A CLINICIAN'S GUIDE TO ELECTRONIC PRESCRIBING

eHEALTH INITIATIVE
Real Solutions, Better Health

THE CENTER for Improving Medication Management
A collaborative of providers, payors, employers and pharmacies

AMA AMERICAN MEDICAL ASSOCIATION

AMERICAN ACADEMY OF FAMILY PHYSICIANS
STRONG MEDICINE FOR AMERICA

ACP American College of Physicians
Internal Medicine | Doctors for Adults

MGMA Medical Group Management Association

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Foreword

Dear Colleagues:

The eHealth Initiative Foundation, in collaboration with the American Medical Association, the American Academy of Family Physicians, the American College of Physicians, the Medical Group Management Association, and the Center for Improving Medication Management are pleased to present "A Clinician's Guide to Electronic Prescribing," the third in a series of practical guides. These guides are designed to educate key stakeholders about e-prescribing and the steps involved in its adoption. These guides, written for consumers and health care payers, complement our June 2008 report "Electronic Prescribing: Becoming Mainstream Practice". The report provides an update on progress made in e-prescribing over the last four years and a description of barriers that must be overcome to make e-prescribing the standard of care throughout the U.S. health care system.

"A Clinician's Guide to Electronic Prescribing" is designed for two target audiences:

(1) Practices new to e-prescribing and who want an overview of what it is.

> Section I of the guide provides basic information on what electronic prescribing is, how it works, its benefits and challenges, and the current status of adoption.

(2) Practices that are ready to move forward with implementing e-prescribing, and already have a good grasp of the fundamentals provided in Section I of the guide.

> Section II is geared toward office-based clinicians who are ready to bring e-prescribing into their practices. This section provides guidance on the steps to take and pitfalls to avoid. It presents essential questions and considerations for planning, selecting, and implementing an e-prescribing system.

The guide also provides a list of key references and resources readers can consult to help make the transition to e-prescribing as smooth as possible.

To ensure the guide fully addressed the perspective and needs of prescribers, four medical associations played a central role in its development: the American Medical Association, the American Academy of Family Physicians, the American College of Physicians, and the Medical Group Management Association. In addition, a multi-stakeholder Steering Committee comprised of clinicians, consumers, employers, health plans, health information technology companies, and pharmacies, ensured the guide offers a balanced picture of e-prescribing, and the role that different organizations play in assuring its effective adoption.

We believe this guide will be an invaluable resource for clinicians. It is our hope that this guide will help encourage growth in the use of e-prescribing technology—technology that can make it safer for patients to take their prescribed medicines, lowers the overall cost of care, and streamlines the handling of prescriptions for both prescribers and pharmacies.

Table of Contents

SECTION I: OVERVIEW OF E-PRESCRIBING

What Is E-Prescribing?

Electronic prescribing, or "e-prescribing" is the computer-based electronic generation, transmission and filling of a prescription, taking the place of paper and faxed prescriptions. E-prescribing allows a physician, nurse practitioner, or physician assistant to electronically transmit a new prescription or renewal authorization to a community or mail-order pharmacy.

A more formal definition of e-prescribing is provided in the Medicare Part D prescription drug program:

> *E-prescribing means the transmission, using electronic media, of prescription or prescription-related information between a prescriber, dispenser, pharmacy benefit manager, or health plan, either directly or through an intermediary, including an e-prescribing network. E-prescribing includes, but is not limited to, two-way transmissions between the point of care and the dispenser.*

In 2009 Medicare will begin a program for clinicians, offering a financial incentive for those prescribers using a "qualified" e-prescribing system. A "qualified" e-prescribing system must be capable of performing all of the following functions:

- Generating a complete active medication list incorporating electronic data received from applicable pharmacy drug plan(s) if available
- Selecting medications, printing prescriptions, electronically transmitting prescriptions, and conducting all safety checks (safety checks include: automated prompts that offer information on the drug being prescribed, potential inappropriate dose or route of administration, drug-drug interactions, allergy concerns, or warnings or cautions)
- Providing information related to the availability of lower cost, therapeutically appropriate alternatives (if any)
- Providing information on formulary or tiered formulary medications, patient eligibility, and authorization requirements received electronically from the patient's drug plan

Most e-prescribing systems and many electronic health record systems (EHR systems) on the market today offer the above capabilities. Specific standards required to e-prescribe under Medicare Part D are further discussed below, and are also referenced in Appendix I. As used in this guide, e-prescribing encompasses clinical decision support to aid in safer, more informed prescribing such as access to information on drug-drug interactions, drug-allergy interactions, patient medication history, pharmacy eligibility, formulary (which specifies a patient's drug coverage), and benefits information. Electronic prescribing should be seen as an important step in improving patient care, with an eye toward moving to implementation of a complete EHR system.

More information and resources to help you select an e-prescribing system that fits your practice's needs are provided in Section II of this guide.

What Are My Choices for An E-Prescribing System?

There are two choices available when you consider an e-prescribing system: either a stand-alone system, or e-prescribing within an EHR system. There are pros and cons of each option in terms of cost, level of effort and time to select and deploy, impact on practice workflow and productivity initially and over time, and interoperability with other electronic health information systems. Section II of this guide provides detailed guidance on the advantages and disadvantages of each option, both from a short term and longer range perspective, to help you select the option that best fits your practice's needs.

1) A stand-alone system is less costly and less complex to implement, and thus can be implemented more quickly than an EHR system. This may be an important consideration for practices that wish to be eligible for Medicare's e-prescribing bonus that begins on January 1, 2009. E-prescribing systems store and manage patient data specific to the prescribing process (e.g., medication history, medication allergies, etc.). E-prescribing software is offered in two forms: (a) a software package you acquire and download to your office computer system, or more commonly; (b) through the Internet, connecting with an e-prescribing software application service provider (ASP), to whom you pay usage fees.

In terms of e-prescribing hardware, physician practices have many choices including: hand-held devices, tablet personal computers, desktop personal computers, and other hardware made available by technology vendors.

Many believe that a stand-alone e-prescribing system can serve as a pathway to an EHR system, allowing prescribers to become more technologically proficient and comfortable with using electronic systems to support and improve patient care. When implementing a stand-alone system, it is important to plan how you will eventually transition to an EHR system.

2) An EHR system with an integrated e-prescribing module offers the advantage of having immediate electronic access to all patient data stored in the EHR system, including diagnoses, problem lists, clinical notes, laboratory and radiology results and orders, adding to a clinician's ability to make the most informed medication choices for their patients. EHR systems may also often offer a broader range of clinical decision support, including notification of needed screening tests, immunizations, etc.

Physician practices are increasingly using e-prescribing within an EHR system, due to the EHR system's more comprehensive functionality, which enables greater gains in quality and safety. Currently, more than 50 EHR systems offer integrated e-prescribing. For practices that are committed to full automation and interoperability with other providers and sources of patient information, an EHR system with e-prescribing would be the better choice.

EHR systems are significantly more costly and complex to implement than stand-alone e-prescribing applications.

Important Note: To comply with Medicare's e-prescribing regulations and be eligible for the e-prescribing bonus, be sure the e-prescribing system you select meets ALL Medicare Part D e-prescribing standards which will be in effect as of April 1, 2009. These standards can be found at: http://www.cms.hhs.gov/EPrescribing.

Why Should I E-Prescribe? What Are the Benefits?

E-prescribing offers clinicians a powerful tool for safely and efficiently managing their patients' medications. Compared to paper-based prescribing, e-prescribing can enhance patient safety and medication compliance, improve prescribing accuracy and efficiency, and reduce health care costs through averted adverse drug events and substitution of less expensive drug alternatives. Taken together, these impacts translate to a higher quality, more efficient health care system that benefits all.

More specifically, e-prescribing can benefit your patients and practice by:

1) Improving patient safety and quality of care. There are a number of ways e-prescribing can reduce medication errors and resultant adverse drug events:

- **Illegibility** from hand-written prescriptions is eliminated, decreasing the risk of medication errors and decreasing liability risks.
- **Oral miscommunications** regarding prescriptions can be reduced, as e-prescribing should decrease the need for phone calls between prescribers and dispensers.
- **Warning and alert systems** are provided at the point of prescribing. E-prescribing systems can enhance an overall medication management process through clinical decision support systems that can perform checks against the patient's current medications for drug-drug interactions, drug-allergy interactions, diagnoses, body weight, age, drug appropriateness, and correct dosing; and alert prescribers to contraindications, adverse reactions, and duplicate therapy. E-prescribing software may also include drug reference software programs, such as ePocrates Rx, Pro, and the Physicians' Desk Reference.
- **Access to patient's medical and medication history.** Having the patient's medical and medication history from all providers at the time of prescribing can support alerts related to drug inappropriateness in combination with other medications or with specific medical problems.

2) Reducing time spent on phone calls and call-backs to pharmacies. Physician offices receive over 150 million call-backs from pharmacies with questions, clarifications and renewal requests. Medco® Health Solutions, Inc. conducted a survey of Boston area physicians and 88% of those surveyed said they, or their staff, spend almost one-third of their time responding to phone calls from pharmacies regarding prescriptions. E-prescribing can significantly reduce the volume of pharmacy call-backs related to handwriting legibility, mistaken manual prescription choices, formulary and pharmacy benefits, positively impacting office workflow efficiency and overall productivity.

3) Reducing time spent faxing prescriptions to pharmacies. Both prescribers and pharmacies can save time and resources spent on faxing prescriptions, reducing labor, handling, unreliability, and paper expense with e-prescriptions.

4) Automating the prescription renewal request and authorization process. Using e-prescribing, renewal authorization can be an automated process that provides efficiencies for both prescribers and pharmacies. The staff in the pharmacy generates a renewal request/authorization that is delivered through the network to the prescriber's system; the prescriber then reviews and approves/denies the request, and responds electronically to update the pharmacy system. With only a few clicks, prescribers can complete renewal authorization tasks, document that activity and create related staff orders.

5) Increasing patient convenience and medication compliance. It is estimated that 20% of paper-based prescription orders go unfilled by the patient—at least in part due to the hassle of dropping off a paper prescription and waiting for it to be filled. By eliminating or reducing this wait, e-prescribing may help reduce the number of unfilled prescriptions. Allowing electronic renewal requests can also improve the efficiency of this process, reducing obstacles that may result in less patient compliance. Availability of information on when patients' prescriptions are filled can help clinicians evaluate and address issues of patient compliance as well.

Recent research by the American Medical Association found that, due to these benefits, physicians who use an e-prescribing system are significantly more satisfied with their prescribing process than physicians who continue to handwrite prescriptions. For a summary of this research, go to www.ama-assn.org/go/hit.

6) Improving formulary adherence permits lower cost drug substitutions. By checking with health plan/insurer formularies at the point of care, generic substitutions or lower cost therapeutic equivalent medications can be encouraged and help reduce patient costs. Lower cost for patients can also help improve medication compliance.

7) Allowing greater prescriber mobility. Improved prescriber convenience can be attained when using a mobile device (laptop, PDA, etc.) and wireless network to write or authorize prescriptions. This allows prescribers to write prescriptions anywhere, even when not in the office.

8) Improving drug surveillance/recall ability. E-prescribing systems enable automated analytical queries and reports, which would be impossible with a paper prescription system. Common examples of such reporting would be: finding all patients with a particular prescription during a drug recall, or the frequency and types of medication prescribed by certain providers.

What Are the Challenges to E-Prescribing Adoption?

E-prescribing can streamline work processes and make the system run efficiently if the right tools are available in the right setting. Change can be difficult; however, e-prescribing may enable your practice to more effectively manage medications for your patients.

Challenges that have hindered more widespread adoption are described below. For those who decide to go forward with e-prescribing, Section II of this guide addresses these challenges and obstacles in greater detail, and offers guidance and strategies for making your transition to e-prescribing as smooth and trouble free as possible.

1) Financial Cost and Return on Investment (ROI): Prescribers, especially those in small practices and in inner city or rural settings, may believe they bear more than their fair share of the cost of e-prescribing, since other stakeholders also benefit from the savings and quality improvements that are achieved, or receive fees from the use of e-prescribing. Physician practices need to invest in hardware and software, and cost estimates vary depending on whether an EHR system is adopted or a stand-alone e-prescribing system is used. Even physicians receiving free e-prescribing systems may face financial costs in the areas of practice management interfaces, customization, training, maintenance, and upgrades as well as time and efficiency loss during the transition period. Large urban practices have been the sites of most successful implementations and can achieve a positive ROI in as little as 1-2 years for e-prescribing and EHR systems, but it may take longer for small practices in rural and inner city settings to achieve a ROI.

