

# Digital Tools Can Enhance Flow of Information

**R**eady or not, like it or not, more and more aspects of medical practice are going digital. From on-line appointment scheduling to electronic medical records, a growing number of practice management functions can be accomplished by computer. But widespread adoption of these technologies has been slow for most medical practices. The major reason is probably cost, but there have also been concerns about how technology can affect physician-patient communication.

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According to a 2005 survey by the Medical Group Management Association (MGMA), 14 percent of practices nationwide use an electronic medical record (EMR). Large groups are more likely than smaller groups to adopt the technology, MGMA says. The survey found that 41.8 percent of groups have no plans to adopt an EMR system. Among those with no immediate plans for implementation, MGMA says, the difference between large and small groups is striking—47.8 percent of practices with five or fewer full-time physicians compared with only 20.7 percent

of practices with 21 or more physicians.

While the vast majority of physicians still rely on paper records, there is evidence that this may change soon.

“We’re at an inflection point,” says Dr. Allen Wenner, a family physician in private practice in Lexington, S.C., and co-founder of Primetime Medical Software. He points out that the percentage of practices using EMRs rose from 7 percent to 14 percent in just 18 months. In groups of 50 or more physicians, he says, it is estimated that more than 50 percent will be going to EMRs in the near future.

And while there are legitimate concerns about how technology will affect physician-patient relationships, Dr. Wenner and others think that there are more advantages than disadvantages— if properly implemented.

In fact, Dr. Wenner goes so far as to say that NOT going digital is more of a threat to the physician-patient relationship. “Patients are getting frustrated with the doctor’s workflow,” he says. Patients see long wait times, missing records, dropped communications, telephone tag as barriers between them and the thing they want most: time with their physician. “People say, ‘I love my doctor, but I hate his work environment,’” Dr. Wenner

### **EHRs Feature ‘Important’ Benefits**

A 2005 survey by the Medical Group Management Association (MGMA) Center for Research and the University of Minnesota School of Public Health assessed the current level of adoption of electronic health records (EHR) by U.S. medical group practices. Respondents ranked the following benefits to the practice of having an EHR as being important or extremely important:

- Improved access to medical record information
- Improved work flow
- Improved patient communications
- Improved accuracy for coding evaluation and management services
- Improved drug refill capabilities
- Reduced medication errors
- Improved charge capture
- Improved clinical decision making
- Improved claim submission process

continues. “Studies show that 20 percent of the population may change doctors in order to have these systems.” In fact, he predicts that practices that don’t go digital could become “second-tier” practices that have trouble attracting patients.

A 2005 Wall Street Journal Online/Harris Interactive Health Care Poll reveals strong patient support for new medical-office technologies. For example, 81 percent of survey respondents favored the use of e-mail for direct communication between physicians and patients. Some 78 percent favored the use of electronic medical records and digital imaging equipment by their doctors, and 75 percent approved of their physicians using personal digital devices to record information.

Dr. Joseph Kvedar, a dermatologist with Partners Healthcare in Boston, also sees advantages to digital communications with patients. With digital communications, he says, patients feel more connected to their physicians. Patient safety and quality of care also improve, which leads to greater patient satisfaction.

A recent study by Dr. John Hsu, of Kaiser Permanente’s Division of Research in Oakland, Calif., bears this out. According to the study, published in the June 6, 2005, issue of the Journal of the American Medical Informatics Association, overall patient satisfaction, communication about medical issues and patient understanding about their condition all improved after the introduction of computers in the exam room. Patients felt that their doctors were more familiar with their personal medical history and their lives.

“When a physician is familiar with computers, and uses the technology to share information with patients, the doctor-patient relationship improves in many ways,” says Dr. Hsu. “Patients feel more involved, understand their diagnoses better, and are happier with their care.”

