In the eye of the storm
Charity Hospital and Hurricane Katrina
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It was perhaps inevitable that New Orleans—a city sitting largely below sea level, where the dead are “buried” above the ground and residents blithely name cocktails after hurricanes—would one day be hit by a storm monstrous enough to bring it to its knees. With more than a dozen hurricanes having made landfall within 75 miles of New Orleans since 1950, the city is no stranger to nature’s furious dominance. But this one was different. Its name was Katrina, and it crippled New Orleans in unparalleled and horrifying ways.

Many residents believed New Orleans was charmed. It had faced close calls in the past and had always been spared. Although it had been predicted that one in five residents would not leave even if city officials mandated evacuation, many other residents did not have the means or the resources to leave. The sick and the suffering occupying the city’s hospitals were among those without a choice. During Katrina, they stayed and their health care providers stayed with them. Although most of our families evacuated, many other physicians from our medical center rode out this most devastating hurricane in New Orleans’s storm-checked history within the walls of Charity Hospital.
Charity Hospital was founded in New Orleans in 1736, thanks to a bequest by French seaman and boat builder, Jean Louis, to build a hospital to care for the city’s indigent. The second-oldest continuing public hospital in the United States, Charity provided outstanding clinical care to its patients. Many were impoverished, earning the hospital the nickname, “The Big Free.” Charity Hospital was old and antiquated, having been rebuilt in 1939. Its capacity was approximately 2,500 beds, and it had survived the ravages of budget cuts and weather extremes to remain the icon for indigent care in Louisiana. The archway into Charity Hospital proclaims a message of hope: “Welcome to the Medical Center of Louisiana. Where the Unusual Occurs and Miracles Happen.”

Little did I realize as I walked under the archway on the morning of Sunday, August 28, just how prophetic those words would be. The previous day, while Katrina was churning its slow path towards us, its then-Category 3 winds reaching 130 miles per hour, we followed our usual emergency preparation routine by creating the list of assignments for our Code Grey teams that would cover our hospital teaching services. I would provide the faculty staff coverage for our Louisiana State University Internal Medicine service at Charity Hospital, reporting in the morning and remaining in the hospital as long as necessary. Since Code Grey teams usually leave the day after a hurricane (once the worst has passed), I had packed only enough clothes for a couple of days. After all, the city was charmed, wasn’t it?

On Sunday morning, the headlines of the *Times Picayune* blared, “Katrina Takes Aim,” and forecasters were predicting that it would reach Category 4 or 5 strength. As I entered the hospital, I passed another inscription in the lobby: “In this harbor weary sea-worn ships drop anchor. . . .” I reported first to the hospital administration office to receive my yellow identification bracelet and sleeping room assignment, then in the emergency department I met my residents to review the patients assigned to our Internal Medicine service. I hoped the hospital was indeed the safe harbor that it proclaimed itself to be.

Phil Hoang, Bill Leefe, Rusty Rodriguez, Melissa McKay and I reviewed our patients. The first was a Vietnamese immigrant who had presented with hemoptysis and reported a history of a positive tuberculin skin test. He had apparently never received treatment. We ordered sputum smears for acid-fast bacilli and placed him in the negative-pressure isolation room. We proceeded to see the rest of our patients, discussing, as usual, the evaluation and management plan for each one.
We spent much of Sunday evening admitting patients brought over from the Superdome several blocks away. The arena had been designated an emergency shelter for the city earlier that day. One patient, a retired nurse with a history of hypothyroidism and ischemic cardiomyopathy, was admitted after almost passing out in the warm and humid stadium. Her work-up revealed metabolic acidosis and acute renal insufficiency: she would require hemodialysis. Another, with atrial fibrillation and presumed dementia, had fallen and suffered a fracture of her prosthetic hip. We knew little else. She had no records and could provide no verbal history. In fact, she was not even able to give her own name and was admitted as “Jane Doe.” Another patient, admitted with suicidal ideation, seizures, and a history of alcohol abuse, was developing a severe skin rash that we believed was secondary to a drug allergy. We worked through most of the night and early morning, a welcome opportunity to avoid thinking about the impending arrival of what news media and experts were now predicting would be the “perfect storm.” The gusts of wind grew ominously louder as the night wore on.

Katrina tormented New Orleans for most of Monday. Although it was downgraded to a Category 4 storm, with maximal 155 mile-per-hour winds striking with the greatest ferocity just to the east of the city, powerful gusts were strong enough to shatter many hospital windows and dislodge air-conditioning units. The city lost power, and the hospital quickly became oppressive and suffocating in the swampy heat. Steady sheets of heavy rain caused some flooding around Charity’s periphery. Nevertheless, when the rains receded on Monday afternoon, we felt assured that the worst of the storm had passed and the worst of the damage been done. We even left the building late that afternoon to see the destruction for ourselves. We saw overturned cars, shattered windows in almost every room of local businesses and hotels, fallen trees and street signs, but were relieved. We were weary and sea-worn, but our harbor had proved safe.

