Incident Planning Guide: Severe Weather with Warning

## Definition

This Incident Planning Guide is intended to address severe weather situations such as ice storms, heavy snowstorms, rain, flooding, severe heat or cold, or other severe weather events where warning is provided prior to the incident. Severe thunderstorms and hail associated with tornados are considered in a separate Incident Planning Guide. Hospitals may customize this Incident Planning Guide for their specific requirements.

## Scenario

An extended and severe storm was predicted and your hospital implemented response plans including an activation of the Hospital Command Center. Heavy rains started yesterday morning as forecasted and are expected to continue for the next day and a half. High winds have caused many fallen trees, resulting in traffic congestion and lack of vehicle access in some areas. Local officials predict flash floods with small streams and local flooding. There are areas in the community that have lost power with unknown time estimates for restoration of service. About 100 community members have taken shelter in the hospital cafeteria and waiting rooms. Traffic blockage and family needs have affected your staffing with about 20% absenteeism so far. Your hospital’s campus grounds are saturated and there is an inflow of water from the street and local creeks, creating large areas of pooled, deep water in low lying areas. Water is slowly seeping through saturated ground into the hospital basement but pumps have been able to keep it under control. This morning your hospital’s roof was damaged by the winds and some water is leaking into the upper floors leading to internal patient evacuation to lower floors. Plant engineers are concerned the water may disrupt electrical circuits and lines. Further, your emergency generators are in the basement and could be rendered inoperable if flooding further impacts that area. Several staff have been on site for two days and are requesting to go home to care for their families and check on property. The hospital’s main entrance and the entrance to the emergency department will soon be flooded if the rain continues. Engineering reports that water from the roof leak has damaged wiring in the ambulatory surgery and pediatric departments. There are repeated calls from media for information and interviews as well as concerned calls from patient families. Regulatory agencies have requested status reports every six hours. There is a need for behavioral health counseling for patients, staff, and visitors impacted by the events.

