Caring for Vulnerable Elders During a Disaster

In the recent past, the elderly and disabled have often been the most negatively affected by the consequences of a major disaster. The Centers for Disease Control and Prevention (CDC) determined that the elderly accounted for only 15% of New Orleans' 2005 population, but 70% of the deaths from Hurricane Katrina. In addition, at least 139 storm-related fatalities were reported from nursing homes as a result of Katrina. The disastrous storms of 2004-05 highlighted the consequences of the planning failure to integrate nursing homes into a national disaster response system.

Acknowledging the emergency planning and response deficits revealed in the 2004 and 2005 southern coastal storms, the John A. Hartford Foundation joined with the Florida Health Care Association (FHCA), the American Health Care Association, AARP, the University of South Florida, the Florida Department of Health's Emergency Operations Center, Paragon Rehabilitation and others to convene a Nursing Home Hurricane Summit in February 2006. With the continued funding support of the John A. Hartford Foundation and the assistance of the University of South Florida, FHCA convened a second Summit in May 2007, with 65 national and state leaders from long-term care (LTC), emergency management, transportation, energy, medicine, and state and federal regulatory agencies.

Ten themes dominated the summit dialogue in the form of suggestions and promising practices as well as questions and points of concern for the future. The highlights are presented here. (See Table 1 for key recommendations.)

Nursing Home Disaster Plans

- Nursing home (NH) disaster plans should be uniformly organized with common elements and terminology.
- Make sure your regulatory agency understands your plans for evacuation or sheltering in place. Do not assume that a regulatory agency will approve of your plans for evacuation or sheltering in place. Present your facility's plan to the appropriate overseer in advance to be sure it is acceptable.
- Assess the lifetime of your supplies on hand.
- Conduct drills using your disaster plan.
- Plan for the needs of special patient groups, with special concerns for persons on dialysis. Contact the End Stage Renal Disease (ESRD) network serving your geographic area for disaster planning assistance for the needs of dialysis patients.
- Nursing home plans need to include security strategies. One NH owner reported having arranged for armed guards from a nearby state to provide security.

Evacuation Decision Making

- Determine the facility's location in the storm surge zone, and evaluate its impact. While storm surge zone flooding was specifically discussed, other flooding risks must also be evaluated (facility's flood zone location).
- Determine the facility's capacity to withstand hurricane winds.

Table 1.
Key Recommendations

1. Nursing homes (NHs) must be incorporated into disaster response systems at all levels—national, state, and local.
2. Disaster response systems including Emergency Operations Centers (EOC) must designate NHs as "healthcare" facilities. These facilities must receive the same priority status for restoration of utilities (eg, power, phone service) as hospitals, and may need enhanced police protection during community recovery.
3. Shelter in place, when possible, and harden the physical plant to withstand hurricane winds and provide emergency power.
4. Long-term care (LTC) providers must know their storm surge/flood zone and the capacity of the facility's infrastructure to withstand hurricane winds, and must develop viable plans for evacuation or sheltering in place in accordance with their facility's risk.
5. Transportation for the evacuation of LTC facilities must be incorporated into disaster planning efforts at the national, state, and local levels.
6. Maintaining communications between LTC providers and EOC is vital in a disaster. Satellite phones or ham radios are recommended for use in all facilities.
7. The ability to share information and resources and coordinate evacuation and response efforts hinges on the establishment of compatible databases for shared use during disasters.
8. LTC facility disaster plans must be tested with drills that include the identification and management of cognitively impaired residents and those with special needs such as dialysis, ventilators, and oxygen.
9. LTC facility disaster plans must include a plan for communicating with NH residents, families, and staff before, during, and after a disaster.
10. Flexibility is a key determinant in successfully responding to disasters. Thus, NH and AL facility disaster plans are not, and should not be, considered set in concrete.

Use the information to both harden the facility as a mitigation strategy and to consider as a factor in the decision to evacuate.

- Resident acuity levels impact evacuation decision making. How many residents are on ventilators? How many have dementia or Alzheimer's disease? How many are dialysis patients? How many, for reasons of frailty or end-of-life issues, should not be moved? Analyzing the resident population by acuity level should help decision makers determine the order of evacuation and perhaps allow for partial evacuations. It was suggested that those with the highest risk factors be evacuated (eg, those on dialysis), while those needing custodial care might shelter in place.
- Evaluate the receiving facility. Does the NH have an agreement with a receiving facility, and is it one that the regulatory agency will accept? Can an agreement with a "like facility" be secured to receive your residents if an evacuation is necessary? If not, will your residents be able to sleep on mattresses on the floor or cots? Can you send staff with your residents? These issues must all be considered when evaluating a potential receiving facility.
- Be sure you understand the role and capacity of special needs shelters in your community. Determine whether special needs shelters exist in your area, and if so, are they appropriate settings for your residents (see *Promising Practices*). Can you evacuate residents to a special needs shelter, if staff accompany them? Is the shelter appropriate for dialysis patients or those with Alzheimer's disease?
- Mandatory evacuations—timing is everything. The lack of time to evacuate can result in a default decision to shelter in place. Will the emergency management office or other government office issuing the mandatory evacuation notify NHs in advance so that they may evacuate early? Some states have requested this consideration, but advance notice has not been granted in any state.
- Factor in evacuation transport time.
- Shelter in place, if at all possible. While there are many factors to consider, such as the availability of supplies and staff, the primary factors are the physical structure's ability to withstand hurricane winds and access to power. Being prepared to shelter in place can require a significant financial investment.

