use Objectives.*	
Objective	Measure
Core set[†]	
Record patient demographics (sex, race, ethnicity, date of birth, preferred language, and in the case of hospitals, date and preliminary cause of death in the event of mortality)	More than 50% of patients' demographic data recorded as structured data
Record vital signs and chart changes (height, weight, blood pressure, body-mass index, growth charts for children)	More than 50% of patients 2 years of age or older have height, weight, and blood pressure recorded as structured data
Maintain up-to-date problem list of current and active diagnoses	More than 80% of patients have at least one entry recorded as structured data
Maintain active medication list	More than 80% of patients have at least one entry recorded as structured data
Maintain active medication allergy list	More than 80% of patients have at least one entry recorded as structured data
Record smoking status for patients 13 years of age or older	More than 50% of patients 13 years of age or older have smoking status recorded as structured data
For individual professionals, provide patients with clinical summaries for each office visit; for hospitals, provide and electronic copy of hospital discharge instructions upon request	Clinical summaries provided to patients for more than 50% of all office visits within 3 business days; more than 50% of all patients who are discharged from the inpatient department or emergency department of an eligible hospital or critical access hospital and who request an electronic copy of their discharge instructions are provided with it
On request, provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, medication allergies, and for hospitals, discharge summary and procedures)	More than 50% of requesting patients receive an electronic copy within 3 business days
Generate and transmit permissible prescriptions electronically (does not apply to hospitals)	More than 40% are transmitted electronically using certified EHR technology
Computer provider order entry (CPOE) for medication orders	More than 30% of patients with at least one medication in their medication list have at least one medication ordered through CPOE
Implement drug-drug and drug allergy interaction checks	Functionality is enabled for these checks for the entire reporting period
Implement capability to electronically exchange key clinical information among providers and patient-authorized entities	Perform at least one test of EHR's capacity to electronically exchange information
Implement one clinical decision support rule and ability to track compliance with the rule	Once clinical decision support rule implemented
Implement systems to protect privacy and security of patient data in the EHR	Conduct or review a security risk analysis, implement security updates as necessary, and correct identified security deficiencies
Report clinical quality measures to CMS or states	For 2011, provide aggregate numerator and denominator through attestation; for 2012, electronically submit measures

Continued on next page

Appendix 4:

Meaningful Use Criteria and Vision

Continued from previous page

Menu set[†]	
Implement drug formulary checks	Drug formulary check system is implemented and has access to at least one internal or external drug formulary for the entire reporting period
Incorporate clinical laboratory test results into EHRs as structured data	More than 40% of clinical laboratory test results whose results are in positive/negative or numerical format are incorporated into EHRs as structured data
Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach	Generate at least one listing of patients with a specific condition
Use EHR technology to identify patient-specific education resources and provide those to patient as appropriate	More than 10% of patients are provided with patient-specific education resources
Perform medication reconciliation between care settings	Medication reconciliation is performed for more than 50% of transitions of care
Provide summary of care record for patients referred or transitioned to another provider setting	Summary of care record is provided for more than 50% of patient transitions or referrals
Submit electronic immunization data to immunization registries or immunization information systems	Perform at least one test of data submission and follow-up submission (where registries can accept electronic submissions)
Submit electronic syndromic surveillance to public health agencies	Perform at least one test of data submission and follow-up submission (where public health agencies can accept electronic data)
Additional choices for hospitals and critical access hospitals	
Record advance directives for patients 65 years of age or older	More than 50% of patients 65 years of age or older have an indication of an advance directive status recorded
Submit electronic data on reportable laboratory results to public health agencies	Perform at least one test of data submission and follow-up submission (where registries can accept electronic submissions)
Additional choices for eligible professionals	
Send reminders to patients (per patient preference) for preventive and follow-up care	More than 20% of patients 65 years of age or older or 5 years of age or younger are sent appropriate reminders
Provide patients with timely electronic access to their health information (including laboratory results, problem list, medication lists, medication allergies)	More than 10% of patients are provided electronic access to information within 4 days of its being updated in the EHR
<p>* This overview is meant to provide a reference tool indicating the key elements of meaningful use of health information technology. It does not provide sufficient information for providers to document and demonstrate meaningful use in order to obtain financial incentives from the Centers for Medicare and Medicaid Services. The regulations and filing requirements that must be fulfilled to qualify for the Health IT financial program are detailed at www.cms.gov.</p> <p>† These objectives are to be achieved by all eligible professionals, hospitals, and critical access hospitals in order to qualify for incentive payments.</p> <p>‡ Eligible professionals, hospitals, and critical access hospitals may select any five choices from the menu set.</p>	

Appendix 4:

Meaningful Use Criteria and Vision

Meaningful Use Reporting to Centers for Medicare and Medicaid Services (CMS)

In 2011, EPs seeking to demonstrate meaningful use are required to submit aggregate clinical quality measure numerator, denominator, and exclusion data to CMS or the states by attestation. In 2012, EPs seeking to demonstrate meaningful use must electronically submit clinical quality measures selected by CMS directly to CMS (or the states) through certified electronic health records (EHR) technology. CMS recognizes that for clinical quality reporting to become routine, the administrative burden of reporting must be reduced. By using certified EHR technology to report information on clinical quality measures electronically to a health information network, a state, CMS, or a registry, the burden on providers that are gathering the data and transmitting them will be greatly reduced.