2) Change Management: It is important not to underestimate the change management challenges associated with transitioning from paper prescribing to e-prescribing. In a busy practice setting where providers and their staff are accustomed to their current management of patient prescriptions, change management is important. Furthermore, if some of the providers and staff are particularly technology averse, it can be difficult to get everyone onboard with such a dramatic change. It is difficult and time consuming for practices to figure out how to change workflow around the management of prescriptions when e-prescribing or EHR systems are introduced. The change requires adequate planning, training, support, and continuous quality improvement for effective management.

3) Workflow: New systems, particularly in the beginning, are likely to add time to tasks like creating new prescriptions or capturing preferred pharmacy information at patient intake, and this can be a barrier. Workflow changes are greater with a full EHR system as compared to stand-alone e-prescribing systems, but either way, practices often experience lost productivity during the transition while they modify the practice workflow and become adept at using the system. In addition, roles and responsibilities in the practice may change, such that activities that staff handled in the past (such as preparing a paper prescription for signature) may need to be taken on by physicians. Despite the fact that efficiencies and time savings can be gained within the practice by automating renewal authorizations, workflow change remains difficult. Practices (especially small practices) would benefit from additional resources to support them during this transition and to help them know where to turn when they encounter issues.

4) Controlled Substances: Because the DEA currently prohibits electronic transmission of prescriptions for controlled substances, both physician practices and pharmacies are forced to use different workflows to manage these prescriptions. This adds complexity to the prescribing process and is a barrier to adoption and use of e-prescribing, given that, according to AMA estimates, about 20% of all prescriptions are for controlled substances. Typically, the vendor system forces prescriptions for controlled substances to be printed. A specific type of registered paper may be required and some systems can be set up to print the prescription on printer friendly versions of this registered paper that the clinician then must manually sign. This requires either a separate dedicated printer or a specialized printer that can switch to the specialized paper on demand. The printer must also be kept in a secure area. The provider can still use his e-prescribing or EHR system to generate and document all prescriptions; however, prescriptions for controlled substances cannot be transmitted electronically. In the summer of 2008, the DEA issued a proposed rule to allow controlledsubstances to be e-prescribed, and public comments on the proposed rule were due September 25, 2008.

5) State Regulatory Restrictions: Although all states allow electronic prescribing, there remain some regulatory restrictions to be resolved. An example is the requirement by Medicaid in New York State to have "dispense as written (DAW)" in a handwritten form. There are many ongoing efforts in place to resolve these issues.

6) Hardware and Software Selection: Choosing the right software and hardware and supporting it after installation can be a daunting task for some physician practices, especially small practices that are extremely busy, experiencing declining reimbursements, and lack expert information technology staff. Some struggle with how to get started, vendor selection, negotiation, implementation and long term support. Section II of this guide will help you decide what kind of system will best fit your practice, and how to go about selecting and deploying the system you choose.

7) Limitations on E-Prescribing System Remote Access: There is often no easy remote access options. In rural areas there may not be many options for consistent remote access services due to cell phone gaps for digital service and limitations of broadband Internet service.

8) Pharmacy, Payer/PBM and Mail Order Connectivity: Not all pharmacies are connected to SureScripts-RxHub—about 3% of chain pharmacies have yet to be connected and approximately 73% of independent pharmacies are not connected even though the vast majority of them are using certified software. Some pharmacies who already have e-prescribing capabilities may be unwilling to "switch on" e-prescribing capability until there is a sufficient number of e-prescribers in their area, because they do not want to pay a fee for each prescription received electronically. Not all payers/PBMs are connected to deliver formulary, eligibility, or medication history information, and not all mail-order pharmacies are electronically connected. Few Medicaid systems participate. While the majority of payers and PBMs are connected (representing about 200 million lives), if the formulary, eligibility, or medication history information is not comprehensive enough, prescribers may choose not to look at the data because they do not have confidence in its accuracy or completeness. Lastly, e-prescribing in rural areas can be more difficult if there is a lack of broadband Internet access.

9) Medication History and Medication Reconciliation: E-prescribing can help provide information to prescribers at the point of care on what medications their patients are taking, and have taken in the past. However, it is difficult to place absolute confidence in the completeness and currency of this information, since medication histories must be reconciled from multiple sources. Prescribers should always consult with their patients about what medications they are taking to validate the medication history information that is available through e-prescribing and update the records accordingly.

10) Medical History Information: Not all stand-alone e-prescribing systems include other patient medical history information (such as a problems list), which could impact a prescriber's medication decisions. This type of information would be included in an EHR system with e-prescribing.

11) Prescribing from Multiple Office Sites: It is important for an e-prescribing system to be able to accommodate the handling of prescriptions when the prescriber uses multiple office sites, since there are often different prescriber registration numbers, passwords, etc. that are site specific. In addition, it is important to be able to view and manage patient records from one site while working elsewhere. This functionality is not always available in all systems.

12) Small/Rural Practice Challenges: The above challenges generally apply to most practice types, but some challenges are magnified for small or rural practices. Rural practices face a particular set of challenges in e-prescribing, including lack of access to broadband connectivity and to skilled information technology professionals who can help them with hardware selection and maintenance. As a result of these many challenges, the ROI for these practices takes much longer.

13) Patient Acceptance/Usage Issues: Some patients may not feel comfortable with electronic prescriptions and demand their clinician provide a paper prescription. Also, patients who travel frequently, or are otherwise away from home for extended periods may feel more comfortable having a written prescription to take with them.

The Electronic Prescribing Landscape Today

Of the 1.47 billion new and renewal prescriptions eligible for electronic routing, only about 2% or 35 million were transmitted electronically in 2007, with 35,000 clinicians using this technology. These figures are projected to nearly triple in 2008, with e-prescriptions rising to 100 million, and the number of e-prescribers increasing to 85,000, or about 14% of office-based prescribers.

E-prescribing systems are securely linked to the major health plans, pharmacy benefit managers, and pharmacies via the SureScripts-RxHub network. The SureScripts-RxHub network allows prescribers to retrieve patient information like medication history, eligibility, and formulary information and transmit prescriptions in a secure, real-time manner to the pharmacy of the patient's choice. The availability of this information at the point of care accounts for 70% of the safety and value associated with e-prescribing, according to a 2007 Gorman Group study. As noted above, pharmacy connectivity for e-prescribing is approaching 100% for chain pharmacies, but lags for independent pharmacies, where only 23% are connected for e-prescribing capability.

Financial and Other Support for Adopting and Using E-Prescribing

Beginning January 1, 2009, Medicare will offer physician payment incentives of up to 2% for using e-prescribing in 2009 and 2010, with this amount declining slightly over the next three years. Payments for 2009 will be received by practices in 2010. This bonus is in addition to the separate 2% bonus which can be earned under Medicare's Physician Quality Reporting Initiative (www.cms.hhs.gov/pqri). Those physicians who do not adopt e-prescribing for Medicare by 2012, will start seeing their Medicare payments incrementally reduced, up to 2% annually beginning in 2014.

At the federal level, regulations released in 2006 now allow free donation of e-prescribing hardware, software, and related services to prescribers by hospitals (to members of their medical staff), by a group practice (to their physician members), and by Medicare Advantage and Medicare Part D Prescription Drug Plans. To learn more about Stark and Anti-Kickback statute compliant donations of software and hardware, read the AMA's physician guide for HIT donations, which you can download at: http://www.ama-assn.org/ama1/pub/upload/mm/472/hitdonate_physicians.pdf.

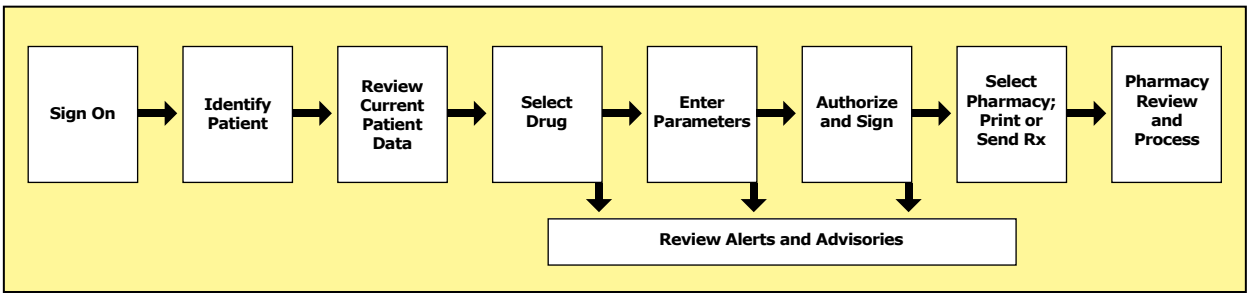
All 50 states and Washington, D.C., have cleared the path for e-prescribing—all have laws in place allowing their physicians and pharmacists to electronically exchange prescriptions and prescription information (with the exception of controlled substances). In addition, the Centers for Medicare and Medicaid Services (CMS) has provided over $100 million in Medicaid Transformation grants which are helping Medicaid programs connect to deliver formulary and pharmacy benefits information through e-prescribing and helping to encourage prescribers to adopt e-prescribing.

There are a number of national and state initiatives which are offering clinicians support for implementing e-prescribing and EHR systems. See Appendix II for more information on these programs, many of which include incentives for e-prescribing and/or EHR system adoption.

How E-Prescribing Works

Creating and managing prescriptions electronically in your practice involves several steps, as illustrated in the process map below.

Process for Creating and Managing a Prescription Electronically



Signing On

A user of the system—clinician or staff—signs in by performing some sort of authentication to prove his or her identity. Typical authentication is by username and password, although other technologies such as random-number cards (SecureID™), digital certificates, or fingerprint readers are used as well. Once authenticated, the system should know the user's role and authorization level to use the prescribing system. Different types of clinicians and office staff may have different legal permissions to enter, review, or modify prescriptions.

Identifying the Patient

First, the clinician or staff identifies the patient record within the e-prescribing system. Patient records can be identified by typing in identifying information (first name, last name, date of birth, zip code) to the e-prescribing system. If the e-prescribing system is connected to the registration system, the e-prescribing system can recognize all patient records matching the day's schedule, providing a quick, simple way of accessing relevant patient records.

Selecting the Drug, Entering Parameters, Signing, Sending or Printing the Prescription

The next steps in the process correspond to reviewing the medical history, entering, and editing a prescription. E-prescribing systems should allow clinicians to perform the following functions:

1) Review patients' current medication list and medication history information:

- Update medication history
- Correct medication history
- Reconcile with multiple history sources

2) Work with an existing medication:

- View details of a medication
- Discontinue or remove a medication
- Change dose, etc., for a medication
- Renew one or more medications

3) Prescribe or add new medication:

- Search for a medication
  - From quick choices/favorites
  - By name (generic or trade)
  - By indication
  - By formulary
- Display medications with prefilled, known, favorite, or standard dosing
- Select medication
- Review warnings
- Enter SIG and other parameters
- Automatically populate and update favorites list of drugs with prefilled known dosing based on frequency of utilization by clinician

4) Complete the prescription and authorize (electronically sign)

- One item
- Multiple items
- Items created by ancillary staff, residents, or others

5) Transmit prescriptions

- Choose print, fax, transmit options in real-time or batch mode
- Print formats and prescription information, conforming to state regulations
- Handle restrictions on certain medications (e.g., class II controlled substances cannot presently be e-prescribed)
- Ensure prescription is sent to preferred patient pharmacy (identified by practice staff prior to interaction with prescriber)

SECTION II: MOVING TOWARD E-PRESCRIBING ADOPTION: WHAT YOU NEED TO KNOW AND DO TO BECOME A SUCCESSFUL E-PRESCRIBING PRACTICE

Step 1 - Assessing Your Practice Readiness

The first step when considering any technology implementation is to determine whether your practice is ready for the changes ahead. In order to be successful, your practice must agree that improvements can be made and be willing to make the necessary changes to achieve those improvements. Remember, technology is not a panacea. Information technology is simply a tool that can enable your practice to manage and access information. However, without changes in the way you work, the benefits of technology will be limited. Below are a number of considerations that will help you determine if your practice is ready for change.

Key Considerations:

Planning

- Are your practice staff and leadership open to change? Have they been willing in the past to make or accept changes to they way they work? Do they actively seek opportunities for process improvements, or have they consistently resisted change?

