

Humanity Is Forced to Change Paradigm of Healthcare

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There are three good reasons for this purpose. The first consists in that an evolutionary catastrophe approaches on humanity: a problem, the presence of that is while realized by neither public nor science, stands before humanity. The question is about biological degradation of type of *Homo sapiens*. She shows up: by the speed-up rate of aging, decline of stability to influence of negative factors, epidemic of chronic uninfected diseases, high cosickness, weakening of reproductive function, birth of weak posterity, decline of physical and psychical internalss and other. All of it is investigation of reduction of stability of the non-equilibrium thermodynamics system (living) by reason of reduction of potential of her energy. And changing a situation, leaning only against methodology and technologies of medicine, is impossible. The criteria of public health do not take into account majority from the presented indexes of quality of population.

The second problem consists in financing of healthcare. In most countries acknowledge that the system of healthcare is insatiable in the necessities, and the state is unable to increase budgetary assignments on the aim of healthcare. A situation became so serious, that her the experts of economic forum began to discuss in Davos. From their data already in the nearest decades global expenses on the sector of health protection will grow three times: from 921 trillion of dollars in 2014 to 2 424 trillion in 2040 at the increase of population from 7 to 9,5 milliards of persons. Efficiency of healthcare (correlation of results and expenses) as far as the increase of the facilities distinguished on his development, continues to go down. If at the beginning the XX century the increase of charges on a healthcare on 10% was accompanied by the height of indexes of public health on 12%, then later this correlation diminished constantly, and in 80th the increase of expenses on a healthcare on the same 10% led in the developed countries to the improvement of public health only on 1,8%.

Chronic uninfected diseases (CUD) are a leading problem of modern healthcare. Their height and rejuvenation are objective reality. Exactly this group of diseases is principal reason of death in the developed countries (87%), and also to disability and limitations in social realization of personality. A fight against them while does not suggest optimism. And it the third reason of necessity of changing of paradigm of healthcare is her insufficient efficiency. Even the correctly appointed preparations do not render the expected therapeutic effect often. So, from data of researches, most medicinal facilities appear effective only for 25-60% patients.

Is there an alternative to the traditional paradigm of healthcare, basis of that is made by treatment of patients? Yes, such alternative exists, and she is constrained with the laws of thermodynamics. Got by us data allow to assert that is present the real possibility to «manage» a health, but not to engage in his «repair». And it is essence of new paradigm.

A living organism is the open thermodynamics system that exists due to sunny energy. Sunny energy passes the row of the stages of transformation and saved in mitochondria's as macro ergs. Exactly macro ergs support the mechanisms of self-organization of the living system and provide her viability (homoeostasis, adaptation, reactivity, resists, reparation, regeneration, indemnification, ontogenesis of and other). In fact to it processes of self-organization of the living system are the mechanisms of health, that support the low level of entropy in the system. In existent strategy of healthcare affecting them practically is not envisaged, because a primary objective of this strategy is influence

on the processes of pathogeny, i.e. consequences of increase of entropy.

At the same time, as well as in any other mechanism, potential of energy determines the degree of his perfection: than more energy (taking into account mass), the system works more perfect. Thus, essence of health is potential of energy of the biosystem. Defining energy potential of the living system is possible, if to take into account that her basic part is made by the aerobic mechanisms of formations of energy. Determining maximal possibilities of consumption of oxygen (MCO, ml/of kg/of min.), we get information about power potential of the biosystem. From the physiological point of view this index integrally characterizes the state respiratory, sanguiferous and metabolic functions, with biological is a degree of stability (to viability) of the non-equilibrium system (living organism). Direct determination of MCO with a loading test difficult enough and dangerous for a modern population procedure. On this account for greater availability and safety we created the simple and cheap system express estimations of MCO, in other words are «measuring» of health.

Any management is a process consisting of a few stages: description of the guided object, forming of complex of management actions, their realization, control of efficiency (feed-back). Management essence abuts a health against a management by potential of energy of organism, i.e. entering of energy organism with food, by her expense in the process of vital functions and renewal in mitochondria of cage due to physical activity. It means that two main factors are, subject to control and management is a feed and specially organized physical activity.

It is set researches: than higher health level, the less probability of development of endogenous risk and demonstrated forms of ischemic heart (IHD) and other diseases trouble factors; there is a «safe» health level, neither endogenous risk factors nor demonstrated forms of diseases are practically determined higher than that; him quantitative description (12 MET for men and 10 MET for women) is given to; having quantitative indexes, it is possible to manage (to form, save, restore) a health.

Thus, a health protection can work out the most actual problems, not using «management technology» illness (treatment). Essence of new paradigm consists in a primary transition from an expensive, but effective not enough fight against pathology to monitoring, reproduction, maintenance and strengthening of health. *Id Est all efforts of health protection must be directed, foremost, on counteraction of entropy.* Thus making (support of energy potential within the limits of safe zone of health) healthy must come true constantly, and treatment if necessary. For making healthy of population it is necessary in addition to «Industry of illness» (curative establishments) forming of Industry of health. Industry of health presumes expansion of entire series of events assisting optimization of motive activity of population.

At sufficient development of industry of health the role of «industry of illness» will gradually diminish in the system of health protection, but saved, occupying the place in area of providing of Medicare to the persons of elderly and senile age, at traumas, infections, genetic diseases, etc. it appears Us, that the new format of the system of healthcare will be more economical, humane and effective.