The burden of generating the necessary information for the provider to then use the information to improve health care quality, efficiency, and patient safety will also be reduced. CMS expects that by their second implementation year, states will have the capacity to accept direct submission of Medicaid providers' clinical quality measures from certified EHR technology.

Potential Physician Concerns Regarding Meaningful Use Incentives

Many physician practices have implemented EHRs and are very focused on achieving meaningful use in order to enhance their ability to deliver high quality, coordinated care and to maximize their financial incentives under Health Information Technology for Economic and Clinical Health Act (HITECH).

Despite the potential for significant incentives, other physician practices are skeptical given their experience with Physician Quality Reporting Initiative (PQRI) and the Medicare Improvements for Patients and Providers Act (MIPPA) e-prescribing incentive program. Participants in PQRI and the CMS e-prescribing incentive program in 2009 are beginning to receive their incentive payments as of November 2010.

Beyond the Stage 1 Criteria for Meaningful Use

The policy goals of Meaningful Use will be most fully realized by building on findings from Stage 1 and by making full use of the greater proliferation of certified EHR technology and supporting health information technology (HIT)/electronic infrastructure that will take place under Stage 1. CMS intends to propose through future rulemaking two additional stages of the criteria for meaningful use.

Stage 2 would expand upon the Stage 1 criteria in the areas of disease management, clinical decision support, medication management support for patient access to their health information, transitions in care, quality measurement and research, and bi-directional communication with public health agencies.

Appendix 4:

Meaningful Use Criteria and Vision

Stage 2 criteria for Meaningful Use won't be defined until June 2011, but there are indications that the second stage will both broaden and deepen the criteria that support more advanced care processes. It is likely that the optional elements from Stage 1 will become mandatory in Stage 2, including structured labs, advanced e-prescribing such as drug interactions or formulary checking and patient communications. The public comment period to react to draft recommendations will most probably be in late 2010.

Stage 3 should focus on achieving improvements in quality, safety and efficiency, focusing on decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data, and improving population health outcomes.

Additional information on the Medicare and Medicaid EHR Incentive Programs, including a link to the text of the final rule, can be found at <http://www.cms.gov/EHRIncentivePrograms>.

In summary, in Stage 1, the provider attests to meeting the measure. In Stage 2, the provider sends a report describing how many were done out of the total opportunity including a numerator and a denominator along with a requirement for more structured data that can be shared and analyzed. The intention of the Stage 2 meaningful use rule will be to intensify the level of collaboration between providers and patients and among providers. In Stage 2, while meaningful use is still the major driver, providers will begin a transition to using HIT as a tool for transformation.

Stage 3 goals are to use interoperable EHRs as tools for transformation of clinical practice and will focus on improving outcomes and on managing populations, anticipating the changes from health reform, particularly new provider reimbursement models. In many ways it is looking beyond the current EHR although requires it as a foundation. Stage 3 will engage providers in using EHRs to manage high priority populations like diabetics. It anticipates collaborative care among providers and routine electronic patient communications outside of office visits and to support patient-centered medical homes and emerging accountable care organizations. In Stage 3 we will have the structured data necessary to analyze treatments and outcomes and suggest an evidence-based approach to care management.

HITECH Infrastructure and Support Programs

- \$564 million for state HIEs — Support states and/or State Designated Entities (SDEs) in establishing health information exchange (HIE) capacity among health care providers and hospitals including Medicaid; establish and implement appropriate governance, policies, and network services; help providers achieve meaningful use of EHRs; focus on incremental progress with e-prescribing, labs, and clinical summary exchange.
- \$598 million for Regional Extension Centers for implementation support — Catalyze getting 100,000 priority primary care providers to meaningful use by 2012; targets include: small practices, public and critical access hospitals, community health centers and rural clinics; provide services to raise cost-effectiveness and speed of EHR adoption; lower cost of implementation through group purchasing, centralized scaled implementation services; create ongoing business model for ongoing support to keep physicians moving to Stages 2 and 3 of meaningful use.