- Has your practice endured unsuccessful technology implementations or workflow changes in the past? If so, you should determine why those projects did not succeed. Was the practice staff engaged in the project? Was there poor communication about the project or a lack of buy-in? If your practice has a history of unsuccessful projects, particularly technology-related projects, you must first take a critical look at why those projects failed in order to avoid repeating the same mistakes.

- Are there other major projects on which your practice is currently focused? For a successful e-prescribing implementation to occur, your practice staff and leadership will need to focus on necessary decisions and changes. This means allocating extra time for planning, system selection, training, workflow integration, and implementation. If there are other major projects currently underway that will minimize the amount of time and attention your practice can spend on e-prescribing, you should consider delaying it until other initiatives have been completed.

- Do your practice leadership and staff agree that e-prescribing can lead to clinical or operational improvements? Do they have a positive or negative view of e-prescribing, or do they have any opinion at all? If the most influential members of your practice have a negative view of e-prescribing, the likelihood of success will be very low.

- Have you discussed and planned for known e-prescribing challenges such as cost; change management considerations; workflow changes; handling prescriptions for controlled substances until they are eligible for electronic submission; connectivity issues with the Internet, pharmacies, payers, PBMs, mail-order pharmacies; appropriate hardware and software selection and support services; and availability of medication history information? These challenges generally apply to most practice types, and some challenges are magnified for small or rural practices.

Communication

- Does your practice have a culture of open, honest communication? Does your practice staff feel comfortable expressing their opinions and views to leadership? When views are expressed, are they received in a constructive and respected manner? Implementing e-prescribing will impact a number of people within the practice, and it will be critical throughout the project to get their ideas and feedback.

- In the past, have decisions been effectively communicated to the practice? Are those decisions carried out by the entire practice or disregarded by some? E-prescribing implementation will require process change and standardization. If your practice has not carried out decisions made in the past, there is a risk that you will not realize the benefits of e-prescribing.

Frequently Asked Questions:

1. **Are there other tools that will help me determine my practice readiness?** There are a number of tools available that allow you to assess your practice readiness. The American Medical Association provides a readiness assessment tool. Texas Medical Association also offers an assessment tool.

2. **I am not sure if I can determine my practice readiness unless I know more about e-prescribing. Where can I find more information about what e-prescribing is and what changes it might require?** Earlier this summer the eHealth Initiative and the Center for Improving Medication Management released a comprehensive report on e-prescribing. The report describes what e-prescribing is, why it is important and the major e-prescribing initiatives. To access the report go to: http://www.ehealthinitiative.org/assets/Documents/eHI_CIMM_ePrescribing_Report_6-10-08_FINAL.pdf.

3. **What should I do next if my practice is not ready?** If after reading this guide you determine your practice is not ready to successfully implement e-prescribing you should focus first on fixing those areas of concern. These issues are not insurmountable, but they will take time and effort to correct.

Additional Resources:

- **Readiness Assessment** – www.getRxconnected.com
- **Readiness Assessment, American Medical Association** - (pg. 13-15)
- **Readiness Assessment, Texas Medical Association**
- **E-prescribing book** - *Electronic Prescribing for the Medical Practice: Everything You Wanted to Know But Were Afraid to Ask*.

Step 2 - Defining Your Practice Needs

The second step when considering e-prescribing is to determine what improvements your practice hopes to gain with the use of e-prescribing technology. The benefits of e-prescribing were described in Section I of this guide, but in order to realize those benefits your practice must clearly define what your specific needs are and how e-prescribing will address those needs. If you are unclear about either of those points – what your practice needs or how e-prescribing can help – it will be very difficult to choose an appropriate project team, evaluate systems or measure whether the implementation has been successful.

Key Considerations:

Planning

- Set a clear vision for what you hope to accomplish through e-prescribing. Once you have established a vision, identify specific objectives your practice is trying to achieve with the use of e-prescribing. Your vision and related objectives should be grounded in realistic expectations with achievable, measurable results.
- Identify a project team. The project team will play an important role in adapting practice workflow to ensure that the benefits of e-prescribing are fully achieved. Therefore, the project team must be very knowledgeable about your practice's prescribing workflows and have experience in different aspects of the prescribing process. Each member of the project team should have specific roles and responsibilities so they are invested in the project.

In a small practice the project team may be the entire practice staff. While your processes and structures may not be formalized, the activities are the same.

- Choose a project leader. The project leader should be extremely knowledgeable about the practice, well respected by team members, able to facilitate decision making and skilled at conflict resolution. The project leader will also assist prescribers and practice staff as they learn the new technology and workflow and help overcome barriers to adoption as they are encountered. It is not necessary that a physician serve as project leader, but if the project leader is a non-physician, it is recommended that a physician champion be identified. The physician champion would work closely with the project manager to address any unresolved conflicts and maintain the commitment of his or her peers to the success of the project.

- Plan for known e-prescribing challenges. There are general challenges that apply to most practices. Early planning for issues related to cost, change management, workflow, controlled substances, pharmacy/payer/PBM/mail-order pharmacy connectivity, hardware and software selection, and medication history and reconciliation will likely help your practice make a better decision and save time and money.

Workflow and Change Management

- Make a list of your practice's specific medication management needs. For example, do your prescribers want easy access to more complete medication lists for your patients or more robust safety checks? Do you want to reduce faxes from pharmacies for renewal requests? Do you want to understand prescription patterns or easily find patients taking a specific medication? Brainstorm with prescribers and other practice staff to determine the most significant inefficiencies and safety concerns.

- Prioritize your practice needs. When choosing an e-prescribing system your practice will have to make certain trade-offs. By prioritizing your needs before you evaluate e-prescribing systems, you will have a good idea of what features are most important to you. Needs may be prioritized by the number of staff effected, severity of risk, financial impact or effect on clinical care. When you are ready to evaluate e-prescribing systems, start with your prioritized list of needs. By comparing your needs to the features and functionalities offered by the e-prescribing system you will be able to identify the best match for your practice.

See Appendix I for a list of common features and functions practices look for in an e-prescribing system. Use the priority column to indicate those features that are most important to your practice.

- Think through how your processes and workflow will change with e-prescribing. Map out your current prescribing workflows and then define how those workflows may change with e-prescribing. Be as detailed as possible as this will help you better understand where breakdowns occur and how you expect e-prescribing will eliminate those breakdowns.

Technology

- In addition to your clinical and operational needs, you will also have technical needs. Again, rather than thinking in terms of what a system can do, think first about what you need. Do your prescribers need to be able to carry a device with them for easy access to clinical information, or do you simply need computers in the exam rooms? Do prescribers need to be able to access the system from outside the office (e.g., at home, while at another clinic, etc.)? Do you want data from your practice management system to populate the e-prescribing system?

- You should also consider your hardware and network needs. Is your network connection fast enough for prescribers to regularly use? Will you need a high-speed Internet connection in your office? Will you need additional computer stations, printers or a wireless network?

- Is there someone in your office currently responsible for the maintenance of information technology systems? If not, do you need someone, or will you relyon the e-prescribing vendor for ongoing support.

Communication

- Clearly describe the vision and objectives to the entire practice. Describe how they will be involved in the project, especially how their input will be collected. Be willing and ready to answer their questions in a direct, open manner.

- Involve all parts of the practice when defining needs. Each area of the practice will likely be impacted by a change to the prescribing process. Be sure you have communicated with each area to understand their particular needs, and highlight any dependencies (e.g., a change in one area's workflow impacts another area).

Frequently Asked Questions:

1. **What are the attributes of a successful practice leader?** Instilling and creating prescriber and staff behavioral change in a medical practice is difficult. It is extremely helpful when a respected physician, other clinician or practice administrator steps up as a champion and educates his or her fellow colleagues. An e-prescribing practice leader should possess the following qualities: 1) be a willing innovator, 2) somewhat technology savvy, 3) active, high volume e-prescriber, 4) strong e-prescribing advocate, 5) comfortable serving as leader and facilitator amongst his or her peers and 6) dedicated to committing time on a weekly basis for physician and staff training.

2. **What are the key considerations when redesigning my prescribing process for e-prescribing?** The following issues should be discussed at this stage. Although you might not have a final strategy for each issue at this time, you should consider strategies for each:
   - How to define the role of the front desk, medical assistants, and prescribers in a redesigned prescribing process
   - How to effectively implement prescriber preferences in the system
   - How to provide appropriate hardware based on the prescribing roles and responsibilities of the practice
   - How to communicate with patients about electronic prescribing
   - How to maintain and monitor error logs
   - How to monitor electronic renewal requests from the pharmacy
   - How to best engage with local pharmacies in mutual problem solving

3. **What is the basic technology I need to begin e-prescribing?** Office configurations will vary depending on the e-prescribing system chosen. However, regardless of the e-prescribing system, practices must have a good Internet connection (preferably high speed) and desktop, laptop or tablets computers, hand-held PDAs, or a combination. If PDAs or tablets will be the primary technology used by prescribers, setting up a wireless network is recommended.

4. **What if my practice's needs go beyond improving the prescribing process?** Some practices decide that the prescribing process is too dependent on other clinical information to isolate. If that is the case, you should consider implementing an EHR system with e-prescribing capability. Most EHR systems have e-prescribing capability and provide more functionality than stand-alone e-prescribing systems. But EHR systems are more expensive and disruptive to the practice. Again, you have to decide what your practice is ready for and what operational and clinical needs you want to address.

Additional Resources:

- **E-prescribing case studies -** www.surescripts.com/physician/peer.aspx
- **E-prescribing information for consumers** - www.learnabouteprescriptions.com

Step 3 - Understanding Costs and Financing Options

The next step is to understand what the upfront and post-implementation costs are for e-prescribing systems and alternative financing options that might be available to your practice. There are an increasing number of federal, state, and private sources of financial aid for physicians to help encourage e-prescribing adoption.

As mentioned in Section I, federal level regulations released in 2006 now allow e-prescribing hardware and software to be donated free of charge by health insurers, hospitals, group practices and other eligible donors. Congress has also signaled its strong support of e-prescribing by providing incentives for physicians using e-prescribing. The legislation was passed in July 2008, and incentives will be available from Medicare beginning in 2009 and ending in 2013. The incentive payment will be a 2% bonus of your normal Medicare fee schedule payments. Those practices not e-prescribing by 2012 will see a reduction in Medicare payments.

For more information on the relaxation of Stark and Anti-Kickback, go to www.ama-assn.org/go/hit.

For more information on the Medicare e-prescribing program, go to www.cms.hhs.gov/eprescribing.

Key Considerations:

Planning

- Identify a member(s) of the project team to research the costs and potential subsidies or reimbursement programs available to your practice. Contact the health plans in your area to inquire about initiatives they may sponsor or pay-for-performance programs that help practices acquire e-prescribing systems.

- Identify any existing national and state initiatives for which the practice may qualify. Many organizations – including state governments, payer organizations, medical associations and e-prescribing vendors – have developed special programs to encourage prescribers to adopt e-prescribing technology. A list of some of those programs can be found in Appendix II.

- Calculate your practice's projected reimbursement under the new Medicare incentive legislation and research pay-for-performance programs for which your practice is eligible to participate.

Technology

- If you are considering both stand-alone e-prescribing systems and EHR systems, document price differences between a stand-alone e-prescribing system and an EHR system with e-prescribing functionality. Include all hardware (desktop, laptop, PDA, servers, printers), software, interfaces and networking costs (i.e., Internet connectivity, wireless network, integrating practice management system with e-prescribing or EHR). Also include in the costs for a stand-alone system, the projected costs and implementation challenges of later moving to an EHR system (i.e., data transfer, technical infrastructure changes).

Frequently Asked Questions:

1. **How much does e-prescribing cost?** Costs vary depending on which kind of hardware and software (EHR system versus 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 or state initiatives that subsidize the cost of e-prescribing systems. There may be additional fees to integrate patient demographic information from your practice management system into the e-prescribing application; however, the alternative means you will need to enter each patient into the system as you prescribe for them, which can be time consuming and may be a barrier to using the system.

   As mentioned in Section I, 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 are about $25,000 to $45,000 per physician. 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. Be sure to ask vendors specific questions about any incremental fees related to e-prescribing functionality as well as training.

   These figures do not include initial costs for the hardware required to support either an e-prescribing or EHR system, temporary decreases in productivity resulting from training or workflow redesign, practice management interfaces, customization, maintenance, upgrades, or data conversation. 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 cost – both direct and indirect, start-up and ongoing – with the 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.

2. **Are there transaction fees for e-prescribing?** Pharmacies pay transaction fees based on the number of electronic prescriptions and electronic prescription renewals received, and payers/PBMs pay transaction fees to deliver formulary and pharmacy benefits information. The only time your practice would incur transaction fees for e-prescribing is if the vendor you select charges 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.

