How to Prepare Your Veterinary Practice and Community for a Hurricane

Dana N. Zimmel, DVM, Diplomate ACVIM, Diplomate ABVP

Author’s address: University of Florida, College of Veterinary Medicine, 2015 SW 16th Avenue, Gainesville, FL 32608; e-mail: zimmeld@mail.vetmed.ufl.edu. © 2006 AAEP.

1. Introduction
Hurricane Katrina has clearly shown the need for veterinary practices to be prepared for natural disasters. The number of equine communities that are vulnerable to hurricanes is extensive. There are two distinct situations that need to be addressed: first, how should a veterinary practice prepare and operate in a disaster, and second, how should veterinarians work together and organize their community in the event of a large-scale disaster.

The veterinary practice is confronted with multiple layers of problems. First, the practice must consider the protection of staff, hospitalized patients, and property before the arrival of the hurricane. The next step is to determine the resources needed to continue to operate after the storm. The practice’s employees should be well versed with the county, state, and government resources available and understand when those services can be used.

In the event of a large-scale disaster, the community must work together to pool resources to continue providing service to clients. The logistics of organizing a large-scale hospital/rescue operation are overwhelming and labor intensive. Planning and a clear chain of command are critical to a successful outcome.

2. Materials and Methods
The Veterinary Practice
A written disaster plan for each veterinary practice should be updated regularly. Plans should account for variations in hurricane intensity (wind speed) and the potential for flooding (storm surge). The items on the list should address operating hours of the practice, staffing, hospitalized patient care, and facility safety. Each building should be evaluated for the ability to encounter various wind speeds to determine when they need to be evacuated. It is standard operating procedure that emergency responders do not operate vehicles (fire trucks and ambulances) in sustained winds >35–40 mph. For this reason, hospital staff should not be in transit during a hurricane. All ambulatory farm calls should be discontinued until conditions improve. A complete staff roster should be given to the chief of staff that provides all names, home phone numbers, and cell phone numbers. The roster should be in a pyramid where one person only needs to call two others and so on. This method of communication is rapid and can be combined with a specific radio station or TV channel (determined in advance) to inform personnel of changes if the storm strength rapidly shifts.
Clients need to be informed of the structural integrity of the hospital if it is to be used as a shelter. In some circumstances, it may be necessary to evacuate sick horses to another facility well in advance of landfall. The decision to evacuate the hospital needs to include the risk of the nursing staff required to stay behind and care for the patients. If a particular horse cannot be evacuated, it may have to go without attendance for 18–36 h if human lives are at risk.

Each veterinary practice should conduct an analysis of the facility for potential problems. Items to evaluate include large trees that can fall and collapse a building, low-lying areas that are prone to flooding during excessive rainfall, and rooms within the building that are at risk for high wind damage (large windows, garage doors). The loss of electrical power can be devastating for a veterinary practice. Large quantities of refrigerated inventory may be lost in a power outage. If the practice uses a well, there may be no method to obtain water for horses, flush toilets, or wash instruments. For large hospitals, the lack of power may stop the ability to perform laboratory tests and surgery. Each practice should determine its electrical needs and purchase a generator to accommodate the basic necessities. Home Depot and Lowe’s have easily assessable charts to determine the wattage needed to run simple household appliances. To run a well pump, the generator must be sized to deliver at least 65% of the rated voltage during motor starting to turn on the generator. If the well motor uses a 2-hp well, which requires a 4-KW or a 4000-watt generator. The generator should always be started first before turning on the well motor. Always stop the motor before turning off the generator. The motor thrust bearing can be damaged when the generator is turned off first or allowed to run out of fuel. Storage of fuel for the generator must also be considered. In times of severe devastation, the supply of gasoline may be interrupted for 7–14 days.

For ambulatory practices, the supply of fuel can limit the ability to respond to client emergencies. It is ideal to contact the local county Emergency Operations Command (EOC) director before the arrival of a hurricane. Arrangements can be made to obtain privileges to work after curfews and obtain fuel from the county maintenance yard or the sheriff’s office. The EOC should issue a badge that will permit entrance into disaster areas. Communication between clients is likely to be disrupted during and after hurricanes. Loss of electrical power will cause loss of power to cellular phone towers. Cell phones may take several days to become operational. It is advisable to contact clients before the hurricane landfall and develop a plan. For example, a veterinary practice can contact all of their clients before the storm and inform them that the office will have a dry erase board on the outside of the building where messages can be left by people in need of service. The board will be checked twice daily, and the veterinarian will come to the farm when needed.

Formation of Hospital/Rescue Operation in the Community

Hurricanes such as Katrina and Andrew have taught us many lessons when dealing with a large number of horses that need to be rescued and attended to medically. Every equine-dense community should develop a set of plans for crisis situations. The topics to be considered should include the following: equine shelters, equine hospitals supplied with generators, horse transportation, veterinary supplies, communication, horse identification, and personnel to run the operation.

