

# METHODOLOGICAL APPROACHES TO DETERMINING THE NEEDS OF MEDICINES IN A SINGLE NATIONAL HEALTH SYSTEM OF THE REPUBLIC OF KAZAKHSTAN

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Analysis of the current situation in the field of drug supply in the Republic of Kazakhstan (RK) shows some shortcomings in the implementation of the rights of citizens in the supply of drugs, and therefore, the sixth line of the State Program of Health of the Republic of Kazakhstan (SPH) "Salamatty Kazakhstan" for 2011 - 2015 is dedicated increasing the availability and quality of medicinal products to the public, improving the equipment of health care medical equipment.

A series of international studies have shown that in general about 88% of all money spent on the provision of medicines, in fact wasted. This is due to a too expensive drugs (10%), due to an inadequate appreciation of the need for medication (14%), 27% is "lost" in the procurement system, 19% - in the distribution of drugs, about 15% - in irrational prescribing of drugs and 3% as a result of improper administration.

Practice shows that the definition of need drugs and execution of application is low, resulting in untimely and inadequate provision of patient medications, reduces the efficacy of treatment, poor health and growing discontent of citizens. In this connection, we consider it necessary to implement efficient methods to determine the needs of drugs used for the treatment of outpatients. As part of the outpatient drug coverage program definition needs to drugs can be divided into three categories:

1. Medicines with controlled consumption.
2. Drugs specific action
3. Medicines general therapeutic action.

In connection with the introduction of Kazakhstan population register attached calculation medical need will follow the actual situation, as you can make quick adjustments that were previously impossible to do so reliably.

The most difficult is the procedure to determine the medical need of the third group - Drugs wide (general therapeutic) spectrum. To accurately determine the need for these medicines needs to know the size and structure of the actual consumption in the period under review, which can be obtained from the personalized data.

Thus, increasing the availability of drug coverage on an outpatient basis depending on the implementation of effective methods of calculation to determine the need of medicines prescribed to outpatients at free conditions.

## INTERNATIONAL EXPERIENCE IN FINANCING OF DRUG SUPPLY

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According to the Program "Salamatty - Kazakhstan" for 2011-2015, one of your priorities is to improve the health care system financing, including optimization and extension of the list of drugs to be purchased as part of the guaranteed volume of free medical care (GVFMC).

Based on the Ministry of Health funding from 2008 to 2010 grew by 33.4% in local currency (from 377.5 billion tenge in 2008 to 566.9 billion tenge in 2010) and by 18.4% in U.S. dollar (from 3.14 to 3.85 billion dollars). In this case, if you previously accounted for most of the funding for local budgets (2008 - 68.5%, or 259 billion tenge in 2009 - 60.1%, or 276.9 billion),

in 2010 significantly increased share of the national budget and target current transfers from the national budget region: it reached 66.2%, or 375.5 billion.

Pharmaceutical sector in Kazakhstan is an important part of the health system. Over twenty years of drug supply system of the country has changed dramatically, from a centralized supply system to the development of an extensive network of private distributors and retail pharmacies. It was found the legal framework regulating the issues of drugs, improved quality control system of medicines, with the main quality requirements defined developed and approved Pharmacopeia Kazakhstan; significant improvement has been in the system of drug supply.

At the same time, the question regarding the development and implementation of optimal bob-spending mechanisms to curb the financial costs of drug provision, the introduction of various methods used in developed countries is still actually.

International experience shows that in all countries there are different non spending mechanisms to curb the cost of drug coverage population: developing a "positive" and "negative" list of medicines (drugs), actively promoted the use of generic drugs and the practice of the method of co-payments, and organize tenders procurement of drugs, by controlling costs for advertising drugs, are "insurance" pharmacy drug prices that are much lower than in other pharmacies; developed effective mechanisms to contain costs to reimburse the cost of drugs by introducing greater control over prices and rational prescribing medicines.

One of the funding mechanisms of drug supply is a reference pricing for medicines. This mechanism is the most widely used in Western Europe. In all countries it is noted that the use of reference prices, on the one hand, to save money, the other - reducing the availability of highly effective drugs.

Also commonly used method in the international practice of financing drug coverage is a method of co-payment for sold drugs. Co-payment - is the patient's consent to have the right to choose the drug with an additional charge of their own financial resources.

In many countries, along with the various systems of cost recovery for drugs and operates a range of additional services.

Thus, the above methods of financing drug supply in developed countries, can serve as a basis for the optimization of pharmacological support of the Republic of Kazakhstan, as According to the experts of the World Health Organization - in any country of the world do not have sufficient funds to cover the needs of public health.

