the practice was reported to lower the hospitalization rate to 2.2 days from 5.7 days per patient per year and to produce cost savings (1). Blood pressure readings (2) and cyclor treatment logs (3–5) can also be transmitted electronically to health care providers.

Since those experiences were published, visual access has become more common in computer and mobile applications. To improve communication between patients and health care providers, we propose to deploy telemedicine at our peritoneal dialysis (PD) center. Our initiative has the potential both to improve health outcomes and to directly reduce the annual medical cost per patient. With institutional review board approval, we conducted a pilot study, surveying PD patients in an urban dialysis unit (Table 1) between 1 November 2011 and 31 July 2012 to investigate whether they have the equipment and knowledge needed to proceed with telemedicine (Table 2).

The survey informed us that most patients owned equipment (computer with Internet connectivity) that has the potential to be used for telemedicine. Unfortunately, a large percentage did not own a webcam. We believe that visualization will improve communication. We also believe that overall cost savings can be achieved if patients do not have to visit the PD clinic or emergency department. Patients could receive an immediate diagnosis and treatment for some conditions by telemedicine. Doctors could conduct telemedicine from the dialysis unit, office, home, or anywhere that an Internet connection is available.

Are Patients Prepared to Use Telemedicine in Home Peritoneal Dialysis Programs?

Editor:

Electronic transfer of audio, video, or digital data in health care for the purpose of consultation, examination, or performance of remote medical procedures is often called “telemedicine.” When specialized and dedicated lines were used to conduct visual telemedicine,

TABLE 1
Patient Demographics

Variable	Value
Patients (<i>n</i>)	52
Mean age (years)	51
Sex [<i>n</i> (%) men]	27 (52)
Race [<i>n</i> (%)]	
White	5 (10)
Black	39 (75)
Hispanic	2 (4)
Asian	6 (11)
Education [<i>n</i> (%)]	
High school graduate	26 (50)
College graduate	15 (29)
Postgraduate	11 (21)
Income	
[<i>n</i> (%) of 51 responding]	
Poverty	4 (8)
Low	17 (33)
Middle	26 (51)
High	4 (8)

TABLE 2
Survey Results

Survey question	Response [n (%)]
Own a computer	46 (88)
Know how to use a computer	49 (94)
Have Internet service	47 (90)
Have an e-mail address	46 (88)
Have a computer with a webcam	21 (40)
Willing to purchase a webcam (of 31 responding)	21 (68)
Willing to use telemedicine	48 (92)
Have a land-line	40 (77)
Own a cell phone	49 (94)
Interested in participating in telemedicine	43 (83)
Believe there will be a reduction in clinic visits	44 (85)
Believe there will be a reduction in emergency department visits	40 (77)

We also hope that future improvements in PD cyclor technology will allow for ubiquitous electronic capture and transmission of performance information (2,6–8). Online transmission of health data such as blood pressure, weight, or ultrafiltration rate will allow the health care team to have up-to-date information to guide patients in their therapy.

Most of our patients have the technology and the interest for participating in telemedicine. We believe that, with this approach, adherence and outcomes will improve. Many patients believe that incorporating telemedicine into their care may reduce visits. By reducing complications, clinic visits, and emergency department visits, the overall cost of care should also be reduced. Further study will be needed to see the effects of a telemedicine program in enhancing home PD.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

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