Interagency Relationships

- Nursing homes must be a part of the disaster response system. Establish a relationship with your local Emergency Operations Center (EOC) offices.
- Invite a pharmaceutical provider to join the emergency preparedness discussion. The access to an accurate list of each resident's medications, along with the availability of the medications, is critical.
- Ensure that policy makers and legislative contacts are informed about the needs of LTC residents and the results of interagency relationships in your area.

Communication

- Create a system for managing communication with a goal of reducing excessive calls.

- Be aware of equipment limitations. Satellite phones, though highly recommended, have drawbacks (eg, limited battery life and transmission failure resulting from excessive and simultaneous queries to one satellite). Text messaging, because it uses less bandwidth and, like e-mail, is not necessarily a "real time" transmission, may be able to get through with minimal delay on an overwhelmed cellular network that has otherwise reached maximum capacity for voice data.
- Include ham (amateur radio) operators in communication plans. Ham operators bring their own equipment (receiver and antenna) and operate without the need of satellites or cloudless skies. Licensed by the FCC, ham operators provide backup communication during emergencies worldwide and can be a very dependable communication link when included in a facility's disaster plan. Contact the National Association for Amateur Radio (www.hello-radio.org/clublist.html).
- Use uniform terminology when communicating during a disaster. For example, FEMA does not distinguish between types of beds when it asks for a "bed count," but in reality, the bed type must be communicated. Is the available bed a medical bed, a burn bed, a pediatric bed, or a staff bed?
- Establish command centers in the state's NH association office.

Technology and Use of Data

- Collaborate across agencies to establish databases for tracking the status of NHs during a disaster as well as bed availability. An automated tracking system for identifying available beds and the emergency status of NHs is essential.
- Identify and harness the redundancy in data systems and collaborate for shared use during disasters. Delegates discussed accessing patient medical records managed by medical suppliers such as pharmacies, as well as data available through the CMS Minimum Data Set (MDS).
- Consider the application of older technology, such as bar coding, for storing patient information and tracking medications.

Transportation

- A complete transportation resource is an appropriate vehicle and a qualified driver. A plan for the provision of evacuation transportation involves not only having equipment (vehicles), but also a qualified driver.
- School buses are not the panacea for NH evacuations.
- Recognize the limits of transportation alternatives at the community level.

(continued on page 34)

Promising Practices

- North Carolina is testing the use of community colleges as receiving facilities for NH and other evacuees when a disaster is widespread. For more information, contact Amy Bender at 704-799-1990.
- The FHCA has put NHs on the critical infrastructure list for emergency response and recovery. As an Emergency Support Function—Health and Medical (ESF-8) partner, FHCA representatives keep power companies informed of the status of NHs in storm-devastated areas.
- The Nursing Home Evacuation Transportation Workgroup is organizing a regional transportation resource network and telephone tree. For more information, contact LuMarie Polivka-West at 850-224-3907.
- The Delta Corporation issued each of its 37 NHs in Florida and Mississippi a satellite phone. During a disaster, one facility serves as communication central, fielding calls and receiving information from its sister facilities. The information is then communicated to local or state EOCs as well as state regulatory agencies. For more information, contact Scott Bell at sbell@deltahealthgroup.com.
- Florida's Web-based Emergency Status System (ESS) is used to report and track healthcare facility status before, during, and after an emergency. Facilities enroll in the ESS and, before and during emergencies, update their profile to reflect current status, including power, evacuation, available beds, and physical damage. ESS data are used by the ESF-8 EOCs to prioritize response activities and asset allocation.
- In Texas, the state has contracted with motor carrier (bus) companies to provide evacuation transportation for persons with special needs living in the community.
- A proposal for using retired metro (city) buses for short-distance NH evacuation transportation was presented by Bob Watkins of Consolidated Safety Services and Ken Presley of the United Motorcoach Association, both representatives of the motor carrier industry. The concept calls for the purchase of retired metro buses at approximately $1000 per bus, with the maintenance and insurance of the buses possibly provided by a qualified motor carrier. When needed for an emergency, the buses could be leased from the motor carrier by the NH. The metro buses have easy on/off access through center doors and can be easily retrofitted with bathrooms if desired. For more information, contact Bob Watkins at 703-691-4612.
- Through funding provided by the John A. Hartford Foundation, a software product (available in January 2008) will automate the development of a NH disaster plan. The software is aligned with the CDC and recommendations from the Centers for Medicare and Medicaid (CMS). For more information, contact Lee Ann Griffin at 850-224-3907.

