Calit2 scientists are tailoring new broadband, wireless video technologies to make it possible for a stroke specialist to participate in emergency long-distance consultations with patients soon after the onset of symptoms.

The Stroke Team Remote Evaluation Using a Digital Observation Camera (STRokeDOC) system provides an emergency room or clinic with access to stroke specialists in other locations by means of a common-place personal laptop computer connected to the Internet via conditioned last-mile access loops and next-generation cellular data transport technologies.

Clinical trials at several community hospitals were completed recently, results pending. The $5 million, 5-year project funded by NIH’s National Institute of Neurological Diseases and Stroke is led by UCSD Stroke Center’s Patrick Lyden (above with patient) and Brett Hall (below).

Background

**tPa and STRokeDOC**

A clot-busting drug called tPA (thrombolytic plasminogen activator) has been very successful in treating strokes caused by blood clots — improving the odds that patients will survive a stroke with minimal disabilities.

Yet most stroke victims never receive the potentially life-saving treatment because it must be administered within three hours of a stroke’s onset, and it can only be prescribed after examination by a stroke specialist.

To speed diagnosis by trained stroke specialists, STRokeDOC allows an on-call UCSD Stroke Center specialist with a laptop to participate remotely in an examination of a suspected stroke victim at a community hospital emergency room. The specialist can then advise the ER doctor on whether the patient is a good candidate for the clot-busting therapy.

Launched in 2003, the project teamed Calit2 with neurologists at the UCSD School of Medicine, the UCSD Stroke Center, and corporate

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