



ICADI 2008 Telehealth Intensive:

Home Telehealth and the Delivery of Remote Rehabilitation Services

Wednesday, February 20, 2008

1:00pm - 5:00pm Cost \$100

Telecommunication technologies can help minimize the obstacle of distance in delivering healthcare services, and promote improved continuity of care, disease management, and follow-up services. Home Telehealth integrates these technologies into traditional homecare services to give clinicians the ability to monitor and measure patient health and/or deliver direct services from a distance. This preconference intensive will address current trends in Home Telehealth, and describe ways that rehabilitation services have been successfully integrated into the telehomecare model to deliver treatment interventions to consumers with disabilities.

Program

- 1:00 pm **Welcome and Overview, David Brennan, M.B.E.**
- 1:10 pm **Telerehabilitation History, Definition, and Needs, Ellen Cohn, Ph.D., CCC-SLP**
Telerehabilitation services are expected to benefit people who live in remote, rural and/or underserved areas, and experience transportation difficulties. This presentation will examine the history of telerehabilitation, offer an expanded definition, and explore current and future needs.
- 1:30 pm **Systems-Based Challenges to Telerehabilitation Delivery, David Brennan, M.B.E.**
With steady improvements and increased availability of high speed and advanced telecommunications technologies, telerehabilitation has and continues to experience wider acceptance and utilization; however, several significant challenges remain. This presentation will describe the current status of critical issues facing telerehabilitation such as: reimbursement, licensure, credentialing, technology standards and guidelines, research priorities, and human factors.

- 2:00 pm: **Overview of RERC on Telerehabilitation, Mark Schmeler, PhD, OTR/L, ATP**
The University of Pittsburgh Rehabilitation Engineering Research Center (RERC) on Telerehabilitation will serve people with disabilities by researching and developing methods, systems and technology that support remote delivery of rehabilitation and home health services for people who have limited local access to comprehensive medical rehabilitation outpatient and community-based services. We will present an overview of research and development activities in the areas of telerehabilitation infrastructure and architecture, telerehabilitation clinical assessment modeling, teleassessment for the promotion of communication function in children with disabilities, remote wheeled mobility assessment, behavioral monitoring and job coaching in vocational rehabilitation, and remote accessibility assessment of the built environment. Education and training initiatives are integrated into the research and development processes in order to develop expertise among consumers and providers.
- 2:15 pm: **Remote Assessment of the Home Environment, Ellen Cohn, Ph.D., CCC-SLP**
Led by investigator JongBae Kim, Ph.D., a team of researchers on the RERC on Telerehabilitation is developing and determining the effectiveness our remote accessibility assessment system (RAAS) in evaluating the home environments of wheeled mobility device (WMD) users. The team is developing an online version of RAAS as a new solution for remote accessibility assessment. Three sub-systems include: web-based multimedia remote assessment support system, videoconferencing and tele-imaging System, and 3D virtual reality modeling Environment. This presentation will provide an overview of these efforts.
- 2:45 pm: **BREAK**
- 3:00 pm: **Clinic-based Remote Wheelchair Prescription, Rich Schein, M.S.**
One of the research projects within the Rehabilitation Engineering Research Center on Telerehabilitation is the evaluation of remote wheelchair prescription. The objective of this study is to determine the effectiveness and accuracy of procuring wheeled mobility and seating devices for individuals with mobility impairments through the use of a telerehabilitation consultation model. Telerehabilitation uses videoconferencing, data acquisition, and sharing of technologies to establish a secure connection between individuals. The need for wheeled mobility devices is increasing as our population is aging and people are surviving trauma and disease. The availability of practitioners with specific expertise in this area is limited especially in rural areas and travel to specialty clinics by people with disabilities is often problematic.
- 3:45 pm: **Telerehabilitation Portal: An Infrastructure for the Delivery of Telerehabilitation Services via the Internet, Andi Saptano, M.S.**
In the last decade, we have witnessed the growing importance of the Internet as the primary infrastructure for telecommunication that is capable of combining various modes of telecommunication into single channel (multimodal telecommunication). Increasingly, even voice telecommunication, that requires high level guaranteed of service, is carried out through the Internet (voice over IP/Vo-IP). By building on top of the Internet, the telerehabilitation infrastructure can inherit the network's attributes, such as scalability, ease of system development, cost-effective modules from open-source initiatives, and multimodal telecommunication support.
- 4:10 pm: **Home-based Telerehabilitation for Elders with Chronic Illness, Roxanna Bendixen, Ph.D., OTR/L**
The Low ADL Monitoring Program (LAMP) is a telerehabilitation program designed to deliver rehabilitation services through the provision of home environmental interventions, together with communications technology and care coordination. LAMP is an example of the impact that telerehabilitation can have in promoting functional independence, self-care, and self-management in elders. The LAMP model integrates the components of bodily health, activities and tasks, participation in life situations, and environmental and personal factors. Each of these components can influence health and the ability to function independently within the home. The LAMP model provides a pathway for communication between the individual and the healthcare provider, which can ultimately improve compliance, behaviors, and outcomes.

4:45 pm: **Wrap-up, Jeffrey Loomis, Moderator and Faculty Panel**

5:00 pm: **Adjournment**

Workshop Faculty

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Registration and Contact Information

To register for this preconference intensive, logon to <http://www.icadi.phhp.ufl.edu/registration/>. It is not necessary to register for the full ICADI conference in order to attend a pre-conference intensive. If you have any questions, please email icadi@phhp.ufl.edu or call (352) 273-6126.