

ASHP Statement on the Role of the Pharmacy Workforce in Emergency Preparedness

In recent years, there have been many events that caused a large number of casualties and burdened the healthcare system in unique ways. Since the tragic events of September 11, 2001, the U.S. has endured natural disasters such as hurricanes, wildfires, floods, and earthquakes; cared for the victims of industrial and traffic accidents, mass shootings, and building collapses; and responded to a pandemic that overwhelmed local hospital and health-system capacities. These events have focused attention on the variety of threats that can strain the healthcare system. As we try to mitigate the burden of these threats to providing patient care, local, national, and global resources must be prepared to pivot their emergency preparedness plans to strengthen countermeasures and prepare team members for the inevitability of another disruption to our healthcare system. While continuity of core services will always be the priority, hospitals and health systems should strive to be able to continue to provide the same level of care during and post-disaster as they did pre-disaster.

Healthcare systems must continue to engage their employees, leaders, and communities to prepare for these unforeseen events to alleviate extended disruption of services for their patients in a time of need. Communities look to healthcare systems for support and guidance during times of uncertainty and providing a safety net during trying times should be a priority to ensure long-term consequences of emergencies are abated. As governments and healthcare systems have developed countermeasures and strategies to respond to these threats, it is clear that the pharmacy workforce has an essential role in emergency preparedness. Their clinical and operational knowledge have been a critical part of the response to many different emergencies. As the threats to providing patient care evolve, the pharmacy workforce must be poised to strengthen emergency-preparedness plans and train team members for the next inevitable disruption to our healthcare system.

Position

The American Society of Health-System Pharmacists (ASHP) believes that members of the

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pharmacy workforce (i.e., pharmacists, pharmacy residents, pharmacy interns, pharmacy technicians, and other nonpharmacist support staff) must assertively exercise their responsibilities in preparing for and responding to emergencies. Leaders of emergency planning at the federal, regional, state, and local levels (both governmental and institutional) must know to call on the pharmacy workforce to help prepare for and respond to emergencies involving pharmaceuticals or pharmacotherapy. For the purposes of this statement, ASHP uses the Federal Emergency Management Agency (FEMA) definition of emergency: any incident, whether natural, technological, or human-caused, that requires responsive action to protect life or property.¹ Emergencies include naturally occurring incidents (e.g., floods, hurricanes, tropical storms, tornadoes, earthquakes, tsunamis, wildland and urban fires); human-caused incidents (e.g., explosions; hazardous materials spills; chemical or radiation releases; terrorist attacks and threats; civil unrest; mass shootings; and airplane, train, or automobile crashes); and technological disasters (e.g., computer ransomware attacks and downtimes, utility failures such as loss of electricity, water, or gas supply). For the purposes of this statement, “emergency scenarios” are expected or supposed emergency situations or sequences of events used in planning. Health-system and hospital pharmacy staff should prepare for both transient emergency scenarios (e.g., mass casualty events) and enduring emergency scenarios, such as pandemics. All members of the pharmacy workforce have a role to play in emergency preparedness and response.

General principles

1. On the basis of their education, training, experience, and legal responsibilities, pharmacists and pharmacy technicians should have a key role in the risk assessment, planning, and execution of pharmaceutical distribution and drug therapy management of patients during all types of emergency scenarios and in all five areas of emergency preparedness (prevention, mitigation, preparedness, response, and recovery).
2. Pharmacists should participate in and assume key roles on emergency management and response teams by (a) developing guidelines for the prevention or diagnosis and treatment of casualties and exposed individuals; (b) selecting pharmaceuticals and

related supplies (e.g., medications and items necessary for administration) for national and regional stockpiles as well as local emergency inventories in emergency-preparedness programs; (c) ensuring appropriate education and counseling of individuals who receive pharmaceuticals from an emergency supply in response to an event, including assisting in the consent and education process for medications approved through the FDA Emergency Use Authorization process; (d) developing guidelines for the allocation of pharmaceuticals when demand is greater than supply; (e) administering medications, if needed and when appropriate; and (f) designing and implementing exercises to assess readiness and vulnerabilities that may identify potential improvements.