3. **Are there subsidy programs available to help with e-prescribing costs?** Yes. There are a number of e-prescribing and EHR initiatives available at the national and state level. Information about some of these programs is provided in Appendix II.

4. **Does e-prescribing cost patients more money?** Patients pay the same amount in the same way 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.

Additional Resources:

- **Certification Commission on Health Information Technology Incentive Index -** http://ehrdecisions.com/incentive-programs/

Step 4 - Selecting a System

There are many e-prescribing systems to choose from and evaluating them may seem daunting. However, by this point you have identified your practice needs and understand associated costs. By comparing your practice needs with key e-prescribing system capabilities and integration features, your practice is more likely to choose an e-prescribing system that will be a success. Use the Buyer's Guide checklist in Appendix I when comparing different vendor offerings.

Key Considerations:

Planning

- Involve the entire project team in system selection. Define specific evaluation criteria so that multiple products can be easily compared. Facilitate open discussion among team members about the pros and cons of each product and their rationale for scoring. If you are concerned that some members of the evaluation team will not feel comfortable openly sharing their perspectives, the scorecards can be confidential and known only to the project leader.

- Develop your own test scripts or scenarios reflecting your practice's common workflows, and ask each vendor to demonstrate how their product would work in those scenarios. This will show how the systems would be used in your practice environment and focus the vendor on what features and functions are most important to you. It will also allow you to compare features and usability across systems.

- Contact other practices in your area that currently use the products you are evaluating. Ask what unexpected challenges they have faced, how responsive the vendor has been, and why they chose that product.

Workflow and Change Management

- Evaluate usability features of each software vendor such as:
  - Minimal keystrokes to write, renew, and send prescriptions
  - Easy patient lookup process
  - Connection with current patient management systems to integrate patient demographics into the e-prescribing application quickly and easily
  - Access to medication history information—with multiple history sources reconciled to a single view
  - Ability to renew multiple prescriptions for a patient at once
  - Favorite medication list feature
  - Easy medication search (including trade names)
  - Pre-filled default fields
  - Ability to do complex SIGs through templates (like sliding scales, tapers, etc.)
  - Ability to order supplies like syringes
  - Incorporation of alternative and non-prescribed medications in the medication list
  - Clinical decision support warnings such as drug-drug and drug-allergy alerts that are advised but not forced. Drug-lab, drug-problem checking are also desirable functions.
  - Inclusion of reasons for prescribing (match to problem list or diagnosis)
  - Easy signing and cosigning
  - Easy pharmacy selection
  - Easy and most efficient output
  - Ability to receive delivery confirmation or failure notice once prescription reaches pharmacy
  - Ability to handle callbacks/renewal requests (from patient or pharmacy)

- Make sure you clearly understand what training is offered by the vendor. Will the training be on-site? How many days will it be? Will the training be hands on and will you be able to ask the trainer questions? Will there be follow up training sessions or will your practice have access to the trainer over the first few months of implementation? Will you be able to schedule training during non-business hours? Your staff will not be able to learn all the features of the system in one session, so be sure that the training plan is sufficient. Be sure to ask specifically about training costs.

Technology

- Ensure that the hardware (desktop, laptop, PDA) required by the system supports your practice's desired workflow. Determine that devices are both efficient and secure. They must allow rapid synchronization to other electronic systems in the office, as well as communication with printers and other devices or networks.

- Select Internet connectivity with a redundant Internet connection backup in place. Be sure access is available wherever you hope to use the system, including other office sites, at home, at the hospital, etc.

Frequently Asked Questions:

1. **Is there a certification system for e-prescribing systems?** Yes. E-prescribing applications and EHR systems with e-prescribing are certified by SureScripts-Rx Hub – the infrastructure that technology vendors, pharmacies, and payers/PBMs connect to in order to exchange medication information electronically according to industry standards. The current certification is based on compliance with industry standards, specifically the NCPDP Script Standard. A complete list of SureScripts-RxHub certified products can be found at http://www.surescripts.com/certified. This list shows the functionality and connectivity of e-prescribing systems. If your practice is looking for an EHR system with integrated e-prescribing functionality, the Certification Commission for Heath Information Technology (CCHIT) certifies EHR systems based on a large number of functional criteria, including e-prescribing capability. CCHIT has plans underway to certify e-prescribing systems. For more information on CCHIT, go to www.cchit.org.

2. **Are there specific questions I should ask a potential e-prescribing system vendor?** Yes, ask questions such as: 1) What is the cost? 2) What do I need to purchase? 3) What are the monthly maintenance fees? 4) What type of training is provided? 5) Will your system be able to access demographic information from my practice management system? 6) Does your system allow you to manage both new prescriptions and renewal authorizations electronically? 7) What is the support process, and how long does it typically take for issues to be addressed? For a complete Buyer's Guide, see Appendix I.

Additional Resources:

- **Vendor features list –** www.surescripts.com/certified
- **E-prescribing selection assessment tool –** www.himss.org/content/files/App_C.pdf
- **E-prescribing book -** *Electronic Prescribing for the Medical Practice: Everything You Wanted to Know But Were Afraid to Ask*.

Step 5 - Deployment

The final step is deployment. Implementing e-prescribing and ensuring the system's proper use will require commitment and effort. It will take time to adapt to new workflows and to use the system effectively. The following questions and checklist are intended to help your practice through the early stages of deployment and minimize productivity loss.

Key Considerations:

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 affected members of the practice receive appropriate training. On-site training is most effective as it allows users to learn the system in their working environment. In preparation for training, think about specific questions that may not be covered. Sample questions may include:
  - How do I search for certain medications within my 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 when I write this particular prescription?
  - How can I write a prescription from the patient prescription history screen?

- Pace yourself. Do not attempt to learn everything at once. It is difficult to learn the 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 with your trainer over the next few months. You will have many more questions after you have gained practical experience with the system.

- Ask your vendor if they provide access to such learning material as webinars, online tutorials or implementation guides, and make full use of all available resources to maximize your e-prescribing experience.

Full EHR system implementation requires significant practice buy-in, funding and technological readiness, in addition to more workflow change than is necessary for a stand-alone e-prescribing system installation. Smaller practices may find the latter an easier first step in automating their practice.

Technology

- 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. By keeping your vendor aware of issues that arise, you ensure that problems can be fixed quickly and help eliminate future issues before they occur. Be sure that everyone who uses the e-prescribing system in the practice is aware of and follows the support process provided by the vendor.

- Log support cases with the technology provider. If the issue is related to a pharmacy or network issue rather than an application issue, the technology provider should notify SureScripts-RxHub 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.

- 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. However, clinicians should always have the ability to print the prescription or a receipt of the prescription order for the patient.

- Utilize electronic prescription renewal functionality as this increases efficiency and improves patient service when they are able to get their prescriptions renewed more quickly. Electronic renewals can also encourage more staff involvement in the prescribing process and lead to stronger commitment to e-prescribing. Automating the process to authorize prescription renewals as part of e-prescribing is a key benefit for the practice and a key driver of utilization. Instructing patients to request refills through their pharmacy instead of calling the physician office can decrease phone calls to the office and increase the efficiency of handling the requests when they come electronically directly from the pharmacy.

- Integrate patient demographic information from the practice management system in advance of e-prescribing implementation. Not having the practice patient demo graphic information loaded in the e-prescribing application system during a patient visit can be a major source of dissatisfaction for both prescribers and practice staff. Also be sure that the system you plan to implement can update new patients and changes in demographic information from your practice management system regularly.

- Designate a prescriber or staff person to retrieve and manage responses for renewal authorization requests that are sent electronically from pharmacies. This person can help to successfully implement the electronic renewal process by checking your prescribing system each day, or several times a day, for electronic requests. Consider distributing patient educational materials on e-prescribing that instruct them to contact their pharmacy first 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 your e-prescribing application. You should be familiar with how to select both the name and location of your patient's pharmacy of choice and how pharmacy information is displayed and updated in your prescribing application. Once you start using your application, make it a practice to ask your patients to select or confirm their pharmacy of choice when they check in for their visit. You or your staff can then add the pharmacies' names to the patients' electronic records and speed the process of preparing their prescriptions using your e-prescribing application. As an added step, you may wish to build a "favorites" list of pharmacies within your application, using your patients' favorite locations, 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 refill response process.

- 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 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 by refraining from electronic transmission of prescriptions for controlled substances until these regulations are changed to allow electronic transmission. Prescriptions for Schedule II drugs can never be sent electronically. Hand-signed hard copies of prescriptions for Schedule III through V drugs can be sent using manual fax. Neither computer-generated faxes containing electronic signatures nor totally electronic prescriptions for controlled substances can be sent to pharmacies at this time.

Communications

- Inform local pharmacies that you are getting ready to exchange prescription information electronically. When your e-prescribing application is set up at your practice, your vendor should inform pharmacies in your area that you will be prescribing electronically. Your ongoing use of your prescribing application will then reinforce this notice and will allow pharmacies to start sending refill requests to your prescribing application—if you are set up to manage these requests electronically.

  Independent pharmacies, especially, do appreciate hearing directly from practices and clinics that are planning to e-prescribe. This can also help encourage those who are not yet able to manage e-prescriptions to get connected. A letter template has been developed to help you make this announcement, which can be downloaded at: http://www.rxsuccess.com/files/pdf/MD%20to%20Pharmacy%20Outreach%200508.pdf.

- Communicate with patients about electronic prescribing and its benefits and remind them to call the pharmacy rather than the practice when they need their prescriptions renewed.

Frequently Asked Questions:

1. **How do I know which local pharmacies accept electronic prescriptions?** A quick resource to find this information is www.rxsuccess.com. Simply click on the "Find your connected pharmacy" tab to find the list of pharmacies in your state or zip code that are enabled to receive electronic prescriptions and send electronic renewal requests to your practice. You still should contact the pharmacies in your area directly to notify them when your practice will be e-prescribing and confirm that they have actually started using e-prescribing and are prepared to accept the prescriptions.

2. **How will I know if pharmacies are properly loaded in my system?** It is best to provide your vendor with a comprehensive list of pharmacies that your patients frequently use. The vendor can then match this list with the pharmacy records from the Pharmacy Health Information Exchange while loading pharmacy 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 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 with the master pharmacy list provided by the Pharmacy Health Information Exchange.

3. **How can I prepare for training?** Personalized one-on-one training using a variety of common scenarios seems to work best for most prescribers. It is important to ask detailed questions during your training sessions, including:

   - What happens if the patient is not matched in the system when a pharmacy sends a renewal requests?
   - Can I cover for my colleagues when they are on leave and under whose name will the prescriptions be sent to the pharmacy?
   - How does the system handle controlled substance prescriptions and pharmacy renewal requests for controlled substances?
   - How do I write prescriptions to the pharmacy when a patient calls in a request via phone?
   - How do I know whether the prescription was successfully sent to the pharmacy?
   - How do I handle mail order prescription writing?
   - How do I create my favorite medication list?
   - How do I search pharmacies within the practice database?

4. **May I work offline using my e-prescribing system?** Some e-prescribing programs allow access offline, which would enable prescribers to prepare multiple scripts and then transmit then when they have Internet access again. However, queuing or "batching" prescriptions before sending them to pharmacies electronically is not recommended. Sending prescriptions to pharmacies as soon as possible after they are prepared ensures that the pharmacy has adequate time to receive the prescription before a patient arrives to pick it up.

5. **Will the pharmacy send me electronic renewal requests?** Pharmacies will start sending e-refills once individual prescribers send five new prescriptions electronically via the Pharmacy Health Information Exchange. This is to help ensure that your practice has been trained on your e-prescribing or EHR system and is ready to receive and respond to refill requests electronically.

6. **Can I e-prescribe controlled substances?** Prescriptions for Schedule II drugs can never be sent electronically or by fax. Hand-signed hard copies of prescriptions for Schedule III through V drugs can be sent using manual fax technologies. Neither computer-generated faxes containing electronic signatures nor totally electronic prescriptions for controlled substances can be sent to pharmacies at this time. Some pharmacies will continue to send refill requests for controlled substances by fax.

7. **How do I communicate e-prescribing to my patients?** Communicating with patients regarding e-prescribing and its benefits and implications is important. Some patients may express initial reluctance in response to a new system; prescribers can make patients more comfortable by explaining how e-prescribing works and what its benefits to patients, providers, and pharmacies.

