Editorial Comments ■

Help for Physicians Contemplating Use of E-mail with Patients

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When physicians are asked whether they would communicate electronically with their patients, they often ask what range of topics would be discussed. In this issue of *JAMIA*, White et al. from the University of Michigan[1] begin to answer this question through a carefully done content analysis of e-mail messages sent from patients to their physicians.

Three-fourths of physicians do not use e-mail or other forms of electronic messaging with their patients,[2] and only about 5% do so regularly, even though patients, when asked, indicate that they would like to use e-mail with their physicians. Physicians express concerns about time requirements, reimbursement, security, liability, and, although not explicitly discussed in surveys, something I call "fear of the unknown." Studies have been done or are ongoing that look at workflow and reimbursement. Security is not easily studied—physicians must learn that it is most prudent to use secure messaging when practical.[3] The biggest threats to security are low-tech ones: failure to log off or use a screen saver, misaddressing e-mail messages, sharing e-mail accounts, and using employer-owned e-mail systems.

Liability issues remain to be studied. Although there is no case law regarding e-mail use in patient care, it is reasonable to assume that eventually a patient will sue a physician for something stated in an e-mail response. Physicians are well aware that the legal profession has impugned prominent corporate executives using e-mail messages retrieved from their personal or other workplace computers. It must be recognized, however, that such individuals were prosecuted, not for the e-mail messages themselves, but for the misconduct they portrayed, and in addition, for (at times) trying to delete the incriminating e-mail messages. Physicians do not widely recognize that telephone conversations with patients, which are infrequently documented in the record,[4] represent a large medicolegal liability and can often lead to successful malpractice suits. Conversely, e-mail is self-documenting, and produces a complete transcript of a patient encounter that can be easily incorporated into either a paper or electronic health record. Guidelines promulgated by AMIA and others have made it clear that all such messages should be stored in the record. Deleting or altering these messages is tantamount to destroying or altering medical records.

Physicians worry that they will be held responsible if patients willfully or unwittingly misuse e-mail. This represents another liability concern because physicians have little control over how patients will use e-mail. E-mail should not be used for time-sensitive matters such as medical emergencies, because one cannot be certain when the message will be read. Although physicians can instruct patients not to send urgent information through asynchronous communication channels and, on some systems, go as far as to display messages that warn against this, patients may not heed their warnings. In other cases, patients may not recognize that their current symptoms require urgent attention. Consider, for example, a patient with a headache, fever, and a stiff neck who sends an e-mail message to her doctor about this. If this patient had bacterial meningitis, she might die before she received a response. Who is liable for this—the patient who used e-mail inappropriately or the physician for permitting the use of this communication medium? Does this mean e-mail is dangerous and should not be used?

I would argue that with any communication modality, users will sometimes make mistakes. If a patient with meningitis chooses to leave a telephone message for her physician rather than to call 9-1-1, she might still die before the physician returns the call. Patients frequently leave telephone messages with secretarial staff about issues that, upon review, should have prompted an urgent communication with the physician or an emergency department visit. The need for such urgency may often go unrecognized by the patient and by an overburdened and undertrained secretarial staff in the clinician's office. Voice mail can further decrease recognition of urgent situations because the patient does not interact with the office staff or the clinician when leaving a message. A misconception about use of the telephone in clinical practice is that phone conversations are used only for synchronous communication, while in reality synchronous communication all too often happens only after many asynchronous telephone messages are exchanged. From this perspective, e-mail is as safe as the telephone.

Fear of the Unknown

What will patients say in their e-mail messages to physicians? In this issue of *JAMIA*, White and colleagues start to answer

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this question.[1] In the White study, patients in a large primary care practice (as part of the intervention arm in a larger randomized controlled study of a triage-based e-mail system) were encouraged to exchange e-mail with their physicians. Researchers made it clear that the messages would be read by physicians and other members of their staffs. The patients were asked to follow certain guidelines in their use of e-mail, which largely mirror the AMIA guidelines.[3] Almost all of the 1,050 study patients who used e-mail (95.2%) were included in the study. Their e-mail messages were stripped of identifying information, stored, and analyzed for content. From more than 3,000 of these messages, a random sample of 273 messages was selected for analysis. More than half of the messages were addressed to the physician or to both the physician and the nurse. This finding suggests that patients want to communicate with their physician—with whom they have a relationship—rather than the triage nurse. Overall, only a minority of the messages required any kind of follow-up, which should placate clinicians who may be concerned about being overrun by patient e-mails requesting help and information.

The most common message categories conveyed patient information to the doctor, issued requests for prescription renewals and follow-up appointments, and provided questions about test results and other health-related matters. Most of the messages did not require a physician's response. In general, the messages were courteous and concise, and followed recommended guidelines. None of the messages dealt with urgent issues, and only about 5% were felt to contain sensitive information.

These results should be reassuring to physicians who are in the "contemplative phase" of beginning to use electronic messaging with patients. Furthermore, experience with secure messaging portals has demonstrated that automatically routing messages such as appointment requests and prescription refills can further expedite communication and reduce physicians' workloads.[5,6]

The University of Michigan study helps put to rest concerns about an inordinate volume of "high-liability" patient e-mail utilization. It goes a long way toward addressing the "fear of the unknown" related to e-mail exchange among physicians and patients.

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