65% of nursing home residents have serious hearing loss, but staff members are aware of less than 50% of the problems.[1] In a recent study of hearing loss among nursing home residents, only 30 of the 279 residents had been screened for hearing problems within the most recent year. Thirty-nine percent had been treated for excessive earwax, but 81% had neither earwax removal nor a hearing test.[1]

Most people with hearing loss can be helped with a hearing aid, but only one third of Americans 65 and older use hearing aids. According to a survey of the National Council on the Aging, reasons for not wearing a hearing aid are cost, poor performance, and vanity.[2]

The Better Hearing Institute provides a Quick Hearing Check (see www.betterhearing.org/hearing_loss/quickHearingCheck.cfm) that may be helpful to AL residents who wish to assess their own hearing. For further information on how audiologists can help screen AL residents for hearing difficulties, see *The Role of the Visiting Audiologist in AL Facilities* on page 40 of the September/October issue of *ALC* (www.assistedlivingconsult.com/issues/03-05/alc910-Team-919.pdf). ALC

References

1. Cohen-Mansfield J, Taylor J.Hearing aid use in nursing homes. *J Am Med Dir Assoc.* 2004; 5(5):283-296.
2. Hearing loss: a growing problem that affects quality of life [newsletter]. National Academy on an Aging Society. December 1999.
3. The association between cardiovascular disease and coclear function in older adults. Population Health Program Faculty, Wisconsin University. First Annual Population Health Poster Session. Selected abstracts. 2001-2002.
4. Hearing loss in older adults may compromise cognitive resources for memory. *ScienceDaily* Web site. www.sciencedaily.com/releases/2005/08/050814164329.htm. Accessed November 8, 2007.
5. Kochkin S. The consequences of untreated hearing loss. The Better Hearing Institute Web site. www.betterhearing.org/hearing_loss/. Accessed November 8, 2007.

Caring for Vulnerable Elders During a Disaster

(continued from page 32)

- Advocate for NHs to receive advance notice of mandatory evacuations and state police escorts.
- Include LTC facilities in state, regional, and national transportation planning efforts.
- Nursing home providers would benefit from working to establish a network of NHs. Also establish relationships with area churches that might be willing to provide access to church vans and help in the emergency evacuation of NHs in buses during an emergency.

Regulatory Issues

- Consider the length of time it takes to improve the health status of many returning NH evacuees.
- The purpose of a NH survey visit immediately following a disaster should be reviewed and clarified.
- State NH associations and the state's regulatory agency should discuss and clarify mutual expectations for the period immediately following the disaster.
- Federal statutory regulations administered by the Centers for Medicare and Medicaid (CMS) need to be reviewed with regard to reimbursement during a disaster. While resident safety is the first priority for NHs, reimbursement policies during a disaster must be a major CMS priority.
- Amend the federal Stafford Act to ensure that private for-profit NHs affected by a major disaster are eligible to receive assistance.

Power Restoration

- Educate emergency managers of the similarities between hospital and NH populations. Not all emergency managers will be aware of the high-risk health status of today's NH resident.
- Develop a positive and strong relationship with each major power company's disaster response team leader in your state.
- Use of generators takes pre-planning. Generator back-up systems need to be checked regularly and have sufficient fuel for 4 to 5 days or more. Be sure generator fuel is secure and safe from unauthorized use. Generators for NHs are not "off the shelf." They are designed to accommodate the facility's particular power load, as determined by an electrician.

Training and Drills

- Training must be facility based using the facility's own plan, staff, and partners.
- The complexity of the NH environment demands frequent and realistic disaster training. The decisions that NH administrators must make during a disaster are complex. Decisions require integrating information about the structural capacity of the building to withstand wind and the facility's location in the surge and flood zones with information about patient acuity levels, evacuation transportation, and receiving facilities. Conduct realistic and frequent drills that test every dimension of the facility's incident command structure.

Ethical Concerns

The decision to evacuate or shelter in place involves both clinical and ethical elements, and measures to ensure that the basic safety guidelines are followed. The decision also involves a variety of stakeholders. The objective of using an agreed-upon approach through a uniform pathway is to satisfy stakeholders that the decision-making process is sound. In addition, the decision will stand the test of public scrutiny even if the course of action adopted and/or the outcome were to be criticized. ALC

Source: *Caring for Vulnerable Elders During a Disaster: National Findings of the 2007 Nursing Home Hurricane Summit.* St. Petersburg Beach, FL. May 21-22, 2007. Convened by The Florida Health Care Association. Funded by The John A. Hartford Foundation. www.fhca.org/news/summitfinal.pdf