

Incident Planning Guide: Tornado

Definition

This Incident Planning Guide is intended to address issues associated with a tornado. Tornadoes involve cyclonic high winds with the potential to generate damaging hail and rain. They can develop during severe thunderstorms and typically have durations of minutes to hours. Hospitals may customize this Incident Planning Guide for their specific requirements.

Scenario

At 2:30 PM on a Sunday afternoon, the National Weather Service issues a tornado watch that includes a large portion of your state, including the areas surrounding your hospital. At 3:35 PM the National Weather Service issues a severe thunderstorm watch concerning a line of severe storms developing in your general area. At 5:45 PM the National Weather Service upgrades the watch to a warning, and radar reports indicate a large line of severe thunderstorms moving toward the areas around your hospital. At 6:45 PM a local weather spotter confirms a tornado on the ground in your immediate vicinity moving toward your hospital. At 7:00 PM the power blinks off and on but then stabilizes. At 7:06 PM the tornado hits the south and west sides of the hospital. The roof is damaged and the top floor of a patient care wing is exposed. The tornado that damages the hospital lasts approximately 15 minutes with severe winds and heavy rainfall in the immediate area. At 11:00 PM, the main utility electrical power fails and your emergency generators engage to power critical circuits. The phone system outside of the hospital has been disrupted and some cell towers are down. Major damage is reported by media throughout the local area. Your hospital's damage assessment includes numerous broken windows, damage to two load bearing walls on the south and west sides of the hospital, where the roof was damaged as well as the areas directly beneath it. Staff and patient injuries have been reported, but there are no fatalities. All patients, staff, and visitors are accounted for. Some areas remain able to provide safe patient care. Downed trees and power lines are expected to prevent restoration of utility power systems until tomorrow morning at the earliest. Families of patients and staff are attempting to contact or come to the hospital to find out about their loved ones. Media representatives are also beginning to arrive onsite and are requesting interviews with staff and patients. There is a need for behavioral health counseling for patients, staff, and visitors impacted by the incident.

Does your Emergency Management Program address the following issues?

Mitigation

1.	Does your hospital address the threat and impact of a tornado incident in the annual Hazard Vulnerability Analysis, including the identification of mitigation strategies and tactics?
2.	Does your hospital reside in a safe location to maintain operations during a tornado?
3.	Does your hospital have a process to consider relocating hazardous materials and chemical agents to prevent contamination in case of storm damage?
4.	Does your hospital regularly monitor pre incident weather forecasts and projections?
5.	Does your hospital participate in pre-incident local response planning with public safety officials (e.g., emergency medical services, fire, and law enforcement), local emergency management officials, other area hospitals, regional healthcare coalition coordinators, and other appropriate public and private organizations, including meetings and conference calls to plan and share status?
6.	<p>Does your hospital have a plan to initiate pre incident protective actions to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Protect windows? <input type="checkbox"/> Secure outside loose items? <input type="checkbox"/> Test backup generators? <input type="checkbox"/> Bring in supplemental supplies of essential items (e.g., food, water, medications, lighting)? <input type="checkbox"/> Protect or relocate high risk areas? <input type="checkbox"/> Relocate at risk items to lower levels? <input type="checkbox"/> Secure surveillance cameras? <input type="checkbox"/> Activate amateur radio operators? <input type="checkbox"/> Top off fuel tanks? <input type="checkbox"/> Consider other actions as indicated?
7.	Does your hospital have multiple methods and equipment for evacuating patients (e.g., chairs, stretchers, backboards, sled type devices, blanket drag, single person carry, multiple person carry)?
8.	Does your hospital have evacuation equipment for bariatric and special needs patients?

Preparedness

1.	Does your hospital have a Tornado Plan?
2.	Does your hospital have a plan for reminding staff about personnel and family emergency preparedness? Do they exercise the plan annually?
3.	Does your hospital exercise the Tornado Plan annually and revise it as needed?
4.	Does your hospital provide training and education for staff preparedness related to tornado weather in your emergency management program annual goals?
5.	Does your hospital participate in community tornado exercises?
6.	Does your hospital have a plan to participate in the Joint Information Center in cooperation with local, regional, and state emergency management partners?

7.	<p>Does your hospital's communication plan include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use of social media for communication? If so, <ul style="list-style-type: none"> o Who can use social media? o Who approves the use of social media? o When is use of social media not appropriate? <input type="checkbox"/> A plan to distribute radios, auxiliary phones to appropriate people and hospital areas? <input type="checkbox"/> A plan for rapid communication of weather status (watch, warning) and direction of storm? <input type="checkbox"/> A plan for rapid communication of situation status to local emergency management and area hospitals? <input type="checkbox"/> Does your hospital have pre incident standardized messages for communicating risks and recommendations to the public and media?
8.	<p>Does your hospital have the technology (e.g., TV, internet, radio) and a policy in place to monitor external events?</p>
9.	<p>Does your hospital have staffing plans that include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Contingency staff utilization and support plans? <input type="checkbox"/> An established list of backup or relief staff that need to be in the hospital before or after the storm to continue patient care? <input type="checkbox"/> A list of nonessential staff that may be used in alternate roles? <input type="checkbox"/> A plan to modify staffing and work hours? <input type="checkbox"/> A plan to provide child care or dependent care for staff so they can report to and remain on duty during or after the storm?
10.	<p>Does your hospital have a process to determine daily clinical and nonclinical services to be continued or modified during the incident?</p>
11.	<p>Does your hospital have a plan for alternate care sites within the hospital, including set up, equipment, staffing, and signage? Does the plan indicate who can activate the alternate care sites?</p>
12.	<p>Does your hospital have a plan to accommodate pregnant women who report to your hospital before or after the storm?</p>
13.	<p>Does your hospital have plans to maintain infrastructure during and after the storm, including:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Power? <input type="checkbox"/> Water? <input type="checkbox"/> Personal hygiene and sanitation supplies (e.g., hand wipes, portable toilets, and potable water)? <input type="checkbox"/> Lighting (e.g., flashlights, portable lights, etc.)? <input type="checkbox"/> Sewer? <input type="checkbox"/> Heating, ventilation, and air conditioning? <input type="checkbox"/> Medical gases? <input type="checkbox"/> Agreements with fuel suppliers to ensure a supply of fuel for emergency generators and vehicles? <input type="checkbox"/> Agreements with contractors that can perform repairs after the storm? <input type="checkbox"/> Other infrastructure as required?