## PROBLEMATIC ISSUES OF PRE-SHIFT MEDICAL EXAMINATIONS AT INDUSTRIAL, COMMERCIAL AND TRANSPORT ORGANIZATIONS IN THE MANGISTAU REGION

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Key priorities, designed to ensure workers' health at the enterprises of the Republic of Kazakhstan, secured by the Constitution of RK, the Labor Code, the Code "On the people's health and the health care system" and other legislative acts.

World Health Assembly in 1996 adopted the WHO Global Strategy "Medicine Work for all" with an action plan for the coming years, including 10 strategic objectives.

One of the duties of the employer is to conduct its own expense mandatory periodic (for work) medical examinations and pre-shift medical examinations of employees in cases stipulated by law of the Republic of Kazakhstan, as well as a transfer to another job with changing working conditions or when the signs of an occupational disease.

The purpose of the pre-trip or pre-shift medical examinations of workers is to ensure safety of different types of transport, professional activities at industrial facilities.

From pre-shift medical examination, first, the very life depends permitted the employee to work, as well as the lives of others of its citizens. The first full-time medical staff working in these organizations should have access to clinical practice, i.e., Certificate required categories or not.

According to the Law "On State Control and Supervision in the Republic of Kazakhstan" and the Law "On Private Entrepreneurship", the organization that carrying out supervisory and control functions may carry out checks of planned and unplanned order. However, not all subjects are the responsibility of the Department of Control Committee of medical and pharmaceutical activity of the Ministry of Health of the Republic of Kazakhstan Mangistau region for routine inspections. Meanwhile, the test subjects can be conducted in the unscheduled order.

On unscheduled inspection must be checked facts and circumstances, identified in relation to specific subjects of private entrepreneurship and giving rise to the appointment of this unscheduled.

Therefore, all who are not indifferent to the situation, which endangers the well-being in our society and people's lives, the Department of the Committee monitoring the medical and pharmaceutical activity of the Ministry of Health of the Republic of Kazakhstan Mangistau region, asked to show their civic consciousness to assist and help repair contravention.

## ECONOMIC MANAGEMENT PRACTICES AT THE MULTIDISCIPLINARY HOSPITAL AND WAYS OF THEIR IMPROVEMENT

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The purpose of the study

The ways for development of perfection of economic governance in multidisciplinary hospitals.

Materials and methods:

The object of the study is a multidisciplinary clinical hospital of a large city\_ with special accommodation and a high level of socio-economic development - the Central Clinical Hospital in Almaty (CCH). The subjects of the study are the results of the hospital, resource and economic performance.

Investigation is carried out on the complex method, using the following main methods: the study and learning, mathematical statistics, methods of financial and economic evaluations, and business analysis, multi-method, and compare the data sheets, forecasting, correlation coefficients, build statistical tables of content analysis and expertise.

Today, in condition of increasing independence of managing subjects of health, regarding the management is particular importance. At the same time\_ developments in the country overall socio-economic transformation requires a shift from the administrative-command methods of economic management.

At the level of the Multidisciplinary Hospital between economic management it should be focused on economic analysis and planning of MH including business planning, the use of approaches to financial incentives for health workers, implementation of the principles of management and marketing, etc.

For planning further development of Multidisciplinary Hospital it is very important analysis of the actual performance of its activities. The ongoing investigation has revealed a slight annual increase in the number of treated patients, increasing the number of bed days in the year from 345 to 370, reducing the average length of hospital stay of 0.2 days.

A more detailed analysis of the rational use of hospital beds by office showed the need for some of the restructuring, which will give suggestions for change of hospital beds. At this stage, it is carried out the economic analysis of the rational use of hospital beds.

In the new conditions of the industry it is appropriate for the analysis of the MH to use indicators that contain extensive features of the organization, such as cost, margin, profitability, capital intensity, materials, indicating a need for efficiently-factor analysis of the MH which provides effective management in the stages operational, current and future planning.

As the result of research it would be developed practical recommendations and suggestions for improvement, and use of economic methods of management in the general hospitals.

## MEDICAL AND SOCIAL IMPORTANCE OF FAMILY PLANNING

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Key words: family planning, women of reproductive age, reproductive health, contraception.

Medical and social importance of the problem on family planning (FP) is defined by the following provisions:

- By deterioration of women's reproductive health (RH), and the growing rate of infertility, miscarriage, menstrual disorders, and inflammatory diseases of the female reproductive organs, the deteriorating health of children and infants.
- A large number of abortions. Abortion is not best method of birth control; it can be avoided by preventing unwanted pregnancies.
- By deterioration of physical health of pregnant women and mothers.
- A significant increase in diseases transmitted sexually, especially among teenagers and young adults.
- Low reproductive culture of the population.
- Increasing teenage pregnancies, pregnancies and births to women over 35.

