NEW ORLEANS --- The 87-year-old man with the cafe-au-lait skin lay on a pile of pillows in East Jefferson General Hospital's intensive care unit.

Dr. Tom Clark of the Centers for Disease Control and Prevention bent over the bed. A nurse peeled off a gauze bandage, revealing a long raw wound and an angry flush that ran up the man's leg.

The ulcer looked like lesions caused by Vibrio vulnificus, a bacterial relative of cholera that lurks in shellfish and seawater. Vulnificus has sickened eight people who were drenched in Hurricane Katrina's floodwaters. It killed three of them. This man might be the ninth case, and the first in Louisiana — an important sign of the emerging health threat.

But the hospital lab, Clark said, had not found the bacteria. And the man told Clark in a whisper that he had never gotten wet, though he had been evacuated from a neighborhood that was almost entirely underwater.

Instead of a signal, the ulcer was a puzzle — and an example of the confusion facing the CDC in Katrina's turbulent wake.

Holdouts at serious risk

Two weeks after Katrina roared ashore, the Atlanta-based public health agency has sent more than 200 disease detectives, environmental experts, computer geeks and logistics specialists to five states by air and multicar caravan.

They have landed in areas where medical care has been destroyed or is barely functioning and where threats to health are burgeoning.

The center of New Orleans remains soaked in floodwaters contaminated with chemicals and sewage and occasional human and animal corpses. As the water stagnates, crops of mosquitoes spring to life, and birds that can pass West Nile virus to the mosquitoes have returned from wherever they fled the storm. Fires keep flaring up, and rotting garbage, torn metal and shattered wood lie everywhere.

The dangers would be irrelevant if the city were truly empty, but New Orleans' population is growing. Military personnel, contractors, relief workers and volunteers are pouring into the city, adding to the estimated 5,000 who refused to evacuate and an unknown number who remain in unofficial shelters.

The 45 members of the CDC's New Orleans team work out of an abandoned long-term-care hospital west of the French Quarter and sleep on an aircraft carrier moored in the Mississippi River. The team is trying to detect diseases and prevent catastrophic injuries while struggling to restore the city's health care system — a task akin to rowing a boat while building it.
And also while disputing reports that the boat is sinking.

"There are rumors after every natural disaster and this is no exception," said co-chief Carol Rubin of the CDC's environmental center, which responds to hurricanes. "One day it is cholera, the next day it is typhus, the next day is typhoid, the next day it is rabies. None of them have occurred."

**A quest for information**

The CDC workers gather as many descriptions of disease and injury as possible, expecting most will be routine but knowing some will not.

Three hospitals in greater New Orleans stayed open through the storm, and two more have struggled back over the past few days. Each day since Friday, the agency has sent a team of epidemiologists to each hospital. Saturday, Drs. Neely Kazerouni and Katrina Kretsinger — an internist and immunization specialist already tiring of jokes about her first name — reported to East Jefferson. The 500-bed hospital in partially flooded Metairie evacuated its most critical patients by helicopter; it never shut down, though National Guard troops patrolled the wards.

During the storm, patients came by boat. Now they walk, bike, drive and ride in by ambulance: dehydrated elderly, relief workers with cuts and skin infections, and hospital staff whose sore throats and breathing problems might be linked to the floods.

"We're starting to see suicide attempts, elderly ladies who took pills they had left," said Monica Scheel, an emergency room nurse. "We brought them back though."

For every patient, the CDC asks the ERs to fill in a one-page form packed with check-off boxes: apparent problem, symptoms, diagnosis. The data are tabulated every evening and sent to the hospitals, the state health department and back to Atlanta.

"We're looking for any signals of imminent outbreaks, any vaccine-preventable diseases, any diarrheal illness, any other source of communicable disease," Kretsinger said. "So far, most of what we're seeing has been unintentional injuries related to the cleanup."

On Sunday evening, the Louisiana Department of Health and Hospitals released the first report from the CDC's new data collection system. From Friday morning to Saturday morning, emergency rooms saw 109 patients, including 48 with injuries or chronic illnesses and 32 with infectious diseases that had the potential to spark epidemics.

**Ailments mostly mundane**

Neighborhood clinics have sprung up across New Orleans, manned by the Red Cross, the military and disaster medical teams. On Sunday morning, three CDC staff members drove out from downtown across the empty Huey P. Long Bridge, pursuing rumors a new clinic had sprung up. They found it at the back of a wind-battered neighborhood in the cafeteria of Westwego Elementary School: nineteen physicians, nurses and emergency medical providers from Maryland, a makeshift pharmacy in the steam tables, and 32 neighborhood residents waiting at kid-sized tables for care.

"I expected to see a lot of trauma," said the clinic's chief, Dr. Michael Millin, an emergency physician at Johns Hopkins School of Medicine and a volunteer with the Maryland Defense Force. "But what we're seeing is standard internal medicine: some diabetes, some cardiac problems, a lot of elderly needing medication refills."
The clinic was already taking down patient information, but not enough to feed the CDC's analysis. Ryan Novak, a microbiologist and new member of the Epidemic Intelligence Service, the CDC's rapid-reaction force, asked Millin to consider collecting more.

Millin promised only to ask his team to think about it.

"We don't have a lot of staff," he cautioned. "We saw 76 people yesterday, and when we closed our doors, we turned away at least 20 more."

**Back to his old haunts**

A few of those involved in the CDC's Katrina deployment came because they are specialists in hurricanes or flooding. Some have ties to New Orleans. The rest, they said, wanted to help.

Clark, who evaluated the old man's leg wound, thought his own background could be useful; he studies leptospirosis, a rodent disease that has caused human epidemics after floods.

But he also had personal reasons: He went to college and medical school at Tulane and once worked at Charity Hospital. He watched from Atlanta after the levees broke, as doctors and nurses kept patients alive for days in the dark as the waters rose.

"There is something about this city," he said. "You love or you hate it, but it always stays with you. I wanted to do something to help."

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09/17/05, A/02: CDC workers in New Orleans are staying on the Iwo Jima, an amphibious assault ship. A front page story Monday about the CDC's efforts to monitor outbreaks of disease on the Gulf Coast misidentified the ship.