Providing the Best Equipment for Soviet Health Care

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The main function of Socialist health care, the improvement of which is an important element of the social policy of the CPSU, is to maintain and improve the health of the population and to increase the working fitness and lengthen the active life of each individual. "Among our social tasks there is none which is more important than care of the health of the Soviet people," said Comrade L. I. Brezhnev at the 25th Congress of the CPSU.

Substantial measures aimed at the further development of Soviet health care and increasing its supply of materials and equipment were carried out in the Ninth Five-Year Plan, with the result that the quality of medical aid was substantially increased and the needs of the population were more fully met in relation to many specific products.

The activity of the institutions of health care has resulted in a perceptible economic effect during the years of the Ninth Five-Year Plan. As a result of a reduction in morbidity and the total eradication of certain diseases, losses due to unfitness for work of the working part of the population have been reduced by 11% and the primary expenditure of disabilities by 15%. New methods of diagnosis and treatment of diseases of the heart and great vessels, and a microsurgical method of treating patients with glaucoma and other serious eye diseases have been perfected, the transplantation of an artificial lens has been introduced into clinical practice, techniques and equipment for ultrasonic cutting and welding of bones have been created, equipment for hyperbaric oxygen therapy has been produced, and so on. Altogether 13 major advances in Soviet medical science, for which Lenin and State Prizes have been awarded, have been introduced into medical practice.

The successful development of medical science and of clinical practice nowadays would be unthinkable without the provision of up to date medical equipment for scientific, therapeutic, and prophylactic institutions. Naturally an important role in progress in Soviet health care is played by the creators and producers of medical engineering products and, above all, to workers in the medical industry, the principle supplier of medical engineering goods in the USSR.

During the years of the ninth five-year period, enterprises of the Ministry of the Medical Industry of the USSR have organized the mass production of about 600 new medical engineering articles. These include instruments and devices that are suitable yet absolutely essential to the physician, and complex instruments and apparatuses for the diagnosis of various diseases and for the performance of effective methods of treatment, utilizing the latest advances in science and technology.

Physicians have warmly welcomed such new developments as the four-channel polygraph, the Polyus-1 apparatus for alternating magnetic fields therapy, a monitor for observation on seriously ill patients, and a new sigmoidoscope, the first Soviet model of a flexible endoscope with a fiberoptical system for transmitting not only light but also the image.

Dual-purpose anesthetic apparatuses - respirators and oxygen equipment - respirators for hyperbaric chambers accommodating several patients, and ultrasonic diagnostic instruments have earned themselves a high reputation in medical practice.

However, despite considerable progress made in the ninth-five year period by the medical industry, the rates of development and improvement of the supply of materials and equipment for health care still lag behind the rate of development of the network of health care institutions.

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In the ninth five-year period the health service was augmented by 344,000 hospital beds and by polyclinics providing 630,000 visits per shift. The total number of hospital beds in the country reached 3,900,000. Large hospitals with 600–1000 beds or more have been built and specialized departments and centers organized in them in order to improve the quality of hospital treatment. For instance, during those years 165 dental, 48 cardiological, and 47 cardiac surgical departments, 38 hemodialysis units for patients with chronic kidney diseases, and many other specialized departments and centers started to function.

The advantages of creating these structural subdivisions in the health care system have been confirmed by practical experience. For instance, in intensive care units for myocardial infarction, where highly trained physicians have the complete range of modern equipment at their disposal, the mortality is only half of that from the same disease in ordinary hospitals; 85% of patients recovering from an infarct become fit for work again, whereas in patients treated in general hospitals this proportion rarely exceeds 40%.

In the tenth five-year period the construction of medical establishments in accordance with present-day organization and methods ideas regarding the optimization of medical care is proceeding on an even larger scale than in the Ninth Five-Year Plan. Whereas in the years of the Ninth Five-Year Plan 34 major multiple-profile hospitals were brought into use, at the present time 74 such hospitals are being built. Every year tens of new specialized medical centers are being built and tens of old ones are being expanded.

Since the first days of Soviet rule the national health service has been guided by the prophylactic principle of organization of medical care. In putting into effect the resolutions of the 25th Congress of the CPSU, the Ministry of Health of the USSR has made great efforts to enlarge and develop the network of therapeutic and prophylactic establishments and to improve the whole system of medical care for the population, which will be based on automated systems. The aim of this work is to achieve complete dispensary cover of the whole population of the country.

Since 1976 a large-scale experiment has been in progress to study the transfer of the whole population to dispensarization. Work is in progress to create the medical basis on which to develop automated systems of prophylactic medical examinations of the population as a form of dispensarization.

Considering the problems facing Soviet health care and the plans for its development, and accepting that the development of health care in the modern era would be impossible without the extensive use of "hardware," some idea can be obtained of the volume and intensity of the work involved in providing adequate technological equipment for the health care of tomorrow.

A conference of medical engineering workers was held in October, 1976, in Kazan', at which the achievements of industry during the ninth five-year period and the main tasks to be tackled in the Tenth Five-Year Plan were discussed. In the speech of the Minister of the Medical Industry of the USSR, A. K. Mel'nicenko, and in the papers read by members of the group, considerable attention was paid to the production of medical engineering goods. In particular, it was emphasized that the level of output achieved in the medical engineering industry was not keeping pace with the demands of health care practice either quantitatively or qualitatively. For example, deficiencies were being felt in anesthetic apparatus and respirators, electrocardiographs, electroencephalographs, operating tables, and syringes, insufficient spectacles were being supplied to the population, the range of labor-saving devices for nurses in hospitals currently being manufactured is too narrow and output is too small, there are not enough stretchers or trolleys for transporting patients and materials, not enough equipment for sterilization and disinfection. In addition, the quality, reliability in use, and the useful life of individual medical engineering products still leaves much to be desired. Complaints have also been made that the medical engineering industry does not supply sufficient spare parts or expendable materials. The medical engineering industry has done much in recent years to broaden the output of dental and stomatological goods. However, dental practitioners still experience shortages of dental equipment, dental chairs, drills, pulp extractors, root-canal fillers, dental mirrors, cavity-filling material, etc.

Health service workers expect from industry both an increase in the quantity and an improvement in the quality of various types of existing medical engineering goods and also the supply of new technical aids for the diagnosis of diseases and the treatment of patients.

General technological progress and modern advances in the fundamental sciences have presented designers and inventors of the medical industry with wide prospects for seeking, developing, and introducing highly effective methods of investigation of the patient and for therapeutic and diagnostic procedures. For instance, the ways and means of applying different types of energy to the body are still by no means exhausted. Still too few medical engineering appliances utilizing such forms of energy as ultrasound, quantum radiation, magnetic fields, radioactive fission are still being made. Engineering products for thermography, holography,