

**It can improve communications, practice efficiency and maybe even the bottom line.  
Just don't expect *all* your patients to join you online ... yet.**

# Making a Case for Online Physician-Patient Communication

**Kenneth G. Adler, MD, MMM**

**S**oon after implementing an electronic health record (EHR) in 2004, I started thinking about adding a patient portal, a Web site enabling the secure exchange of e-messages between our patients and our practice. Why not just use e-mail? The main problem with e-mail is security. My four-provider practice had been welcoming e-mails from patients since 2000, but we responded to them by phone rather than e-mail because we couldn't be sure who would be on the receiving end of our potentially sensitive and confidential messages. Our e-mail system had some die-hard users, but patient demand for it never was very high.

That's why a patient portal seemed attractive. As a Web site that employs password protection and encrypted communications, a patient portal functions much like an online banking Web site. Properly constructed, patient portals are compliant with the Health Insurance Portability and Accountability Act and can include a personal health record (PHR) option that allows patients to store their health histories securely online. Typically these sites offer patients the option of sending physician practices non-urgent messages to request an appointment, a referral or a prescription refill, to ask a simple question, to fill out preregistration forms or to have an "e-visit" with their physician.

E-visits, also called e-consults, are virtual office visits, typically involving medical management issues. Occasionally e-visits involve diagnoses, but only ones that can be made without a physical exam. A patient portal will charge your patient's credit card for an e-visit, on your behalf, whatever you feel is fair – typically \$25 to \$30. A few insurers have recently started paying for e-visits in certain parts of the country, but unfortunately not in my town.

Some patient portals even allow patients to view ele-

ments of their ambulatory electronic health record such as medication lists, problem lists and labs. And patient portals aren't restricted to practices that have EHRs. Any practice with an Internet connection and a willingness to send and receive typed communications with patients can use one. You can think of patient portals simply as secure, interactive practice Web sites.

## **But would my patients use it?**

I realized that, unlike using e-mail, installing a patient portal would cost money, so I didn't want to pay for one if my patients weren't going to use it. Nor was I interested in offering my patients a new service and losing money. In fact, I wondered if this might be a new revenue source. I did some research and discovered a 2005 Harris Poll in which 80 percent of online adults said they would like to contact their physician online.<sup>1</sup> I noticed that a lot of my patients were getting online.

In 2006, I decided to survey my practice and see what aspects of a patient portal interested my patients and whether they would be willing to pay for access via a small annual subscription fee. (An annual subscription fee is not the current standard. Most portal owners offer all portal services free except for e-consults.) My survey included all patients I saw in one month and had a 95 percent usable response rate.<sup>2</sup> The survey results indicated that 75 percent of my patients had Internet access at the time, 60 percent of that group were willing to pay \$10 or more per year and 31 percent were willing to pay \$50 or more per year. The services that most interested patients were, in order of popularity, Web messaging with their physician, online access to their medical record and online medication refill requesting. (See also "Are Your

Patients Ready for Electronic Communication?" *FPM*, October 2007.)

### Doctor worries


I proposed the patient portal concept to my partners, but they worried that we might unleash a barrage of pent-up demand for

- Getting patients' requests directly from them instead of through the interpretation and notes of a receptionist or medical assistant (MA) likely improves the quality of communication and documentation.

- Office efficiency can be further improved by sending patients their non-critical test results electronically, thus saving mailing costs or calling time. And sending automated appointment confirmations by e-messaging also saves staff time.

- Some portals even allow new patients to fill out customized online registration and history forms in advance of their first appointments.

With all these savings in staff



You can think of patient portals simply as secure, interactive practice Web sites.

time, a portal may even enable the practice to reduce total staff hours (full-time equivalents and/or overtime), the typical practice's largest expense.

Despite all of this, my partners still weren't convinced. Finally, I offered to pay for the whole thing; they would only have to pay me back if they made money. To that, they agreed.

### What happened?

I searched around for different patient portal products and ended up focusing on the three biggest vendors at the time – Relay Health (<http://www.relayhealth.com>), Medem (<http://www.medem.com>), and Medfusion (<http://www.medfusion.net>). I ended up choosing Medem primarily because that was the one that integrated with our EHR software and because the price was right. Annual cost per physician at the time we signed up was \$400. Installing a patient portal should be a relatively simple affair, but I have to admit we had some delays getting started. First we decided to wait for the next upgrade of our EHR software because that offered better functionality for portal messaging and documentation. Then we ran into a snafu getting the EHR and portal software to communicate properly, until an outside expert determined that we were getting tripped up by one of our firewall settings. I wouldn't expect such delays to be typical.

