DEAR DR. JEFF
Jeffrey Nichols, MD, CMD

Make Disaster Planning a Priority

Dear Dr. Jeff:

Recent headlines about nursing home disasters in Florida and Texas have frightened our leadership. Although the facility is more than 500 miles from either coast, on the advice of our lawyers and with the encouragement of the state health department, we are preparing a “hurricane drill” to simulate a possible tropical storm and our response. Is this a genuine risk management concern, a legal or code requirement, or just another CYA exercise?

Dr. Jeff responds:

Thirty years ago, the folksinger-songwriter Tom Paxton wrote and recorded a song about possible disasters. His lengthy list went from tornadoes, war, rampaging floods, Genghis and the Khans, blizzards, gruesome diseases, locusts, and dust storms to “Ivy League football to ruin the fall.” But, he concluded, the worst of all was that soon the country would have 1 million lawyers. By 2015 the number was actually over 1,300,000 according to the American Bar Association, compared with the 925,000 active doctors in 2017.

The 2016 revisions to the Requirements of Participation, the federal “code” that governs participation in Medicare and Medicaid, included updates concerning disaster planning. These revisions, which take effect in November, have expanded the already existing requirements regarding mandatory planning. Before these revisions, facilities were required to plan annually for two potential disasters: one internal disaster — for example, the call bell system shorting out — and one external disaster that might somehow stress the facility. If an actual disaster occurred, the facility’s response could be reviewed and the review substituted for the required plan. These plans had no required format and were not generally even confirmed on survey, much less reviewed or critiqued. One facility where I worked chose a potential nearby hospital. It is also evident that relying on communication with distant state officials was unsuccessful.

The names and telephone numbers for all necessary contacts should be part of a good plan. And this information must be preserved in an accessible location for when the administrator or disaster coordinator is off-site.

Nursing homes depend on a wide variety of external suppliers — not just for food, water, and electricity, but also for routine and emergency medications, controlled drugs, clean laundry, intravenous fluids and tube feedings (perhaps even total or peripheral parenteral nutrition), sewer services and waste removal sufficient for infection control, and sterile dressings and other nursing supplies. During Hurricane Sandy, many of the nursing homes that sheltered in place and were not flooded were still adversely affected by the destruction of the central office and warehouse of a major pharmacy vendor. After 9/11, the facility where I worked was inside a locked-down zone — our local police precinct had to intervene to get permission for a garbage truck to enter the area to empty our overflowing trash bins (think soiled adult diapers).

The hurricane headlines have buried the usual late summer news coverage of wildfires in the West, including one that reached the edge of Los Angeles. When the hurricane and fire seasons end, the season for blizzards and ice storms begins. If you also add in toxic chemical spills or radiation leaks, unexpected environmental threats such as the contaminated Flint water supply or coal slurry spills, terrorism, or the next pandemic, there is no shortage of disasters to plan for.

The individual risks to your facility may vary widely. Regional geography, local industry, and site location may dramatically affect your risk profile.

Community Collaboration

One element that nearly all disaster plans should share is collaboration with city, county, and state emergency management agencies and facility vendors, including utilities. The governmental structures and agency names will vary, and the specifics regarding available support will certainly vary, but every plan should include communication regarding facility needs and available resources.

Although federal agencies such as the Federal Emergency Management Agency (FEMA) may step in to coordinate relief, during the early phases of most disasters the local officials will be in charge. Do they know you have a unit for ventilator-dependent patients or on-site dialysis? Do you have demented residents at risk for wandering out into the storm during the enhanced confusion of an emergency, when electronic security systems have failed? Are they aware of the number of frail patients who depend on your care? Are you included in the regional planning? Do they even know you exist?

The needs of an “old folks’ home” may be very different from those of a skilled nursing facility. Whatever the details of the tragic deaths of 11 residents of the Rehabilitation Center at Hollywood Hills in Florida may ultimately reveal, there is no doubt that the local electric utility was not as responsive to the Center’s needs as it was to those of the nearby hospital. It is also evident that the potential for greater storm-associated rainfall. The suburbanization of previously rural areas has led to roads, driveways, and mall parking lots that prevent groundwater absorption, which dramatically increases runoff into streams, lakes, rivers, or sewer systems. Our water drainage and sewer capacity have generally not kept pace with our changing demographics and lifestyles, multiplying the potential areas for flooding. One of my vivid memories of Hurricane Sandy was the geyser of water shooting up through Suffolk County sewers when the ocean storm surges backed up the sewer drainage of rainwater.

