

(H86) Disaster Management and Public Health*Jeffrey Levett; Vicky Papanicolaou*

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In recent years, the foundations of public health and disaster management have been strengthened through a combination of preparation and response to ever-present dangers and an aggregation of measures to prevent or reduce the likelihood of a health disturbance (HD). A health disturbance is related to the vulnerability of the population, the level of development of society, and its governance. A formula was used consisting of three interacting factors taken from the Utstein Template representing hazard, risk, and community management in order to predict health damage as a result of an event (earthquake, wildfire, accident, epidemic). If one of the three factors is zero, then $HD = 0$ and no disaster will take place. Distinctions are made between risk, hazard, vulnerability, mitigation, and societal management as well as the pre-event level of the preparedness of a society and the vulnerability of its population. A health disturbance is dynamic and is lower when economic growth is high and the basic functions of society strong. Management can be productive (strong public health functions) or counter-productive (authoritarian governance). Because disaster management is a part of public health, it should play a greater role in any societal dialogue regarding the creation of beneficial hazards and health practices in all other policies. This approach is strong because it can deal with a unifying set of principles for both public health and disaster management that permits us to organize thinking about a problem space (conceptualization), analyze situations, and design and evaluate interventions relevant to a threatened society. Furthermore, it has potential for cost-benefit assessment with respect to interventions matched to any of the three factors and a classification of societies with respect to human security.

Keywords: disaster health management; hazard; health disturbance; public health; Utstein Template

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(H87) "Sahabat" Clinic ("My Friend" Clinic) Preparedness to Cope with Disasters*Marie Caesarini*

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Background: Recently, the Sahabat Clinic Yakkum Emergency Unit is actively increasing the health quality of Nagan Raya without discriminating based on ethnicity, religion, race, or socio-economic background. The clinic is based on humanitarian values. This clinic is in a 350 m² building consisting of a 24-hour emergency unit, general clinic, delivery room, and inward room. The clinic is located in the Nagan Raya District of Aceh Province, the coastal region that was hit by the earthquake and tsunami in December 2004. In such a disaster-prone area, it is essential for the clinic to implement a preparedness plan for disaster management.

Objective: The objective of this project was to prepare and perform a Clinic Disaster Plan for the Sahabat Clinic for managing a disaster or major incident by empowering all

clinic staff with an early information system, a clinic staff coordination system, medical and non-medical preparation, networking and public relations system, and a referral and reporting system on closing activities.

Methods: A literature review and internal group discussions were conducted.

Results: A clinical disaster plan incorporates all of the components of empowerment. This involves a direct command from one person responsible as the leader, an internal and external response system, clinic staff coordination on performing medical and non-medical duties, networking and public relations connected to government stakeholders and other organizations who potentially are involved in disaster management, the referral system, and the reporting system on closing activity. A maternity and delivery room in the clinic is useful for pregnant women, delivering babies, lactating mothers, or women with complications regarding maternal, reproductive matters, and neonatal health.

Conclusions: The Sahabat Clinic disaster plan has been prepared and performed and will be implemented when a disaster or major incident occurs in this area.

Keywords: disaster; clinic disaster plan; Indonesia; planning; preparedness; task-sharing

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(H88) Development Methodology of New Disaster Medical Response Guideline through Step-Wise Analysis*Soon-Joo Wang;¹ Eun-Goo Ham²*

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Introduction: Recently, there have been changes in environmental and disaster-related conditions. There are frequent natural disasters related to global warming, newly emerging hazards, and terrorism. However, traditional disaster management does not fulfill the new paradigm. Through this research, the authors suggest a new methodology of developing medical response guidelines through a 10-step scientific analysis.