Since our patient portal has been up and running, it has worked like a charm. Patient messages come directly into our EHR just like any other tasks. When we respond to

■ Patient Web portals offer secure online physician-patient communication, "e-visits" and other services.

■ The author's research convinced him that a portal could be both useful to his patients and profitable for his practice.

■ Patient portals don't tend to increase the volume of patient communications. Instead, they may increase practice efficiency.

direct, easy patient-physician contact. I pointed out that several studies have found that generally not to be the case. For instance, one well-done study in an academic internal medicine practice found that the volumes of clinical messages generated by patients using a portal and those in a control group using phone access were not significantly different.<sup>3</sup>

I also pointed out a number of theoretical benefits of portals:

- As increasing numbers of patients start using a portal, phone traffic might lessen, thus reducing hold times and patient complaints.

- With a portal, the patient does the documentation, further freeing up staff time. Some portals even prompt patients to record nearly all their pertinent history based on their chief complaint, through the use of branching logic. This essentially automates the triage function and gets the patients to say what the physician needs to know without lengthy questioning.

### About the Author

Dr. Adler is a family physician in full-time clinical practice in Tucson, Ariz. He has a Master of Medical Management degree from Tulane University and a Certificate in Healthcare Information Technology from the University of Connecticut. Author disclosure: nothing to disclose. **Acknowledgements:** I'd like to thank my long-standing physician partners Tom Brysacz, MD, and Mike Moynihan, MD, for putting up with my demands to implement both an electronic health record and a patient portal.

a patient, both sides of the exchange are automatically documented in a chart note. Appointment requests go to the receptionists, medication refill requests go initially to the MAs, referral requests go to our referral and authorization specialist, and patient messages are typically triaged by our MAs and then sent to us. Message routing can be customized to suit any workflow. Our portal software also has the ability to easily set patients up to receive automated periodic e-messages on quite a number of disease or health-specific topics. Personal messages to patients can also include links to preferred patient education Web sites. These are nice patient education tools, and I have used them, although prob-

ably not as much as I should.

We inform patients about our new “secure e-mail system” when they come in for appointments and we give them a flyer to read. Within the first six months of portal operations, 120 of my patients signed up. Each paid an annual subscription fee of \$15. So the first six months of income covered my share of the cost for the year and left me with \$1,400 net – and, of course, the prospect of additional patient subscriptions in the second six months of the year.

These six-month figures don't include revenue from e-visits, which was small due to low demand. Our patients quickly figured out that they could just send us a message through the standard *Message* option rather than picking the *E-visit* option that requires a credit card number to be entered. In my view, that is a design flaw in our current product. We should be able to easily limit the number of characters used in the standard message option so that only short messages can be sent that way, and the proper uses of that message type should be clearly outlined when the patient picks it. Significantly longer clinical messages would then need to be sent as a potentially chargeable e-visit. We have set up a \$30 e-visit charge on our site, and the doctor can waive it or reduce it on a case-by-case basis as he sees fit.

By the way, my partners did make money and they did pay me back. Perhaps because they were less enthusiastic about online patient-physician communication than I am, they had only about 100 subscribers between them in the first six months, but that was more than enough to put them in the black for the year.

## Lessons learned

I guess it should be axiomatic that what people say they will do and what they actually do are not always the same. Based on the results of my 2006 survey, I expected far more patients to sign up in the first six months. To my surprise, a couple of patients described it as a “rip-off,” one wanted to know if we were going to start charging for parking now, and one nice 66-year-old lady responded when she heard about the \$15 annual charge, “That’s ridiculous.” I asked her about her response, and she admitted that she didn’t like waiting on our phones but said she hardly called us anyway. That might have been her impression, but a quick chart

review showed six documented phone calls in the prior 12 months.

Some patients who declined to subscribe were deterred by the fact that our portal is not yet set up to allow patients to view parts of their chart. That’s in our next version. The biggest concern raised by many who declined the service was security. Even though we described the security to them, they were often not convinced. I suppose that shouldn’t surprise anyone. Online banking has been around in a significant way since 1995, and as of December 2005, 10 years later, only 43 percent of adult Americans were using it.<sup>4</sup> The main concerns that users and nonusers alike have are security and privacy.

On the other hand, the patients that have signed up have uniformly raved about the portal. A number of users have commented to me on the improved quality of communication and the convenience.

So while patient response is weaker than I had hoped for, enough patients value the portal to have made it financially viable from the beginning.