Appendix 4:

Meaningful Use Criteria and Vision

- \$250 million for 17 Beacon Community HIEs — Leverage existing EHR and HIE capabilities to achieve measurable improvements in quality, safety, efficiency, and population health; provide leadership best practices for other communities to follow to accelerate progress; maximize impact by leveraging other federal programs and resources to promote HIE at the community level.
- \$ 1.5 billion for Federally Qualified Community Health Centers — Deliver primary and preventive care for medically underserved, under/uninsured populations; implement EHRs to help drive quality, efficiency, care management; achieve meaningful use of EHRs.
- \$112 million for training at community colleges and universities for workforce development.
- \$60 million for SHARP, research in security, patient-centeredness, new architectures, secondary use.
- \$4.3 billion for broadband.
- \$ 2.5 billion for distance learning/telehealth grants.

Appendix 5:

Application Requirements for the Electronic Prescribing of Controlled Substances (EPCS)

E-Prescribing Application Requirements and Notifications of Non-Compliance

- The DEA requires that a third-party auditor or certification organization has found that the application accurately and consistently records, stores, and transmits:
 - 1) The required prescription information.
 - 2) The indication of signing or the digital signature.
 - 3) The number of refills.
- An e-prescribing application cannot be used for EPCS if:
 - 1) It doesn't comply with the requirements above.
 - 2) Any functions required by the DEA have been disabled or appear to be functioning improperly.
 - 3) Prescribers receive a notification that their application provider or application no longer meet EPCS requirements.
 - 4) The Application provider identifies an issue that makes the application non-compliant.
- If these conditions occur, prescribers must:
 - 1) Immediately cease to use the application for EPCS.
 - 2) Ensure access for EPCS signing is terminated.
- Prescribers who receive notification that their e-prescription application is not in compliance with the DEA's requirements must not use it for EPCS until notified that it is again compliant and all relevant updates have been installed.

E-Prescribing Application Requirements

- Must link prescribers to at least one DEA registration number and allow designation of appropriate number if they have more than one number.
- Must be capable of setting logical access controls to limit permissions for:
 - Creating, updating, and executing logical access controls.
 - Indication that prescription is ready for signing.
 - Signing controlled substance prescriptions.
- Logical access controls:
 - Must be set or changed by two people, one being a registrant possessing and using a two-factor credential.
 - Limit the permission to approve and sign controlled substances prescriptions to persons:
 - Authorized to practice and to prescribe controlled substances in state.
 - Having current DEA registration in good standing.
- Must be capable of recording all information required by the DEA for controlled substance prescriptions.

Appendix 25:

Application Requirements for the Electronic Frequently Asked Questions Prescribing of Controlled Substances

- Must not allow transmission of a prescription that has already been printed, but may allow printing after transmission if clearly labeled as a copy not for dispensing.
- Must maintain an audit trail of numerous events such as creation and alteration of prescriptions, changes in logical access control, and security incidents.
- Must allow the generation and archiving of activity logs.

EPCS Signing Procedures

- The prescriber or agent inputs prescription information.
- The prescriber accesses the list of prescriptions for a single patient when ready.
- The application screen must display:
 - Date of issuance.
 - Full name of patient (address must be sent, but display not required).
 - Drug name.
 - Dosage strength and form, quantity prescribed, and directions for use.
 - Number of refills, if authorized.
 - Other information, such as “earliest fill date,” as applicable.
 - Name, address, and DEA registration number of prescriber.
- The above is the “required information” mentioned by DEA.
- On same screen must appear: *“By completing the two-factor authentication protocol at this time, you are legally signing the prescription(s) and authorizing the transmission of the above information to the pharmacy for dispensing. The two-factor authentication protocol may only be completed by the practitioner whose name and DEA registration number appear above.”*
- Prescriber designates prescriptions ready to be signed (more than one for same patient can be signed at same time).
- Prescriber then prompted to complete the two-factor protocol.
- Two possible signing scenarios:
 - Authentication causes the prescriber’s digital certificate to digitally sign the required DEA elements and archive the record (“Scenario A”);
 - Authentication causes the application to digitally sign the required DEA elements, archive the record, and add an indicator to be sent to the pharmacy that the prescription was signed (“Scenario B”).
- Can add information not required by DEA after signature.

Appendix 5:

Application Requirements for the Electronic Prescribing of Controlled Substances

Transmission Requirements

- Transmission should be as soon as possible after signature.
- Prescriptions must remain electronic—conversion to fax by intermediaries is NOT permitted.
 - Alternatives if totally electronic transmission fails:
 - Print, sign by hand, and then fax.
 - Telephone.
 - Write or print, sign by hand, and then give to patient.
 - Information may be transferred to electronic medical records.
- Lists of prescriptions may be printed if labeled not for dispensing.
- Transmitted prescriptions may be printed for manual signature only if the prescriber is notified that the transmission failed, and printed version must indicate:
 - That the original was electronic.
 - The name of original destination pharmacy.
 - Date and time of transmission.