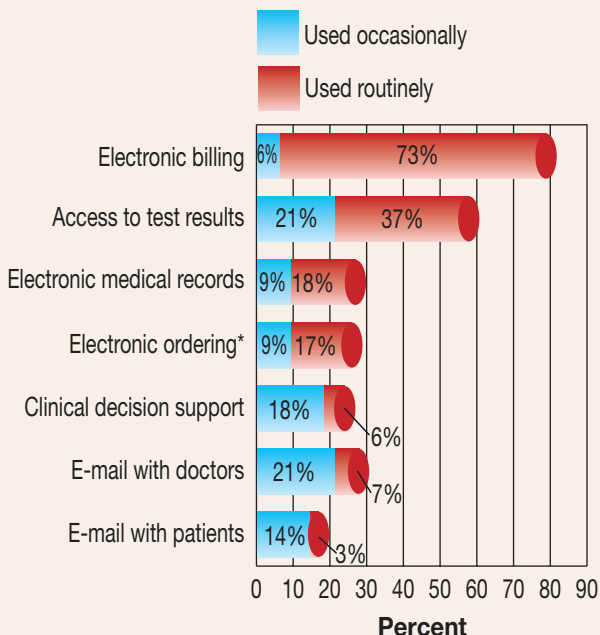
But a computer alone cannot transform a poor communicator

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into a great one. Dr. Frankel says that he recently studied how the introduction of exam-room computers affected the communication skills of a group of physicians in Portland, Ore. He found that the computers accentuated the skill level of the physician. Those who were having trouble communicating before the introduction of computers had even more troubles once they were dealing with the patient and a computer in the exam room. However, those who were already good communicators just got better because they were able to use the computer as a patient-

## Use of Information Technologies

Percent indicating routine or occasional use



\*Electronic ordering of tests, procedures or drugs

Source: *The Commonwealth Fund National Survey of Physicians and Quality of Care, 2003*

education tool.

Dr. Kvedar also foresees bumps in the road: “A computer [can be] another interface, another thing to distract from patient care,” he says. “Some patients don’t have access to the Internet, and they’ll be at a disadvantage. There’s a subset of patients who find the Web sterile and off-putting.”

But he sees more reasons to push forward than to hold back. “Technology has the potential to reach out and empower patients and to be more efficient. This is going to be even more important in the coming years as the demand for healthcare services increases,” he says.

William Smith, Ed.D., executive vice president of the Academy of Educational Development and an expert on health literacy, also sees technology as the answer to many of today’s communications and practice challenges. “The big advance we need is electronic medicine,” he says. “I’m so tired of going into the doctor and giving them my name and address and all the diseases I’ve had. It should all be on a swipe card. We’re way behind electronically in medicine.”

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## Electronic Records: Communications Tool

Physicians often think of the medical record as their own “notes to self,” jotting down information in cryptic abbreviations that only they—and maybe their staff—can understand. Those abbreviations and scribbles are then used to jog the memory while dictating fuller notes after the patient visit. But to be a communications tool, the electronic medical record needs to be a shared resource that all members of the healthcare team can use right away—including the patient. “Good communicators think of the EMR as a shared resource and use it as a teaching tool,” says Dr. Frankel.

In order to do this, the first priority is to make sure that the computer doesn’t come between physician and patient—literally

and figuratively.

“Nobody thinks of the patient interview in terms of the physical plant,” complains Dr. Wenner. “One practice put in an EMR in the exam room and patient satisfaction went down and revenues decreased. The critical mistake they made was that they placed the computer based on the electric plug rather than the patient interview.”

### On-line Health Records Offered

After Hurricane Katrina displaced more than 100,000 people and closed down hospitals and medical practices in the New Orleans area, pundits, physicians and politicians saw a real need for electronic medical records—especially swipe cards and on-line records—that can ensure that medical records are available 24 hours a day/7 days a week from anywhere in the world.

iHealthRecord.org is a partnership between the American Medical Association and Medem, a health information company based in San Francisco. This service offers patients a free on-line health record through their doctor's Website or through the organization's Website. The record can be updated by patients, physicians or other healthcare providers with password access. The service also includes on-line reminders and notification of medication recalls, secure messaging between physicians and patients as well as access to patient-education materials.

Even if their doctors or health plans don't participate in iHealthRecord.org, patients can take matters into their own hands. iHealthRecord lets patients set up their own personal health record on-line. Others that offer similar services for a fee include:

■ **WebMD Health Manager.** A feature of the popular Website WebMD.com, Health Manager (<https://healthmanager.webmd.com>) offers an on-line health record plus interactive health assessments and programs to help attain a healthy lifestyle (weight loss, smoking cessation, etc.). The service costs \$29.95 a year.

■ **HealtheTracks.com.** Started by a pair of Colorado-based mothers, this site ([www.healthetracks.com](http://www.healthetracks.com)) lets parents track their family medical history with an on-line health record. Although intended to be a parents' record rather than an official medical record, the information included in the on-line record can be invaluable when seeking medical care away from home. Cost is \$24.95 a year.

