program is shown in the immune and homeostatic trouble in parents' and primogenitors' generations and defines girls' menstrual function formation infringements in their puberty.

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THE IMPROVEMENT OF PHARMACEUTICAL ASSISTANCE FOR THE EMPLOYEES, WORKING UNDER ROTATIONAL TEAM METHOD

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Sakhalin Region is the single insular region in Russia, comprising Sakhalin Island, Moneron Island and Tyuleniy Island located nearby, moreover there are two chains of the Kuril Islands. The profitable geographical location of Sakhalin, its neighborhood to the highly developed countries of Asian-Pacific region, its wealthy resources contribute to the dynamic external-economic relations development. Oil and gas reserves offshore Sakhalin became an important element of the economical development of Sakhalin island, adjoining regions of Russia and the whole Asian-Pacific region as well. Nowadays Sakhalin oil and gas projects (Sakhalin- 1, Sakhalin- 2, Sakhalin- 5) are the most large-scale investment projects in Russia. Oil and gas projects development is implemented in the geographically remote area, in severe climate conditions and in the zone of high seismic activity. All this conditions require the application of leading-edge technologies and pioneering development in various fields of national economy, moreover human recourses attraction is also an important element. The quantity of the economically active population amounted to 302.000 people by the end of June 2006. In accordance with employment department statistics, the level of unemployment in Sakhalin region is the lowest among the Far East regions and totals 2,0 %(on the average in Russia – 2,7%). The demand of personnel equaled to 35.300 people in 2006. Judging by the Sakhalin statistics the international migration balance was positive. During January-June 2006, 11627 foreigners were engaged to work to Sakhalin region with the help of migration service, and the amount of employees was twice as bigger then it was in 2005. The labor power was engaged from 68 countries (Australia – 117, Great Britain – 297, India – 83, Indonesia – 98, China – 813, Malaysia – 134, Nepal – 77, The USA – 514, Philippines – 1038, Turkey – 4955, Korea – 1063, Japan – 96, Thailand – 310, France – 71, CIS countries – 1483 people). Judging by this, the major part of engaged foreign labor power in Sakhalin region falls on Turkey (42,6%), Korea (9,1%) and Philippines (8,9%).

Therefore the problem of pharmaceutical assistance improvement for the employees of such companies as Exxon Mobil, Shell (Sakhalin Energy), BP, Nippon Steel, Saipem UK, Aker Marine Contractors, Transocean, Fluor Daniel, Lukoil, Rosneft (Elvary), Starstroi and others, working under rotational team method on the remote areas has gained big actuality, and stipulated timing and reasonableness of this research. The aim of the research is the development of complex medico-social program of medicamentary supply and improvement of pharmaceutical assistance to the migrants of Sakhalin Region.

CJSC "AEA International (Sakhalin)" (hereafter "AEA Int") – takes the first place among the leading organization of the Far East region in provision of medical and pharmaceutical services on the remote job sites of the companies working in frames of oil and gas projects internationally. Given high demands making to the safety technique, danger in terms of being injured during exploration works implementation, cleansing of territories from explosion-hazard units by sapper teams during assembly operations during part-time residence camps construction along the pipeline laying route, significant remoteness of construction objects from stationary medical institutions, contractor companies have a necessity to obtain urgent and acute medical

assistance in “AEA Int”. The provision of high quality medical assistance is not possible without pharmaceutical support nowadays. The pharmacy of the company provides the medications to the 20 medical facilities, situated in remote regions (onshore as well as on the 4 oil rigs offshore) and on the ships. Therefore the main function of the pharmacy is to supply the pharmaceutical assistance to the employees working in different fields in frames of projects.

On the first stage of the research, regional features of external-economic performance, integration processes and many other regional factors, based on the systematic approach and contemporary methods of economical model building were analyzed. The most significant from them are medico-demographical features (based on the results of ranking Kr = 0,82), which affect the MP (medicine provision) process. The analysis of the Sakhalin Region population disease incidence during 2005-2006 showed that the blood circulation diseases take the first place among other diseases (53,5%), comprising heart related diseases, casualties of food poisoning and injuries (18,8%), the third place is after neoplasms (11%). The analysis of the disease incidence is an essential part of the research in the MP process, because this factor forms assortment and goods policy of the pharmacy.

