The attempt to increase the efficiency of therapy by adding other drugs to atropine - oxime mixture, with the exception of the aforementioned benactyzine, and the separate addition of diazepam, has failed so far. The veratrine-like compounds which seemed so promising in 1976, seem to have also been abandoned.

The United Kingdom delegation presented a paper in 1977 (CCD-541) about the possibility of using carbamates as prophylactic agents against nerve gas poisoning. As far as is known, this work is still in progress.

Another possibility was mentioned in 1976 regarding protection by "shielding" acetylicholinesterase in order to protect critical sites affected by nerve agents. However, no promising results have been obtained until the present.

The previously mentioned activities concerning active and passive immunization seem to be ineffective from the practical point of view.

It was stated in 1976 and should be repeated now, that the continued research in the field of medical protection against nerve gas poisoning is in steady progress, particularly during the last four years when it has made a remarkable step towards its goals.

It is with the greatest satisfaction that it can be said that the first steps in international co-operation of scientific research on prophylaxis and therapy for nerve gas poisoning have taken place. Numerous scientists from various countries met at the Pugwash meetings on Medical Protection against Organophosphorus Poisons Workshops, twice in Yugoslavia and once in Finland. They also met in the German Democratic Republic. On these occasions, they exchanged views, ideas, experiences and results achieved in this field.

As a direct result of the meeting held in 1978 in Yugoslavia (Dubrovnik) the Institut fur Aerobiologie, Grafschaft, Federal Republic of Germany, the Prins Mauritz Lab. TNO Rijswijk, Holland and the Institute for Organic Chemistry and Biochemistry from Zagreb, Yugoslavia organized a control experiment. The aforementioned substance HI-6 was synthetized in each of the three institutes and specimens of it exchanged. The comparing of results obtained in all three institutes including all three specimens showed that there was neither physico-chemical nor biological difference between them in vitro and in vivo experiments.

An increasing number of papers that deal with the protection of experimental animals against nerve agents, especially soman, appear in scientific literature. The most interesting information comes from the Federal Republic of Germany, the Netherlands, Canada, the United Kingdom, Poland and Yugoslavia. However, nothing new or interesting comes from some other countries which are known to have much experience in this field. Some promising publications of this kind are also coming from India, China and some other countries as well.

This brief review is an account of the efforts made by scientists in various countries in seeking the solution for protection against poisoning by nerve agents. Unfortunately, the results show that an efficient antidotal therapy against all four chemical agents mentioned here does not exist for humans.

These facts on how dangerous the use of nerve agents as chemical weapons could be for mass destruction speak for themselves. It is, therefore, the responsibility of all concerned to find the quickest and most effective way to ban chemical weapons.