

during its early stages of development. Early diagnosis is necessary to begin early medical rehabilitation programs. The examination indicated a correlation between clinical symptoms and hormone level concentrations. An increasing concentration of melatonin forecasts of intensification of PTSD. In this connection, the efficiency of new diagnostic and treatment strategies for PTSD was evaluated with persons who suffered the consequences of Chernobyl.

Eighty-one participants in the Chernobyl event were examined. All of the patients were categorized into one of two groups. In the first group, generally accepted standards of diagnosis developed by American experts (DSM-III-R) were used. In the second group, the strategy "Perceptions radiation dangers" and special computer programs were used. Twenty-three percent of the participants were diagnosed with PTSD in the first group, and in the second group, 31.3% were diagnosed with PTSD.

The second aspect of this investigation was a study of the efficiency of the new programs for medical rehabilitation. Of principal importance is the need of complex influence on the background of known methods, such as psychotherapy and psychological help, and for the new methods of medical rehabilitation including an important role of the administration of different concentrations of oxygen, allowing reduction in activation of peroxidation and lipids, render decrease the effect that was confirmed by studying the concentrations of melatonin in the sick. The main intervention uses preparations that possess antioxidant and immunological activities. For the treatment of PTSD, we provided a combination of beta-carotene, vitamin E, and vitamin C.

This study demonstrated high effectiveness in the new diagnostics for the early diagnosis of patients with PTSD, as well as high efficacy of the individual programs for medical rehabilitation. The programs include new methods and can be recommended for broad introduction within the framework of patient care.

Keywords: anti-oxidants; beta-carotene; Chernobyl; diagnosis; diagnostics; melatonin; peroxidation; post-traumatic stress syndrome; rehabilitation; treatment; vitamin C; vitamin E; war

G-102

Field Decontamination in the Mental Health Activity in the Community Disaster

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The concept and activity of field decontamination has been adopted in the provision of emergency medical interventions at a chemically polluted site. Its purpose is to remove chemical stimulants from the site where the afflicted victims continue to be exposed.

A similar procedure is needed in the mental health activities in a massive disaster. In the disaster setting, decontamination means the separation of affected people from ongoing contact with the trauma-provoking stimuli or situation. This situation includes not only the

initial disastrous incident, but also various types of the secondary trauma. One typical example observed in the recent Wakayama arsenic case, was the stress caused by the unfavorable flood by the media that not only evoked the memory of the initial trauma, but stirred up the sense of "Haji", shame. Many of those afflicted became anxious due to the social stigma associated with the media report. Since the target of the media report was not each individual person, but at the afflicted community, it was necessary to provide a massive procedure to decontaminate the community in terms of the contact with the media. This decontamination procedure is the same as with other decontamination procedures in the sense that the injured people should be placed in a quiet and sanitary situation. A guideline to guarantee both the media activity and the [end]

Keywords: arsenic; decontamination; disaster; health, mental; media; psychological stress; psychosocial; shame; trauma

Special Lecture II

SL-2 Methodology of Non-Traditional Triage
 Thursday, 14 May, 9:10–9:55 hours
 Chair: *Yukihio Watoh*

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Traditional triage methodology, as an essential element of disaster management and medicine, implies that personnel, equipment, standard procedures, evacuation, and echelons of care exist to support a system-wide management process. Non-traditional triage suggests that or the agents used to cause the disaster will compromise traditional triage categorization, personnel resources, and evacuation capabilities. In this decade, complex emergencies, and nuclear, chemical, biologic, and terrorist events and threats emphasize the need to readdress triage training and methodology. This lecture will outline those factors that influence triage methodology during the crisis and consequence management phases of non-traditional disasters.

Keywords: categorization; complex emergencies; disaster management; management; procedures; triage

Symposium III

Global Concord for Mitigation of Acute Death
 Thursday, 14 May, 10:00–12:00 hours
 Chair: *Steven J. Rottman, Yasuhiro Yamamoto*

S3-3

Global Concord for Mitigation of Acute Deaths in Japan

Hideaki Abe

Managing Director, Secretariat of Japan Disaster Relief

Team, Japan International Cooperation Agency

1. History of Emergency Disaster Relief by the Government of Japan

Emergency disaster relief conducted by the Government of Japan were started back to the late 1970s when medical teams were dispatched to assist in the relief of Cambodian refugees flocked along the Thai-Cambodian border. In September 1987, the Japan Disaster Relief Team Law (the JDR Law) was promulgated under which disaster relief activities by the Government of Japan were systematized properly. The JDR Law was amended partially in June 1992. Since 1987, the Japan International Cooperation Agency (JICA) dispatched 46 disaster relief teams, and provided relief supplies 194 times to various disaster-affected countries around the world.

