



Rating scientific activity of the Lviv
Scientific-Research Institute of
Epidemiology and Hygiene of the
Ministry of Health of Ukraine

DIRECTOR OF THE INSTITUTE

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The the Lviv scientific-research institute of epidemiology and hygiene of the Ministry of Public Health of Ukraine is highly rated among medical-preventive institutions of Ukraine. The institute studies important problems in preventive and medicamentary medicine. Among all of the scientific-research institutes of Ukraine only in our institute function the reference-labs on study such problems as rickettsial, arboviral of a taint, Ukrainian the scientific-methodical center on study problems of ixodic tick borrelioses. In institute diagnostic drugs are developed, for manufacturing which the unique collections of the strains used. Last are national property of the state.

LABORATORY of RICKETTSIAL DISEASES

Fundamental and applied research conducted in the lab of rickettsial taints have demonstrated that preventive measures of rickettsial diseases, in particular, epidemic typhus, Volynsk and Q fevers, ixodic stain of fevers remains a problem in Ukraine today. On the basis of lab functions the Ukrainian center on rickettsioses, which is scientific-methodical and consulting branch of the Ministry of Public Health of Ukraine. Its functions include ecology epidemiological monitoring for rickettsial taints and rendering providing practical help to branches of protection of health on problems of diagnostic, treatment and preventive measures of diseases due to these infections.

Under the direction of the professor M.D.Klimchuk scientific research on therapy and chemoprophylaxis of typhus were conducted. Studies on the effect of antibiotics of different groups (erythromycin, micirin,

oleomorphociklinut) and combined action of antibiotics-Tetraciclins and erythromycin on the local strains of rickettsia Provachek were conducted. Based on these results “The Methodical recommendations chemotherapy of typhus (illness of Brill) and “The Methodical recommendations on complex preventive measures of typhus” were developed and subsequently approved by the Ministry of Public Health of Ukraine. This research had large practical value on typhus in conditions of liquidation of epidemical flashes and presence of widespread of sporadic diseases. A new immunobiological drug for diagnostic typhus was developed- the antigene for reacting an indirect hemagglutination. This drug is now used in practice sanitary- epidemiological services and command the Ministry of Public Health of the Soviet Union (1987).

**DEPARTMENT of TB and NON-
SPECIFIC LUNG DISEASES**

In the institute there is a number of scientists, who are engaged in epidemiology and clinic of tuberculosis. They study the affect of antibacterial drugs on the tuberculosis agent. Features of the course of tubercular process caused by the changed forms of micobacteria of a tuberculosis were scientifically substantiated in clinical and experimental conditions. Virulence and pathogenicity of atypical micobacteria were studied during the experiments on animals. With the purpose to advance antituberculous vaccinations, the duration of immunity after intracutaneous BCG vaccination is checked up, and the features of the course of tubercular process for vaccinated children are studied. The methods of differential diagnostic of a tuberculosis and pneumonias are improved. A symptomatology of the «small» forms of a pulmonary tuberculosis, frequency and features of peaking of a focal tuberculosis for children and juveniles are studied. The efficiency of drug treatment of the first and second series is studied. The specific role of corticosteroids, vitamins, metabolites of cycle of tricarboxylic acids, series

of pathogenetic means, laserotherapy in a complex therapy of a tuberculosis is studied. The albuminous, carbohydrate, water-salt metabolism and inactivation of antituberculous drugs are researched.

According to the prognosis of the World Health Organization there will be 90 million new cases of tuberculosis around the world during the following decade. The majority of cases will be in the age group between 20 and 49 years old, which is the most productive period of life. In the structure of a morbidity there are about 40-45 % of patients with the destructive forms, which conceal the micobacteria of tuberculosis, including those which are resistant to antituberculosist drugs (65,2 %), that hinders effective treatment. Such illnesses, as a rule, remain bacteriosecreters, augmenting the reservoir of a tubercular taint. In the structure of epidemic chemoresistant tuberculosis makes up to 40 % of the entire cases and has a tendency to decrease. One of the global problems in the struggle with a tuberculosis is a medicamental prevention of its resistant form. Specifically, morbidity among contacts from the nidus of a

tubercular taint grows fast, number of which is also considerably augmented.

Currently it is necessary to develop regulatory-legal basis in order to implement the programs of a tuberculosis prevention. According to the Order № 431 of the Ministry of Health of Ukraine dated 30.08.04 «About the Head Scientific Institution State Sanitary - Epidemiological Services of Ukraine on the Problems of the Epidemiology of a Tuberculosis», Lviv Scientific-Research Institute of Epidemiology and Hygiene of the Ministry of Health of Ukraine is assigned the Main Scientific Institution State Sanitary - Epidemiological Services on the problems of epidemiology of a tuberculosis. The Institute has developed normative documents with the support of PATH international organization.

LABORATORY of DIPHTHERIA

During many years scientists of the institute deal with diphtheria and tetanus. An epidemic situation concerning the taints, which are controlled by means of specific immunoprophylaxis, substantially depends on the immunological efficiency of the functioning calendar of vaccinations, which is capable to support personal and collective immunity on a high level. In time it was demonstrated, that the epidemic of diphtheria in the countries of the former Soviet Union in the beginning of the 90-th of the last century was conditioned by a series of the effective schemes of immunization.

**LABORATORY of SANITARY
MICROBIOLOGY and ECOLOGICAL
PROBLEM of HUMAN**

The institute conducts a scientific and research work in the sphere of iodinedependence of diseases. Iodinedeficient diseases are caused not only by iodine insufficiency, but also other factors of the environment, in particular, heavy metals and compounds of sulphur. These chemical compounds at certain conditions can enter into synergetic, active or antagonistic interconnections. The compounds of sulphur strengthen the effect of heavy metals and result in the remove of calcium from a human body, that in turn weigh upon of course of iodinedependence of diseases.

The institute has a great experience in working on maximum permissible concentrations of exogenous chemical agents in soil. In institute researches are conducted in the sphere of sanitary-hygienic estimation of the mixtures of chemical agents in soil.

LABORATORY of SANITARY TOXICOLOGY

Sanitary-hygienic department is functioning at the institute for over forty years. Its employees

made a significant contribution to toxicology. They were involved in a rating of chemical agents in water of open waters and found that there were over 200 maximum permissible concentrations. Definite work on optimization of the scheme of a hygienic rating of chemical agents in water of open waters with looking for the alternate methods of investigations today is a proper law on bioethics. This long-term experience has served for the fulfillment of sanitary-hygienic expertise of the different kinds of commodities.