The second stage implies the development and introduction of step by step accounting, which gives an excellent opportunity of taking a note of high costs, related to remoteness of the objects, and at second, to produce the analysis of profitability, separated medications and assortment of production in whole. There is an economico-mathematical model of step by step accounting of medical provision (4 formulas):

$$CM1 = \sum_{i=1}^{n} (Vi \times Pi - VCi) \quad (1)$$

$$CM2 = \sum_{i=1}^{n} (Vi \times Pi - VCi - FCj) \quad (2)$$

$$CM3 = \sum_{j=1}^{m} (CM2j - FCj) \quad (3)$$

$$CM3 = \sum_{j=1}^{m} (CM2j - FCj) - FC] \quad (4)$$

Where: CM1- the (ruble) coverage of the separated assortment units in frames of pharmaceutical production (PP); CM2-the (ruble) coverage of the separated kinds of PP; CM3- the (ruble) coverage of the separated assortment groups of pharmaceutical goods; I- the result of the enterprise performance (profit and damage); V- the volume of the realization of PP; P- price factor; VC- variable costs; FC- fixed cost; I- kind of production in assortment of enterprise, I=I……n, where n is the number of PP; j-the kind of assortment group of the enterprise, I= I……..m, where m is the number of assortment PP group. With the help of this methodic the following results were collected: the highest points (589) were given to the group of medications, helping the patients having heart-related diseases, where the leaders were Actilyze, Cozaar, Liprimar; the second place (517 points) was taken by the medications helping if a patient has infective diseases, the leaders in this group became Ciprobay,Klacid,Augmentin, the third place(432) was after the group of vitamins with Centrum, Vitrum, Upsavit C; the fourth place with 368 points was taken by group of vaccine with Avaxim, Vaxigrip, FSME vaccination; the fifth place with 273 points is taken by the group of Nonsteroidal Anti-inflammatory drugs with Celebrex, Ibuprofen, Diclofenac.The group of opioid analgesics is taking the sixth place with 117 points, because those medications should be supplied to the medical facilities on the remote objects for the providing of urgent and acute first aid. The method of step-by-step accounting was also applied for the development of regional “Vaccinal prevention”, “Avian flu” and others.

The complex medico-social program which included: verification of the required list of medications, expendable medicational materials; development of actions algorithm, directed to the quality of provision and optimization of pharmaceutical performance on every stage when the medications are delivered, kept and sold with the adherence of international standards of ISOS and RF legislation; the development of methodic instructions about the work of mobile medical teams on the construction objects working under

offshore projects on the territory of Sakhalin region.

Thus, due to research work the methodic approaches were improved in the area of providing the pharmaceutical assistance for the employees (including the assistance to the migrants), working under rotational team method in the frames of Sakhalin 1, 2, 5 projects. The introduction of the mentioned recommendations about the mobile medical teams work regime (the act of introduction №2586 dated 30.12.2004) enabled to work out the complex medico-social program of MP of the migrants of Sakhalin region and provide the pharmaceutical assistance in accordance with the international standards.

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APOPTOSIS AND LOCAL IMMUNITY OF CHRONIC HCV-INFECTION

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The programmed cell death takes part in the body development regulates the number of the cells in the tissue and is the main thing of many immune reactions. Understanding of activation processes and apoptosis realigation in a cell is of great clinical importance in case of virus hepatitis.

The aim of our inrestigation is to evaluate the interrelations between the apoptosis condition and the cytokine architectonics in the target-organ-the liver in case of HCV-infection.

Investigation results indicate of the increased number of CD95+ cells in supernatants of the liver bioptates in patients with chronic HCV-infection. It shows the considerable role of the mechanisms of the programmed death cell in the pathogenesis of chronic HCV-infection. Their apoptosic activity lowering is of importance in the progress of necroinflamotory liver injuries and may testify to the strengthening of the immune system disfunction when the disease grows progressively worse. The increased cell level having apoptosis marker CD95+ in supernatants of the liver bioptates correlales with high level of the local cytokines TNF-a ($r=0,34$; $p<0,01$), IL-1a ($r=0,56$; $p<0,01$) and IL-10 ($r=0,66$; $p<0,05$) and it is possible to indicate HCV us age of hepatocytes apoptosis mechanism for its survival in a hostis organism. And with the increase of the hystological activity and the liver fibrosis TNF-a antiviral acticity in HCV-infection persistencia conditions is insufficient and it may be for example due to the increased secretion of the solvable receptors connecting TNF-a. Direct correlation between local CD95+ cell content and IL-4 ($r=0,32$), IL-12p40 ($r=0,65$) and IL-12p70 ($r=0,21$) cytokine concentration has been revealed in supernatants of hepatobioptates howerer their differences were not accurate. Negative correlation between IFN-a, IL-2 local cytokines concentration and the number of proapoptosic CD95+ cells ($r=0,5$; $p<0,01$ and $r=0,25$; $p<0,05$) accordingly that may as well speak on the lowering of the antiviral defence on the organ's level with the apoptosic mechanisms increase which helps persistencia of HCV- infection.

Thus the disturbance of cytokine balance leads to the apoptosic hepatocytes death and it is of great importance in the liver cell injury in case of chronic HCV-infection.

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