Dr. Wenner recommends a triangle formation—where the physician sits with the computer mouse on one side and the patient on the other. That way he or she can easily turn to face the patient, and the patient can easily see what is on the screen. Some physicians use a flat screen on a moveable arm so that they can position it for easy viewing.

This is especially important when looking at test results. Dr. Frankel recommends that patient and physician sit shoulder to shoulder, so that they can look at the data together. It can help to use a pen or other pointer to focus the patient's attention on the pertinent information.

Some physicians use laptops and tablet computers, which can also be easily moved. But Dr. Wenner warns that actually

using the laptops or tablet on the physician's lap puts a formidable barrier between him and his patient. (In fact, he says, tablet computers, which input data via electronic pens that capture handwriting as text, may not be flexible enough for the subjective information that a physician collects during a patient interview. "That's too variable to do without a keyboard," Dr. Wenner says.)

Even with the optimal setup, computers can still be a barrier to communication if the physician doesn't know his or her way around the software and hardware. Getting training beforehand, practicing with staff members and learning to type can help the physician focus on the patient rather than the computer during an interview.

Physicians need to be aware that starting to type while the patient is talking can be interpreted as an interruption. Dr. Frankel suggests that physicians take the first two minutes of the interview to listen to the patient's concerns. Once the patient is done stating concerns—answering the final "And what else?" with "I think that's it, doc."—then the physician can repeat those concerns as he or she types them into the computer.

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At MaineGeneral in the Kennebec Valley, physicians who don't type have a nurse present as a scribe. That costs money, says Dr. Wenner, but it's preferable to having a physician hunt and peck instead of listening to the patient. Even for good typists, he recommends using macros (combinations of keystrokes) for frequently used phrases to minimize keyboarding during the interview.

"I used to have patients offer to type it in for me," says Dr. Wenner, admitting that he's a terrible typist himself.

Actually, his patients enter much of their medical history themselves—on-line from home or on a computer in a "pre-exam room" before seeing the doctor. For patients who are unable to type or use a computer, a medical assistant is available to help.

Although some worry about the quality of the data collected in this manner, Dr. Wenner finds that he actually gets more information when the patients fill in the chart themselves. His claim

### Exam-Room Computers Offer Advantages

There are several benefits to having computers in exam rooms, according to Dr. Allen Wenner, a family physician in Lexington, S.C., and co-founder of Primetime Medical Software, and other experts:

- **Better work flow.** Once the patient is gone, the record is done. No more dictating or typing in the office afterwards. Although using an EMR in the exam room adds about four minutes to the clinical interview, it saves at least that many minutes of dictation afterwards.
- **More complete medical record.** More information means more accurate diagnosis. More information can also mean greater reimbursement because it is easier to document a higher-level visit.
- **More informed prescribing.** Once the information is in the computer, it's easy to check for possible contraindications (i.e., allergies, co-existing conditions or patient's age and weight), drug interactions or interactions with over-the-counter products and dietary supplements. The physician can even check whether the medication is covered by the patient's insurance plan, reducing the chance of a delay in getting the prescription filled.
- **Easier to follow up.** The EMR system can generate appropriate patient reminders for follow-up appointments, health screenings and prescription refills—all elements of patient-centered care.

is backed up by Dr. John Bachman in a review of medical interview technology published in Mayo Clinic Proceedings in 2003.

Dr. Bachman, a family physician at the Mayo Clinic in Rochester, Minn., found that although not perfect, a patient-generated history has several communication advantages over the physician-generated one:

- The computer doesn't interrupt the patient, and it doesn't forget to ask questions. Studies have found that patient-computer interviews generated 35 to 56 percent more information than clinician interviews.

- The patients set the pace and have time to think about answers. They can review answers and correct information if necessary. They can also use the questionnaire to better pre-

pare for any questions the physician may ask during the face-to-face interview. They can also formulate their own follow-up questions.

- Patients may find it easier to answer sensitive questions on a computer rather than face to face. They may be more likely to "confide" to a computer about thoughts of suicide, alcohol use, psychiatric history, sexual behavior and drug use. One study found that women were more likely to report battering to a computer than during a traditional interview.

- Computers can provide questions in various languages and grade levels so that patients of different backgrounds and literacy levels can complete the questionnaire.

- It is easier to track and analyze data that is provided in a consistent format.