   In the initial phases it is 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 their prescription a "head start."
   - **Convenient** – The patient no longer has to make an additional trip to the pharmacy to drop off their prescriptions.
   - **Safe and Secure** - Prescription information is not sent over the open Internet and is not sent via an e-mail. E-prescriptions are sent electronically through a private, secure, and closed network – the Pharmacy Health Information Exchange®.
   - **Legible** – The staff in the pharmacy no longer has to spend time interpreting your handwriting.
   - **Informed** – Availability of formulary information from health plans allows choice of medications that are more affordable and e-prescribing allows drug-drug interaction checking and allergy-drug interaction checking for safer choices.

Additional Resources:

- http://www.rxsuccess.com/
- http://www.surescripts.com/SureScripts/myth-reality.aspx

APPENDIX I: BUYER'S GUIDE

Once you have decided on the type of system for your practice, you will want to start contacting system providers to find out more about their specific products. The following Buyer's Guide will help you compare the features of different systems. In order to qualify for Medicare's e-prescribing bonus that begins in 2009, be sure the system you select meets all Medicare Part D e-prescribing standards which go into effect on April 1, 2009—these standards are listed on the Centers for Medicare and Medicaid Services website at: http://www.cms.hhs.gov/eprescribing.

Electronic Prescribing System Buyer's Guide						
Category	**Feature or Function**	**Question to Ask Vendor**	**System A**	**System B**	**System C**	**Priority (High, Med., Low)**
Functionality	Refill Authorization	Will the system 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 system enabled for two-way electronic communications with pharmacies or just one-way fax transmission of new prescription information?				
	Reporting	Does the system include reporting capability about prescription history for the patient and practice?				
	User Tools	Does the system provide aids such as favorites-lists or chart-labels to aid system and practice workflow?				
	Drug Interaction Checking	Does the system provide alerts for drug to drug, drug to allergy and other checks for patient safety?				
	Drug Benefits Displays	Does the system display drug benefits information related to patient's drug coverage to help manage patient cost?				
	Prescription History	Does the system display prescription history from retail pharmacy and/or PBM data sources (across providers)?				
Related Functions (EHR Systems)	Modules	Does the system provide one or more related modules, such as lab results or charge capture?				
	Modular EHR	Does the vendor provide a comprehensive EHR that can be implemented in stages beginning with electronic prescribing?				

Electronic Prescribing System Buyer's Guide						
Category	**Feature or Function**	**Question to Ask Vendor**	**System A**	**System B**	**System C**	**Priority (High, Med., Low)**
Hardware Architecture	Mobile	Can the system run on a device such as a PDA, and does it provide a method of synchronization, either wirelessly or through a cradle?				
	Desktop	Does the system provide applications that run on a desktop, requiring just an internet connection, or additional software?				
	Remote Computing	Does the system provide access when prescribers are away from the office?				
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?				
Standards	Regulatory Compliance	Does the system satisfy all CMS Part D e-prescribing standards required as of April 1, 2009? Visit http://www.cms.hhs.gov/eprescribing/ to download the standards.				
Costs	Hardware	What are the costs of all recommended hardware including networking equipment?				
	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?				

APPENDIX II: NATIONAL AND STATE E-PRESCRIBING INITIATIVES

The below table is intended to summarize current e-prescribing initiatives. This information may change. For an updated reference of national and state incentive programs related to the adoption of EHR systems—which incorporate e-prescribing functionality—see the Certification Commission for Health Information Technology's (CCHIT) Incentive Index, available at http://ehrdecisions.com/incentive-programs/. This website also contains guidance for physicians on the adoption of EHRs for their practice.

National Initiatives

Company	Contact Info	Description
American e-Prescribing Initiative	www.rxnt.com/AMEI/enroll.asp 800-943-7968	Eligible participants include new RxNT e-prescriber groups enrolling more than 100 licensed prescribers at the same time.
AthenaHealth	www.athenahealth.com 888-652-8200	Eligible participants include existing purchasers of Athena Clinicals products.
National ePrescribing Patient Safety Initiative (NEPSI)	www.nationalerx.com	NEPSI makes secure, easy-to-use e-prescribing software available to all physicians and medication prescribers in America for free.
WellPoint	www.wellpoint.com	Provides a free Web-enabled smart phone with e-prescribing access and WellPoint corporate discounts for service fee extended to individual physicians and groups in select markets.

State Initiatives

State	Sponsor	Contact Info	Description
Arizona *Health-e Connection*	Multi-stakeholder collaborative	www.azhec.org	Providing education for providers, payers, and consumers on e-prescribing, health information technology, and health information exchange.
Alabama *InfoSolutions e-prescribing Program*	Blue Cross and Blue Shield of Alabama	www.Infosolutions.net 205-220-5900	Physicians who agree to utilize InfoSolutions as part of their participation in the Alabama Medicaid Patient 1st Program are eligible to receive $300 reimbursement toward the cost of the PDA if 1,000 patients are accessed in the first six months of use.

State	Sponsor	Contact Info	Description
California *L.A. Care Program*	Anthem Blue Cross, Blue Shield of California and Medco Health, WellPoint		The L.A. Care Program reimburses eligible physicians up to $3,000 for e-prescribing. Physicians must write a minimum of 80 electronic prescriptions per month for three consecutive months to qualify for reimbursement.
Colorado *QHN Prescription Management*	Quality of Health Network	www. Infosolutions.net 970-248-0033	Eligible participants include any Colorado prescriber.
Connecticut *Connecticut Health Information Exchange and E-Prescribing Initiative*	Aetna and Zix	Edmund Pezalla, MD www.aetna.com 860-273-0123	Aetna and Zix have expanded the e-prescribing Initiative to New York, offering hand-held devices to participating physicians.
Delaware	Blue Cross Blue Shield/DrFirst	Blue Cross Blue Shield of Delaware 302-421-3000	BCBSD's pilot program provides physicians with personal digital assistants and DrFirst's Rcopia™ software to allow them to access up to 10 years of their patients' medication histories, including active medications, allergy information and diagnosis information.
Florida *ePrescribe Florida*	Florida Medicaid, Gold Standard	www. empowerx.com/ florida 1-800-375-0943 empowerx@id-health. com www. eprescribeflorida.com	Provides e-prescribing to providers through a secure Web portal and personal digital assistants. Includes claims-based prescription histories for fee-for-service beneficiaries, information about the State's Medicaid drug formulary, and a tool to alert providers about potential drug interactions. Fosters education and implementation efforts to accelerate physician adoption and cooperation among prescribing constituents.

State	Sponsor	Contact Info	Description
Idaho *The Idaho Physicians Network* *Idaho e-Prescribing Initiative*	Primary Health Inc., a Boise insurance company, DrFirst RxNT	Charles Petrock, Idaho Physicians Network cpetrock@ipnmd 208-333-1525 www.rxnt.com 800-943-7968	This pilot program is the first sponsored e-prescribing project in the state. This program offers incentives to new RxNT e-prescribers licensed in Idaho.
Illinois *Illinois e-Prescribing Collaborative* *Illinois e-Prescribing Initiative*	Blue Cross and Blue Shield of Illinois. RxNT	Blue Cross and Blue Shield of Illinois (312) 653-6000 www.rxnt.com 800-943-7968	Initial costs for e-prescribing implementation for 500 physicians will be funded. This program offers incentives to new RxNT e-prescribers licensed in Illinois.
Indiana *Indianapolis Medical Society - Preferred Physician Program*	Indianapolis Medical Society, iSALUS	www.imsonline.org or simonlee@isalushealthcare.com	Provides IMS member physicians with one year of free access to an online electronic medical records system which includes e-prescribing.
Louisiana *Louisiana e-Prescribing Initiative*	Blue Cross Blue Shield RxNT	EDI – Electronic Services Clearinghouse Support 225-291-4334 www.rxnt.com (800) 943-7968	A group of 500 Louisiana physicians will be chosen to test a new e-prescribing service designed to reduce errors and increase patient safety.
Maine *HealthInfoNet*	Anthem Blue Cross and Blue Shield of Maine	Operations Center 207-822-7000	Will equip about 500 Augusta-area physicians with e-prescribing technology that will link to the electronic medical records of their Anthem-enrolled patients.

State	Sponsor	Contact Info	Description
Massachusetts *Massachusetts eRx Collaborative*	Blue Cross Blue Shield of Mass. and Tufts Health Plan, DrFirst, ZixCorp	Contact the eRx Collaborative technology partners: DrFirst: 888-271-9898 ext 3 ZixCorp: 800-822-0675 Blue Shield of Massachusetts HMO Blue, Inc. 800-262-BLUE (2583)	Blue Cross Blue Shield of Massachusetts (BCBSMA) has developed a pay-for-performance program for participating primary care providers. Through the program, eligible e-prescribers can receive sponsorship which includes: hand-held device loaded with e-prescribing software, one year license fee and support, 6 months of Internet connectivity where applicable, deployment (including training & one time patient data download where feasible), and access to a browser version of the software from any PC with Internet connectivity.
Michigan *Southeast Michigan e-Prescribing Initiative (SEMI)*	GM, Ford Daimler-Chrysler UAW, BCBS of Mich., Henry Ford Med. Group, Medco Health Solutions, CVS/Caremark, Surescripts-RxHub	800-722-8979	Launched in 2005, the initiative encourages physicians to write prescriptions on a personal computer or wireless device and send them directly to the pharmacy for filling.
Minnesota *Government Health IT*	Minnesota eHealth Collaborative	Anne A. Armstrong, President and Group Publisher 703-876-5041 aarmstrong@1105govinfo.com	By 2009, the state employee health plan will require all in-network pharmacies to accept e-prescribing. By 2011, all network providers must e-prescribe. Failure to meet these deadlines could mean removal from the network. Physicians who do not comply with the 2011 e-prescribing deadline will not be reimbursed for treating state employees.
Mississippi	Mississippi Medicaid, Gold Standard	www.empowerx.com/mississippi.html 800-375-0943 empowerx@id-health.com	Provides e-prescribing to providers through a secure Web portal and free personal digital assistants.

State	Sponsor	Contact Info	Description
Nevada *Sierra Health Services and Southwest Medical Associates*	Sierra Health Services and Allscripts	w3_hpnsd_shl@ sierrahealth.com Allscripts: 800-654-0889	Under the program, physicians who are members of the Nevada State Medical Association can receive Allscripts' e-prescribing software at no cost for two years, while nonmember physicians can receive the software at no cost but must pay a $20 monthly fee to use it. All physicians must pay for their own hardware, including computers and monitors.
New Jersey *Aetna, Horizon BCBSNJ's E-Prescribe Program*	Horizon Blue Cross Blue Shield of New Jersey (Horizon BCBSNJ)	Please contact your Aetna Account Executive www. HorizonBlue. com/eprescribe 800-355-BLUE (2583)	Sponsors e-prescribing for select network physicians.
New Mexico *New Mexico Prescription Improvement Coalition*	Blue Cross Blue Shield, Molina, United, Lovelace, Presbyterian, New Mexico HSD, Medicare AD	www.nmmra.org 505-998-9765	A statewide, physician-centric, multi-payor, self-sustaining, electronic prescribing model is currently in the pilot phase. To assure adoption, all major health plans are participating in the program. Health plans' formularies will be loaded into the e-prescribing applications for ease of physician access. Implementation costs of this pilot are being funded by participating health plans, based on New Mexico member enrollment for each plan. More than 120 physicians are participating in this pilot to date.
New York *NYC Dept of Health and Mental Hygiene, Electronic Health Records Initiative* *New York State, Greater Rochester Area – Elysium Prescription Management*	New York City GRRHIO	www.nyc. gov/pcip or 866-888-MY-CW. www.grrhio.org 877-865-7446	Eligible participants include primary care providers practicing in medically underserved areas of New York City. Provides incentives for prescribing members of the Rochester Regional Health Information Organization (RHIO).

