Lessons from a Disaster
Katrina 10 Years Later

This September, the Congress of Neurological Surgeons will host its Annual Meeting in New Orleans, Louisiana. August marks the 10th anniversary of Hurricane Katrina, which devastated the city. Dr. David Kline, former chair of neurosurgery at Louisiana State University, stayed in New Orleans through the disaster and its aftermath.

Humanitarian medical missions can take many forms. Most physicians imagine working in tent hospitals in a faraway place, communicating through translators, and working with crude medical equipment. Few imagine the possibility that humanitarian needs exist in their own country, in their own city. Imagine trying to deliver complex neurosurgical care without power, without running water, in sweltering conditions. Now imagine delivering that care in your hometown.

Dr. David Kline, Boyd Professor and Chair Emeritus of Neurosurgery at Louisiana State University, delivered neurosurgical care to an indigent, impoverished population at Charity Hospital as well as at private hospitals such as Ochsner Clinic, Baptist Hospital, Tuoro Infirmary, and Hôtel-Dieu (University Hospital) in New Orleans. Charity Hospital, which opened in 1736, was one of the longest continually open public charity hospitals in the United States. The iconic art-deco edifice on Tulane Avenue in New Orleans was built under the supervision of the Federal Public Works Authority, opening its doors in 1939. This became the modern day home of Charity Hospital and the flagship teaching hospital of LSU and Tulane. Besides Dr. Kline, other neurosurgical luminaries who practiced at some point in their career at Charity include Drs. Gilbert C. Anderson, Dean H. Echols, Guy Odom, Charles Wilson, Peter Jannetta, Raeburn Llewellyn, and Donald Richardson.

Dr. Kline came to New Orleans in 1967. He spent the next four decades at Charity and other hospitals, where he developed one of the largest series of peripheral nerve injuries ever published. These hospitals provided a fertile environment for training neurosurgical trainees. General trauma care at Charity was first-rate, “well run and well organized” according to Dr. Kline. The high rate of violent crime and the large homeless and impoverished population in New Orleans both contributed to the high patient volume at the hospital.

In the summer of 2005, Dr. Kline was near retirement from the department. That August a storm was developing in the Gulf of Mexico that appeared headed for New Orleans. Dr. Kline had experienced hurricane preparations in New Orleans many times in his career. Usually these preparations were a formality. As chief of...
neurosurgery, he felt obligated to stay during these storms to care for any casualties. This storm, however, would prove to be very different. Katrina struck New Orleans on August 29, 2005, as a Category 3 hurricane. The storm surge that followed unleashed catastrophic flooding that left nearly 80 percent of the city underwater, some areas with water as deep as 15 feet. Dr. Kline’s home, along with thousands of others, was completely flooded by the storm. For five days, the entire city was without power and largely cut off from the outside world.

Dr. Kline has written compellingly about his experience after Katrina (“Inside and somewhat outside Charity,” *Journal of Neurosurgery*, 2007). The conditions in the hospital during those five days were primitive. The hospital staff survived on a good supply of bottled water and packaged (although not tasty) foodstuffs. Coat hangers were used as makeshift intravenous fluid poles when the patients were moved to a parking structure during the protracted evacuation. Despite the conditions, Dr. Kline, his residents, and other neurosurgeon volunteers, including Dr. Miguel Melgar and two of his residents at Tulane, and Dr. Gabriel Tender (a recent graduate of the LSU program) at University Hospital, delivered expert care those five days.

About two years after Katrina, Dr. Kline had a happenstance encounter while the neurosurgery department was temporarily located in Baton Rouge and at Ochsner. He did not initially recognize the man in the clinic. After a brief conversation, it became clear that this was the husband of a woman that the LSU neurosurgery team at Charity had cared for during Katrina. The woman had had traumatic contusions and post-traumatic encephalopathy, and had received frontal and temporal lobectomies. Although she had a post-traumatic seizure disorder, she had made a remarkable functional recovery.

In the aftermath of Katrina, many of the hospitals in New Orleans, including Charity, were closed. Many neurosurgical services were relocated to Baton Rouge as well as Ochsner and other outlying hospitals. Once Charity closed its doors after Katrina, they were never reopened.
There is some controversy over this decision. Although the care of the city’s poor was eventually assumed by other hospitals, especially by Ochsner and Hôtel-Dieu (University Hospital), in the weeks and months after Katrina, the care was less than optimal, according to Dr. Kline. Over time the state of health care in New Orleans has normalized. In the wake of the storm and the closing of Charity and other health care facilities, new and modernized facilities have been opened, in particular a new state-of-the-art teaching hospital for public and private care, opening this September. The neurosurgery training programs at Tulane and LSU have been reinstated and are at full resident compliments.

Looking back on his experience during Katrina, Dr. Kline defines it as a “bittersweet” landmark of his long career. Prior to the storm, he was making preparations for retirement. As a result of the physical and financial devastation wrought by the storm, he stayed on at LSU until the department could be rebuilt and a new chair could be recruited. He also had to part ways with half of his trainees as they dispersed to complete their training elsewhere. Several years later new residents were recruited, and robust training programs are presently in place in New Orleans. He has kept in touch with his former trainees, even in retirement.

Dr. Kline’s tremendous experience during and after Katrina reminds us that the humanitarian need for neurosurgical care remains great right here in the United States. With healthcare reform catalyzing dramatic changes in healthcare delivery in the US, questions remain about the future of such humanitarian care. Where are the Charity Hospitals of the future? Will the mission of these hospitals be compatible and fundable with current reforms? Will the Affordable Care Act (ACA) be able to adequately provision healthcare (especially complex neurosurgical care) for the underserved in places like New Orleans? How will neurosurgeons balance their humanitarian impulses with their professional and employment obligations? The answers to these questions will not be easy, but Dr. Kline’s career and his service during Katrina offer an example to neurosurgeons of how we can deliver humanitarian care in our own neighborhoods.