Identify possible equine facilities that can be used to shelter loose, rescued, or relocated horses. The ideal facility will have suitable stalls, water, electric, and equipment for removing manure as well as a secure perimeter. There needs to be a security guard in place to monitor all horses moving in and out of the facility. In large scale operations, there needs to be a dedicated area for injured horses and horses that have contagious diseases. The facility should have reasonable storage for hay, grain, and bedding for the number of occupants plus donated supplies. The supplies needed to turn an equine show facility into a shelter include water buckets, feed buckets, halters, lead ropes, and basic grooming equipment. Barn tools such as pitchforks, brooms, hoses, feed carts, and double snaps are basic needs. In addition, refrigerators, control-drug lock boxes, shelving, and an ATV or golf cart may be needed. Clipboards should be provided for each stall for feed orders and patient identification.

If there are any equine hospitals in the area, it will be necessary to investigate their ability to function during a disaster. Will there be adequate personnel? Can they provide critical care? How many critical-care patients can they take? Hospitals and shelters also need to develop a policy for treatment of horses if the owner cannot be identified or contacted.

Local horse-transportation companies should be contacted to see if they would be willing to aid in moving horses that are loose or in need of evacuation. Many horses can be stolen during disaster situations. Transportation providers should be in contact with the county and state officials when transporting horses of unknown identity. Fuel should be available from state resources to these specific groups if the proper steps have been followed.

Stocking an equine shelter with adequate veterinary supplies in 24 h can be an incredible challenge. Contact the local veterinary distributors and discuss the on-hand supplies that will be readily assessable. The most commonly needed supplies include antibiotics, non-steroidal anti-inflammatory drugs (NSAIDs), tranquilizers, ophthalmic medications, bandaging supplies, hoof equipment, clippers, surgical scrubs, alcohol, suture, minor surgical instru-
ments, mineral oil, buckets, stomach pumps, stomach tubes, sterile and non-sterile gloves, isolation gowns, disinfectants, sharp containers, and equipment for running IV fluids.

Communication is always the most critical aspect of a successful operation. A clear chain of command needs to be established. Individuals should be well versed in the incident command system (ICS). This training can be obtained online at http://training.fema.gov/EMIWeb/IS/is100.asp. ICS training is a must to integrate with county and state disaster personnel. Every situation will be different and require innovation to overcome new obstacles. In Louisiana during Hurricane Katrina, Louisiana State University had to set up a command center that included a horse hotline to take calls from people who needed help or wanted to donate supplies. They set up a computer database to log in requests, and they organized teams for individual rescue operations. They worked very hard with the media to get the word out of their rescue efforts and the location of where horses were being housed. Every county should have a public information officer (PIO) that can help pass messages on to newspapers, radio stations, and TV stations.

Any rescued horse must be identified with a photo and/or a written description at the time of collection. Horses should wear an identification tag number that describes the area in which the horse was recovered. All horses should be screened for a microchip, and any other identification marks such as lip tattoos or freeze brands should be recorded. Owners who want to claim their horse must show proof of a Coggins test, a microchip number, or a picture.

The number of veterinarians, technical staff, and volunteers needed to operate the temporary shelter is dependant on the number of horses and the severity of their injuries. Large numbers of horses require personnel that provide basic daily needs like cleaning stalls and feeding. A volunteer captain should be in charge of making schedules and assigning duties. All volunteers should sign a waiver, and their qualifications need to be assessed before working with any horses. All personnel should wear nametags to identify them. There should be individuals in charge of horse identification, inventory of feed, bedding and medical supplies, and entry and exit of horses. Personnel who are critical to the management of a temporary hospital/rescue facility will need sleeping quarters such as a motor home. Long hours of hard, stressful work can be tolerated if people can sleep in an air-conditioned environment. Resolution of all displaced and injured horses may take over 30 days. Basic communication devices are needed to organize large-scale efforts. A computer, printer, and fax machine along with radios will facilitate daily tasks.

3. Conclusion
Planning is valuable and can be cost effective for veterinary practices. It is difficult to predict every scenario that can occur, but the above principles are lessons learned from the past. Every state has different levels of emergency management support during disaster situations. It is best to integrate with the state’s resources and learn what resources are available. In the state of Florida, the state veterinarian’s office is in charge of making initial assessments of the needs of veterinary practices. Work is underway to identify the location of all veterinary practices in Florida by global positioning system (GPS) coordinates, which will aid in the assessment stage. The College of Veterinary Medicine at the University of Florida has developed a team that will assist the state veterinarian in providing this initial support. In addition to providing veterinary assistance, each state should determine the resources needed for large-animal rescue. This requires specialized training and equipment for situations such as swift-water rescue, removal from sink holes, or helicopter rescue. The events of 2005 underscore the importance of being self-sufficient and investigating the pathways to protect your practice and your community.