State	Sponsor	Contact Info	Description
North Carolina *North Carolina e-Prescribing Initiative*	BlueCross BlueShield of North Carolina	www.rxnt.com 800-943-7968	BCBSNC is offering a one-time $1,000 incentive to network providers who want to participate in the e-prescribing initiative. To qualify for the incentive, providers must be registered with a certified e-prescribing vendor and must access medication history for a minimum of 20 patients in the fourth quarter of 2008.
Ohio *Cincinnati Ohio e-Prescribing Initatives*	Anthem Blue Cross and Blue Shield RxNT	800-442-1832 www.rxnt.com 800-943-7968	This e-prescribing pilot will equip 100 physicians in Dayton and Warren/Youngstown with computer equipment and free use of an online tool that provides instant access to current patient formulary information and medication history. Financial incentives for participating physicians are provided during the pilot. Incentives are also available to all physicians who e-prescribe and are eligible for Anthem's pay-for-performance programs in the above areas. Available to RxNT e-prescribers that are licensed to prescribe medications in Cincinnati, Ohio only.
Pennsylvania *Highmark e-Prescribing and eHealth Initiative*		412-544-7000	Highmark's e-Prescribing/eHealth Initiative, is contributing $29 million to help physicians acquire e-prescribing technology for their practices. Highmark will pay up to 75 percent of the cost for a physician's office to acquire, install and implement eligible e-prescribing systems, up to a maximum $7,000 per physician.
Rhode Island *Quality Counts*	BlueCross BlueShield of Rhode Island	800-204-0028	The BlueCross BlueShield of Rhode Island "Quality Counts" incentive program encourages physicians to prescribe electronically.
Tennessee *Shared Health ePrescribe*	BlueCross BlueShield of Tennessee	Fred Flint 423-535-8258	E-prescribing is currently available to all prescribing providers participating in the State's EHR initiative. Physicians receive the equipment, training and support for free.

APPENDIX III: ELECTRONIC PRESCRIBING ISSUES

Early adopters of e-prescribing have encountered technical and workflow issues. This table delineates those issues, explains why they may be happening and what you can do about it.

Issue	Why it happens and what to do about it
Multiple requests for renewal	Practices may receive phone calls from patients and pharmacies about the same renewal requests in addition to receiving electronic renewal requests and fax renewal requests. Part of this can be improved by educating patients to call the pharmacies rather than the practice for prescription renewals. It also helps to respond timely to electronic requests so the pharmacy does not call or fax in order to get a response when the patient is waiting for the prescription. Duplicate fax renewal requests may occur if the prescriber is not properly matched in the pharmacy system. If you receive fax renewals from pharmacies that are connected, log support cases with your vendor so they can work through SureScripts-RxHub and they in turn with the pharmacies to ensure the prescribers are fully matched in the pharmacy systems. This should lead to a reduction in fax renewals.
Pharmacies not checking their e-prescribing system	In some cases, pharmacies think that they have not received a prescription, thus requiring the patient to call the physician's office. When this occurs physicians became concerned that the e-prescribing system is not functioning correctly. Some practices became so concerned that they send duplicate prescriptions, one via e-prescribing and one via fax or hard copy, creating extra work on their part and confusion at the pharmacy. The confusion at the pharmacy can cause patients to prefer a paper prescription over an electronic one. This may occur if the pharmacy staff has to look in a different part of their computer system for an electronic prescription or go outside of their regular workflow to find and process an electronic prescription. To help with the situation, practices can educate their patients to remind the pharmacies to check their e-prescribing system. In recent years, many pharmacies have made improvements in their software so that e-prescribing is more integrated with the entire workflow. It is more obvious that an e-prescription has been received and no longer requires going to a different queue to check and requires minimal re-keying of information. Given the low volume of e-prescriptions at this time compared with the overall prescription volume, there still may be training issues in the pharmacy. If you experience instances where a patient shows up in their pharmacy and is told the prescription is not there, you should log a support case with your vendor, and they should pass the information to SureScripts-RxHub who will in turn provide the information to the pharmacies who will retrain the staff in the pharmacy. There is also a possibility that this occurs if there is confusion about which pharmacy the patient wanted to go to and which pharmacy the prescription was actually sent to, so pharmacy selection in the e-prescribing or EHR system is critical.

Issue	Why it happens and what to do about it
Pharmacies sending renewal requests in multiple manners, i.e., fax and e-Rx, causing confusion in the practice about which request to act on and lack of confidence that the system works	If the pharmacy is connected for e-prescribing, they should be sending renewal requests electronically. Automating renewal authorizations is a critical benefit of e-prescribing. Fax renewal requests may occur if the prescriber is not properly matched in the pharmacy system. If you receive fax renewals from pharmacies that are connected, log support cases with your vendor so they can work through SureScripts-RxHub and they in turn with pharmacies to ensure the prescribers are fully matched in the pharmacy systems. This should lead to a reduction in fax renewals and an improved e-prescribing experience. This is an easy problem to solve when the vendor, SureScripts-RxHub infrastructure, and pharmacies are made aware of the problem.
Patients refusing e-prescribing as a result of a bad experience or because they do not know which pharmacy they will use	You should always have the option to print prescriptions for patients who prefer paper over electronic. It is difficult to get trust and confidence back after there is a bad experience. Patient education is important, and the practice should help patients understand that e-prescribing is safer, more efficient, convenient, and reliable. They should also be encouraged to remember which pharmacy they typically use when they come in for an office visit and are likely to need a prescription.
Physicians questioning the advantage of e-prescribing over computer-generated faxing and feel it creates more work and potentially additional costs	The disadvantage of EHRs that generate fax prescriptions to the pharmacies is that typically you cannot automate the renewal authorization process, which is a time saver in the practice. Effective January 1, 2009, those computer generated fax prescriptions will no longer be in compliance with Medicare Part D. Depending on the size of the practice and the practice workflow and roles and responsibilities for medication management, some tasks such as documentation fall increasingly on the physician. Hopefully the practice has a strong enough belief that the EHR or e-prescribing technology will result in higher quality care, better and more accessible documentation, and an improved medication management process.

APPENDIX IV: ELECTRONIC PRESCRIBING STATEMENT OF PRINCIPLES

The Steering Group for the June 2008 report, "Electronic Prescribing: Becoming Mainstream Practice", suggests the following principles that represent consensus among diverse stakeholders. These principles should help guide ethical, technical, policy, and financial developments in this field, and stakeholders are encouraged to utilize them as they develop their strategic and tactical initiatives on electronic prescribing.

Principle 1:
We believe widespread adoption of e-prescribing can provide many benefits, including:

- Improved medication safety
- Enhanced practice efficiency
- Cost savings
- More effective medication management
- Increased patient adherence
- Improved integrity of the prescribing process

Principle 2:
All health care stakeholders should collaborate to encourage widespread adoption and optimal use of standards-based e-prescribing through:

- Appropriately aligned incentives to support effective use of the technology in diverse practice settings
- Collaborative development and delivery of innovative programs, education resources, training, and support
- Efficiencies in workflow for the physician and pharmacist in diverse practice settings;
- Connectivity and tools to facilitate medication reconciliation, formulary and medication history information, and transmission

Principle 3:
E-prescribing system design and/or the implementation of e-prescribing should:

- Enhance the patient-clinician relationship by providing more comprehensive clinical information at the point of care
- Preserve the patient's choice of pharmacy
- Facilitate the clinician's informed choice of medication
- Be part of an integrated plan toward full implementation of an electronic health record

Principle 4:
Both electronic health records (EHRs) and stand-alone e-prescribing may be utilized to realize the functionality and benefits of e-prescribing. Overall quality of care can be enhanced by implementation of e-prescribing that is integrated within an EHR.

Principle 5:
Consumer organizations, providers, pharmacists, payers, and educators should help patients understand and experience the benefits of e-prescribing. Informed patients will play an important role in the encouragement for providers and pharmacists to use e-prescribing.

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About the eHealth Initiative
The eHealth Initiative and its Foundation are independent, nonprofit affiliated organizations whose missions are the same: to drive improvements in the quality, safety, and efficiency of health care through information and information technology.

eHI engages multiple stakeholders, including clinicians, consumer and patient groups, employers, health plans, health care IT suppliers, hospitals and other providers, laboratories, pharmaceutical and medical device manufacturers, pharmacies, public health, and public sector agencies, as well as its growing coalition of more than 250 state, regional, and community-based collaboratives, to develop and drive the adoption of common principles, policies, and best practices for improving the quality, safety, and effectiveness of America's health care through information and information technology. For more information on the eHealth Initiative, go to http://www.ehealthinitiative.org.

About the Center for Improving Medication Management
The Center for Improving Medication Management serves as an industry resource by gathering and disseminating best and worst practices related to technology deployment for electronic medication management and for leveraging that technology and connectivity to test innovative approaches to improve patient adherence with prescribed medications. The Center was founded by American Academy of Family Physicians (AAFP), Blue Cross Blue Shield Association, Humana Inc., Intel Corporation, the Medical Group Management Association (MGMA), and SureScripts-RxHub. More information about The Center is available at http://www.theCIMM.org.

About the American Medical Association
The American Medical Association (AMA) helps doctors help patients by uniting physicians nationwide to work on the most important professional, public health and advocacy issues in medicine. Working together, the AMA's quarter of a million physician and medical student members are playing an active role in shaping the future of medicine. For more information on the AMA, please visit www.ama-assn.org.

About the American Academy of Family Physicians
The American Academy of Family Physicians is one of the largest national medical organizations, representing more than 94,000 family physicians, family medicine residents, and medical students nationwide. Founded in 1947, AAFP's mission has been to preserve and promote the science and art of family medicine and to ensure high-quality, cost-effective health care for patients of all ages.

About the American College of Physicians
The American College of Physicians (ACP) is a national organization of internists — physicians who specialize in the prevention, detection and treatment of illnesses in adults. ACP is the largest medical-specialty organization and second-largest physician group in the United States. Its membership of 126,000 includes internists, internal medicine subspecialists, and medical students, residents, and fellows. ACP's mission is to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine.

About the Medical Group Management Association
MGMA is the nation's principal voice for the medical group practice profession, with 21,500 members who lead and manage more than 13,500 organizations in which almost 270,000 practice. MGMA's mission is to continually improve the performance of medical group practice professionals and the organizations they represent.

Health information technology donations: A guide for physicians

Readiness survey inside

AMA
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Table of contents

Forward

Recent exceptions to the Physician's Self-Referral Law (Stark) and the Anti-Kickback Statute safe harbors create new opportunities for financing the transition to electronic health records (EHR) and electronic prescribing systems. Exceptions and safe harbors collectively may serve to alleviate the costly acquisition of HIT, but "donation" or subsidy agreements still raise many concerns for physician practices. The American Medical Association prepared this guide to assist physicians and practice administrators with their decision to accept a low cost donation of health information technology (HIT). While the Internal Revenue Service (IRS) views most of these arrangements as subsidies and not gifts, many people simply call them HIT donations. For convenience, the guide will do the same. Before accepting any HIT donation, physicians and practice administrators should know:

1. The consequences of accepting a donation and what to look for in a contract with the donating organization
2. The right questions to ask the donor and/or the system vendors
3. The readiness of the practice to successfully adopt HIT
4. The allowances included in the Stark law exceptions and the Anti-Kickback Statute safe harbors

Chapter 1: Donation risks and benefits

I. Making the regulatory environment more flexible

In an effort to reduce the cost barrier to adoption of HIT, the Department of Health and Human Services (HHS), through its Centers for Medicare & Medicaid Services (CMS) and Office of the Inspector General (OIG), simultaneously established rules creating exceptions to the Physician's Self-Referral Law (Stark) and new safe harbors to the Anti-Kickback Statute.[1] The new exceptions and safe harbors provide rules for allowable donations of electronic prescribing and EHR technology. Additional relief appeared in a May 11, 2007, Internal Revenue Service (IRS) memorandum focused on physicians with staff privileges at tax-exempt hospitals. The IRS directive said that technology subsidies provided to staff physicians are not impermissible private benefits or inurements, provided the HHS regulations are followed by the 501(c)(3) hospital and all recipients.

II. Accepting donated HIT

Although the exceptions and safe harbors became effective in October 2006, many stakeholders—primarily hospitals, health systems and physicians—have delayed engaging in donation agreements. However, the IRS directive has sparked more donation activity, because tax-exempt hospitals have been assured HIT subsidies will not be treated as impermissible private benefits or inurements in violation of 501(c)(3)—though the following issues require additional clarification by the IRS:

1. Whether the donations will result in taxable income to the group or individual physician (based on whether a C or S corporation) or a gain or loss only upon disposition. While admitting there are income tax implications for the physicians who are the beneficiaries of the discount, the IRS has not yet issued guidance, except for exempt hospitals. HIT donations are not traditional "gifts" given from the heart without consideration and relinquishment of dominion and control. The words "gift" and "donation" do not appear in the IRS directive; these arrangements, under the IRS directive, are called "Health IT subsidies." If property is acquired in part as a purchase and in part as a gift, the recipient's basis in the property should be determined at or before receipt. It is important to distinguish whether the recipient is the practice group or the individual physician because of the tax implications. Tax advisers should be consulted in advance, and the tax benefit or burden will vary considerably, depending upon whether the transfer document is a licensing agreement or a bill of sale.

