

Stan the man is helping save lives at Concord Hospital

◆ **New simulation center:** Nursing home owner Forrest McKerley jump starts campaign to improve teaching experience.

By **BOB CHAREST**
 Special Editions Editor

CONCORD

HE'S NOTHING MORE than a hunk of plastic and rubber, filled up and tied to the Cadillac of electronics and a couple of tanks of air, but when his eyelids start fluttering and his pulse rate drops, he sends doctors and nurses scurrying into action.

He's Stan, a human patient simulator that most of the time lies in bed staring at the ceiling, but when medical personnel are placed in the center of an elaborate scenario, he's as real as a real-life emergency on the wards of Concord Hospital.

Stan is at the center of the new simulation and education center at the hospital, backed up by state-of-the-art electronics and computer systems. The center was founded by a \$500,000 donation from local nursing homes owner Forrest D. McKerley, who has been involved in the health-care field for most of his career, including positions as president of McKerley Health Care Centers and chief executive officer of Secure Care Products Inc.

Concord Hospital has become one of the first hospitals north of Boston to house a simulation center with sophisticated multi-functional medical technology.

Stan and all the elaborate cameras and microphones that accompany him are temporarily housed in a cramped space on the hospital's fourth floor. As more space is finished in the hospital's new East and North wings, the lab is expected to move by next year. The hospital continues to raise the \$1.2 million

identified as necessary to get the lab fully equipped.

The new lab is designed to provide health-care workers — including ambulance personnel, firefighters, nurses, therapists and doctors — with training and provide feedback on how they performed. The center enables health-care professionals to learn through repetition in a controlled environment and is similar to the type of simulation training utilized by domestic and military pilots.

Stan is tended by two real-life registered nurses — Colleen Rutherford and Catherine McLeod — who are directly responsible for helping those training in the lab suspend their disbelief and become one with the scenario as Stan “talks,” blinks his eyes, breathes and responds to medicines that are injected, even as he breathes easier from the oxygen that is fitted to his nose through a nasal cannula. Both Rutherford and McLeod rush around, asking Stan questions, injecting medicines, and when needed, zapping him with the paddles. (Overhead, hospital announcements come through the speakers, along with calls for doctors, much like in the “real” hospital rooms.)

It can become an intense place for a few minutes — much like workers might face in practice.

Stan is a high-tech marvel, but the real wizard is behind the one-way glass. He's Dr. Christopher Fore, a physician at Concord Hospital's Emergency Department and Walk-in Urgent Care Center since 2001. He's the director of health-care simulation

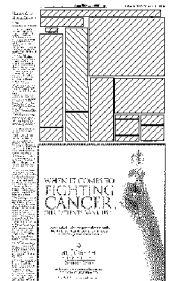
at the hospital, and it's his voice that comes through Stan's mouth — and it's Fore who's helping Stan's maladies seem more real (by moaning and voicing symptoms), recording the whole episode, then reviewing with the people who have just been put through their paces.

“This is the absolute best method to practice and refine high-risk, low-volume clinical skills,” said Fore, who trained in similar ways while a resident at the University of Pittsburgh School of Medicine.

Much of Stan's responses — even going into cardiac arrest — are part of a software program that includes a complex physiological algorithm — a sequence of events that will proceed based on the input received. The electronics are so complex that Stan breathes better depending on the level of oxygen he's receiving; he will be knocked unconscious by the “drug” — usually saline solution — that's injected into his IV line; and his pupils will dilate if a light is shined into his eyes.

Back in the adjoining room, Fore can observe the action from the real nerve center. Everything is recorded from several angles, the participants are fitted with microphones, and the digital software recording everything can be specifically started at marked points — for instance, when Stan goes into arrest or a doctor gives a specific order or drug.

This helps Fore explain what went right, or, sometimes, wrong. Fore said the lab has what's known as a “Vegas” policy, translated to: “What happens in Vegas stays in Vegas.” That is especially



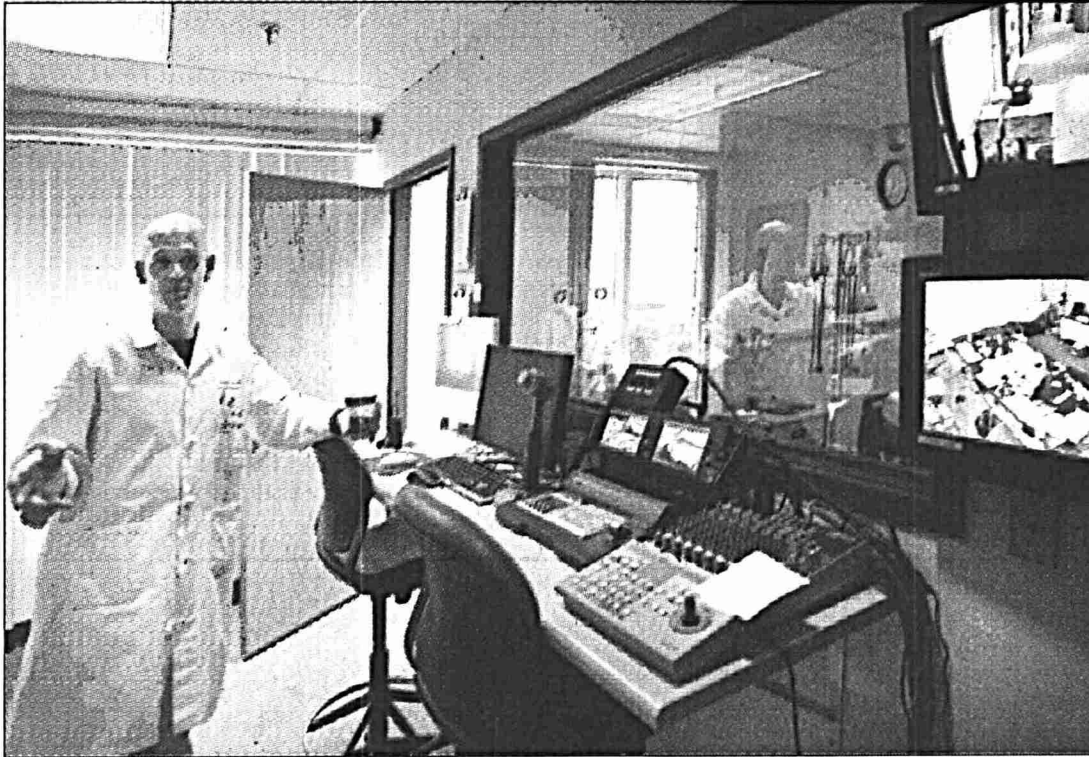
important to health-care providers who might be anxious that the results of their recorded session will fall into unfriendly hands.

Fore said the hospital has raised about \$925,000 of its goal of \$1.2 million to fully fund the lab. He said the hospital hopes to

acquire infant and child-size versions of human patient simulators, as well as a wireless version of Stan that can be used in other locations. In addition to Stan, the lab now has a manikin used in mock code trainings, as well as trainers used to teach central

line placement, ultrasound technique, and laparoscopic instrument technique.

For more information on donating to the lab, call the Office of Philanthropy at 225-2711, ext. 3076, or log on to www.concordhospital.org.



BOB LAPREE/UNION LEADER

Dr. Christopher Fore discusses the new simulation lab at Concord Hospital. He is at the nerve center where he can watch the goings-on in the next room



Stan is seen lying in bed in this view from the control room of the simulation lab at Concord Hospital.