2. Framework of International Emergency Relief Operation by JICA

The Emergency Disaster Relief Program is comprised of three components: 1) Capital Assistance; 2) Personnel Assistance; and 3) Material Assistance. The JICA is responsible for conducting Personnel Assistance and Material Assistance under the instructions from the Ministry of Foreign Affairs. Capital Assistance is carried out by the Ministry of Foreign Affairs.

3. Process of Relief Operations

When a "large scale" disaster occurs in a country abroad, the Embassy of Japan and the JICA Office in the afflicted country immediately start collecting relevant information. Based on the "request" from the government of the affected country, the Ministry of Foreign Affairs consults with the Ministry of Finance to decide the type and size of the relief operation. After the consultation, the Ministry of Foreign Affairs gives orders and/or instructions to take necessary procedures for dispatching a JDR team and/or providing relief materials.

4. Dispatch of JDR Teams

JDR teams are categorized as rescue teams, medical teams, or expert teams. After a request is received from the government of the affected country or from an international organization, either a single-category or an inter-category team is dispatched in accordance with the type and magnitude of the disaster.

1) *Rescue Team* — The main tasks of rescue teams are to search for and rescue victims of a disaster, provide first aid and transfer the victims to a safety place.

Members of rescue teams are assigned from the: 1) National Police Agency; 2) Maritime Safety Agency; 3) Fire Defense Agency; and 4) Defense Agency.

2) *Medical Team* — Medical teams consist of doctors, nurses, and medical coordinators who previously have expressed interest in taking part in JDR teams and have been registered with the JDR Secretariat. The main task of the medical teams is to provide medical treatment for the victims of disasters.

3) *Expert Team* — The tasks of expert teams are to take expedient measures in the wake of disasters and to give advice on how best to recover from disasters. Teams are made-up of experts recommended by related government ministries and agencies according

to the type of disaster.

5. Provision, Procurement and Storage of Materials

Relief materials such as blankets, tents, electrical generators, and medical supplies and instruments are provided for relief purposes and to assist in the process of recovery. The JICA has five warehouses that are located at Narita, Washington, D.C., Mexico City, Singapore, and London for stockpiling relief supplies. Besides, the JICA procures medical supplies from UNICEF's Procurement Division in Copenhagen, Denmark.

6. Conveyance of Emergency Relief Materials Donated by the Private Sector

In the case of a large-scale disaster for which relief supplies still are required even after the provision of relief supplies by the Government of Japan, the JICA appeals for donation of relief supplies to the local governments, non-governmental organizations (NGOs), and individuals through its branch offices in Japan. The JICA bears the transportation costs for the supplies.

7. Study and Training

For enhancing the effectiveness in the emergency relief activities, the JICA has several training courses and seminars for registered members of a JDR Team. In these training courses and seminars, participants develop knowledge and skills related to the on-site activities that will be helpful to them.

8. Follow-up Studies on Emergency Aid (distribution of relief supplies)

The JICA dispatches follow-up study teams on emergency aid provided by the Government of Japan, especially to ensure the effective future implementation of the distribution of relief supplies.

Keywords: assistance; disaster; emergency; equipment; evaluation; follow-up; Japan; Japan Disaster Relief; Japan Disaster Relief Team Law; Japan International Cooperation Agency (JICA); operations; international; materials; non-governmental organizations; recovery; relief; supplies; teams; training; transportation

S3-4

Global Concord for the Mitigation of Acute Deaths in Disaster: Injury Prevention and Mitigation Strategies in Earthquakes

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The first 24h following sudden-impact disasters are considered critical for reducing deaths and preventing long-term disability. Since 1989, we have investigated the mechanisms of injury and the pathophysiology of acute deaths in earthquakes, in order to identify risk factors, prognostic indicators, and to develop better intervention strategies to increase survival. Due to the lack of scientific data on these prehospital deaths, we have employed qualitative methods to obtain information from secondary sources.¹ Since time is a critical risk factor for death, we have classified acute deaths into two broad