**TUESDAY, AUGUST 30**

Unknown to us, however, New Orleans’ nightmare—and our own—was just beginning. The flood-control levees protecting the city had been breached. Water flowed into the low-lying city, filling it up like a soup bowl. The levees that remained intact trapped the flood inside. By Tuesday morning, we could see rising waters in the street. Water poured into the hospital basement, where thousands of medical records and the morgue were located. It crept up the inner stairwell, approaching the first floor where the Emergency Department was housed. Already there were no laboratory or radiographic facilities working.

All we could do then was to move about 50 patients from the first-floor Emergency Department to the second-floor auditorium, an area normally used for regular hospital staff meetings. The standard of care we were administering changed radically from what we were accustomed to giving. Our patient with possible tuberculosis was placed next to the window, away from others. We still had no way to determine his contagiousness. We had to remind him frequently about the importance of keeping on his N-95 mask and staying away from the other patients. In broken English he asked often to go home, repeating that he had a family for which he was responsible. Jane Doe was placed on a stretcher, clearly uncomfortable but remarkably calm. She would reach out to us as we passed her. The retired nurse was placed on the floor, a frightened look spread over her face as she asked, “How much longer until we are evacuated?” She and I both knew that without hemodialysis, an impossible intervention in this setting, her survival was threatened.

In place of our lost technology, we had to focus on lending some humanity to that inhumane situation, imparting encouragement, compassion, and optimism. At that time, we believed that help would surely come soon for our patients. In preparation for evacuation, patients throughout the hospital
were classified in descending levels of severity as red, yellow, or green. Our team was caring for several “red” patients, including those who required hemodialysis, peritoneal dialysis, and surgery. The temperatures soared inside, and the stench of human sweat and excrement became overpowering.

Our greatest challenge came not from our “red” patients but rather from the increasing agitation of the patients in the Substance Abuse Unit. Their dependencies included alcohol and opiates. Some of these patients elected to leave the hospital. Paying no attention to the advice of others or to the contaminated floodwaters surrounding the hospital, they focused their concerns on family responsibilities or unrealistic job commitments or delusions, and forged out on their own. We don’t know what became of them. Those who remained were increasingly irritable and difficult to manage, as drug withdrawal mixed with the fear and sense of isolation. Tensions escalated with each visit to this locked unit. We could not give the patients the answers they wanted. With everyone’s frustrations mounting, communication broke down, finally erupting into a loud shouting match. Fortunately, the quick intervention of half a dozen heavily armed security guards defused that situation and prevented any similar ones. We decided to move them to the second-floor Emergency Department, where perhaps they could appreciate the gravity of the hospital’s situation, as well as the needs of other patients. The move had the desired effect.

Within a short period, these patients became caregivers, helping the frailer patients by delivering food and water and administering to their other needs as they were able.

The following day, Wednesday, was the nadir for many of us who expected large-scale evacuations to begin. With rumors about an impending rescue abounding, everyone quickly prepared for an expeditious departure. No one came. Even more deflating were reports that news stations were announcing that Charity Hospital had already been evacuated. If everyone thought we were gone, how would we ever get rescued? Hope began to wear thin, as did patience and sleep. Our food supply was diminishing, but no matter how cold or processed the meals were, they were quickly devoured. The long lines of hundreds that snaked from food service all the way down the dark hallway and into the stairwell helped to serve as a marker of time since all the clocks on the walls had stopped. Our hunger was a tangible reminder that the old halls still teemed with life.

Meetings to update staff about the current status of the hospital occurred at least twice daily in the lobby. The discussions became increasingly personal, emotional, and animated as some began to question openly whether we and our patients would ever leave. Remarkably, however, the prevailing mood was one of strength, collegiality, and optimism. Morale-boosting banners were hung inside the hospital and from many outside windows, declaring, “Katrina can’t tear us apart,” “X-ray all clear,” “God of Abraham, Help Us! Oh, Lord please Help this City,” and “CHNO-1, Katrina-0.” Nondenominational prayer services were organized on the ramp outside the hospital Emergency Department, allowing members of the hospital community to worship, bond, and console each other. Several of the more resourceful physicians in the intensive care unit successfully engineered the rescue of four of the “red” patients by calling in to a national television show and receiving help from a helicopter operator who was listening. This evacuation was completed late Wednesday night. Randomly appearing boats and National Guard trucks evacuated several other less critically ill patients directly from the hospital. But most patients, including more than three dozen classified as “red,” had to wait yet another day.

**Wednesday, August 31**

The second floor auditorium becomes a ward.
Early on Thursday, boats and trucks ferried many of these “red” patients to the nearby helicopter pad, although gunshots from a presumed sniper delayed this process. Security forces finally ensured safe transportation. During this interruption, Rusty Rodriguez and I embarked on a boat belonging to a good Samaritan from a nearby coastal town to collect and deliver supplies to the helicopter pad, including oxygen and batteries. The route we took transformed this roadway into a surreal amalgam of the familiar and the bizarre. To make the trek by boat was unusual enough, but the random and senseless shootings necessitated the accompaniment of a guard. He stood at the front of our boat, directing his rifle at the surrounding buildings, while we slowly made our way through the floodwater to the helicopter pad. Along the way, we passed submerged cars, other boats, and floating debris. Even amid the chaos and catastrophe, however, the lighthearted élan that has earned the city its nickname, the Big Easy, was evident.

