Annex IV

Third Coordination Meeting of WHO Collaborating Centres
in Radiation Emergency Medical Preparedness and Assistance
(Leningrad, 21-24 May 1990)

REMPAN - RADIATION EMERGENCY MEDICAL PREPAREDNESS AND ASSISTANCE NETWORK

1. Background

The use of nuclear power, industrial, and medical applications of radiation and radionuclides from time to time give rise to radiation accidents. A number of these accidents have entailed overexposure, i.e. irradiation above the limits established for both the radiation workers and the public. Radiation injuries are often combined with other types of injuries.

The most frequent cause of serious radiation injuries is external radiation, usually from X-ray and radionuclide sources. Second in frequency is internal contamination with radionuclides. Reactor accidents are very rare. In general, the risk of serious health hazards from the use of nuclear power, radiation and radionuclides is much less than that from most of the major activities of man. Nevertheless radiation accidents, particularly nuclear ones, even though rare, can give rise to many medical, administrative, legal, social and psychological implications.

2. Need for international cooperation

Ideally, each Member State of WHO should have its national plan of preparedness for radiation emergencies and for medical assistance to the affected persons. Such a plan should be backed by adequate capability for putting it into effect. In fact, only a limited number of countries are able to carry out the wide range of actions on the medical handling of a radiation emergency. Such actions may include health-related assessment of the accident, sorting, decontamination, transportation, diagnosis, treatment and follow-up of a large number of people. In the Chernobyl accident the USSR was able to render medical assistance to affected persons at the reactor and to the population around the reactor site by mobilizing its own heavy material, scientific and health service resources. Had such an accident happened in a country which had not specialized institutions and expertise on radiation pathology, the impact of the accident would have been much greater without large-scale outside assistance. Thus, there is a need to strengthen the ability of each Member State to cope with radiation accidents. An international mechanism seems to be an efficient way for achieving it, for the following reasons.

- The diagnosis and treatment of radiation accident injuries must be planned for and undertaken in specialized centres having trained personnel and costly sophisticated techniques. In view of the low risk of radiation emergencies, the need to have such a centre on a national level in every country is hardly justified.

- Population overexposure can also occur following transboundary radioactive releases.

- Scientific data on effects of overexposure at a national level are accumulated slowly due to the low frequency of radiation accidents. Pooling of these data could speed up the development of more effective techniques for diagnosis and treatment of adverse effects from overexposure.