3. Pharmacy team members who assume leadership roles on emergency management and response teams should be familiar with the National Incident Management System Preparedness Cycle² and have completed FEMA training to assume leadership roles on health-system, regional, or state emergency management committees.
4. The expertise of the pharmacy workforce includes (a) ensuring proper packaging, storage, handling, labeling, and dispensing of emergency supplies of pharmaceuticals, and (b) ensuring appropriate deployment of emergency supplies of pharmaceuticals.
5. Pharmacy team members should develop contingency staffing plans to ensure patients have access to medications during all types of events.
6. Pharmacists should collaborate with public health officials and health-system and hospital leaders on appropriate messages to convey to the public regarding the use of essential pharmaceuticals in response to emergencies, including pandemics and mass exposure events. Special consideration should be given to disease prevention, public health outcomes, adverse effects, drug-drug interactions, contraindications, the effectiveness of alternative pharmaceuticals, and the potential development of drug-resistant infectious agents.
7. In the event of an emergency that requires drug therapy (e.g., a pandemic or radiation exposure), pharmacists should collaborate with physicians and other prescribers in managing or prescribing the drug therapy of individual affected patients.

Advice to hospital and health-system pharmacy directors

Every hospital and health-system pharmacy director (or designee) should

1. Participate in an organizational hazard vulnerability analysis.
2. Become well informed about the potential local hazards and risks for emergency scenarios and the related diagnostic and treatment issues.
3. Become thoroughly informed about federal, regional, state, local, and institutional plans for emergency preparedness, especially those related to the distribution, control, and use of pharmaceuticals and related supplies.
4. Ensure that the pharmaceutical components of the institution's emergency plans are coordinated with the overall local preparedness plans involving other institutions, community pharmacies, wholesalers, as well as coordinated with federal, regional, and state plans.
5. Ensure that the appropriate pharmaceuticals and related equipment and supplies³ are in stock at the institution, consistent with the overall local emergency-preparedness plan, which should account for the interim between the occurrence of an emergency scenario and the receipt of federal or state assistance.
6. Ensure that information about the appropriate use of pharmaceuticals in response to an emergency scenario is available to health professionals and leaders in the institution.
7. Collaborate with institutional ambulatory pharmacies to develop a comprehensive plan to ensure patients have access to discharge and maintenance medication supplies.
8. Ensure that the institution does not engage in stockpiling of pharmaceuticals without regard to local emergency-preparedness plans that are designed to meet the needs of the whole community.
9. Ensure that pharmacy personnel are trained to implement the institution's emergency plans.
10. Clearly define the emergency preparedness and response roles for each member of their pharmacy workforce and ensure that each team member understands their roles.

Advice to other members of the hospital and health-system pharmacy workforce

All members of the hospital and health-system pharmacy workforce should

1. Become well informed about the potential local hazards and risks for emergency scenarios and the related diagnostic and treatment issues.
2. Become thoroughly informed of local and institutional plans for emergency preparedness and response, especially those related to the distribution, control, and use of pharmaceuticals.
3. Consider volunteering in advance of an emergency to assist in (a) distributing emergency supplies of pharmaceuticals, (b) dispensing and administering medications and immunizations, and (c) managing the drug therapy of individual victims.
4. Be familiar, at a minimum, with their institution's command structure and communication plan and, ideally, with the FEMA Incident Command Structure.⁴
5. Engage in system emergency preparedness drills, tabletop discussions, and education opportunities for staff to improve staff familiarity with processes and to increase readiness in the case of an emergency.
6. Strongly discourage individuals from developing personal stockpiles of pharmaceuticals for use in the event of chemical, biological, or radiological/nuclear emergency scenarios.

Health-system and hospital pharmacists should

1. Develop and maintain first-aid skills and basic life support (BLS) certification. Additional certification may be required for administering injectable medications, such as vaccines (e.g., advanced cardiovascular life support [ACLS] or vaccine-specific certifications).
2. Consider additional emergency preparedness training, such as basic disaster life support (BDLS), advanced disaster life support (ADLS), or advanced hazmat life support (AHLS) training, as pertinent to their roles in routine and emergency care.
3. Consider engagement in your system's emergency preparedness committee as well as other local and state organizations that distribute resources in the event of an emergency scenario.
4. Share evidence-based information on pharmaceuticals used to respond to emergencies

with professional colleagues and patients.

Health-system and hospital pharmacy technicians should

1. Become familiar with the pharmacy technician-specific responsibilities required by the department to respond to emergency scenarios.
2. Engage directly in or with representatives from emergency preparedness committees to better understand health-system and hospital expectations for pharmacy technicians and provide input as needed.

