Chapter 27

Development of Measures on Prevention and Liquidation of Bioterrorist Phenomena in Ukraine

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Abstract. The paper includes data on the system of prevention and liquidation of bioterrorist phenomena in Ukraine. Peculiar attention is given to proactive measures regarding possibility of their realization in various regions of the world. The paper shows complex and multilateral nature of the problem of citizens’ protection from bioterrorism.

Keywords. Bioterrorist phenomenon, prevention, liquidation, indication

In the twenty-first century biological terrorism remains one of the most threatening phenomena of the present days. Relatively low cost, accessibility, easiness of transportation and usage, mass character of annihilation, are preconditions of specific appropriateness of biological weapon for terrorist attempts. Extremely rich micro-world facilitates choosing of causative agents, depending on the purpose of terrorist attack. Striking achievements of molecular biology and genetic engineering give an opportunity to select causative agents with specified biological properties: apocalyptic intentions will demand highly contagious agents with quick spreading, which are capable of inducing acute forms of pathology with high lethality.

In the conditions of military operations, causative agents affecting, for example, males only, with temporary loss of their fighting efficiency, and even with ethical selectivity, can be used.

Geopolitical position of Ukraine, located in the middle of Europe, at the intersection of international transport routes, stirring up of migration processes and so on, demand efficient and properly organized system of counteraction to bioterrorism, both for preventing terrorist phenomena in our country, and pre-acting their occurrence in other countries of the world.
Factors which promote bringing and spreading of biological pathogenic agents:

- Creation of favorable conditions for flash-like spreading of infectious diseases due to high-speed transport. In 2006 over two billions of passengers used air transport services. Epidemic of disease from one part of the world becomes inevitable threat in the other one during several hours only.
- Geopolitical position of Ukraine, located at the intersection of international transport routes.
- Stirring up of migration processes (flow of foreign citizens, as compared with the year 1991, has grown 33 times).
- Adverse epidemic situation regarding quarantine diseases and highly contagious viral fevers in the countries of Asia, Africa, Latin America being our business partners.
- Possible activation of natural focuses of plague in Russia (in Chechnya, Dagestan, Kabardino-Balkaria, Karachay-Cherkessia).

System of protection from biological weapon should be developed at the governmental level, and it should have multistage, inter-departmental and hierarchically subordinate organization. The most successful method of counteraction to bioterrorist phenomena is prevention thereof. In such conditions, essential role is given to coordinated efforts of special customs authorities, militia, sanitation and quarantine departments, as well as control over research and development activities, museums of storing pathogenic cultures etc. Ongoing highly efficient system of epidemiologic supervision with network of technically equipped microbiological and virological laboratories and unified research-and-information computer system is of considerable importance.

Structure of the system for specific indication of biological pathogenic agents in Ukraine was created in accord with Order No. 127/27 of the Ministry of Health and Academy of Science of Ukraine as of 21.03.2003 “On Improvement of Functioning of Biological Pathogenic Agent Indication System”. It provides for interaction of various ministries and agencies, and guiding function is assigned to the Ministry of Health (Figure 27.1).

System of counteraction to bioterrorism includes six Centers of indication and identification of biologically pathogenic agents, which are in charge of certain administrative regions, and assume specific functions on identification of agents of infectious and parasitic diseases on the whole territory of Ukraine (Table 27.1).

Head offices (laboratories) on indication of biological pathogenic agents in this system are laboratory subdivisions of epidemic specialization under State sanitary and epidemiological service departments of the Autonomous Republic of Crimea, regions, cities of Kyiv and Sevastopol.

Tasks of Head offices (laboratories) on indication of biological pathogenic agents are as follows:

- Indication and identification of all kinds of biological pathogenic agents
- Organizational supervision on the relevant territories
- Personnel training
- Practical assistance rendered to the territorial sanitary and epidemiological stations on the matters of organization and carrying out of laboratory investigations