Hurricane Katrina

Katrina teaches disaster planning lessons

Murray Couey, RN, was driving out of town with his wife, Connie, on Friday, Aug 26, 3 days before Hurricane Katrina hit the Gulf Coast, when he was summoned back to West Jefferson Medical Center (WJMC), Marrero, La.

“I got a call from a colleague and was told, ‘Don’t leave town.’ (Katrina) was coming, and we would be initiating our hurricane plan Saturday or Sunday,” says Couey, who is senior director of nursing for surgical services at the 462-bed community hospital, located about 10 minutes south of downtown New Orleans.

As part of West Jefferson’s hurricane plan, all essential employees were notified they would be needed at the hospital within 48 hours.

“Our plan includes getting all the food, water, and medical supplies we need for 4 to 5 days,” he says. “I told the weekend staff to go through our inventory and make sure we had everything we needed. Extra supplies were brought in.”

Couey spent Saturday boarding up his house and Sunday morning sent his family to Georgia to be with relatives.

At 6 pm Sunday, West Jefferson officially activated its hurricane plan.

“We didn’t have to evacuate patients because we felt we had adequate time, staff, and supplies to discharge patients who could be discharged and care for the remainder,” Couey says. The discharges reduced the hospital’s census from about 400 patients to 150.

During Sunday night, Couey and the OR staff secured supplies and made bedding arrangements.

“Some staff got empty patient rooms, but most were assigned vacant offices and space in the preanesthesia holding area. We took a couple of ORs not used for surgery and converted those to 4 bedrooms,” he says.

So far, everything was going according to plan.

“A lot of people spent most of the night watching and waiting for the storm,” Couey says.

Early Monday morning, Katrina hit full force with 145-mph winds. Surgery was cancelled Monday; on Tuesday several inpatients required minor procedures.

On Wednesday, 3 levees broke in New Orleans. “That is when all hell broke loose,” he says. “The civil disobedience started, the shooting and the looting, and we started seeing gunshot wounds.”

Scrambling to stay open

During the first 3 days after the hurricane, Couey says the OR staff and hospital officials scrambled to keep the facility running. During the height of the storm early Monday morning, the hospital lost its main power. Emergency generators kept lights and essential equipment running but were not enough to run the air conditioning system. The building began to heat up. By Tuesday morning, the temperature on many nursing units exceeded 100 degrees.

At this point, the hospital’s hurricane plan started to crumble because of the failure of outside agencies, Couey says. The hospital began to improvise to obtain additional supplies.

“With no help coming from agencies such as FEMA or the Red Cross, (West Jefferson) management and employees improvised by working with private companies such as Wal-Mart, Lowe’s, and Home Depot to obtain water, plywood, batteries, food for patients, extra personal effects for employees, fans, and countless
other essential items," says Jennifer Steele, RN, the hospital’s chief spokesman, in a statement.

Wal-Mart allowed hospital pharmacists access to their pharmacy for items such as insulin. West Jefferson also contacted hospitals in other parts of the state for blood products and pharmaceuticals.

“A CEO from a small hospital (in Raceland, La) personally drove 40 miles via convoy to WJMC to deliver every bottle of water in his community for (our) staff and patients,” Steele says.

This was not part of the plan. “We had to take care of ourselves at this point,” Couey says.

**What would they do differently?**

Like all accredited hospitals, West Jefferson has a disaster plan. Hospitals also must stage mock disasters at least twice a year.

But practice often is different than the real thing. Despite having a solid plan, Couey says his staff identified 3 things they will do differently next time.

“We didn’t collect enough water to wash the floors,” he says. The plan calls for storing nonpotable water in containers to clean floors and flush toilets.

“We used 2 trash cans to collect the water, and they ruptured because of the weight,” he says. “We created our own flood. We used alcohol and peroxide when we ran out of cleaning water.” The hospital plans to purchase stronger containers to store wash water.

Communication was another issue.

“We need more hand-held walkie-talkies that are more powerful to get through cement and steel,” he says. “Communication within the hospital was difficult in the beginning.”

“We relied on our feet to get word between ER and OR,” he says. “We overrode the fire notification system to make announcements, and that helped us coordinate calls.”

He estimates the hospital needs about 40 to 50 walkie-talkies, including at least 10 for the OR.

“People also learned to help themselves more in this disaster than ever before,” Couey says. “We found that doctors can clean floors and take out the trash. We have a picture of our chief of surgery hauling a big red trash container outside.”