2. Whether supplementary items or services may be donated and how the IRS will view them. For example, according to the exceptions and safe harbors, a donated EHR system may include an integrated practice management system (PMS) as part of the application (similar to an electronic prescribing component) as long as the primary purpose of the integrated application is to create, transmit and receive electronic records. Because the rules prohibit nonintegrated PMSs or other programs and services that may be used for personal or nonmedical purposes, it is likely that the IRS will treat PMSs separately from EHR donations, and PMS donations will not fall under the exception. In turn, most donors are concerned about violations and are more likely to subsidize the cost of the interface between the physician's current PMS and the donated EHR. Interface costs range between $4,000 and $15,000. It is worth noting that larger practices will likely have multiple interfaces to account for because each machine's software represents a different implementation.

3. Whether transfers within the exceptions and safe harbors for less than fair market value (FMV) result in an excess tax benefit transaction, among other reasons. Currently, the donating entity must define FMV and have physicians pay at least 15 percent. That 15 percent target rises as additional enhancements and contributions to the EHR software are made during installation and rollout. If the FMV is not increased and the recipient is not asked to

increase their cost share, then the donation or subsidy becomes too rich, and the safe harbor provisions are violated, creating tax consequences for both the donor and recipient.

III. Other contracting concerns

In addition to the missing IRS clarification, the exceptions and safe harbors raise other contracting concerns for physicians considering HIT donations. Physicians must understand how to address these issues in a donation scenario and how to negotiate fair arrangements with the donor.

1. Vendor options

Donors will typically provide only one EHR option for all potential recipients. In turn, if physicians want to implement HIT, it is necessary to consider all donation and non-donation options.

2. Financing

Donations come with costs. According to the rules, the mandated minimum cost sharing for physicians receiving an EHR donation is 15 percent. The donor, however, determines the value of the donation. Thus, it may prove difficult for physicians to determine the true value of the software for which they are paying. Physicians should find out whether they can deduct or expense the investment in the year paid, or if it must be depreciated or amortized over the useful life of the software. This depends, in part, on the tax status or corporate structure of the recipient. Clearly, donors may incur significant costs during the initial implementation of systems in their data centers (i.e., costs of servers and related equipment, maintenance and software). What is not clear is whether physicians will be paying for those costs and when the payments might be due.

Physicians must inquire in detail about how the donor's costs are determined and how they are valued. Because donations are commonly valued either at base cost or at FMV, physicians should make note whether certain components are charged at cost and some at FMV, and whether their adjusted basis can or should be increased.

While neither the exceptions nor the safe harbors specify methodologies that donors should use to calculate cost, the OIG and the CMS are clear that regardless of the method used to determine cost, that method must be "reasonable and verifiable" and supported by contemporaneous and accurate documentation, as must the recipient's expected contribution. Physicians should have access to the donor's cost allocation documentation and an opportunity, if desired, to have their accountant or other financial expert review them. Access to this information should help the physician understand up front his or her financial obligations relative to the donation and any possible tax consequences.

The IRS has yet to clarify whether the value of donated EHR or electronic prescribing systems needs to be reported on a Form 1099. In the absence of clarification, in their written donation agreements, hospitals are reserving the right to report the cost on the Form 1099 in case the IRS makes it a reporting a requirement. Physicians should therefore be cognizant that they may be required to pay tax on the donation.

3. Implementation

When accepting a donation, physicians must consider interoperability (i.e., the software's capability to communicate and exchange data), data conversion and transmission, and training. Although there is an HHS-appointed organization, the Certification Commission for Healthcare Information Technology or CCHIT, charged with certifying EHR systems, interoperability issues are still a concern in every HIT acquisition. Physicians need to know that the donated software and hardware in electronic prescribing donations will interface or "talk to" their current PMS system. In many HIT donation agreements, donors are subsidizing the cost of the interface, which range between $4,000 and $15,000. If this is not the case, the practice must incur the cost of writing the interface(s), or they may install a new PMS, requiring additional cost and data migration.

Physicians must also consider whether the donated HIT arrangement will allow them to transport data from their office to pharmacies, other care providers, pay for performance administrators and other entities.

Lastly, training services may be included in donation packages. Physicians should know exactly who is conducting the training and how much is included in the agreement. This is one area where vendors may be able to offer more support than a donor. While a successful implementation is important to the donor, they often have limitations on the training services they can afford to support or staff. Vendor training packages often include multiple days, if not weeks, of training, so physicians should pay particular attention to the offered training services when considering the donation.

4. Maintenance

Ongoing training and support services and upgrades are essential to successful HIT maintenance. Without adequate training and ongoing support, HIT can be frustrating and may lead to deinstallation, costing physician practices additional time and money. Maintenance services such as software upgrades, new features, product offerings and customer service must be available to keep systems operating effectively. Donation agreements should explain how and when the recipient would receive the upgrades and other offerings. Upgrades included as part of the initial purchase price of technology do not trigger additional cost-sharing obligations by the recipient, but *any* upgrade not covered under the initial purchase price for the donated technology would be subject to separate cost-sharing obligations by the physician. In any case, donated upgrades must fulfill the "necessary" requirement, meaning they have to make the software more current or user friendly. The exceptions and safe harbors, therefore, do not apply if the physician already possesses equivalent software or services.

5. Termination

Physicians need to know their rights with respect to termination of contracts/agreements associated with donated HIT systems. They should be aware of the instances where termination is permissible or required on their behalf and the donor's. If they do not have a property interest in the EHR that survives termination, that has an impact on the accounting and tax treatment of the software and should be determined upfront, not just before a departure. More importantly, physicians should inquire about and understand their rights to their records after termination.

6. Data access

Data access concerns can be categorized in two ways: 1) offsite data storage and 2) data sharing. First, physicians who enter a donation agreement may choose or be required to forgo maintaining their own data in-house, depending on the donation business model. Donations will likely be either donor-supported application service provider (ASP)[2] models, where the hospital provides specialty automation services or access under a service contract with the physician practice, or donor-supported non-ASP models, where the hardware, software, installation and support are provided based on fees determined in a collaborative agreement. Regardless of the model, according to the IRS memorandum, donors must have some access to the recipient's data. Physicians, therefore, must carefully clarify all data access rights in the arrangement with the donor.

7. Obsolescence

With an evolving HIT market, obsolescence is a concern. As technology develops and new regulations and possible health plan and governmental HIT mandates pass, there is no fail-safe way to prevent obsolescence. Physicians can only make the best decision for their practice at the time. Donors, however, can and do negotiate obsolescence clauses with their vendors. In the contracts, they plan for buyouts and other instances where obsolescence would be an issue. For example, donors can require vendors to convert their data to a new platform, to pay a set fee, or to allow the donor to continue running the system for a set time. Physicians who have concerns about a prospective vendor should conduct their own research—asking for financial statements, reading industry reviews and inquiring about product upgrade plans.

IV. Conclusion

Although the regulations permitting HIT donations provide opportunities for HIT adoption, physicians should proceed with caution—just as they would in buying any information technology outright. A good starting point is to know what key questions to ask and to complete a readiness assessment. Physicians who study their practice needs, research options from donors and vendors, and seek legal counsel (if possible) will experience a more successful implementation.

There is no question that HIT is transforming health care and the physician office. As more improved products enter the market at reduced cost and more subsidizing programs, such as pay for performance, or more health plan or employer-sponsored initiatives appear, more physicians will enter the HIT community, lending to the larger goal of a national health information network. Until then, physician practices should be mindful of the right time to make the transition to HIT. When the time is right for the practice, IT will be a resource to enhance the efficiency, quality and efficacy of care.

More information about the covered items and services in the Stark law exceptions and the Anti-Kickback Statute safe harbors is included in the next chapter.

Chapter 2: Regulatory compliance

I. The Stark law and Anti-Kickback Statute

In order to understand the exceptions and safe harbors, one must understand what the Stark law and the Anti-Kickback Statute prohibit, and how these statutes differ from one another.

The Stark statute prohibits a physician from referring Medicare patients for specific designated health services (DHSs) to entities with which the physician (or an immediate family member of the physician) has a financial relationship, unless an exception applies. A financial relationship includes any arrangement involving any remuneration between a physician (or an immediate family member of such physician) and an entity providing designated health services. Remuneration can include anything of value, in kind or in cash.

The Anti-Kickback Statute prohibits the knowing or willful solicitation or acceptance of any type of remuneration to induce referrals for health services that are reimbursable by the federal government. While these prohibitions originally were limited to services reimbursed by the Medicare or Medicaid programs, the Anti-Kickback Statute has been extended to apply to most federal health care programs. Remuneration includes anything of value, in kind or in cash.

Exceptions and safe harbors

Although the Stark and Anti-Kickback statutes are worded broadly, they also describe a number of circumstances in which the statutes do not prohibit conduct that otherwise would violate the statutes. The Stark statute and regulations refer to these exempt circumstances as "exceptions," and the Anti-Kickback Statute and its regulations use the term "safe harbors."

Penalties under the statutes

The Stark statute is a civil statute, so the statute does not subject violators to the threat of imprisonment. Violations, however, could result in denial of payment for the prohibited referral, refunding of payments, monetary penalties ranging from $15,000 to $100,000 and exclusion from federal program participation.

Because the Anti-Kickback Statute is a criminal statute, violations constitute felonies, with criminal penalties of up to $25,000 in fines and five years imprisonment. In addition, a person who violates the Anti-Kickback Statute can be subject to civil penalties of up to $50,000 in fines and exclusion from federal program participation.

Strict liability versus intent

One other key difference between the Stark law and the Anti-Kickback Statute has to do with the role a person's state of mind plays in determining violations. For example, if a physician makes a referral prohibited by the Stark statute (and an exception does not apply) that physician has violated the statute. For purposes of the violation, it makes no difference whether or not the physician knew the referral was prohibited. In this sense, the Stark statute is referred to as a "strict liability" statute, because violations do not depend on the physician's knowledge or state of mind. If a physician makes a referral prohibited under the Stark statutes general language, the physician will be subject to Stark penalties *unless* the referral fits into one of the Stark statute exceptions.

The Anti-Kickback Statute is an intent-based statute. This means that even if a person violates the Anti-Kickback Statute only if the person acts "knowingly and willingly." For example, a person might accept remuneration to induce referrals for federally reimbursable health services and not violate the Anti-Kickback Statute if they did not act knowingly and willingly. This intent requirement makes the Anti-Kickback Statute's safe harbor clause apply differently than the Stark statute's exceptions. The safe harbors describe circumstances in which conduct that otherwise might violate

the statute will not be subject to prosecution. However, conduct not falling under one of the safe harbors is also not necessarily an Anti-Kickback Statute violation. The government determines whether to prosecute conduct falling outside of the safe harbors on a case-by-case basis. Generally, however, FMV arrangements that are arm's-length and do not take into account in any manner the volume or value of federal health care program business, or arrangements that do not have as one purpose the generation of business payable by a federal health care program, should not raise concerns under the Anti-Kickback Statute. Fitting into a safe harbor is important, however, because doing so provides a sense of security that arrangements outside the safe harbors lack.

II. Recent Stark exceptions and Anti-Kickback safe harbors

Prior to August 2006, the Stark and Anti-Kickback statutes would have in some circumstances posed a barrier to physicians' adoption of HIT, even if the adoptions came via donation from hospitals and other potential HIT donors. More specifically, because donated HIT could constitute remuneration to the physician by the donor, such a donation could trigger a Stark law violation given the absence of a Stark HIT exception. An HIT donation could also lead to possible liability exposure under the Anti-Kickback Statute due to lack of a safe harbor. In order to lessen this barrier, the CMS created the Stark statute exceptions, and the OIG added its safe harbors to the Anti-Kickback Statute to protect donations of EHR and electronic prescribing technology in some situations.

The following table and subsequent information detail and compare the new Stark law exceptions and Anti-Kickback Statute safe harbors. It is important to keep in mind that although the exceptions and safe harbors provide protection under the federal Stark and Anti-Kickback statutes, a number of states have physician self-referral prohibitions and anti-kickback statutes. Consequently, prior to accepting HIT donations, physicians should consult with legal counsel to ensure that the donation also complies with any applicable state laws.

