Analysis of Aged Patients Injured in Traffic Accidents: Counter-measures for a Senior-Laden Society

Takahisa Kawashima, MD; Nobuo Kaku, MD
Department of Traumatology and Critical Care Medicine, Kurune University, Fukuoka, JAPAN

Objective: To analyze the features of aged patients injured in traffic accidents in Japan, and to propose the counter-measures for traffic accidents for a senior-laden society.
Methods: This study was designed prospectively between July and December 1999 by four tertiary emergency and critical care center in Kyusyu, Japan. The cardiopulmonary arrest patients and the patients who died in the emergency rooms were excluded. The records of 82 patients >20 years whose AIS were >3 were analyzed. Patients were categorized into 3 groups by age: A (>65 years); B (40–64 years); and C (20–39 years).
Results: 1) Group A consists of 35 patients (male:female = 18:17); Group B = 26 (16:10); and Group C = 21 (16:5); 2) Many patients in Group A were pedestrians and motorcycle passengers, and those in Group B and Group C were injured while driving cars; 3)The majority of the injured in Group A had head injuries; 4) The values of ISS, AIS, and the Trauma score did not differ between the 3 groups. The values for the APACHE-II score in Group A were significantly higher than for Group B and Group C; 5) All of the severity scores were adequate to evaluate the outcomes of the 3 groups; 6) Seven patients in Group A, six in Group B, and one in Group C were died; 7) The main cause of death in Group A was brain injury, and in Group B and Group C was hemorrhagic shock.
Keywords: accident; aged patients; bicycle; cycles; head injuries; outcome; pedestrians; seniors; shock; traffic; trauma;
E-mail: deptccm@med. Kurume-u.ac.jp

Measuring Disasters for Risk Control

Mark Klyachko
Centre on EQE and NDR (CENDR) MoC, Kamchatka, RUSSIA

To speak about a disaster, and more than that, to prevent, mitigate, and control it, is not correct from a professional point of view without the knowledge of how to measure it. Therefore, in 1990–1992, the Scale of Disaster Magnitude (DIMAK) was proposed and developed. A brief description of the DIMAK scale was distributed among the participants of IDNDR Conference (Yokohama, May, 1994), and the scale was tested and improved during subsequent 5 years. Operating with the adopted basic units — "one fate" and "one loss", a logarithmic field of disasters (or plane of social and economic losses) is described. Any point of the "disaster field" is presented as a vector with a length, magnitude (Md) (characterising the degree of disaster from 0 to 5), and tangent of angle — p (relative social vulnerability index). DIMAK scale estimates (Md, p) of some recent earthquake disasters are given and analysed. The DIMAK scale provides for additional characteristics of the disaster: index of economic stability of different countries to disaster; relative score of disaster-din, etc. Thus, the DIMAK scale allows the estimation of a predicated disaster, and in turn, to decide questions about its acceptability and preventive measures on seismic risk reduction.

These questions are solved worldwide, as a rule, on the basis of a cost-benefit analysis. Such a purely economic approach is satisfactory to explain acceptable risk criteria from the point of view of private proprietors or bank-investors. However, a state has other more socially acceptable risk criteria, which are not determined only by a cost-benefit analysis. The DIMAK Scale satisfies governmental needs to measure various (both economic and social) consequences of any disaster. It helps to provide the control of disaster risk for which we stand up as for obligatory condition in the policy of sustainable development of any seismic-prone urbanisation.
Keywords: consequences; disaster; measurement; mitigation; scale

https://doi.org/10.1017/S1049023X00032271 Published online by Cambridge University Press