Review of Medical Response to Hurricane Katrina Published

In the first of what will likely be numerous retrospective summaries reviewing the response of emergency medical agencies, organizations, and professionals to the health care crises caused by Hurricane Katrina, the Congressional Research Service (CRS) published a report on September 21 indicating that blame and praise were merited in sometimes unequal measures by those designated as primary responders in national disasters. "Hurricane Katrina: The Public Health and Medical Response," a nonpartisan summary, was prepared by Sarah A. Lister and staff from the CRS Domestic Social Policy Division. The report was written while recovery efforts were only in their third week, in an effort to give members of Congress sufficient grounding to hold hearings and to make crucial decisions on how and where to allot additional relief funding. The report also addressed the performance in its first major test of the National Response Plan (NRP), launched by the Department of Homeland Security (DHS) in December 2004. The report also reviewed and clarified for Congressional members relevant authorities (which agencies were designated to fulfill which health care responsibilities in natural disasters) and the response plans that guided the public health and medical responses to the hurricane.

The writers recommended several issues for Congressional consideration. Among these were:

All-hazards preparedness and standards for public health preparedness. Some critics have speculated that an emphasis on preparing for terrorism and bioterrorism have diminished federal and local abilities to respond to natural

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SNM Responds with Dedicated Resources

Just days after Hurricane Katrina struck the Gulf Coast, SNM officers and staff created a centralized nuclear medicine resource page on the SNM Web site (www.snm.org/disaster_relief). This feature was designed to offer specific benefits for SNM members living in Federal Emergency Management Agency–designated disaster areas and to serve as a hub for professional information for molecular imaging/nuclear medicine professionals.

Through this page, SNM President Peter S. Conti, MD, PhD, and SNMTS President Valerie R. Cronin, CNMT, extended their condolences to individuals affected by the storm. They noted:

> The SNM is trying to contact our members in the Gulf Coast area, but this has been slow and difficult, since communications are poor. We have hundreds of physician and technologist members from Louisiana, Mississippi, and Alabama in the Southwestern and Southeastern chapters—with more than 50 alone who had been located in New Orleans. We are in the process of establishing an online discussion forum for members to post questions, coordinate professional needs, and share messages.

Among the announcements and features included on the site as of October 1 were:

- The SNM will extend dues deadlines for 6 months for those members who were affected by the storm. Send an e-mail to HurricaneRelief@snm.org to receive confirmation of the new due date.
- Links to employment opportunities through the SNM job bank are included, and organizations throughout the country are urged to post new openings.
- The SNM held journals addressed to areas with blocked ZIP codes. Individuals who have relocated should send new contact information to HurricaneRelief@snm.org. Those who missed issues during this time and would like to replace them, should send requests to the same address. These requests will be honored as long as journal issues remain in stock.
- Information is listed on extensions and late fee waivers for Nuclear Medicine Technology Certification Board and American Registry of Radiologic Technologists continuing education programs.
- Information is included for those displaced by the storm on connecting with other nuclear medicine professionals in a new geographic area through the various SNM chapters and their Web sites and the SNM member directory.
- Links are included to sources of federal and professional emergency information on aid and assistance to individuals affected by the storm (including the AMA Health Care Recovery Fund, now accepting applications for grants to reestablish medical practices).
- Information is available on donating time, funds, or materials to the relief effort.

In addition, the SNM set up a 2-way discussion board to link nuclear medicine/molecular imaging professionals affected by Hurricane Katrina with those who can offer assistance. The board continues to welcome information about relocation, used equipment, job openings, space available, and other topics.

Katrina: A Personal and Professional Perspective

Terence (Terry) Beven, MD, an active SNM member and past recipient of the SNM President's Distinguished Service Award, was among the many practitioners whose personal and professional lives were affected by the aftermath of Hurricane Katrina. He is currently entering his fifth decade of association with Our Lady of the Lake Regional Medical Center in Baton Rouge, LA, where he served as the director of nuclear medicine. As the storm swirled around him and as the clean-up began, he shared his on-the-spot thoughts and observations with Newsline.

AUGUST 27: We are in Gulf Shores, AL, on the Gulf of Mexico, just east of the entrance to Mobile Bay. Katrina hits Key West, moves into the Gulf and rapidly gains strength. We leave Gulf Shores, thinking the storm is heading this way. Our daughter and her family evacuate their New Orleans home and head for Gulf Shores, thinking that area will be only marginally involved. We could both be wrong.

