## Superstorm has California hospitals testing emergency preparedness

## By Chad Terhune, Los Angeles Times

Two nurses examined an earthquake victim writhing in pain inside a yellow triage tent recently on the lawn of Redlands Community Hospital.

They suspected the woman had head trauma, a broken leg and internal bleeding as part of a disaster drill that morning for a magnitude 7.9 earthquake.

The 229-bed facility was running on two generators after losing power, and the nurses needed to get her inside the hospital and into intensive care. Trouble was the hospital gurneys were too heavy for the damp grass and they couldn't roll them to the triage tent.

In the weeks since Superstorm Sandy crippled some of New York's best-known hospitals, many California health officials are reexamining their own disaster planning.

"If hospitals in a city like New York that is generally very well-prepared for emergencies weren't up to snuff for Hurricane Sandy, how well will other hospitals do under similar circumstances?" said Arthur Kellermann, director of Rand Health, a nonprofit think tank in Santa Monica. "You want your hospitals to serve as a pillar of strength rather than a site of disaster in need of rescue."

California's 430 hospitals routinely test their preparedness, and many have had considerable experience responding to earthquakes, wildfires and other events over the years.

But Sandy's toll has prompted officials to take a closer look

at fuel and water supplies, the need for crowd control after a disaster occurs and the importance of recruiting volunteer help such as ham radio operators to bolster communication when mobile phones fail.

Sandy knocked out backup power to New York University's Langone Medical Center in Manhattan and forced the evacuation of patients down darkened stairwells. Langone, Bellevue Hospital and the Manhattan Veterans Affairs Medical Center all remain partially closed a month after the superstorm hit.

In Southern California, a major blackout last year had already revealed some weaknesses at area hospitals, including Scripps Mercy and Sharp Memorial in San Diego County.

The backup generator at Scripps failed during the September 2011 blackout because of a mechanical problem in a fuel pump and the hospital lost power for about 90 minutes. The Chula Vista hospital said it evacuated some patients and relied on battery power for certain life-support systems.

Scripps Health said "no patients experienced an interruption in care." Based on that experience, Scripps said, it made changes such as having at least two generators at each of its hospitals and expanding its supply of spare parts for fuel tanks and power equipment.

The state requires hospitals to test their backup generators regularly and have a fuel supply on-site for 24 hours of full operation.

A spokesman for the California Department of Public Health said regulators reviewed the power outage at Scripps Mercy and found "no deficiencies" in its emergency planning.

At Sharp Memorial hospital in San Diego, backup generators produced intermittent power during the blackout, but no patient evacuations were necessary, said Dan Gross, an executive vice president at Sharp Healthcare. In response, he

said, Sharp upgraded its generators and made it easier to bring in additional power if needed.

Gross said Sandy may lead hospitals to think more about partnering with nearby gas stations on backup generators. It's common during disasters for gas stations to have fuel but no power to pump it. Keeping access to water supplies for running a hospital's heating and air-conditioning units is another key issue that's often overlooked during a prolonged disruption, he said.

"If the HVAC system goes out, your intensive-care unit and operating rooms can become saunas, and you can only go so far before evacuation is necessary," Gross said.

At Redlands Community Hospital, Kathi Sankey-Robinson, vice president of business development, oversaw the earthquake disaster drill two weeks ago looking for potential glitches.

When nurses couldn't get the gurneys through the wet grass to the triage tent, she pointed to a shipping crate behind the hospital that could be taken apart so plywood could be put on the ground. She also noticed that a cart of emergency supplies needed bigger wheels to handle the outside terrain.

"We take this very seriously in California, but Sandy brings it to mind even more," Sankey-Robinson said. "We are really looking for the bad and the ugly from these drills. Muddy grass won't be the worst issue."

Meantime, at the state level, officials are searching for about \$1 million in outside funding to house and maintain three mobile field hospitals that can be deployed during a disaster. State funding is expected to run out next summer.

California purchased three of these 200-bed field hospitals for \$18.3 million in 2006. They are designed to provide hospital beds, operating rooms and other medical equipment within 48 to 72 hours. They have been used in three disaster

drills across the state, but no actual events thus far.

"We need to find a partner or we may lose this resource for California," said Howard Backer, a physician and director of the California Emergency Medical Services Authority.

For hospitals, Rand Health's Kellermann said, it can be difficult for them to look beyond their immediate financial pressures and invest in capabilities they hope to never use.

"It's hard to get hospital boards and senior executives to focus on a 'maybe, someday,'" Kellermann said, "as opposed to next year's capital campaign, this month's bottom line or a busy operating room schedule tomorrow."