What about the other questions and concerns we had? We learned that a portal need not disrupt practice workflow. My workload has not increased significantly because of it. I currently field one or two e-messages per day on average. Rather than writing my MA a response to a patient question that tells her what to tell the patient, I now respond directly to the patient. Admittedly my messages to patients have to be a little longer than they would be to my MA to make sure that

After initial difficulties, the author implemented a patient portal that integrated with the practice’s EHR system.

Enough patients agreed to pay the \$15 per year subscription fee in the first six months to more than cover the author’s investment.

Few patients choose to pay the additional \$30 per e-visit, instead using the portal’s messaging option at no additional charge.

patients fully comprehend them, but the trade off is worth it. To my surprise, I've found that e-messaging can be a very personal form of communication. It has enhanced my sense of connection with a number of my patients.

My MA loves the portal. It does reduce her workload, and she is a big advocate. Has our phone traffic decreased? It's too early to say,



Since our patient portal has been up and running, it has worked like a charm.

While some patients balk at the price or worry about message security, those who use the portal like it.

The portal has not increased the author's workload, and it has decreased that of his medical assistant.

Portals have not yet realized their full potential, but they hold promise of better care and non-visit-based revenue.

given the number of patients who have subscribed relative to our total practice size.

### My ideal patient portal

The patient portal I'd love to have would include all the features we currently have plus a few more. I'd like to see algorithm-based templates for patients to complete rather than entering free text when they do e-visits. One such product, called Instant Medical History, already exists (<http://www.medical-history.com>; see also "Improving Care With an Automated Patient History," *FPM*, July/August 2007). It was developed by a family physician, and Relay Health currently incorporates it into their portal. I'd also like to see two-way sharing of clinical data between patient and physician. Patients should be able to download problem lists, medication lists, allergies and even labs from their physician's EHR into their PHR. Physicians should be able to selectively download new history, medications or allergies from patients' PHRs after validating them. Patients should be able to send us digital pictures of their rashes, wounds, etc. E-visit fees and perhaps an annual patient portal subscription fee should be paid for by all insurers.

### Final thoughts

Easy Internet access is now commonplace, even for many of our elderly patients. As of

November 2007, 79 percent of adult Americans had Internet access.<sup>5</sup> Given that, plus the benefits I've already described, Web-based communication is the next logical step toward creating more effective and convenient patient-physician communication. It offers enormous potential for enhanced patient satisfaction and improved office efficiency, especially in an EHR-enabled practice where these Web communications can be more easily documented and incorporated into the normal workflow.

Web-based communication also offers an alternative to our current

limited revenue options. With the decline in capitation, we have once again become almost solely dependent on face-to-face, visit-based revenue, and each year our expenses increase without a commensurate increase in our revenues. Using the Web effectively to improve practice efficiency offers an opportunity to help rectify this. The key to success will be building financial models that work. This is a service that patients and practices will value more and more over time, but it is one we cannot afford to give away. **FPM**

Send comments to [fpmedit@aafp.org](mailto:fpmedit@aafp.org).

1. Gullo K. Many nationwide believe in the potential benefits of electronic medical records and are interested in online communication with physicians. The Wall Street Journal Online Health Care Poll Newsletter. March 2005. Available at [http://www.harrisinteractive.com/news/newsletters/wsjhealthnews/WSJOnline\\_HI\\_Health-CarePoll-2005vol4\\_iss04.pdf](http://www.harrisinteractive.com/news/newsletters/wsjhealthnews/WSJOnline_HI_Health-CarePoll-2005vol4_iss04.pdf). Accessed March 28, 2008.

2. Adler KG. Web portals in primary care: an evaluation of patient readiness and willingness to pay for online services. *J Med Internet Res*. 2006;8(4):e26. Available at <http://www.jmir.org/2006/4/e26>. Accessed March 28, 2008.

3. Lin CT, Wittevrongel L, Moore L, Beaty BL, Ross SE. An Internet-based patient-provider communication system: randomized controlled trial. *J Med Internet Res*. 2005;7(4):e47. Available at <http://www.jmir.org/2005/4/e47>. Accessed March 28, 2008.

4. Fox S, Beier J. Online banking 2006: surfing to the bank. Pew Internet & American Life Project report. June 14, 2006. Available at [http://www.pewinternet.org/pdfs/PIP\\_Online\\_Banking\\_2006.pdf](http://www.pewinternet.org/pdfs/PIP_Online_Banking_2006.pdf). Accessed March 28, 2008.

5. The Harris Poll #108. Four in five of all U.S. adults – an estimated 178 million – go online. Nov. 5, 2007. Available at [http://www.harrisinteractive.com/harris\\_poll/index.asp?PID=827](http://www.harrisinteractive.com/harris_poll/index.asp?PID=827). Accessed March 28, 2008.