Advice to hospital and health-system administrators

Hospital and health-system administrators should

1. Expect the pharmacy director or designee to participate in the development and implementation of local, state, regional, and federal emergency-preparedness plans.
2. Collaborate with the pharmacy director or designee in their participation in preparing the institution's hazards vulnerability assessment and emergency-preparedness plan.
3. Promote the inclusion of the pharmacy workforce in the organization's emergency management governance committees.
4. Encourage the pharmacy workforce to be active participants within the organization's command/control response framework, and promote cohesive development of service-line-specific plans that support the continuity of critical department functions and resources during a prolonged event.
5. Collaborate with the pharmacy director or designee to coordinate the institution's participation in the building of appropriate emergency pharmaceutical resources for use in the hospital, health system, and community. This includes ensuring that institutional supplies of pharmaceutical resources are coordinated with the local plan.
6. Advocate that local preparedness-planning officials involve the pharmacy workforce in the full range of planning related to pharmaceuticals, related supplies, and patient care.
7. Encourage and enable the pharmacy workforce employed by the institution to participate in local, state, regional, and federal emergency-preparedness planning and

- to volunteer for community service in the event of emergencies.
8. Consider creating and maintaining emergency preparedness kits (e.g., necessary medications and supplies) to dispense to remote locations based on your hospital's assessment of potential surge size and likely emergency scenarios that could arise.
 9. Encourage pharmacy workforce participation in the development and enhancement of the enterprise's business continuity program to optimize the efficacy of pharmacy's role in an extended response or downtime.
 10. Provide guidance and frameworks for the pharmacy workforce to participate in emergency-preparedness plan development that aligns with broader goals (e.g., those of the hospital, health-system, or regional plans).

Advice to other healthcare providers (e.g., the interprofessional care team)

Other healthcare providers should

1. Encourage the involvement of the pharmacy department in the development and implementation of emergency response plans.
2. Reinforce the message that pharmacists are an essential part of the team responsible for developing drug treatment guidelines in response to an emergency scenario.
3. Be aware for planning and response purposes that the pharmacy department has a business continuity plan to provide uninterrupted services as part of the emergency management plan.
4. Recognize that pharmacists have expertise that can aid in planning for and responding to a variety of emergency scenarios (e.g., modifying drug regimens during emergencies; planning and implementing vaccination programs, including administering vaccines; providing wound care and first aid for minor ailments).
5. Encourage pharmacist participation in post-event reporting (e.g., after-action reviews).
6. Involve appropriately trained pharmacists in medical emergencies.

Advice for emergency-preparedness planners

Emergency-preparedness planners at the federal, regional, state, and local levels should

1. Consult with qualified pharmacists in all areas in which the pharmacist's expertise would contribute to the creation and execution of workable plans.
2. Inform pharmacists through state and national pharmacy organizations as well as other applicable channels of plans for deployment of emergency pharmaceutical supplies. This include both medications and supplies necessary for administration and monitoring therapy so that appropriate mitigation plans can be made.
3. Consult with qualified pharmacists on messages that should be conveyed to the public about the appropriate use of pharmaceuticals in the event of an emergency scenario.
4. Communicate the role and expectations of the pharmacy workforce during an incident. The execution of operational plans relies on the inclusion of pharmacy-specific subject matter expertise in order to maintain continuity of safe patient care.

Advice to government agencies

Federal, state, and local government agencies should

1. Recognize the expertise and knowledge of the pharmacy workforce in the use and distribution of medications and should incorporate pharmacists into planning for all emergency scenarios involving disease screening, medication management, and pharmacotherapy.
2. Recognize pharmacists as medication experts, able during emergency scenarios to advise about making modifications to drug regimens during emergency scenarios.
3. Be prepared to allow and provide temporary authorization that facilitates pharmacists and pharmacy technicians practicing in another state and allows states to efficiently grant temporary or emergency licensure during emergency scenarios.
4. In coordination with health systems, build and maintain relationships that foster collaboration in the event of an emergency scenario.

Advice to state societies of health-system pharmacists

State societies of health-system pharmacists should

1. Be a resource to state and local emergency-preparedness planning officials, especially in

- identifying qualified members of the pharmacy workforce to participate in emergency-preparedness planning and response.
2. Collaborate with other disciplines to identify and plan the pharmacy workforce's response to all types of emergency scenarios.
 3. Create a statement for their membership of information unique to the state regarding pharmacists' participation in emergency-preparedness planning and deployment efforts.
 4. Provide opportunities for the state's pharmacy workforce to participate in local and/or state training and exercises to improve knowledge and competence for incident management and all types of emergency scenarios.
 5. Encourage the pharmacy workforce to join established networks of healthcare professionals to be deployed in emergency scenarios.
 6. Collaborate with the pharmacy workforce to communicate information about and resources for public health emergency scenarios.