But by far the biggest advantage, says Dr. Wenner, is that when most of the history is already recorded before the patient walks into the exam room, the physician can focus on the patient. "Then the doctor spends quality time with the patient," he says. Since all the basic information is already in the computer, Dr. Wenner simply adds the more "subjective" observations and other details

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that add “color” to the objective information.

Whether the physician, the patient or a scribe enters the information, the goal is to have a fairly complete history and a set of office notes by the time your patient leaves. Then you can hand the document to the patient to take home.

**When using an EMR, the goal is to have a fairly complete history and a set of office notes by the time your patient leaves. Then you can hand the document to the patient to take home. “It improves compliance, improves patient satisfaction, improves family and patient communication,” says Dr. Allen Wenner, a family physician and co-founder of Primetime Medical Software.**

“It improves compliance, improves patient satisfaction, improves family and patient communication,” says Dr. Wenner. It also reduces errors. Potential medication interactions can be checked before the patient leaves to fill the prescription. Also, if the patient notices inaccuracies, he or she can ask to have them corrected. Dr. Wenner believes that this process can reduce medical malpractice claims because the patient

becomes more of a partner in the care.

A pilot project with allergy patients in Boston is taking the EMR process one step farther, giving patients on-line access to the chart and allowing them to review the record and suggest changes. The patient then shares responsibility for the health record and for his or her own health.

## E-mail Dialogues

While much business is now conducted by e-mail, medical practices have been slow to pick up on this trend. But when they do, the results are often happier patients, physicians and staff.

“E-mail opens a dialogue,” says Dr. Kvedar. “It takes the pressure off the patient to remember everything at the office visit.”

It can also take some pressure off the doctor and office staff. E-mail allows all parties to “time shift,” asking and answering questions on their own schedules. From the doctor’s point of view, “an e-mail inbox is easier to go through than a stack of phone messages at the end of the day,” says Dr. Kvedar. Returning phone messages, he finds “that people aren’t home; numbers are written down incorrectly, messages are misplaced.”

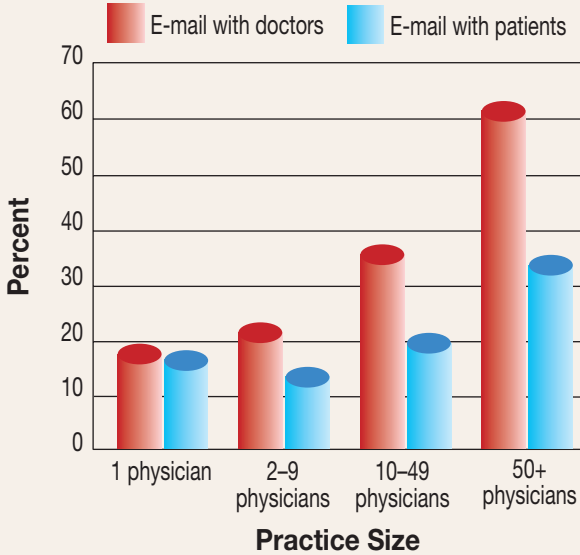
Nurses also like the option; some questions they can answer on their own. Others they can quickly bring to the physician in batches and get the answers.

Although regular e-mail between physician and patient is a HIPAA violation, many EMR packages come with a feature for secure messaging, which is essentially encrypted, password-protected e-mail. Tech-savvy physicians can set up their own platform using off-the-shelf software.

Some physicians worry that giving patients e-mail access will result in a torrent of requests and needling questions, but those who have tried it have found that's not the case. "Patients are good about not abusing the privilege," says Dr. Kvedar. "In fact, some doctors wish their patients would use it more."

### Practices' Use of E-Mail by Practice Size

Percent who currently "routinely/occasionally" use:



Source: The Commonwealth Fund National Survey of Physicians and Quality of Care, 2003.

Clearly patients would like the option. A Harris Interactive survey released in April 2002 showed that of patients who were already using Internet services, 66 percent said that they would like to be able to communicate with their physicians' offices. The most popular uses, according to these would-be users, were asking non-urgent questions (77 percent), making appointments (71 percent), refilling prescriptions (71 percent) and receiving results from medical tests (70 percent). Over a third said that they would be willing to pay out of pocket for the service.

"Docs have to be adaptable to meet patients at their communications needs," says Martie Moore, R.N., senior vice president of patient care services at MaineGeneral. "Some of our physicians use it, and patients love it."