**Lessons from 2004 hurricanes**

Jeff Prescott, spokesman for HCA, says one lesson the Nashville, Tenn-based for-profit hospital chain learned from the 2004 hurricanes is the need to purchase satellite phones.

“Land lines and cell phones will not work,” Prescott says. “Our satellite phones worked reasonably well.” HCA owns in a joint venture Tulane University Medical Center in New Orleans, which was evacuated, and 2 other hospitals affected by Katrina.

Another lesson was to have plenty of linens handy. “When you have broken windows, you will use whatever you have to remove water, and linens are all you have,” Prescott says.

While some question whether “just-in time” inventory works in a disaster, Couey says the hospital’s delivery system worked well enough to get the hospital through.

“We order 48 hours in advance normally. We will look at our supply amount, maybe increasing it a little, but not a significant amount,” he says.

“We had the 3 days of advance notice (before Katrina hit) to resupply, plus 2 days of supplies on the shelf, and we have custom packs we could use,” he says.

**A sluggish response**

The 3 biggest unexpected events were:

- The levees breaking, flooding New Orleans and leading to closure of 13 of 16 area hospitals.
- Supply trucks that were initially turned around several days after the storm hit.
• The failure of federal and state officials to respond for more than 7 days. The disaster plan envisioned outside help within 3 days.

“It was never envisioned that so many hospitals would close,” Couey says.

Another unexpected event was that a supply truck headed for the hospital was stopped by Louisiana state police. “Our CEO (Gary Muller) and parish people are looking into that,” Couey says. “It is a major issue, and we don’t want this to happen again.”

But the biggest disappointment for West Jefferson officials was failure of the Federal Emergency Management Agency (FEMA) to send help within 3 days, Couey says.

“Federal help came 7 days late,” he says. “That was the one thing we needed the quickest that took the longest to get here.”

Muller met with FEMA officials in Washington on Sept 28 to discuss the issue. FEMA arrived at West Jefferson on Sept 19, more than 2 weeks after Katrina. “We had 3 or 4 FEMA people here to collect applications for relief. They couldn’t answer our questions,” he says.

Other hospitals also were critical of the response to Katrina.

“Various government agencies didn’t do what they were supposed to do, from our standpoint,” says Prescott.

Despite limited federal assistance, Prescott says HCA prepositioned materials—plywood, diesel fuel, water, medications, batteries, and food—in the region to supply its 3 hospitals before the storm hit.

“We were ready for everything except the flooding when the levees broke,” Prescott says. “We had no plan for that.”

Based on FEMA’s response, Couey says the hospital will probably adjust its hurricane plan to expect a 7- to 8-day federal response.

“We cannot wait for the cavalry to ride in. We will have to do this ourselves next time. I hope there is not a next time, but you never know,” he says.

**The aftermath**

In the weeks after the storm, West Jefferson was using 9 of its 15 ORs during the day and 2 at night, Couey says. “We converted staff to 12-hour shifts to meet 24/7 needs.”

Not as many physician offices have reopened as expected. “There are not many people here in Jefferson Parish. About 270,000 normally reside here, and I guess maybe 80,000 to 100,000 are here now. It grows every day.”

While surgical procedures are down about 75%, the OR was making plans for volume increases in the next several weeks.

“We are only one of 3 hospitals open,” Couey says. “Once people get back, they will need a hospital to turn to. We will be there.”

—Jay Greene

*Jay Greene is a freelance writer in St Paul, Minn.*
Katrina lessons learned

Lessons learned at West Jefferson Medical Center, Marrero, La:
• Collect nonpotable water in sturdy containers to clean floors and flush toilets.
• Purchase 40 to 50 hand-held, powerful walkie-talkies to communicate between and within departments.
• Plan on not receiving outside federal or state help for up to 7 days.
• Rely on staff to improvise and take on additional responsibilities.
• Develop close relationships with community organizations, businesses, and area hospitals for back-up assistance.
• Increase just-in time supply inventory beyond the normal 48 hours.
• Confirm with local authorities and supply companies that trucks will be allowed to re-supply the hospital even if an evacuation is ordered.

JCAHO issues emergency guide

The Joint Commission on Accreditation of Healthcare Organizations has issued a step-by-step guide, Standing Together: An Emergency Planning Guide for America’s Communities, that suggests 13 steps communities can take to respond to all types of emergencies.

Among topics covered are:
• safeguarding data and systems
• linking with federal and state mental health resources
• ensuring culturally sensitive communications
• identifying appropriate community partners.

The guide can be downloaded for free on JCAHO’s web site at www.jcaho.org/news+room/news+release+archives/em_planning_guide.htm.