

nity emergency committee. Joint exercising and testing of the AEP with airport and community responders should occur at frequent intervals.

Conclusion: Airport emergency plans, which dovetail into the community emergency plans, attract a total community response to emergency incidents, which—through its effectiveness—can return the airport to normal operations with minimal delays. AEP can also provide an appropriate response in the treatment of mass casualties.

10 Medical-Injury Panorama after Different Types of Civilian Aeroplane Accidents

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Objective: With regard to disaster preparedness, it is important to identify what medical resources are needed at both the accident scene and the receiving hospitals after airplane accidents.

Methods: Study of the medical consequences from three different types of aircraft accidents with survivors.

Results: The medical-injury panorama is quite different in an airplane accident without fire compared to one with fire. In the first case, if there is a violent crash, there are not many survivors and accordingly rather limited need of medical resources. If there are many survivors, the impact has been comparatively small, and the number of life-threatening injuries low.

If there has been a fire, but no or only a small impact, there can be many victims in need of advanced medical treatment, but evacuation of the victims must be possible. A major problem, other than the burns, is the poisonous gases and heavy, black smoke, which make the evacuation of the injured extremely difficult. These conditions affect the visual, respiratory, and cerebral functions.

BASICS AND PLANNING

16 Basics in Disaster Medicine

de Boer J

Disaster Medicine studies the medical and organization problems of disaster. It is a young branch of medicine and confusion still occurs because relevant terms are used in different ways. The foundation of any science is definition, classification, and measurement. If Disaster Medicine is to grow and progress, it also must have a consistent and recognized definition, classification, and measurement of disasters. By using the criteria “casualties” and “discrepancy between number of casualties and its treatment capacity,” a simple definition of a disaster has been formulated. The classification scheme is based on variables which are directly related to disaster, either to its origin or to its effects. By quantifying or weighing these variables and summing the individual scores, a disaster severity scale can be constructed, which runs from 1 to 13. This approach could provide a firm foundation for the science of disaster medicine, on which basis further development can be confidently expected.

In the event of general international agreement on the definition, classification, and the associated Disaster Severity Scale, it should be possible to assess more accurately, the gravity of a given situation. Additionally, more precise registration would allow scientific comparison of disasters and perhaps also provide an answer to the question of whether the incidence of disaster occurrence is increasing with the growing world population and technology.

A limitation of the practical use of this scoring system is that it can only be applied retrospectively. For this reason, the medical severity index has been introduced. This index not only indicates the breaking point between accident and disaster, but also quantifies the medical severity instantaneously.

Moreover, the index can be used in the disaster preparedness phase for estimating the requirements needed to produce a desirable capacity within the various links in the chain of medical care from the disaster site to the hospital bed.

The methodologies used are described.

17 Why Disaster Medicine?

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The chances that medical and paramedical personnel will be confronted with the effects of disasters rise as the world population grows and as technological and social developments increase. There also are indications that the number of natural disasters is increasing and that this change is possibly linked to human-made environmental changes. The objectives of Disaster Medicine are to prevent, reduce, and mitigate the effects of disasters on the health of affected populations and to restore, as soon as possible, health services and facilities to the pre-disaster situation. A different medical approach is necessary to