14.	<p>Does your hospital have supplies for response to injuries on campus in damaged areas, including</p> <p><input type="checkbox"/> First aid supplies?</p> <p><input type="checkbox"/> Work gloves?</p> <p><input type="checkbox"/> Safety goggles and helmets?</p> <p><input type="checkbox"/> “Safesticks” for live wires?</p>
15.	Does your hospital have a process for a structural assessment including use of a structural engineer to determine structural safety?
16.	Does your hospital have mutual aid agreements with emergency medical services and with other hospitals when your hospital has to be abandoned?
17.	Does your hospital educate staff on sheltering and other actions to be taken during a tornado? Does the plan indicate who has the ability to emergently relocate patients away from a hazard?

Immediate and Intermediate Response

1.	Does your hospital identify who has the authority to activate the Tornado Plan?
2.	Does your hospital have a plan and backup systems to maintain communications with the local Emergency Operations Center and other officials during and after the storm?
3.	Does your hospital have a process to evaluate the need for further evacuation of areas of the hospital as a result of structural damage, flooding, or other storm damage?
4.	Does your hospital’s evacuation plan include notification of family members when patients are moved to other hospitals?
5.	Does your hospital have a Fatality Management Plan that integrates with law enforcement and medical examiner or coroner?
6.	Does your hospital have protocols to notify local public health and other response agencies as appropriate of patient status and medical and health problems presenting by types of illness or injury?
7.	Does your hospital have a process to determine the need for canceling elective procedures and surgeries and other nonessential hospital services and activities?
8.	Does your hospital have a plan to transport staff and their families living in potentially flooded areas or without transportation to the hospital to ensure staffing? Does your hospital have a plan to house staff and their families that cannot return to or lose their homes in the storm?
9.	Does your hospital have a plan and procedures to ensure continuation of patient care services?
10.	Does your hospital have a plan to provide rest and sleep, nutrition, and hydration to patients, staff, and visitors before, during, and after the incident?
11.	Does your hospital have procedures to regularly evaluate infrastructure and operational needs and to implement appropriate actions to meet those needs?
12.	Does your hospital have a plan to maintain essential contract services (e.g., trash pickup, food service delivery, linen and laundry)?

13.	Does your hospital have procedures to monitor environmental issues, water safety, and biohazardous waste disposal during and after the storm, for an extended period?
Extended Response and System Recovery	
1.	Does your hospital have a Business Continuity Plan for long term incidents?
2.	Does your hospital have position depth to support extended operations of the Hospital Incident Management Team?
3.	<p>Does your hospital have procedures to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Perform interior and exterior damage assessments? <input type="checkbox"/> Evaluate infrastructure needs? <input type="checkbox"/> Initiate a repair plan and contract for needed repair assistance? <input type="checkbox"/> Reevaluate need for evacuation? <input type="checkbox"/> Report damage to the Hospital Command Center and initiate appropriate repairs during and after the storm? <input type="checkbox"/> Monitor contractor services (e.g., worker safety and costs)? <input type="checkbox"/> Inventory equipment, medications, and supplies? <input type="checkbox"/> Salvage equipment remaining onsite? <input type="checkbox"/> Secure kitchen and laundry areas? <input type="checkbox"/> Secure diagnostic radiology areas, medications, and isotopes? <input type="checkbox"/> Maintain heating, ventilation, and air conditioning control? <input type="checkbox"/> Maintain traffic control on campus? <input type="checkbox"/> Support remaining staff? <input type="checkbox"/> Ensure equipment, medications, and supplies are reordered to replace stock supplies? <input type="checkbox"/> Ensure all necessary equipment is usable and safety checked, and equipment and supplies are reordered, repaired, and replaced, as warranted? <input type="checkbox"/> Return borrowed equipment after proper cleaning and replenishment of supplies? <input type="checkbox"/> Prioritize service restoration activities? <input type="checkbox"/> Restore normal nonessential service operations? <input type="checkbox"/> Repatriate evacuated patients and staff?
4.	Does your hospital have procedures for reporting and documenting staff injuries?
5.	Does your hospital have a policy and procedure to address line-of-duty death?
6.	Does your hospital have a plan to provide behavioral health support and stress management debriefings to patients, staff, and families, including obtaining services of local or regional resources?
7.	Does your hospital have procedures to debrief patients, staff, and community partners?
8.	Does your hospital have a continuing process to capture all costs and expenditures related to operations?
9.	Does your hospital have a process for submitting costs for disaster reimbursement from insurance carriers, as well as local, state, and Federal Emergency Management Agency disaster relief?

10.

Does your hospital have procedures to collect and collate incident documentation and formulate an After Action Report and Corrective Action and Improvement Plan?