Methods: The development of disaster and crisis management guidelines will be performed in 10 steps:

1. Coding based on the sub-classification of the type of disaster;
2. Analyzing the possibilities of the sub-classified disaster occurrence;
3. Deriving the possible sub-classified disaster types;
4. Classifying the disaster based on various situations;
5. Deriving the priority of the sub-classified disaster types;
6. Deriving the specific roles based on the three levels of disasters;
7. Deriving the scenario event and checkpoint;
8. Describing the scenario according to the sub-classified disaster type;
9. Developing general disaster management algorithms in specific sub-classified disaster; and
10. Developing a general algorithm and protocol in particular flows in disaster medical response and deriving the role of related persons

Results: The authors developed algorithms and protocols of 11 subdivided disaster fields based on the disaster medical response outlined in the 10 steps.

Conclusions: This methodology on disaster medical response development will be helpful for systematic management and medical response for various disaster subtypes.

Keywords: disaster; medical guidelines; preparedness; response

algorithms; stepwise analysis

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(H89) Development of a Business Plan for Emergency Ward as a Strategic Priority

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In Iran, the budget distribution for personnel and equipment is based on the number of approved beds, which excludes emergency beds. This point of view results in the consideration of emergency beds as an over-charged system from the perspective of the Ministry of Health, and not a dynamic structure that is capable of attracting patients or making money. By establishing the emergency medicine branch in universities, emergency medicine was stated as a strategic priority in the Imam Hossein University General Hospital, with a 150,000-patient annual load in the business plan.

A team was composed of assistant professors, industrial engineers, hospital management experts, and accountants. Primitive terms and features were extracted through semi-structured interviews and an executive summary, mission statement, goals and strategies were prepared. Strategies were identified to target the consideration of emergency beds as approved beds.

The following strategies were chosen accordingly:

1. Improvement of services in order to increase the patients' flow and their satisfaction;
2. Development of a health information system in the emergency ward and the digitalization of data;
3. Improvement of documentation and coding (California code);
4. Providing current expenses of the emergency ward;
5. Contribution of ward personnel for the care of incoming patients; and
6. Recruiting official and educational staff for financial classification.

In conclusion, the development of business plans results in goal-directed activities and a more dynamic staff. Using these strategies would increase the capability to present documented and inductive reasons for obtaining a budget and personnel for the emergency ward independently.

Keywords: beds; business plan; capacity; emergency department; management

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(H90) Hospital Disaster Planning

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Considering the importance of emergency medical practice as a therapeutic specialty of medical and management science, the fact that Iran is the fourth ranked Asian country in regard to the frequency of natural disasters, and that Iran is located in an earthquake-prone area, it is logical to prepare for disaster management.

First, clinical crisis was defined as a situation in which a hospital is not able to cope based on its normal daily capacity, and may result in a considerable number of deaths and injuries. In the current study, a formerly prepared procedure used in American and European hospitals is taken as the base on which the study is conducted. The modes were modified as dictated by climatic, cultural, and clinical conditions of Iran. An aerial map of Iman Hossein Hospital was used to depict the positions of field units and command centers when it is partially dilapidated. Necessary training based on this procedure was provided to the staff and was conducted.

The program should be prepared by an immediate establishment of a crisis committee comprised of the: (1) head of the hospital who should direct the operations and contacts other organizations; (2) paraclinic unit; (3) nursing unit (triage); (4) guarding unit; (5) dispatching and discharging unit; (6) psychiatric unit; (7) refrigeration unit; (8) emergency evacuation unit; (9) installations and maintenance unit; and (10) logistics unit.

Keywords: capacity building; crisis; hospital; Iran; preparedness

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Oral Presentations—French

Principes d'organisation des secours pour les catastrophes, l'exemple français

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L'organisation des secours et soins pour catastrophe relève en France de services et de compétences pluridisciplinaires. Trois particularités caractérisent l'engagement des secours et des soins pour catastrophe en France:

1. La médicalisation sur le terrain des situations d'urgence collective comprenant une direction des secours médicaux (DSM);
2. L'anticipation avec le plan rouge et le plan blanc et une logistique comprenant des moyens médicaux spécifiques en fonction de la catastrophe;
3. La formation et la recherche dans le domaine de la médecine de catastrophe.

L'engagement de médecins auprès des victimes sur le terrain des catastrophes a permis de développer des techniques de prise en charge des victimes en nombre: triage médical, soins immédiats et de mise en condition d'évacu-