Telemedicine

Thirty-five years ago, when I was the Dermatologist at “The Medical Group,” now the Honolulu Medical Group, I received an urgent phone call from a physician at the Honolulu International Airport. He had a suspect case of smallpox and I had to come right over to diagnose the patient. The plane was on hold and they were going to quarantine the entire airport.

From his description, I explained that it probably was not smallpox but rather chicken pox, but I still had to come over to examine the patient. I left my busy office, drove post haste to the airport, and confirmed that it was indeed chicken pox. No need for quarantine, and the planes resumed their schedules, although a bit late.

I thought it would be so nice if the airport medical facility had a TV camera that could broadcast images directly to my office. But that was 35 years ago, and the modern telecommunication equipment was just not available.

This Special Issue is devoted to some of the many exciting applications of modern telemedicine we have available today. Thanks to Benjamin Berg, M.D., FACP, Director of Health Education & Training, and Associate Professor of Medicine, Medicine Department, John A. Burns School of Medicine, University of Hawaii, for serving as a Guest Editor for this issue.

Enabling technologies in healthcare are now enhancing and improving research, education, patient care, global health, quality, and safety. These enabling technologies contribute to the explosion of applications of “Telemedicine”. This term has come to encompass a greater scope of activities than “…the use of electronic information and communications to provide and support health care when distance separates the participants”, as defined by the Institute of Medicine. Haptics, virtual reality, simulations, broadband data transmission, video, audio, digital imaging, and RFID technologies are integrated in a multitude of manners to overcome not only the tyranny of distance, but many other barriers to improved outcomes in healthcare. This special issue of the Hawaii Medical Journal highlights functional Hawaii programs which utilize enabling technologies in healthcare. Global health education (Dr. Withy) and clinical consultation in orthopedics (Dr. Ono) in the underserved rural Pacific Basin are exemplary programs that project regional expertise to remote sites. Dr. Eron’s management of acute infections in an outpatient “Virtual Hospital”, demonstrates the power to decrease risks and costs associated with inpatient management, through thoughtful implementation of simple technology to deliver effective home based care. Land mine education for providers in Hawaii, through a new Internet-2 communications link (Dr. Vincent) facilitates sharing of bi-directional global expertise. Research in telehealth education (Dr. Burgess) is presented through the Telehealth Research Institute, an innovative University of Hawaii JABSOM venture. Remote echocardiographic interpretation between Honolulu and Guam (Dr. Munir) and Dr. Gallagher’s school based assessment program for children encompass the spectrum of diverse practical telehealth applications at work today in Hawaii. These articles represent a small proportion of the extensive telehealth experience in Hawaii. The Hawaii Telemedicine Compendium (http://www.pacificuih.org/compendium.cfm) lists 29 Hawaii organizations with multiple telehealth initiatives. Collaboration between and private healthcare, not-for profit organizations, federal healthcare, university, and community based initiatives have positioned Hawaii as a national and international locus of expertise in “telemedicine”.

Until there's a cure, there's the American Diabetes Association.