### **Information Seen as Therapy**

When physicians write prescriptions, they tailor the treatment to the individual as well as to the disease to ensure maximum effectiveness. For example, a physician might choose a specific antibiotic for a specific type of infection. If the patient is allergic to penicillin, that will be taken into account. If the patient has trouble swallowing pills, that's another consideration. With the right prescription, the patient should get better over time.

The same is true for information, say a growing number of communications researchers. "Information has its own effect on how people understand their disease and what they do with that disease," explains Bradford W. Hesse, Ph.D., chief of the Health Communication and Informatics Research Branch for the National Cancer Institute (NCI). "It even affects how they comply with any kind of medical treatment. So very much in the same way that we would personalize and tailor pharmaceutical prescriptions, we need to tailor and personalize our information." The result is the "Information Prescription," in which communications itself becomes a therapeutic intervention.

It's also called "Information Therapy," a term coined by Don Kemper, CEO of Healthwise in Boise, Idaho. Healthwise's IRx technology generates a list of links to proprietary patient information based on ICD-9 codes entered into the electronic medical record or into a handheld computer device or PDA. The patient can then access the information from home through a patient portal on the Internet, or office staff can print it out for the patient to take home.

Some physicians may be concerned that e-mail communication may open themselves up to increased liability. But Dr. Wenner points out that this is another way to increase doctor-patient communication, which comes with all the positive outcomes outlined in Chapter One. Moreover, Dr. Wenner says, "If you communicate frequently with patients by e-mail, they are less likely to sue."

If you opt to enter into e-mail dialogues with your patients, be aware of the following guidelines, issued by the American Medical Association Council on Ethical and Judicial Affairs in 2003 for ethical use of e-mail between doctors and patients:

■ E-mail correspondence should not be used to establish a patient-physician relationship; e-mail should supplement other, more personal encounters.

The idea of tailored information is a focus of the NCI-funded Centers of Excellence in Cancer Communications Research. In St. Louis, researchers have developed magazine and newspaper content specifically geared to address the high rate of breast cancer in the African-American community. The program is seeking the best ways to provide culturally appropriate cancer information. They have found that women who received publications with specifically tailored photographs, recipes and articles were more likely to seek earlier screening and treatment.

At the University of Wisconsin, another group of researchers has developed the Comprehensive Health Enhancement Support System (CHESS), which guides patients to evidence-based information, support groups and interactive tools on the Internet. They found that patients who used this tailored and personalized system had better outcomes than those who were only given a list of Websites to consult.

This kind of approach can be especially important when patients have to readjust behavior for a long period of disease or to prevent disease, says Dr. Hesse, and it can help fill the "down time" between appointments.

"In medicine, there is a lot of hurry-up-and-wait," he says. In cancer, for instance, the patient may be given the diagnosis, but has to wait to see a specialist before starting treatment. "The patient has nothing to do during the period other than panic. If you can let the patient use this time productively to learn about their condition, they feel better, and they have a more effective interaction once they get together with the specialist."

- When using e-mail, physicians hold the same ethical responsibilities to their patients as they do during other encounters. Whenever communicating medical information, physicians must present the information in a manner that meets professional standards.
- Physicians should engage in e-mail communication with proper notification to the patient of e-mail's inherent limitations. These limitations include potential breaches of privacy and confidentiality, difficulties in validating the identity of the parties, and delays in responses. Discuss these limitations with the patient face to face or in an initial e-mail communication. If the patient initiates e-mail communication, the physician's response should include information regarding the limitations of e-mail and should ask for the patient's consent to continue the e-mail conversation. Medical advice or information specific to the patient's condition should not be transmitted prior to obtaining the patient's authorization.

### **Patient Websites Keep Family, Friends Informed**

When illness strikes, patients and family members often feel cut off from the rest of the world. Caught up in a medical world that is not their own and that they don't fully understand, they feel out of place, alone. Families members want to reach out, but they also don't want to leave the patient's bedside to make phone calls: their loved one might need them; they might miss the doctor.

An increasing number of patients and their families are creating personal Websites to stay in touch with the outside world while a loved one is in the hospital or other medical facility. Several companies offer free Websites to patients and their families. One, CarePages.com, has affiliations with more than 450 hospitals and healthcare organizations nationwide. Another, CaringBridge.org, has hosted more than 40,000 patient Websites since 1997, with more than 245 million visits that bring care and support to patients and their families.