Joe’s, the popular bar located across the street from the hospital, was completely underwater except for a piece of board over one of its windows, with writing that announced that the pop musical group “Katrina and the Waves” would be playing one night only.

At the helicopter pad, some of our patients had to wait as long as 12 hours before being transported. While they lay on the concrete ramp that led to the helipad, we manually ventilated patients and dispensed what care we could. Among them was Jane Doe, now identified by a yellow label that read, “Fractured Hip.” During that time, she did the only thing she could to help. She reached out her hands to touch anyone nearby, attempting to console in her own way. It was an emotional and desperate situation.

By that time, an interesting but worrisome phenomenon had developed: visitors within the hospital and members of our own staff were becoming patients. A young man with diabetes who was staying at the hospital with his family presented with fatigue and light-headedness. He had a history of multiple hospital admissions for diabetic ketoacidosis, and had not taken insulin for over two days. A finger stick revealed a glucose level that was almost off the scale, and his urine dipstick showed four-plus ketones. We gave him intravenous fluids, electrolyte replacement, and insulin. Since there were no arterial blood gases or chemistry panels, finger sticks and urine analysis had to suffice. One of the residents in the Emergency Department remarked with humor, “I guess this must be the way you used to take care of patients in the old days, Dr. Lopez.”

That Thursday evening, I admitted a hospital security officer who had developed severe cellulitis while wading around the perimeter of Charity as part of his watch patrol. He was in great pain, and his leg was swollen, warm, and red. I told him he would need intravenous antibiotics, but he objected when I told him he was being relieved of his duties. I soon learned that his healthy son was also at Charity Hospital, and he feared that if he became a patient, they would be separated from each other. Once he was assured that they would remain together even during an evacuation, he submitted to the needed care. I shook my head, finding it hard to fathom that this situation had endured so long that the helpers were becoming the helped.

As I turned from him, I encountered a reporter from one of the major networks. He was interested in our story: the inefficacy of the evacuations, the unsanitary conditions, the communication deficiencies, the lack of medical resources, and the more than 1,000 people still there. Although media representatives are typically funneled through a central office of communications, in this situation we abandoned protocol to make full use of the opportunity to draw attention to the desperate plight of our patients ... and of our hospital.

Shortly after this interview, most of the major networks descended on Charity, and by early Friday afternoon, hundreds of airboats and trucks arrived and evacuated over 1000 people in about five hours. In the period of waiting, patients had died.
Ironically, when help arrived at long last, it was almost overwhelming. It involved such a large number of vehicles that the challenge for us shifted from pleading for attention for our nearly full hospital to coordinating the huge response that finally arrived. Where had all these vehicles been? Had they all arrived at the same time from some distant place? What was responsible for this sudden mobilization of forces? These and many other questions hovered around us, but there was no time to find answers. The immediate and pressing need was to secure the human forces necessary to carry patients who could not walk safely down as many as 12 flights of dark, fetid, and stiflingly hot stairs. It still seems a blur—patients being treated for airborne infectious diseases wearing masks while waiting among the many other evacuees with other problems. They had chest tubes, Foley catheters, cervical collars, drainage tubes, and feeding tubes. It was bizarre to see them waiting in line at the door of the hospital before stepping gingerly into boats that would speed them off to dry land, and other hospitals. Employees and family members ranging in age from infants to the elderly were forlorn and exhausted. The exodus even included animals—I saw at least one dog and several cats flee the building. As I ran out the hospital towards the airboat, my wading boots in hand, I turned around and watched the guard lock the doors of Charity Hospital behind me. After 5½ days, it was over. We were leaving.

More than a month has passed since we were evacuated from Charity Hospital. In retrospect, the ordeal at Charity, where we had at least some control over our destiny, was much easier than its aftermath. After the storm, we have moved the campus of the Louisiana State University (LSU) School of Medicine to a city more than 60 miles away, placed our residents and fellows in multiple medical institutions across the state and beyond, and asked some of our faculty to relocate their practices, research, families, and homes to just as many areas. Although a few hospitals are now open in the New Orleans area, the CEO of LSU’s Health Care Services Division recently said that Katrina had issued Charity a “death warrant” and that the hospital was unsalvageable. It has been estimated that $340 million will be needed to repair Charity Hospital, $561 million to replace it. Who will care for indigent people in New Orleans in the future? Who will care for them now? Though much remains unclear, hope prevails in each of us, the hope that the same qualities that enabled Charity to persevere during and after the storm will allow this once-breached “harbor” to fulfill once again its responsibility to the patients of New Orleans. In fact, the inscription in the lobby does not end when the weary, sea-worn ships drop anchor. The full inscription reads: “In this harbor weary sea-worn ships drop anchor and new launched vessels start their outward trips.” It is time to launch a new Charity. We owe this to our patients.

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