Digital Doctoring—Opportunities and Challenges in Electronic Patient-Physician Communication

The Internet is an increasingly popular medical information resource for consumers. A 1997 survey indicated that 43% of the estimated 40.6 million US adults aged 18 years and older who had accessed the Internet within the previous 12 months used it to obtain health or medical information. At least 10,000 health and medical sites are on the World Wide Web, and are maintained by entities ranging from academic medical centers and professional organizations to individuals, and vary widely in quality. Thousands of other online self-help and support groups, electronic bulletin boards, and mailing lists also are available, covering topics ranging from acne to yeast infections. Fridsma et al6 have suggested that many patients who go online are increasingly interested in exchanging e-mail with their physicians. In a 1996 survey, Brown7 found that patients ranked “information from my own doctor’s office” as the type of online health information they desired most.

To some extent, these trends reflect the experience of other professions and industries, in which dramatic new consumer demand for electronic services has been viewed as a valuable market opportunity. Online brokers are competing successfully with traditional financial houses. Online bookstores are competing with traditional brick-and-mortar booksellers. E-mail has become a ubiquitous tool for communicating with business associates, friends, and family. So there should be little surprise that Net-savvy patients would like greater digital access to their physicians. Yet it appears that only about 1% of physicians have electronic connection with their own physicians in particular? Why might physicians be reluctant to embrace the considerable promise of the past are not yet met, their realization will depend to a large extent on effective leadership by practicing physicians, medical schools, and professional societies. Only through careful application and objective assessment based on outcome data will the potential for computer-based CDSSs to advance clinical practice and improve the quality of care be realized.

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See also pp 1321, 1333, 1353, and 1365.

What might be driving increasing numbers of patients to seek medical information online in general and a greater electronic connection with their own physicians in particular? Why might physicians be reluctant to embrace the considerable potential of these tools? What opportunities and perils might develop if more physicians choose to communicate online with patients? What might happen if they do not? Three articles in this issue of THE JOURNAL provide some clues.

The insightful article by Spielberg suggests that patients may turn to the Net because there is something inherent in traditional office-based medical practice that leaves them...
“wanting more.” Borowitz and Wyatt suggest that some families that used the authors’ e-mail patient “consultation” service found their electronic contacts with anonymous medical experts less intimidating than some in-person conversations with their own physicians. The study of dermatology Web sites by Eysenbach and Diepgen suggests patients will seek answers to medical concerns even from physicians with whom they have no preexisting relationship, but that the quality and usefulness of that information is highly variable.

These 3 articles also touch on some of the issues that physicians and other health care professionals must weigh when considering electronic interactions with patients: What sort of workload will such services generate? Who will pay for the time involved? What are the most appropriate ways to use not only e-mail but also other new online technologies (eg, Web sites, mailing lists, and home telemedicine)? Which are most appropriate for use, in which patient populations, and in which settings? How should clinicians answer e-mail requests for specific advice about a personal medical concern from one of their current patients—or from one with whom the physician has had no previous contact? What are the ethical and legal considerations? How does providing medical “information” differ from providing medical “advice”?

Some of these questions are addressed by guidelines for practitioner-patient e-mail produced by the American Medical Informatics Association. However, these guidelines apply to electronic exchanges within an established patient-physician relationship. Other situations are less clear and physician responses are more varied. No similar guidelines exist for dealing with unsolicited e-mail from patients, as Eysenbach and Diepgen suggest, or for interactions between clinicians and patients on one of the many publicly accessible online support forums.

These uncertainties should not obscure the opportunities that may be realized from greater use of electronic communications with patients. Spielberg points out that physicians were among the first to take advantage of earlier breakthroughs in communication technologies and that early adopters of patient-physician e-mail sing its praises and downplay its difficulties. Borowitz and Wyatt, who set up an e-mail service for patients and family members at their pediatric gastroenterology clinic, found the time required for clinicians to read and respond to the incoming queries was not overly burdensome.

The opportunities of online health communications have not been lost on the marketplace. A variety of highly sophisticated new online health resources have emerged. Some of these resources have been established by managed care systems, some were created by or with prestigious academic medical centers, and still others were established by technically savvy online health entrepreneurs. Many of these sites aspire to become authoritative sources for high-quality health information, support, and interaction. Some offer elaborate arrays of health services, including access to advice from health professionals, health and medical databases, discussion groups, online personal coaching, and virtual pharmacies. The development, study, and implementation of these new consumer interfaces in health care systems are emerging as a distinct specialty within medical informatics.

The information these new online resources provide is already a common topic of discussion when Net-savvy patients consult their own clinicians. How these resources will affect the services now provided by face-to-face encounters or telephone contact with physicians is unclear, but the emerging presence of these online resources in the new medical marketplace should make physicians think carefully about providing new types of online health services to patients who wish to use them.