John Wingate, spokesperson for CaringBridge Communications, says that most of the sites are created by parents for their children, many of whom are facing cancer. He says that most patients learn about the service from a nurse, social worker or chaplain, but that physicians also refer people to the service.

Dr. C. Richard Guiton, an internist at Woodwinds Hospital in St.

## Hang a Shingle in Cyberspace

For many patients, a practice Website may be the first impression of a physician's office. It can quickly communicate to prospective patients important information such as location, hours, practice philosophy and insurance participation. However, if the Website is more than an on-line "shingle," it can become an ongoing resource for patients and a real communications tool.

"Even a simple site that eliminates a few telephone calls to the organization to obtain driving directions may cut down on staff time," writes Dr. Sybil Biermann and colleagues in their March 2006 article in the *Journal of the American Academy of Orthopedic Surgeons*. That can free up time for staff to talk to the patients in the office. By adding profiles of the group's physicians and other information about the practice philosophy, patients can make more educated choices. "Patients who make informed choices regarding their providers are more likely to

Paul, Minn., says that he recommends the service to patients or caregivers when they need to keep a lot of people informed about their status or current needs. Instead of spending hours on the phone, family members can post updates on-line and notify friends and family of the new information.

Dr. Guiton knows first hand the benefits of the program. He used the service himself when his wife was in hospice for six months. "I used the site daily to express thanks and report the typical roller-coaster changes," he explains. "Over 6,000 responses were received during that time. It was so reassuring to know that I was receiving prayer support and encouragement from around the globe."

Mr. Wingate says that encouragement can be a lifeline and an energy source for families. "Often parents with a sick child will come home after a long day at the hospital, read their guestbook and be lifted up by the love and encouragement," he says. "It enables them to go back and face the difficulties the next day."

Hospital staff and clinicians also love the service because they see the benefits to the patient. "The family is able to communicate the most urgent information of the patient's condition once and eliminate the need to tell several people the same thing," says Dr. Guiton. That means the family feels more settled, more focused on the patient.

remain with them and over time be happy with their providers,” writes Dr. Biermann.

The gains can be even larger if practices add history forms and patient-education materials. For example, by putting the history forms on-line, patients can download them and fill them out at home, which can mean a more accurately and thoroughly completed history. If the practices’ Website offers a secure environment, the forms can even be submitted on-line, eliminating the possibility that the patient will leave them at home on the day of the appointment.

MaineGeneral has recently added on-line registration for out-patient visits. “It’s been a great option for our patients,” says Ms. Moore.

Although it is more prevalent in hospital-based practices, some group practices are beginning to offer on-line appointment scheduling and prescription refills. “Doing these things on-line allows ‘time shifting,’ which is more convenient to the patient

### **Initiative Melds Technology and Communications**

“Most of big, mortality-inducing cancers can be prevented, or at least detected and disrupted early, if we just get people to understand a message and behave on it,” says Bradford W. Hesse, Ph.D., chief of the Health Communication and Informatics Research Branch for the National Cancer Institute (NCI). “And when I hear those two things, ‘understand a message’ and ‘behave on it,’ to me that’s communication.”

That’s the thinking behind NCI’s Communications Initiative, the goal of which is to “understand and apply the most effective communications approaches to maximize access to and use of cancer information by all who need it.”

The program started in 1999 and the centerpiece is the four research Centers of Excellence that are concentrating on finding the best ways to meld technology and communications to reach out with a clear and effective message to maximum numbers of people. Other parts of the program include small business grants for the development of interactive patient and clinician education materials and research into how consumers use the Internet to learn about cancer (Health Information National Trends Survey, or HINTS).

The program also focuses on one-on-one communications between

and the doctor in many cases,” says Dr. Kvedar. “Doctors and office managers may be afraid of ceding control of these areas, but practices that have implemented these services find they save administrative time and increase efficiency.”

And anything that makes the office run more efficiently helps reduce one of the greatest challenges to effective communication: an overworked staff.

A Website can also help physicians direct their patients to credible sources of health information, such as medical societies, the Centers for Disease Control or the National Institutes of Health. By taking a proactive role in providing reliable health information, physicians may be able to reduce the amount of time spent sifting through the piles of printouts that patients bring in from dubious sources.

According to Tom Lund, director of business development for HealthCommunities.com, a company that develops Websites for medical practices, patient education is the number-one reason

physician and patient. Other NCI-funded research focuses primarily on the doctor-patient relationship and the critical information sharing that goes on during the clinical encounter.

