Press Release Dec 2002

TeleVital Low Bandwidth Telemedicine Technology Used in Remote Surgery Monitoring

MILPITAS, Calif., Dec. 20 /PRNewswire/ -- TeleVital enables MITAC, a NASA-funded research program with telemedicine software for monitoring remote surgeries in remote locations. On December 9th and 10th of 2002, utilizing a single 64Kbps satellite connection along with TeleVital's low bandwidth telemedicine software, numerous remote surgeries in a small village in Sucua, Ecuador were monitored and mentored from Virginia Commonwealth University in Richmond, Virginia.

TeleVital's browser-based telemedicine software allowed physicians to transmit in real-time, audio, video, EKG, Sp02 (oximetry), pulse, respiration rate, and ETC02 (capnometry). All these signals were simultaneously transmitted from MITAC's Rapidly Deployable Telemedicine Unit with a standard laptop to Virginia more than 3000 miles away. Dr. Lynne Gehr, the anaesthesiologist at the remote end, was able to monitor, supervise, and verbally communicate details about the patient's condition during surgery performed by MITAC Director Dr. Ronald Merrell.

"The quality of the video and audio was absolutely amazing considering the bandwidth we were dealing with at the same time as the vital signs were being sent. Both days we dealt with various technical, logistical, and environmental issues, but once we had solid satellite data transfer and video feeds, the TeleVital component performed flawlessly for hours on " said Nathaniel Marriam, Media Director of MITAC.

We did almost nine hours of live anesthesia monitoring (vitals and audio/video) yesterday, and another 3 hours of Urology monitoring today (audio/video only), without the slightest hiccup in performance," said Nathaniel Marriam.

"The development of TeleVital's low bandwidth telemedicine technology brings the ability to reach out to medically and economically disadvantaged countries that lack medical goods and services" said Kishore Kumar, president of TeleVital, Inc.

The development of the low bandwidth technology compared with the more traditional high bandwidth enables the use of telemedicine facilities even in areas with poor telecommunication facilities. While low bandwidth operates on a normal telephone line, high bandwidth needs ISDN or broadband lines that are extremely hard to come by in developing countries.

Even in the United States many rural communities lack extensive financial resources and high bandwidth digital transmission capabilities. Today almost one fourth of the entire US population lives in rural areas, while only 9% of US physicians are actually practicing in these locations.