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| **Does your Emergency Management Plan address the following issues?**  |
| **Mitigation**  |
| 1.  | Has your hospital addressed the threat and impact from severe weather in your annual Hazard Vulnerability Analysis, including the identification of mitigation strategies and actions?  |
| 2. | Does your hospital reside in a safe location to maintain operations during severe weather? |
| 3. | Does your hospital have a process to consider relocating hazardous materials and chemical agents to prevent 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. | Does your hospital have a plan to initiate pre-incident hospital protective actions to:* Protect windows?
* Secure outside loose items?
* Test backup generators?
* Bring in supplemental supplies of essential items (e.g., food, water, medications, lighting)?
* Protect basement high risk areas?
* Relocate at risk items to other areas?
* Secure surveillance cameras?
* Activate and support amateur radio operators?
* Top off fuel tanks?
* Consider other actions as indicated?
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| 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 Severe Weather Plan that includes:* Education of staff on sheltering and other actions to be taken during a tornado?
* Identification of who has the authority to emergently relocate patients away from a hazard?
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| 2. | Does your hospital have a plan for reminding staff about personal and home emergency preparedness and the importance of exercising it annually? |
| 3. | Does your hospital exercise the Severe Weather Plan annually and revise it as needed? |
| 4.  | Does your hospital provide training and education for staff regarding severe weather in your emergency management program annual goals?  |
| 5. | Does your hospital participate in community severe weather exercises? |
| 6. | Does your hospital:* Plan to participate in the Joint Information Center in cooperation with local, regional, and state emergency management partners?
* Have pre-incident standardized messages for communicating risks and recommendations to the public and media?
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| 7. | Does your hospital have technology (e.g., television, internet, radio) and policies in place to monitor external events? |
| 8. | Does your hospital’s communication plan include:* Use of social media for communication? If so,
	+ Who can use social media?
	+ Who approves the use of social media?
	+ When is the use of social media not appropriate?
* Distribution of radios and auxiliary phones to appropriate people and areas?
* Rapid communication of weather status (watch, warning) and direction of storm?
* Rapid communication of situation status to local emergency management and area hospitals?
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| 9. | Does your hospital have staffing plans that include:* Contingency staff utilization and support plans?
* An established list of backup or relief staff that need to be in the hospital during or after the storm to continue patient care?
* A list of nonessential staff that may be used in alternate roles?
* A plan to modify staffing and hours of work?
* A plan to provide child, dependent and pet care for staff so they can report to and remain on duty during or after the storm?
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| 10. | Does your hospital have a process to determine daily clinical and nonclinical services to be continued or modified during the storm?  |
| 11. | Does your hospital have a plan for alternate care sites within the hospital or on campus, including set up, equipment, staffing, and signage? Does the plan indicate who can activate the alternate care sites? |
| 12. | Does your hospital have a plan to accommodate pregnant women who report to your hospital before or after the storm? |
| 13. | Does your hospital have plans to maintain infrastructure during and after the storm, including: * Power?
* Water?
* Personal hygiene and sanitation supplies (e.g., hand wipes, portable toilets, potable water)?
* Lighting (e.g., flashlights, portable lights)?
* Sewer?
* Heating, ventilation, and air conditioning?
* Medical gases?
* Agreements with fuel suppliers to ensure a supply of fuel for emergency generators and vehicles?
* Agreements with contractors that can perform repairs after the storm?
* Other infrastructure as required?
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| 14. | Does your hospital have supplies and plans to address extreme heat, including:* Cooling measures (fans, ice, cold packs)?
* Cold water and fluids for hydration?
* Medications for sunburn, heat exhaustion, and heat stroke?
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| 15. | Does your hospital have supplies and plans to address extreme cold, including:* Warm blankets?
* Warm IV fluids?
* Warm liquids for hydration?
* Medications for hypothermia and frostbite?
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| 16. | Does your hospital have a protocol to immediately assess patient conditions and prioritize those most at risk for heat and cold related emergencies? |
| 17. | Does your hospital have mutual aid agreements with emergency medical services and with other hospitals when your hospital has to be abandoned? |
| **Immediate and Intermediate Response** |
| 1. | Does your hospital identify trigger points and who has the authority to activate the Severe Weather 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 the 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 without transportation to the hospital, and a way to house staff and their families and dependents 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 events? |
| 2. | Does your hospital have adequate space for rest and hygiene for staff and family members and dependents who may be required to remain in the hospital due to external hazards? |
| 3. | Does your hospital have procedures to: * Perform damage assessment (interior and exterior)?
* Evaluate infrastructure needs?
* Initiate a repair plan or contract for needed repair assistance?
* Reevaluate the need for evacuation?
* Report damage to the Hospital Command Center and initiate appropriate repairs during and after the storm?
* Monitor contractor services (e.g., work quality, costs, etc.)?
* Inventory equipment, medications, and supplies?
* Salvage equipment remaining onsite?
* Secure kitchen and laundry areas?
* Secure diagnostic radiology areas, medications, and isotopes?
* Maintain heating, ventilation, and air conditioning control?
* Maintain traffic control on campus?
* Support remaining staff?
* Ensure equipment, medications, and supplies are reordered to replace stock supplies?
* Ensure all necessary equipment is usable and safety checked, and equipment and supplies are reordered, repaired, and replaced, as warranted?
* Return borrowed equipment after proper cleaning and replenishment of supplies?
* Prioritize service restoration activities?
* Restore normal nonessential service operations?
* Repatriate evacuated patients and staff?
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| 4. | Does your hospital have Hospital Incident Management Team position depth to support extended operations ? |
| 5. | Does your hospital have procedures for reporting and documenting staff injuries? |
| 6. | Does your hospital have a policy and procedures to address line-of-duty death? |
| 7.  | 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? |
| 8. | Does your hospital have procedures to debrief patients, staff, and community partners? |
| 9.  | Does your hospital have a continuing process to capture all costs and expenditures related to operations? |
| 10. | 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? |
| 11. | Does your hospital have procedures to collect and collate incident documentation and formulate an After Action Report and Corrective Action and Improvement Plan? |