Although hurricanes have attracted the greatest attention recently, they are obviously not the only potential natural disasters that might place a nursing home at risk. Tornadoes affect every state; although they traditionally are associated in the popular imagination with Kansas, Oklahoma, and the so-called Tornado Alley across the Midwest, they are actually more common in the southeastern United States. Florida is the state with highest average number of tornados per 10,000 square miles. Kansas comes in second, and Mississippi, South Carolina, Alabama, Maryland, and Louisiana are all in the Top 10.

Minor earthquakes are extremely common throughout the United States, and moderate-sized quakes have occurred this year in Oklahoma (where the frequency and severity seem to be increasing, perhaps due to extensive fracking activity) and in California and Alaska. The Aleutian Islands chain is particularly earthquake prone; its volcanic islands form the northern edge of the “Ring of Fire” that circles the Pacific Ocean. Although the Aleutian Islands do not have any nursing homes, its offshore earthquakes can provoke tsunamis, with destructive waves traveling hundreds of miles to potentially devastate coastal facilities.

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Dr. Jeff responds:

Another CYA exercise?

Response. Is this a genuine risk management concern, a legal or code requirement, or just another CYA exercise?
Revisiting and updating emergency plans is not simply a code requirement — it is a necessity.

Finally, we must remember that the most essential resource for our facilities is people. There must be provision for at least the minimum necessary staffing, including replacement staff to relieve those who need rest, particularly in any prolonged disaster recovery period. Even the facilities that choose to evacuate or are ordered to evacuate may have difficulty not only in identifying sufficient transport vehicles, but also in finding sufficient drivers when those individuals also have to evacuate their own families.

An attack by a zombie dragon breathing fire may be unpredictable and devastating — still, we must try to prepare. The next disaster will not be the same as the last one — climate changes, as do infrastructure, technology, and personnel. The states may increase their requirements regarding emergency generators (as Florida is reportedly doing), but no one is prepared to live 3 to 6 months without power, as is now predicted for parts of Puerto Rico. Effective planning may help prevent resident suffering and save lives, even if it cannot anticipate every need. One million lawyers may not be the greatest disaster of all.

Dr. Nichols is president of the New York Medical Directors Association and a member of the Caring for the Ages Editorial Advisory Board.

Three Cheers for Tai Chi
Christine Kilgore

Tai chi practice may reduce the rate of falls in at-risk and older adults, especially over the short term, according to a meta-analysis of 10 qualifying randomized controlled trials.

The ancient Chinese practice of tai chi, which focuses on flexibility and whole body coordination, has been reported to be an effective exercise for improving balance control and flexibility in older adults. The recent meta-analysis of tai chi studies found high-quality evidence that it reduced the incidence of falls by 43% in older adults followed over the short term (less than 12 months) and by 13% in those followed for a year or longer (J Am Geriatr Soc 2017;65:2037–2043).

With respect to injurious falls specifically, there was low-quality evidence of a 50% falls reduction at short-term follow-up, and a 28% reduction at long-term follow-up. Tai chi had no effect on the time to first fall (with a moderate quality of evidence).

“The practice of tai chi can reduce the falls rate by almost half during the first year of follow-up, and this effect can be extended to more than 1 year of follow-up, although the magnitude of this effect is substantially reduced,” said Rafael Lomas-Vega, PhD, and co-investigators at the University of Jaén in Spain, who called the waning protective effect “curious.”

All 10 studies analyzed the effect of tai chi alone (not combined with other interventions) and compared it to usual care or to other therapies such as yoga, physical therapy, and functional walking. Participants in the studies ranged in age from 56 to 98 years old; four of the studies focused on frail older adults.

The length of interventions ranged from 12 to 26 weeks, and the frequency of sessions ranged from one to three times a week. The tai chi sessions were between 30 and 90 minutes long; in 6 of the 10 studies, the sessions lasted for 60 minutes.

Christine Kilgore is a freelance writer in Falls Church, VA.