

Telemedicine Helps Elderly Avoid Nursing Home

Rural elderly received 'virtual visits' from home health care nurses via two-way videoconferencing.

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Adding telemedicine to home health care halved the proportion of rural elderly patients who had to move from their homes to hospitals or nursing homes over a period of 2 ½ years, in a randomized study of 53 patients.

Patients receiving skilled nursing care at home for heart failure, chronic obstructive pulmonary disease, or chronic wound care



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DR. SPEEDIE

were randomized to one of three treatment groups. The researchers added simple videoconferencing equipment and Internet access to the homes of 14 patients in a video arm and 20 patients in a monitoring arm, who also received physiologic moni-

toring equipment—pulse oximeters, electronic spirometers, and/or blood pressure cuffs, depending on their medical problem. The two-way videoconferencing allowed virtual visits by the home health care nurse with the patient at home. In a control group, 19 patients did not get telemedicine equipment. All groups continued with actual home visits by the nurses.

During the study, six patients (18%) in the telemedicine groups (two in the video group and four in the monitoring group) transferred from their homes to a higher level of care. Eight patients (42%) in the control group did so, said Stuart M. Speedie, Ph.D., in a poster presentation at the triennial congress of the International Medical Informatics Association.

Death rates did not differ significantly between groups: Five control patients and seven patients in the two telemedicine groups died. Surveys showed that patients in the monitoring group were significantly more satisfied with their care, compared with control patients, because they believed they had greater choices about their care, felt safer, and reported greater flexibility in scheduling, said Dr. Speedie of the University of Minnesota, Minneapolis.

The mean number of nurse visits did not differ between groups—22 per patient in the control group and 19 per patient in the telemedicine groups. The telemedicine patients averaged 17 virtual visits each. Average patient age was 72 years in the control group and 76 years in the telemedicine groups.

Actual visits cost an average of \$44.71, while video-only virtual visits cost \$22.96 and video visits for physiologic monitoring cost \$29.66. Nursing time during actual visits accounted for the higher average cost. In addition, the telemedicine equipment cost about \$1,500 per patient, said Dr. Speedie, who conducted the study with lead investigator Stanley M. Finkelstein, Ph.D., and Sandra Potthoff, Ph.D., both of the university.

Home health nurses rated the technical quality of virtual visits as acceptable in 94% of visits and said that 92% of virtual visits would not have been better if done in person. The nurses said that questions were not asked in 5% of virtual visits that might have been asked in actual visits.

In a separate pilot study presented at the meeting, informal videoconferencing consultations offered once a week to residents of an assisted living facility led to formal clinic appointments for 6 of 31 patients (19%) over a 5-month period, Lawrence Afrin M.D., and his associates at



A man checks his wife's blood pressure during a videoconference with a nurse.

the Medical University of South Carolina, Charleston, reported in a poster.

They provided the telemedicine service for free as a goodwill gesture. Third-party payers seldom pay for telemedicine services, but the results suggest that the service may be economically viable if it leads to normal clinic services that are billable, Dr. Afrin said. Assisted living facilities might be willing to pay a small fee for the service to gain a competitive advantage.

Five university physicians rotated duty on the sessions, discussing problems such as cardiovascular issues, allergies, pain, cancer, anemia, thalassemia, sleep disorders, and neurological disorders. ■

Doctor-Patient E-mails Are Efficient Way to Enhance Communications

BY SHARON WORCESTER
Tallahassee Bureau

ORLANDO, FLA. — Don't take this personally, but ... "Patients really don't want to see you," John Bachman, M.D., said at the annual meeting of the American Academy of Family Physicians.

That's one reason why e-mail communication between physicians and patients can be successfully incorporated into a medical practice, he said.

The standard process for an office visit is expensive, inefficient, and inconvenient, but e-mail can change all that, said Dr. Bachman, professor of primary care at the Mayo Clinic, Rochester, Minn.

In a recent survey, 50% of patients said they would like to communicate with their doctor online, and half said they would make the availability of e-mail communication a factor in choosing a doctor. About 25% of doctors said they had communicated with patients via e-mail, and about two-thirds said they would use e-mail if they were paid for the service.

E-mail provides an opportunity to improve patient satisfaction—and it is reimbursable in some instances. Furthermore, most patients are willing to pay out of pocket for the convenience, Dr. Bachman said.

At one major practice, about 16,000 patients pay \$60 per year for electronic access to their physician via MyChart (Epic Systems Corp.). More than 90% of the 150 physicians in the practice say they are satisfied with the system, he added.

Additionally, major insurers such as Aetna, Blue-Cross BlueShield, and UnitedHealthcare provide reimbursement or are testing reimbursement for e-mail communications by doctors. Reimbursement is generally in the \$20-\$25 range, and in some cas-

es patients have a \$5 copay for the service, he said, adding that the ICD-9 code for e-mail consultations is 0074T.

E-mail communication works best with established patients with whom you already have a good relationship; those who start practicing medicine via e-mail with patients they don't know could be setting themselves up for malpractice suits, he said.

But in the right setting, e-mail can enhance patient care.

For example, it is excellent for managing chronic disease such as hypertension. Patients could come in every 2 weeks for blood pressure checks—or they could learn to monitor their own blood pressure at home and e-mail readings to the physician.

It could also be used prior to patient visits for history taking and for appointment reminders, or after a visit for reporting lab results. Immunization records could easily be supplied to patients enrolling in school. The approach reduces phone calls and workload for staff.

A physician could easily process 12 e-mails in an hour, Dr. Bachman said, noting that in his experience, 85% of e-mails can be handled by staff, and e-mail communication reduces follow-up office visits by 50%, and all visits by 20%.

Establishing effective physician-patient e-mail communications requires a secure server. A platform with a Web site that allows patients to provide medical information, download medical information, schedule visits, and pay bills is ideal.

A good place to start is with Medfusion—an AAFP-endorsed company that provides such communications applications. Its Web site can be found at www.medfusion.net, Dr. Bachman said. He reported that he has no financial interest in the company. ■

Reluctant Office Staff Come To Embrace Patient E-mail

SAN FRANCISCO — Nonphysician staff in 10 primary care clinics initially were leery of giving patients the ability to e-mail their clinics, but they became more enthusiastic 6 months after using an electronic communication system, a study of 76 staff members found.

Physicians might be more willing to offer the option of electronic communications to their patients if the e-mails could be triaged by their staff, Anne F. Kittler and her associates said in a poster presentation at the triennial congress of the International Medical Informatics Association.

The study findings suggest that staff can overcome their initial reservations to embrace the benefits of electronic communications, said Ms. Kittler of Partners HealthCare System, Wellesley, Mass.

Paper-based surveys were completed by 76 staff members before adoption of Patient Gateway, a secure Web portal for electronic communication with patients. Before the new system, 44 respondents said they feared that patient e-mails would increase their workload. Only 13 (17%) were enthusiastic about adopting the system, 28 (37%) were hesitant, and the rest were indifferent or unsure about it. A majority already used e-mail in their daily work routine, usually to communicate with physicians or other staff in the practice.

After full implementation of Patient Gateway in three of clinics, half of 21 staff members who had used the system for at least 6 months were enthusiastic about the system, repeat surveys found. The proportion of staff members hesitant to use the system dropped to 20% (four people). A majority said that Patient Gateway either reduced or did not change their overall workload. They found the system particularly helpful for dealing with requests for medication refills, the investigators reported.

All the clinics used electronic health records before adding Patient Gateway.

—Sherry Boschert