Intermediary Issues

- “Intermediary means any technology system that receives and transmits an electronic prescription between the practitioner and pharmacy.” (e.g., Surescripts)
- EPCS requirements with respect to intermediaries:
 - Cannot alter prescription information required by DEA.
 - If done, prescription is invalid and pharmacy cannot dispense.
 - Conversion from one software version or format to another is allowed.
 - Cannot convert an EPCS into a computer-generated fax and send it to the designated pharmacy.
 - If it cannot complete a transmission of a controlled substance prescription, it must notify the prescriber.
 - May have to digitally sign the prescription and pass the digital signature on to pharmacy along with the digitally signed prescription (“Scenario B”).

Pharmacy/Pharmacist and Pharmacy Application Requirements

- Pharmacist sets access controls to ensure only authorized persons can annotate, alter, and/or delete prescriptions.
- Pharmacy applications must import, store, and display:
 - Required prescription information.
 - Indication of signing of prescription (“Scenario B”).
 - Number of refills.
 - Prescriber’s digital signature (“Scenario A”; digital signature must be verified, but no need to display).

Appendix 5:

Application Requirements for the Electronic Prescribing of Controlled Substances

- Third-party auditor or certification organization requirements for pharmacy applications are very similar to those required for e-prescribing applications.
- All annotations and records must be electronic and must be retained for two years.
- Transfers between pharmacies of electronic prescription information for Schedules III through V for refill purposes are allowed on one-time basis only.
 - Must be directly between two licensed pharmacists.
 - Pharmacies electronically sharing a real-time, online database may transfer up to the maximum refills permitted.
 - Permissible only if allowable under existing local laws.
- The pharmacy application must digitally sign and archive a prescription on receipt or be capable of receiving and archiving a digitally signed record (“Scenario B”).
- The pharmacy application must verify a prescriber’s digital signature (if the pharmacy accepts prescriptions that were digitally signed with an individual prescriber’s private key and transmitted with the digital signature, i.e., “Scenario A”).
- If an EPCS received has not been digitally signed by the prescriber and transmitted with the digital signature, the pharmacy application or pharmacist must verify that the prescriber signed the prescription by checking the data field that indicates the prescription was signed (“Scenario B”).
- The pharmacy application must be capable of retrieving controlled substance prescriptions by prescriber name, patient name, drug name, and/or date dispensed.
- The pharmacy application must allow downloading of prescription data into a database or spreadsheet that is human readable and sortable.
- Similar to e-prescribing applications, the pharmacy application must maintain an audit trail of numerous events such as dispensing and alteration of prescriptions, changes in logical access control, and security incidents.
- Transmission failure procedures (two possibilities):
 - If a paper or oral prescription indicates it was originally transmitted electronically to that pharmacy, pharmacist must check records to ensure that the EPCS was not received and dispensed.
 - *If both received, pharmacist must mark one void.*
 - If a paper or oral prescription indicates it was originally transmitted electronically to another pharmacy, pharmacist must check with the other pharmacy to determine if the EPCS was received and dispensed.
 - *If the pharmacy that received the original EPCS had not dispensed it, that pharmacy must void the EPCS.*
 - *If the pharmacy that received the original EPCS had dispensed it, the pharmacy with the paper or oral version must mark it void and not dispense.*
- Pharmacists must only dispense EPCSs issued for legitimate medical purposes by prescribers acting in the usual course of their professional practices.

Appendix 5:

Application Requirements for the Electronic Prescribing of Controlled Substances

Reporting Security Incidents

- E-prescribing and pharmacy applications must conduct internal audits to determine whether security incidents have occurred (the DEA expects this will be an automated process that generates a report for human review).
- If the person reviewing the report determines that a security incident has occurred, they must report the incident to the application provider and the DEA within one business day.

Summary of E-Prescribing and Pharmacy Application Requirements

- DEA EPCS compliant systems must:
 - Allow access controls for e-prescribing and pharmacy systems.
 - Require two-factor credential use for prescription signing.
 - Incorporate internal audit trails for e-prescribing and pharmacy systems.
 - Have the ability to digitally sign and archive records at prescriber and pharmacy ends*.
 - Include all DEA-required information in prescription records.
 - Be able to import, display, and store DEA information in pharmacy records.
 - Be capable of generating records of controlled substance prescriptions for review from e-prescribing and pharmacy applications.

**(Intermediaries should also have this capability.)*

Application Audits or Certifications

- E-prescribing and pharmacy applications must undergo independent audit or certification by:
 - Persons qualified to conduct SysTrust, WebTrust, or SAS 70 audits.
 - Certified Information System Auditors.
 - Independent certification organizations approved by the DEA.
- Audit/certification must determine if the application meets the DEA's EPCS requirements.
- Application providers must make their audit or certification reports available to prescribers or pharmacies using or considering using their applications.
- Prescribers and pharmacies may only sign or process EPCSs using applications that have been determined to meet the DEA's requirements through the types of audits mentioned above.



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