

### Risk Analysis Model for Health Care and Medical Service

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**Objectives:** Conventional methods and tools for risk assessment do not include requirements from the medical service. We have developed a new risk analysis methodology that can be used to tackle these problems. The objectives of the work were to develop a new model for risk analysis for health care and medical services in Stockholm County.

**Methods:** Based upon the literature and risk analysis models from the Municipal Rescue Services in the Stockholm County, a new model for the performance of risk analyses with a number of new parameters specific for the health and medical service was developed.

**Results:** Dimensioning of disaster medical resources should be based upon an analysis of risks and threats and assessment of probability and consequences of every possible scenario. In the model presented, we have defined scenarios with consideration given to casualties and their priority for emergency care. The probability calculus describes how many times a scenario probably will occur in a specific period of time. The calculus is based on statistics and current developments in the region.

To describe consequences, the capacity of the medical services to provide care for casualties described in the various scenarios were developed as well as whether the medical service must implement the disaster medical plans.

Using a simple matrix diagram, the scenarios with high probability and large consequences for the emergency medical services can be identified.

**Conclusions:** According to the results, decisions can be made concerning prevention, and measures can be taken to reduce the consequences or increase the capacity of the medical service.

**Keywords :** analysis; assessments; disaster; emergency care; health care; medical services; methods; resources; risk

### Psycho-traumatology

Chair: Christian Simonsen, MD (Denmark)

#### Psycho-traumatology — Theory and Management

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Denmark is a small piece in a European and Scandinavian context. Nevertheless, we will share important theoretical and clinical reflections in the field of psycho-traumatology, i.e., the human reactions, symptoms, treatment, and prognosis following exposure to a sudden traumatic incident.

Denmark is a geographically manageable area. This fact gives us a unique chance to develop an efficient and uniform design for Acute Psycho-Social Care in the event of a crisis associated with a disaster and in the aftermath of major and minor accidents. Like many other countries, we have a well-organised and efficient physical rescue service, mainly based on a private company (Falck Redningskorps, also operates in other Scandinavian countries). During the past seven years, this company has formed a Psychological Crisis Aid Program that offers interventions to victims with self-claimed psychotraumatological symptoms that may follow days or months after major or minor life events. Other privately-based services are operating in this field, but none of them are subject to a neutral or scientifically-based quality control process.

In the acute phase of a major event, both private and public services offer a wide range of psycho-social interventions. Most of the providers operate without proper documentation of outcome or follow-up. Coordination and logistics can appear to be defective. As a consequence, the efficacy of the interventions can be diminished and a waste of economic and human resources may result.

During the last decades, solid scientific documentation has established a causal link from acute crisis reactions to the later development of psychological or psychiatric suffering.

As a consequence of the experiences following the Scandinavian Star catastrophe in the sea between Denmark and Sweden in 1990, the Danish authorities declared that the Danish counties are obliged to plan a psychological emergency service as an integrated part of the greater public and hospital-based physical emergency service. The intention was to be able to make a gradual shift from a daily emergency routine to a greater state of readiness.

During this session, we plan to go more thoroughly into the elaboration of a model for a psycho-social emergency plan according to these intentions and with the available scientific documentation. We divide the plan into: 1) a primary component of acute care for everyone psychologically affected by the event, such as victims, relatives, witnesses, and emergency service workers and offered by non-professionals; 2) an intermediate component offering interventions to victims with more severe acute psychological reactions and cared for by semi-professionals; and 3) a follow-up component securing the surveillance and treatment of the smaller percentage of victims developing late psycho-pathological reactions.

**Keywords :** acute care; crisis; critical incident; Denmark; follow-up; interventions; plan; post-traumatic stress syndrome; psychological crisis aid program; psychosocial; psycho-traumatology; reactions; rescue; symptoms