Advice to educators

Educators (e.g., students, college of pharmacy administrators and faculty, residents, residency program directors, and pharmacy technician educators) should

1. Recognize that emergency preparedness knowledge is a critical component of a well-rounded pharmacist and incorporate emergency preparedness topics in both didactic and experiential learning for both students and residents; pharmacy technician educators and trainers should provide students and trainees with general knowledge on basic safety and emergency-preparedness procedures applicable to pharmacy services.^{5,6}
2. Be familiar with the five areas of emergency preparedness, how they fit into the local emergency management plan, and how to implement in an emergency scenario.
3. Define where pharmacy and pharmacy technician educators and students could support public health (e.g., participating in education, community outreach, vaccination, and testing) and develop frameworks for deploying support when needed.
4. Establish a relationship with the department of health or the local community (e.g.,

through registration) as a resource to the community or local health system or hospital during an emergency scenario.

5. Consult with professional organizations such as ASHP and American Association of Colleges of Pharmacy for guidance regarding the role pharmacy educators could play and the expertise they could provide in advising about local, state, and national health emergencies whenever a response from colleges of pharmacy is required.
6. Act as liaisons responsible for interacting with emergency response agencies, outside relief agencies, other hospitals and clinics, and potentially law enforcement.

Commitments Made by ASHP

In support of the efforts of the pharmacy workforce in emergency preparedness, ASHP will

1. Maintain an electronic communications network of hospital pharmacy department directors that can be used to transmit urgent information related to emergency preparedness and medical countermeasures.
2. Disseminate promptly to ASHP members and others in the healthcare community important new information related to pharmacy workforce involvement in emergency preparedness.
3. Disseminate to ASHP members and others in the healthcare community timely evidence-based and supply chain-related information about pharmaceuticals used when responding to emergency scenarios.
4. Meet with government officials and others when necessary to clarify promptly important issues that affect the involvement of the pharmacy workforce in emergency preparedness and medical countermeasures.

Future Directions for the Pharmacy Profession

To promote effective emergency preparedness and response in the U.S., the pharmacy profession should

1. Advocate that emergency-preparedness planners address the impact of emergencies on disadvantaged communities and the need to focus on emergency response as a

- community or national effort rather than one managed in silos
2. Encourage domestic production of resources necessary to respond to emergency scenarios, promote increased diversity and redundancy in manufacturing of those resources, and advocate for acquisition and storage policies that facilitate the availability of those resources at the time of need.
 3. Encourage elected officials to clarify responsibility for obtaining, monitoring, and allocating resources in the event of an emergency on a community and national level and empower those responsible to respond in a timely manner without excessive bureaucratic barriers or delays.
 4. Leverage technology to provide continuation of services with remote staff wherever possible, including safe and effective access and sharing of patient information using personal computers, policies regarding computer usage, and loss of systems both within and outside the hospital and health system.
 5. Share information (via publications and presentations) on leadership, training models, practice models, outcome measures, and employee well-being as it relates to emergency preparedness.
 6. Increase health literacy and emergency preparedness education efforts in the general population based on hazard vulnerability analyses.
 7. Develop robust emergency preparedness guidelines to shape future practice in this area.

Conclusion

The pharmacy workforce has unique expertise that is vital in preparing for and responding to emergencies. Like other healthcare providers, members of the pharmacy workforce have a moral and professional responsibility to participate in federal, state, regional, and institutional emergency preparedness and response efforts. To take full advantage of their unique expertise, members of the pharmacy workforce should be involved in emergency preparedness decision-making and in the implementation of emergency responses. The pharmacy workforce should integrate the practices outlined in this statement into their activities and be empowered by

their employers and policymakers to contribute to and enhance emergency preparedness efforts. To carry out these responsibilities, the pharmacy profession needs to bolster educational efforts on the topic and develop robust guidelines and other resources to support the pharmacy workforce's role in emergency preparedness and response.

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Additional Information

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Disclosures

The authors have declared no potential conflicts of interest.

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