

Disaster preparedness, emergency response, and recovery

(April 2021)

Rationale

A disaster is a serious disruption of the functioning of a society, causing widespread human, material, or environmental losses that exceed the ability of the affected society to cope using only its own resources. The frequency of disasters affecting human health is increasing due to a combination of climate change–related natural disasters, acts of terrorism, epidemics and pandemics, and the unintended release of toxic (including radiological) compounds. Physicians are key participants in the emergency response to disasters, particularly in the health concerns that ensue. As such, physicians may be required to help design an emergency response plan, to ensure the application of the plan, and to reorient their practice to the needs of the population. Physicians must be equipped to properly respond to the health implications that arise from disasters.

Causal Conditions

(list not exhaustive)

- Disaster preparedness, emergency response, and recovery measures may relate to the following:
 - a. Disaster origin: natural (e.g., climate-related forest fires) or human-induced (e.g., terrorism)
 - b. Type of hazard: biological (e.g., epidemic), chemical (e.g., toxic chemical spill), radio-nuclear (e.g., breach in nuclear facility), flood, fire, earthquake or extreme temperatures
 - c. Location: local (e.g., train derailment with large-scale release of toxins), national (e.g., epidemic) or international (e.g., pandemic)

Key Objectives

- Discuss the defining characteristics of a disaster affecting human health
- Describe approaches to disaster prevention and mitigation
- In preparation for a disaster, develop an emergency response plan for their practice based on the perceived threats that are most likely to occur
- Participate in implementing an emergency response plan
- Assist with the recovery operation after a disaster

Enabling Objectives

(clinical findings, critical investigations, management plan)

- Communicate a foundational knowledge of disasters, including:
 - a. discussing the conditions that would lead to the declaration of an emergency of disaster proportions (that overwhelms the ability of local health services to respond effectively);
 - b. recognizing the possible causes of a disaster and factors that would amplify or minimize its effects on health;
 - c. identifying specific vulnerable populations during a disaster (these could be determined by age, disability, health conditions, or health behaviours);
 - d. discussing the phases of disaster management (e.g., disaster prevention and mitigation, disaster preparedness, emergency response, and recovery); and
 - e. demonstrating knowledge of safety measures (e.g., personal protective equipment use, appropriate evacuation procedures) used to protect health-care professionals during disasters.
- Demonstrate disaster prevention and mitigation, including:
 - a. describing the importance of disasters and emerging threats based on sociopolitical context and geographical region;
 - b. interpreting hazard identification and risk assessment relative to their patient population and practice situation;
 - c. demonstrating skills in collaboration and advocacy with relevant stakeholders to prevent disasters; and
 - d. describing situation-appropriate disaster mitigation techniques (e.g., isolation rooms, physical-distancing measures).

- Develop disaster preparedness, including:
 - a. developing a continuity of operations plan (COOP) for the physician's office or clinic situation;
 - b. evaluating available health resources, both internally (e.g., staffing, personal protective equipment, ventilators, beds) and externally (e.g., outside assistance), and surge capacity based on the vulnerabilities identified in the COOP;
 - c. describing the importance of effective emergency response training for health-care professionals (e.g., drills, awareness of emergency response resources); and
 - d. discussing the role of Incident Management Systems, where organizations may adapt their organizational structure to better respond to a disaster.
- Participate in emergency response, including:
 - a. appropriately identifying situations requiring activation of emergency response systems;
 - b. demonstrating effective communication skills with colleagues, patients, and the community specifically regarding emergency response to disasters affecting human health;
 - c. demonstrating skills in effective patient triage in response to a disaster and resource allocation in a crisis; and
 - d. demonstrating skills to rapidly identify sources of credible information and prevent the spread of harmful misinformation.
- Assist with emergency recovery, including:
 - a. describing the importance of planning for a return to normal operations after disaster response;
 - b. describing health implications (e.g., mental health, absence of elective procedures, displacement of people, socioeconomic consequences) of the disaster and planning how to address these in one's own practice; and
 - c. describing the importance of postdisaster evaluation for improving future disaster mitigation, preparedness, and response.