Study Shows High Satisfaction and Success With Internet-Based HIV Care

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A group of HIV-positive people who received their health care via the Internet from a Barcelona HIV clinic felt that their care was comparable with—and potentially superior to—standard in-person care. These findings, published January 21 in the online journal *PLoS One* and reported March 21 on the website Computerworld, could offer hope to select patients in rural settings who must often travel great distances to receive specialty HIV care.

By necessity, providers in resource-poor nations have been quick to adopt electronic communications as ways to provide health care. In countries where people are sometimes more likely to have access to a cell phone than running water or transportation, and where they must sometimes travel 100 miles or more to see a doctor, “e-medicine” has significantly expanded the reach of traditional health care.

Developed countries, including the United States, have been much slower to adopt these new technologies, partially because of concerns that e-medicine would result in poorer care, along with legal concerns about patient privacy. Recent positive experiences with using the Internet and telephones to extend and improve care for people with chronic diseases, such as diabetes, are beginning to tear down the walls that have kept e-medicine from wider implementation.

To determine whether e-medicine could be used in caring for people with HIV, Agathe León, MD, from the University of Barcelona, in Spain, and her colleagues set up a virtual hospital system in 2005 to help streamline care for patients in their HIV clinic. During the first two years of operation, León’s team tested its Internet-based system involving 83 HIV-positive people who were in stable health and had CD4s over 250. The study did not require participants to have an undetectable viral load or to be on antiretroviral (ARV) therapy—though about half were. All participants had a home computer and broadband Internet access.

Over the first year of the study, half of the group received their HIV care, pharmacy consultations, psychological care and appointments with social workers over the computer, while the other half received traditional in-person service. After one year, the groups switched their mode of receiving care. Participants went into local laboratories for any necessary lab work.

León’s team conducted detailed surveys of the participants throughout the study to assess their satisfaction with the care, their psychological health and their quality of life. Each participant’s

CD4 count and viral loads were also recorded.

León and her colleagues found that patient satisfaction was high and that overall health and well-being—including CD4 counts and viral loads—were no different between those receiving care through the virtual hospital and those being seen at the clinic. This held true despite the facts that 7 percent started antiretroviral (ARV) therapy during the course of the study and 28 percent switched therapy. In fact, 85 percent reported that the Internet-based system actually made it easier for them to access the care they needed from their providers.

León reported that 200 people with HIV have now been followed through the virtual hospital.

“This program allows patients to continue their treatment without altering their routine. Medication is sent to their home, or other locations specified by the patient,” representatives for León’s clinic stated. “Telemedicine is emerging as a service appropriate for this treatment, and [the virtual hospital] as a safe and effective tool.”

It remains to be seen whether, or how, systems like these could be used with difficult-to-reach populations such as those with less access to modern technology, but experiments to test this are ongoing, especially in rural settings where access to quality health care is more challenging for people with HIV and other chronic illnesses.

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