AUGUST 29: Katrina hits New Orleans, causing severe damage, flooding. Mass evacuation occurs without specific evacuation order. Patients are housed at the Superdome, with hospitalized patients transferred to Baton Rouge hospitals. Baton Rouge is to the west of the eye and is spared severe damage, with 50–70-mph winds, trees down, and power outages of 40 hours or more for most of the community.

AUGUST 30–31: Our referring doctors along the Louisiana/Mississippi Gulf Coast disappear, as do their patients, dispersed to many sites. I go to the Our Lady of the Lake (my hospital) emergency room to aid an acutely ill Louisiana State University (LSU) medical school faculty member being seen there and find a distinguished professor from Tulane in a similar situation. Situation in ER is difficult. Although usually busy, this crowding is of record proportions. Care is orderly, but the pace is slowed by the sheer numbers of people to be seen. Both of my colleagues were seen and taken care of.

An estimated 100,000 evacuees have come to Baton Rouge. The rest are scattered from Houston to Atlanta. Families have difficulty communicating, as all of the 504 area code and much of 225 are out. This was a surprise to all of us who depend on cell phones.

Our daughter and her family had to evacuate Gulf Shores when the wave action became alarming, and mandatory evacuation was ordered shortly after they left. By this time they were unable to come west and spent a few days wandering around the southeastern United States, staying wherever they could find a hotel room. They eventually join us in Baton Rouge.

SEPTEMBER 1–5: Some who remain in New Orleans are looting. Street people move into deserted buildings and businesses and occupy the Superdome, which was supposed to be for the care of those too ill to be evacuated. All Baton Rouge commercial space is suddenly sold/leased. 1,200 homes are sold in one week. 8,000 hotel rooms are occupied. Sick ambulatory patients are housed in Baton Rouge in the LSU Assembly Center (basketball arena) and the Riverside Convention Center. All local nursing homes are filled. Local physicians and LSU faculty members volunteer to care for these individuals. I am proud my colleagues are among those volunteering.

Terence Beven, MD

At the same time, I'm surprised to see unauthorized ad hoc medical helpers show up in New Orleans and elsewhere, with a main contribution of causing confusion and impeding organized patient care activities, while trying to call attention to themselves or their cause. These groups include physicians, nurses, and paramedical personnel, and travel under a variety of titles. Despite the good intentions of many of these ad hoc volunteers, I guess I should have known that even disasters draw their share of opportunists and fringe types. Just something else to look out for during such events.

Friends who live on the east side of Mobile Bay report they are OK but experienced a 20-foot storm surge. They also say that reports from Gulf Shores of a similar surge may be incorrect.

SEPTEMBER 6: New Orleans is officially evacuated. Politicians, both state and federal, who had been vying for television exposure up to this point begin finger-pointing and self-justification when the inadequacies of the response become apparent. At the state/local level several individuals looked pretty comic in their attempts to disassociate themselves from responsibility for the very activities they had been claiming credit for only days earlier.

Medical education has been disrupted at the 2 New Orleans medical schools. Education in general is affected, with thousands of students being absorbed into the public and private systems in Louisiana and other states.

SEPTEMBER 7: FEMA maps indicate my daughter's New Orleans home may not have been flooded. We were sent satellite photos of our beach house. Damage may be less than anticipated. A little good news.

The Superdome is being evacuated. Ill patients were transported to more appropriate medical facilities. Unfortunately, the Superdome is trashed by the storm and those who stayed there and may not be usable for many months. Local hospitals are seeking to identify and employ displaced New Orleans personnel.

SEPTEMBER 8: Our daughter's husband is transferred from New Orleans to Houston to continue his aerospace employment. They move on 1 day's notice, just as the kids are placed in Baton Rouge schools. They are fortunate to have family members who provide a nice home convenient to work and schools.

Present estimates are that there are 200,000 New Orleans residents living in Baton Rouge. As one looks around the neighborhoods, where there were once 2 cars, there are now 7. This and traffic density appears to support this estimate.

The impact on continuity of medical care, particularly dialysis, chemotherapy, and radiation therapy patients, is apparent and is being addressed. Patients and their attending physicians are unable to contact each other, although personal ads are beginning to appear in the local papers.

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SEPTEMBER 12: One fact that seems to be below the media radar is the significant role played by local charities and churches in bringing immediate and sustained help to victims and to emergency workers. The power company crews had no place to stay—many were sleeping in their trucks. Local churches have made their facilities available to them so they have bathrooms, showers, and, if there isn't room inside, at least a place to pitch a tent. Many are providing 2 meals per day as long as these men and women are in the community to help.

