Disaster management

Hospital evacuates as Cedar River floods

As Mercy Medical Center’s OR nurses were readying their patients for their 7:30 am cases on June 12, the Cedar River, some 10 blocks away, was edging dangerously close to the top of its banks. Because the hospital was on the city’s 500-year flood plain, it was hard to imagine the waters reaching that far. Still, administrators prepared for the worst.

At 7:42 am, the hospital’s power went out, forcing it to convert to back-up generator power.

Thus began 24 hours like no other Penny Glanz, RN, MS, the senior director of surgical services, had experienced.

The hospital had been scheduled to do an emergency evacuation drill that day—but the drill became reality.

The Cedar River continued to pour over its banks, spreading into the city’s downtown and adjacent neighborhoods. Alliant Energy, headquarters for the city’s power company, had gone under water.

A decision to evacuate

The ENT OR team had already finished 2 cases and was getting ready for a third when the hospital’s primary electrical systems went out. A spinal surgery had already begun. Luckily, the ORs have windows, which provided some light during the 4-second conversion to generator power. The spinal fusion was completed in about an hour, and the rest of the surgical schedule for the 15 ORs was stopped.

“It is our policy not to start any surgery on generator power,” says Glanz. None of the other cases had started, so those patients were taken out of the ORs.

Hospital managers opened a command center and began deploying staff to different jobs. Glanz sent the OR staff to fill and place sandbags around the hospital—the water had not yet reached the ground level.

The hospital’s emergency power could last 6 days, but as water began pouring into the basement where connections to the emergency generator were located, administrators made the decision to evacuate.

As water began entering the ground floor, local news stations reported Mercy needed help with sandbagging. Shortly, hundreds of volunteers arrived, forming a human chain both inside and outside the hospital. They placed as many as 50,000 sandbags, some piled as high as 5 feet, to protect the huge plate glass windows along the front of the hospital.

“We knew if the water broke those windows and rushed into the hospital, we would have a lot of damage to our ground floor,” said Glanz.

The state and county agencies and the National Guard helped coordinate the evacuation. By 8 am on June 13, all 176 acute-care patients had been transferred to other hospitals. Forty-five residents of Mercy’s long-term care center attached to the hospital were moved to other nursing homes or went to stay with family members.

The river had crested nearly 12 feet higher than the previous record in 1851.

The waters rise

As the water continued to rise, ground floor activities and supplies were moved to the operating rooms on the first and second floors.
Staff moved the emergency room from the ground floor to the first floor operating rooms, the lab to the PACU, and the pharmacy to preoperative holding. The treatment center was moved from the ground floor to Phase 2 recovery, and the wound center was moved to another outpatient facility in the city.

The x-ray equipment in radiology and the cath lab equipment were fixed and couldn’t be moved from the ground floor.

The hospital was without regular power for 4 days, and generators had to be moved because diesel fumes were being pulled in by the air conditioning system. The air had to be tested often for carbon monoxide.

The OR air conditioning was run on the generators, and the humidity and temperature were maintained in the ORs so no supplies were lost.

Administrators made arrangements for a mobile cath lab and MRI to be brought to the hospital, and a cancer center is being used for CT scans.

Pitching in to clean up

The river began receding by June 15, and the cleanup started, not just in the hospital but in the staff’s homes. Many OR staff had water damage to their homes, and other staff were deployed to help them with cleanup and were paid their regular salaries. Staff were also sent to help in family shelters in the community and to St Luke’s Hospital, which remained open.

Outpatient surgery was resumed June 23 and inpatient surgery on June 24.

“I am convinced if we didn’t have our employees helping us the night the water was pouring in, and if all those people from the community hadn’t shown up to sandbag, we would have sustained much more damage,” says Glanz.

OR staff worked for 12 hours sandbagging. Glanz was at the hospital for 31 hours. Many administrators were there for days.

“Now that it’s over with I can say it was a great experience to go through,” says Glanz. “You see how you can help each other and how you can come through an experience like this, which will make you better if it ever happens again.”

—Judith M. Mathias, RN, MA