Pharmacy Services in Emergency Management

Alison Anastasi, B. Pharm. (Hons.), P.Q.D. Nutr. & Diet.

Emergency management is the discipline dealing with and avoiding risks[1]. It involves preparing, supporting, and rebuilding society when natural or human-made disasters occur. This article focuses and highlights the positive effects of the pharmacist's actions in local emergency preparedness activities.

No one knows when or where an incident will occur, and what will be its cause. A hospital's disaster plan usually addresses both internal emergencies, such as loss of electric power and external disasters such as natural disasters including earthquakes and man-made disasters which provide no advanced warning. In the last few years, a new category of disasters has appeared: terrorist acts.

The process of emergency management involves four phases: mitigation, preparedness, response, and recovery. **Figure 1** clearly depicts these four phases. Mitigation measures are attempts employed prior to incident, to minimize the damage and to prevent bazards from developing into actual disasters. The preparedness phase includes activities conducted before a disaster to improve readiness. These include plans of action, communication, dissemination, stockpiling, maintenance and training. The response phase deals with mobilization of the necessary emergency services during the disaster, in the actual disaster area. The recovery phase involves procedures that help restore business operations to normal, that is, levels similar to those before the incident.

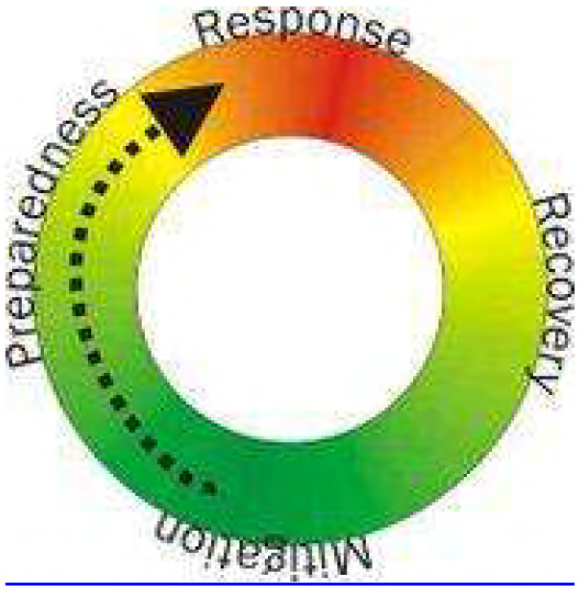

Figure 1: *Graphical representation of the Emergency Management Life Cycle Model*

Source: A graphic representation of the four phases in emergency management; Wikipedia® 2007

Pharmacist Role in the Emergency Preparedness Planning

Emergency Department pharmacists should collaborate with health care professionals to develop guidelines for the diagnosis and treatment of disaster victims.

They should also recommend pharmaceuticals and related supplies; and ensure their proper packaging, storage, handling, labelling, dispensing and deployment in the emergency department. In the U.S., the American Society of Health-System Pharmacists (ASHP)[2] believes that all hospital and health-system pharmacists, not just those working in the Emergency Department, must actively exercise their responsibilities in preparing for and responding to disasters. However, the Emergency Department pharmacist should play a pivotal role in emergency preparedness planning and as a member of the health care team; the pharmacist should provide care to victims.

Pharmacists should also provide education and counselling to individuals who receive pharmaceuticals or related items from an emergency supply in response to a disaster and facilitate the relationship with the local

emergency services. Pharmacy needs to be in the forefront of preparedness. Without mitigation and preparedness efforts, the actions taken by pharmacists and others are likely to be less effective in the response and recovery phases. Thus, pharmacy personnel should focus on activities before an incident occurs rather than waiting for an event—unprepared and reactive.[3]

Although emergency management should be considered a priority, most still consider disaster-related matters as peripheral issues. Managers and Chief Executive Officers might not appreciate the need for expending money and staff time or having inventory tied up to prepare for low-probability incidents. However, one should consider the cost of not preparing.

The pharmacist is a visible member of the healthcare community and therefore a logical participant in any drug distribution activity including an emergency situation. Pharmacists are becoming more valuable as potential emergency response team members due to their training and public trust.[4] Because treatment of disaster victims almost always involves the use of pharmacologic agents, ensuring the efficacy and safety of the medication use process is a natural role for the emergency pharmacist.[5,6] Pharmacist Interventions in emergency preparedness and response activities, indicates, that the profession is embracing roles outside traditional pharmacy practice.

Local Scenario

Currently at Mater Dei Hospital, there is no full-time pharmacist in the Accident and Emergency Department. The pharmacist assists in specific incidents and emergencies in collaboration with the Departmental staff and the Emergency Response Team.

Besides providing valuable input to the disaster planning process through participation in various committees and disaster drills or exercises, the pharmacist is also involved in the setting up of On-site and In-House Stockpiles – that is storage of pharmacy items for the response and recovery phase. These stockpiles contain pharmaceuticals and related medical supplies useful in airway management, intravenous (IV) fluid administration, antibiotics, antitoxins for treating casualties of various bioterrorism acts and antidote packs against exposure to chemicals such as cyanide and organophosphates. Besides ensuring the immediate availability of life-saving pharmaceuticals, the pharmacist provides relevant information regarding therapeutics to healthcare providers.

Stockpiling medications involves consideration for the money and space to store it, and time spent to rotate the stock. These are routinely evaluated and adjustments are made in the composition of the stockpile whenever necessary by the pharmacist.

Enhancing local Emergency Management

The aim of the study being undertaken at Mater Dei Hospital is to enhance the local emergency management through the input of the hospital pharmacist by developing and validating pharmacy services, in the form of procedural algorithms, designed to meet the identified pharmaceutical needs in a group of defined emergencies.

The purpose of research is to discover or change laws and theory while the purpose for evaluations is to affix a value to the process or outcome. Until recently, reports of disaster responses primarily have been anecdotal and descriptive with little or no structure. They have had little value in the elimination of hazards, reduction of risks, improvement in the absorbing and/or buffering capacities, reduction in vulnerability, and or enhancement of disaster preparedness. They have served to shape perceptions of the medical and public-health needs associated with certain events.[7]

Pharmacy personnel should be prepared for medical management of anticipated injuries and illnesses. This could range from assisting with trauma and burns to medical care for victims of chemical, radiological, and biological terrorism. New systems should be developed to keep up with new threats and daily incidents. A pharmacist's effective contribution to a multidisciplinary team has the potential to optimize skill mix and resources, helping the health service to meet its targets, and reducing the economical aspects.

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