In May, NCI brought together researchers into both the dyadic physician-patient relationship and systems researchers to talk about a total communications solution. The idea, according to Dr. Hesse, was to think about “how to craft a more supportive healthcare system, so that it’s not all on the physicians’ shoulders.”

For example, physicians are increasingly called upon by patients to help them wade through the massive amounts of cancer information available on the Internet. That can cut into the precious time that physician and patient have to talk about their specific situation. But if the physician can offer patients access to cancer information tailored specifically for their situations and comprehension levels, which can save the physician time and re-focus the clinical encounter.

The synergy between the systems approach and the dyadic approach has great implications not only for cancer communications, but for health communications in general. “If we can nail it in cancer,” Dr. Hesse says, “we can probably learn a lot that we can use in other ways.”

that practices approach his company to develop a Website. And he thinks that the number of practices seeking more complex Websites will grow as more and more patients ask whether their doctors have an on-line presence.

“Studies show that patients prefer to get their health information from their own doctor’s Website,” Mr. Lund explains. HealthCommunities.com has physician-developed and -monitored patient information for 24 different medical specialties, including oncology and urology. Physicians are also free to post their own content for patients to access.

“When a patient calls to make an appointment for a specific condition, the office can suggest going to the practice Website to check out the information about that condition,” he says. “Then the physician doesn’t have to start at square one. He or she can get right to the specifics of that patient’s situation.”

A Website can also help with patient education after a physician visit or when a patient gets lab results. If an office uses recorded messages for reporting lab results back to patients, the recording can include a referral to the Website to access specific materials on the patient’s condition.

Some practices may even offer their lab results on-line through the practice Website. That puts patient-education materials just a mouse click away. While a personal call from a physician with time to answer questions may be the best way to receive lab results, that may not be possible for routine tests. A patient-education Website can help answer those questions and help the patient feel more satisfied.

### On-line Office Visits: The Next Step?

For some conditions, the actual office visit may go digital, allowing physicians to consult with patients over the Internet. Dr. Kvedar is currently participating in a study of on-line office

visits for patients with acne. After an initial in-person office visit, Dr. Kvedar follows his patients

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through digital photographs that he views on a secure platform. “I look at the photographs, determine how the patient is doing and then write back with new orders or [tell him or her] to continue with the treatment plan,” he explains.

Dr. Kvedar’s clinical study uses technology by RelayHealth, a secure messaging and healthcare communications company. RelayHealth has teamed up with Cigna HealthCare to offer some California customers on-line doctor visits. RelayHealth’s on-line medical consultation platform, called “webVisit,” guides patients through an interactive interview and provides physicians with an array of tools to efficiently reply to the patient.

According to SCPIE Indemnity Company, a professional liability insurance company based in Los Angeles, physicians thinking about engaging in fee-based on-line consultations need to consider the following issues, as developed by the eRisk Working Group for Healthcare—a consortium of professional liability carriers, medical societies and representatives of state medical boards:

■ **Pre-existing relationship.** On-line consultations should ideally occur within the context of a previously established physician-patient relationship, one that includes a face-to-face encounter when clinically appropriate.

■ **Informed consent.** Physician must obtain the patient’s informed consent to participate in the consultation for a fee before any on-line consultation. The consent should include explicitly stated disclaimers and service terms pertaining to on-line consultations. The consent should establish appropriate expectations between physician and patient.

■ **Appropriate charges and fee disclosure.** Patients must be clearly informed about charges that will be incurred and that the charges may not be reimbursed by the patient’s health insurance. A fee-based on-line consultation should be substantive, clinical in nature and specific to the patient’s health status. There should be no charge for on-line administrative or routine communications such as appointment scheduling and prescription refill requests. Physicians should consider not charging for follow-up questions on the same subject as the original on-line consultation.

■ **Available information.** Physicians should state that the on-line consultation is based only upon information made available

by the patient to the physician during, or prior to, the on-line consultation, including referral to the patient's chart when appropriate. The physician should also state that the consultation may not be an adequate substitute for an office visit.

This type of technology works best with non-urgent health issues, observes Dr. Kvedar. Acne, he says, is a great example because clinical decisions are based primarily on visual inspection, and the condition is not life-threatening. Increased follow-up may result in better outcomes, but it can be difficult and time consuming for patients to come to the office frequently. On-line consultations may be an answer that keeps the patients and physicians in touch.