Background

Innovations

- **iTag**: The patient’s medical status is keyed into this electronic tag by triage personnel and is beamed continuously to the command center. Bright flashing colored lights (associated with the severity of each patient’s condition) can be seen from a distance. The iTags carry the treatment record and go with the patient to the hospital.

- **Medical Record PDAs**: Medical first responders carry these modified PDAs to enter data from physical exams and treatments in the field. Multiple patients are recorded on each device. The PDA includes a bar code scanner to identify medications and accurately link patients (via their iTags) with given doses of medications. The information is transmitted to the command center and available for supervisory personnel, with no damage to equipment.

- **Mid-Tier Tablet**: This modified Tablet PC assists medical supervisors in the field, giving them access to all patients and medical records involved, while filtering the information as they desire.

Technology

IT and Telecom for Medical Response in Disasters

The use of sophisticated wireless technology to coordinate and enhance care of mass casualties in a terrorist attack or natural disaster is the focus of a federally funded research project called the Wireless Internet Information System for Medical Response in Disasters (WIISARD).

The project brings together broad-based participation from academia, industry, the military, and emergency responders from the City and County of San Diego.

WIISARD is an integrated application that brings cutting-edge wireless Internet technologies from the hospital to the field treatment station. It has components that enhance the situational awareness of first responders, facilitate recording of medical data, aid in the monitoring of severely ill patients, and facilitate communication of data to hospitals.

The 3-year joint project of Calit2 and the UCSD School of Medicine has already developed and tested a number of new systems, software and devices to help first responders and victims. They include the Wireless Pulse-Oximeter (pictured); WIISARD Command Center; and other innovations test in real-world emergency drills since 2004.

I am most proud of the unprecedented degree of collaboration we’ve achieved among UCSD academic, administrators and public safety officers, as well as regional law enforcement, fire, paramedic and HazMat leadership.

Leslie Lenert, M.D.
Founding PI, WIISARD

http://www.wiisard.org

For more information, contact Dr. Bill Griswold at bgriswold@ucsd.edu or (858) 534-7029.