SEPTEMBER 14: Assembly Center and Riverside Complex are cleared. All of the patients are transferred to more appropriate facilities to continue care. Other evacuees were sent to Houston, Phoenix, and Salt Lake City.

Undergraduates from the University of New Orleans, Tulane, Loyola, Dillard, and Xavier Universities are scattered to several schools, including LSU, Southern Methodist University, and Louisiana Tech.

SEPTEMBER 24: Rita hits southwest Louisiana coast and eastern Texas, and we start over again with a new (fortunately less numerous) group of evacuees that unfortunately includes our daughter and her family, 2 days after the kids start school in Houston.

SEPTEMBER 27: LSU medical school classes resumed at the Pennington Biomedical Research Center in Baton Rouge. Tulane will resume classes for 300 medical students at Baylor Medical College in Houston, with the help of famous cardiovascular surgeon, Michael Debakey, MD, a Tulane alum. Nursing, paramedical, and dental schools have also relocated to host institutions.

I routinely read studies for several practices in the New Orleans area. They were out of touch for weeks, but some are now back in their offices, starting the difficult task of trying to get in touch with their patients, and anxious to resume MPI studies. The Mississippi sites I read for in Ocean Springs and Biloxi have patients scheduled for the second week in October.

A final thought: There were many individual acts of kindness and heroism that got less press than the looters and criminal acts. And the bottom-line message of this month of crisis? Material things are insignificant, and the only truly important thing is the safety of our families and friends in times of crisis.

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disasters. Others have worried that a flexible, "all-hazard" focus would impede preparedness for specific threats (such as plague or a cyanide attack). Among the potential items suggested for review was whether the public health and medical response "met the goals Congress laid out for achieving a flexible, efficient national system" to meet health emergencies and that this review might include consideration of the "process of developing standards for federal, state, and local public health preparedness, a process that has proven difficult in the past."

Coordinated needs assessment. The report looked at the role of the Federal Emergency Management Agency (FEMA)-led Emergency Response Teams for Assessment (ERT-A), which work with state emergency operations centers and others to conduct initial and ongoing impact assessments. Recommended policy questions included whether federal mechanisms are in place to support rapid public health, medical, and mental health needs assessments and direct a capable national response and whether these processes are integrated adequately within the larger FEMA-led process.

National Disaster Medical System (NDMS). The NDMS, created in the 1980s under the Department of Health and Human Services (HHS) and transferred to DHS under FEMA in 2002, was cited as a potential problem spot for 2 organization-related reasons and 1 shortcoming in overall preparedness. The status of NDMS and its mission were sources of contention pending a restructuring scheduled for fall 2005. In addition, the report pointed to a difference in the historical approach of NDMS groups to deploy rapidly without reliance on local sources, whereas FEMA has operated on the planning assumption that state and local officials are responsible for emergency response in the first 72 hours or until federal assistance arrives. An additional concern was that NDMS team members might not be prepared to address medical challenges that they do not routinely see. Because many NDMS team members come from emergent care environments, they performed particularly well in the aftermath of Katrina. However, concerns were raised about their ability to perform in unfamiliar scenarios, such as in an attack with a biological or chemical weapon.

Continuity of operations and evacuations of health care facilities. The role of federal agencies in training and verifying that local facilities are prepared for disaster was reviewed. The report suggested that Congress might "consider options to improve general emergency preparedness in health care facilities, including the elements of planning, staffing, training, stockpiling of supplies, evacuation procedures, and coordination with emergency management authorities."

Volunteer health professionals. Results of the HHS call for volunteer emergency response professionals were reviewed, and the report suggested that Congress might consider looking at whether that response was adequate, how well the various organizations involved were coordinated, and whether there is an adequate oversight and command structure at the federal level to support such deployments.

Health information technology. Thousands of individual health records were lost in the hurricane and its aftermath, and hundreds of thousands of displaced individuals found themselves cut off from their physicians, pharmacists, and scheduled medical procedures and appointments. On September 8, HHS Secretary Mike Leavitt noted that Katrina had singlehandedly made the case for a national system of electronic health records (EHR), noting that such a system would be useful in general as well as for other emergencies such as pandemic influenza. The CRS report pointed to several pieces of legislation currently before Congress that aim to bolster requirements for implementation of a universal EHR.

The complete report, which is expected to be updated in the near future, is available through the CRS at: http://www.opencrs.com/rpts/RL33096_20050921.pdf.