Stark law exception and Anti-Kickback Statute safe harbor structure

Features	Electronic prescribing (e-prescribing)	Electronic health records (EHRs)
Authority	Medicare Prescription Drug, Improvement and Modernization Act of 2003 §101	Social Security Act §1128B(b)(3)(E) and 1877(b)(4)
Covered technology	Hardware, software and information technology and training services necessary and **used solely** to transmit and receive electronic prescription information. This includes wireless and broadband connectivity and interfaces.	Software, information technology and training services necessary and used predominantly to create, maintain, transmit or receive EHRs. Hardware is excluded. Software must include an e-prescribing component. Practice management functionality (e.g., software to assist with patient administration, scheduling, billing, clinical support) may be permitted as long as it is interoperable, is **used predominantly** for health records, and meets other EHR rules.
Compliance standards	Must comply with final standards for e-prescribing as adopted by the Department of Health and Human Services (HHS) at the time the items and services are provided. Must be part of, or used to access, an electronic prescription drug program that meets applicable standards under Medicare Part D.	Software must be certified interoperable. Software is deemed interoperable if it has an up-to-date certification (by the Certification Commission for Healthcare Information Technology or CCHIT) at the time of the donation. e-prescribing component must comply with final standards for e-prescribing as adopted by HHS at the time the items and services are provided.

Permissible donors and recipients	**Stark exception** Hospitals may donate to physicians who are members of its medical staff. Group practices may donate to physicians who are prescribing members of the group. Prescription Drug Program (PDP) sponsors or Medicare Advantage (MA) organizations may donate to prescribing health care professionals. Anti-Kickback safe harbor Hospitals may donate to physicians who are members of its medical staff. Group practices may donate to prescribing physicians who are members of the group. PDP sponsors and MA organizations may donate to network pharmacists and pharmacies, and to prescribing health care professionals.	**Stark exception** Any entity that provides designated health services (DHSs) may donate to any physician. **Anti-Kickback safe harbor** Entities or individuals that provide services and submit claims or requests, either directly or through reassignment, to a federal health care program, or a health plan may donate to individuals or entities engaged in the delivery of health care (notable exclusions: pharmaceutical, device, or durable medical equipment manufacturers and other manufacturers or vendors that indirectly supply or furnish items or services used in the care of patients).
Selection of recipients	Donors may not select recipients using any method that takes into account the volume or value of referrals from the recipient or other business generated between the parties.	Donors may not select recipients using any method that takes into account directly the volume or value of referrals from the recipient or other business generated between the parties.
Costs	No limit on value of donations of e-prescribing technology.	No limit on value of donation; however, physicians must pay at least 15 percent of donor costs. Documentation of cost to donor and physician's contribution is required and must be specific. Donor (or any affiliate) must not finance the recipients payment or loan funds.
Expiration of safe harbor	None.	Sunsets Dec. 31, 2013.

The exceptions and safe harbors allow for the donation of both EHR and e-prescribing technology. However, there are important differences:

1. The electronic prescribing rules allow for the donation of equipment (or hardware); the EHR rules *do not*. The EHR rules only permit the donation of software and information technology and training services related to creation, maintenance, transmission and receipt of EHR information. Examples include interface and translation software; rights, licenses and intellectual property related to EHR software; connectivity services, including software to facilitate broadband and wireless Internet services; clinical support and information services related to patient care; maintenance services; secure messaging; patient portal software and access to help desk services. The EHR rules do not protect the donation of hardware of any kind (i.e., hardware—and operating software that makes the hardware function; network hardware, such as modems and routers; storage devices; or items or services used by a recipient primarily to conduct personal business or business unrelated to the recipient's clinical practice or clinical operations).

2. The electronic prescribing rules permit donation of technology solely to transmit and receive electronic prescription information. The EHR rules permit the inclusion of multifunctional software and services, provided the predominant use of the donated software and information technology and training services are for EHR purposes, meaning the creation, maintenance, transmittal or receipt of electronic health records.

3. The electronic prescribing rules allow for a more limited list of eligible donors and recipients. The EHR rules permit donation by a broader range of donors to a broader range of recipients.

4. The electronic prescribing rules do not require cost sharing by recipients; EHR rules mandate at least 15 percent cost sharing, though a donor may request or insist on more.

III. Conditions of compliance

While the information in the table above explains electronic prescribing and EHR donation procedures, the CMS and the OIG have also put necessary conditions in place to ensure compliance with the new rules. Due to the complexity of the statutes, physicians should carefully note the following conditions before accepting an HIT donation.

Electronic prescribing

- The donated items and services must be part of, or used to access, an electronic prescribing drug program that meets the applicable standards under Medicare Part D.

- A donor cannot restrict or limit the ability of physicians to use technology for any patient, regardless of payer status.

- The recipient's eligibility for (and the amount or nature of) the donation must not be determined in a way that takes into account the volume or value of referrals or business generated between parties.

- The arrangement must be set forth in a written agreement signed by both parties.

- Donations must not replicate technology the physician already possesses. Protected upgrades and equipment or software include those that significantly enhance the functionality of the item or service are protected under the new rules.

EHR

The following conditions, in addition to the aforementioned electronic prescribing conditions, apply to EHR donations.

- The software must be CCHIT-certified interoperable at the time it is provided. At the time of donation, the software must be able to (1) communicate and exchange data accurately, effectively, securely and consistently with different information technology systems, software applications and networks, in various settings, and

(2) exchange data such that the clinical or operational purpose and meaning of the data are preserved and unaltered.

- The donor must not limit or restrict the use, compatibility or interoperability of the terms or services with other electronic prescribing or EHR systems.

- The EHR software must include electronic prescribing capability that meets the Medicare Drug Benefit Standards at the time it is provided.

- Before receipt of items and services, the recipient must pay at least 15 percent of the donor's costs.

- The donor must not shift the cost of the items or services to any federal health care program.

- The transfer of items and/or services must occur on or before Dec. 31, 2013.

Chapter 3: Preparing for a donation

I. Donation agreement questions

Although the Stark law exceptions and the Anti-Kickback Statute safe harbors enable adoption of electronic prescribing and EHR technology through donations, there are still many things to consider before accepting donated technology. Because of the complex legal environment, potential donation arrangements require additional scrutiny.

Begin by asking yourself and the donor key questions.

Readiness

- Does the vendor system have appropriate functionality for your practice? Will the new software impose limitations not currently present in your practice? If so, are these changes good? Are they manageable?

- How will the new software and technology interface with key systems you use regularly? If the interfacing capability is not there, what are the future consequences for your practice?

- What is the vendor's track record in providing HIT services to physician practices?

Cost

- Are all of your costs well understood and documented? Will fees be raised over the term of the contract/agreement? Are there significant costs beyond the mandated 15 percent? What are the upgrades and maintenance costs?

Implementation

- How will your data be transferred or converted to the new system(s)? What protections are required, or should you implement beforehand, to preserve your data?

- Will you lose certain aspects of your data in the transfer?

- Who will be responsible for training you on the new technology? How much training is included? Will you be able to consult with these parties when future problems arise?

- Will you have the opportunity to test the donated software? How long is the testing period?

Termination/maintenance

- According to the donation agreement, who is provided access to your data? How will you maintain your data if the contractual relationship is terminated? What are your rights with regard to termination of the contract/agreement?

- Will upgrades, customer service and new quality services be available to you when they arrive? How will these developments be communicated to you?

- What are the security measures and protocol followed by the donor? What security features are unique to the donated software? Where will the data reside?

II. Readiness assessment and survey

The process of evaluating, selecting and implementing an EHR system is a significant undertaking. To determine whether a practice is ready to implement any HIT, physicians must understand the entire operation of the practice. This includes knowing how willing and able the practice is to adopt HIT. Documenting certain personnel perceptions and characteristics will determine whether the practice is positioned to succeed in implementing and maximizing the benefit of an EHR system. Physician practices considering the transition to HIT should complete a survey like the one included here or a similar form of readiness assessment prior to any HIT acquisition. The scores will determine whether a practice is ready to move on to more advanced planning activities such as analyzing workflow and costs and quantifying potential return on investment.

Health information technology readiness survey[3]

This survey is intended to assess the readiness of your practice to successfully implement health information technology (HIT) and the readiness of personnel to accept and productively use it. Your responses will help you determine the present state of technology adoption, prerequisites for change, potential barriers, user needs, time-sensitive factors and appropriate action steps.

The following questions relate to critical success factors and potential barriers to the implementation and use of clinical information systems and other HIT. Please indicate the degree to which you agree with each statement from the perspective of your practice as a whole.

	Statement ***(please circle one response for each)***	**Strongly disagree**	**Somewhat disagree**	**Neutral**	**Somewhat agree**	**Strongly agree**
1.	Most physicians and clinical staff in your practice believe that there is an urgent need to improve health care through clinical computing and HIT.	SD	D	N	A	SA
2.	Most physicians and clinical staff in your practice see electronic health record (EHR) systems as critically important to their future success.	SD	D	N	A	SA
3.	Most physicians and clinical staff in your practice are willing to put forth the extra time and effort required to learn how to use an EHR system.	SD	D	N	A	SA
4.	Physicians in your practice will regularly use an EHR or other automated system to retrieve patient information.	SD	D	N	A	SA
5.	Physicians in your practice will regularly use an electronic health record system to document patient care during clinical encounters.	SD	D	N	A	SA
6.	The executive leadership of your practice is visionary and supportive of efforts to improve health care through clinical computing and HIT.	SD	D	N	A	SA
7.	Your practice has a guiding coalition of influential leaders committed to successful implementation and continued use of HIT.	SD	D	N	A	SA
8.	Formal and informal leaders in your practice are willing and able to serve as HIT champions, pushing or pulling as needed during various times of success or failure to promote use of clinical information systems.	SD	D	N	A	SA
9.	Your practice has a clear plan for how it will use HIT to meet its overall practice goals, with strong executive support.	SD	D	N	A	SA

	Statement *(please circle one response for each)*	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
10.	Leaders and managers in your practice believe that continuing efforts to advance organizational culture will be required for effective clinician use of HIT.	SD	D	N	A	SA
11.	Your practice has a strong track record of successfully implementing information technology for use in clinical care.	SD	D	N	A	SA
12.	In your practice, physicians and staff trust each other, work well together in teams, and are willing to be accountable for using HIT to improve patient care.	SD	D	N	A	SA
13.	Physicians and clinical staff in your practice are willing to change how they work if needed to improve patient care.	SD	D	N	A	SA
14.	Your practice will provide meaningful incentives to reward appropriate clinician use of HIT.	SD	D	N	A	SA
15.	Your practice will set clear expectations for use of EHR systems and other HIT.	SD	D	N	A	SA
16.	Your practice has the necessary technology, training, and support resources needed to implement new clinical information systems.	SD	D	N	A	SA
17.	Leadership in your practice ensures that important processes and outcomes are regularly measured, with information communicated to physicians and clinical staff in a timely manner.	SD	D	N	A	SA
18.	HIT vendors doing business with your practice consistently provide functional, sustainable products and timely, high-quality support services.	SD	D	N	A	SA
19.	IT professionals in your practice effectively adapt software to support appropriate clinical workflows.	SD	D	N	A	SA
20.	People who will be using new computer information systems in your practice have a realistic understanding of what the systems are capable of doing.	SD	D	N	A	SA
21.	Your practice has an effective mechanism in place to ensure that people who will be using the new computer information systems have meaningful roles in deliberations, decision-making and communications regarding clinical information system planning, selection, implementation and modification.	SD	D	N	A	SA
22.	Your practice has an effective mechanism in place to ensure that comments and concerns shared by people who will be using new clinical information systems are received, acknowledged and responded to in a timely manner.	SD	D	N	A	SA

Readiness scale

Response	Numeric score
SA	5
A	4
N	3
D	2
SD	1

Maximum score = # of items x 5 = 22 x 5 = **110 points**

Estimated† overall readiness*	Not ready	Probably not ready	Possibly ready	Probably ready	Ready
Average total score	0–76	77–87	78–88	89–99	100–110
Percent of single item scores <3	≥20	15–19	10–14	5–9	≤5

† Draft estimate—not yet empirically tested.

* Overall readiness is determined by the lowest readiness classification in any category.

Examples:

- Average total score = 94
  - Percent single item scores <3 = 7% —> **Probably ready**
  - Percent single item scores <3 = 12% —> **Possibly ready**
  - Percent single item scores <3 = 17% —> **Probably not ready**
- Percent single item scores <3 = 2%
  - Average total score = 104 —> **Ready**
  - Average total score = 94 —> **Probably ready**
  - Average total score = 84 —> **Possibly ready**

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[1] 71 Fed. Reg. 45109-45171 (Aug. 8, 2006).

[2] A company that contracts with a health plan and/or physician practice to supply software-related services over the Internet via a browser. In this case, a donor hospital or health plan may serve as the ASP.

[3] Prepared by Michael H. Zaroukian, MD, PhD