During counseling on methods of contraception should be considered following: health of the woman, her phenotype, sexual behavior, social status, financial resources, consider the indications and contraindications for a particular method of contraception.

In Kazakhstan, the ultimate goal of the family planning program is to reduce abortions in order to protect women's health and the health of future recruitment. In current situation requires the combined efforts of social and health services, families, schools, law enforcement agencies and the media.

Conclusions:

1. Increase reproductive literacy, special attention was given to women at risk, teenagers. Reduce abortions in primigravidas women.
2. 100% coverage of contraception, women of childbearing age, with absolute contraindications for child bearing.
3. Conduct a treatment works to reduce miscarriages.
4. Improve the skills of health workers in reproductive literacy.

## THE QUESTION OF PAYMENT SYSTEM FOR MEDICAL SERVICES AND WORK OF PHYSICIANS

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Improvement of payment methods for medical services and work of doctors is necessary both in terms of increasing the interest of hospitals and doctors in meeting needs of patients, and in terms of increasing productivity and quality of work, the skills of medical personnel. This is a rather complicated and seemingly contradictory requirements can be defined as a system of incentive mechanisms for hospitals and physicians in the rational and cost-effective behavior from the point of view of the state and society. The payment system for medical care at the present stage of development of health care in the Republic of Kazakhstan is a key mechanism for ensuring the effectiveness of the health system and to limit the growth of costs.

One of the key moments in the light of this problem is a new approach to solving the problem of guaranteed volume of free medical care (GVFMC), which is both a major political achievement of our state, and serious economic problem Reform and Development Program of Health.

The only mechanism that would really differentiate the pay of medical personnel, including its most important links - middle and junior medical staff - is a legislative provision of extra budgetary funding of health care in the form of co-payment by the patient, provided under additional or extended medical aid. Legally fixed percentage of payroll deductions from the total volume of services provided under the expanded volume of care allows doctors and, therefore, secondary and junior staff, to earn legitimate money within the legal field, there will be no unregulated, but objectively perceived need to earn their illegal way. In this sense, it is possible to adjust the relationship of doctor - patient, guiding them in a civilized fashion market economy, where the quality of service provided in excess of the minimum required GVFMC will correspond to its real value.

Conclusion: Reform and Development Program of Health of Kazakhstan for 2005-2010, National Development of Health of Kazakhstan "Salamatty Kazakhstan" in 2011 - 2015 years defined the strategic direction of the subjects of the health system. The search for new methods of solving specific problems should facilitate the successful implementation of the program. Improving the methods of payment of medical staff, work of doctors increased income to the minimum international standards may be the key in determining the viability of the entire process of health care reform.

## METHODS OF MARKETING USE IN HEALTH CARE

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The emergence of new needs, increase of the real incomes of the population and the development of new technologies lead to the fact that the market offers an increasing number of different medical services and products. All they have to find their consumers to improve their health and maintain normal economic turnover of the country. This is the purpose of marketing and - to meet customer needs in order to obtain profits.

It was conducted a study on the basis of the large General Hospital of St. Petersburg - hospital number 26. The hospital has fifteen years of experience providing paid services to the population, the result of which was the creation of a relatively new form of organization - a specialized structure for the treatment of hospitalized patients (self-supporting department). Treatment is carried out in the Department for the following profiles: therapy, cardiology, pulmonology, allergology, nephrology, gastroenterology, neurology, surgery, hepatosurgery,

thoracic surgery, gynecology, neurosurgery, traumatology, urology, cardiac surgery, vascular surgery, and etc.

For the analysis of patients treated in the department, and the amount of assistance provided was compiled a special "research map" on which information moved from hospital and supplemented with data from financial and accounting documentation. Examined the totality (1200 people). Patients treated in a self-supporting department in 2011.

The study authors concluded that, for the formation of a focused marketing strategy to promote the health facilities of various medical services (including preventive health-building measures aimed at adequate medical check-up, and others), be aware that more than half of the duration of their illness hospitalizations exceeded one year.

The complexity contingent of patients treated in the department, and the absence, in many cases, their previous medical surveillance dictate the need for a significant amount of diagnostic and therapeutic measures.

The high level of requirements of the patient, as to the quality of treatment, and the level of service, the need for their full and thorough examination (and treatment), taking into account both the main and concomitant disease, lack of continuity with the outpatient stage the increased demands on the personnel of the Office , changing the content of their work and the structure of labor costs. Need to further improve the level of training of professionals providing paid medical services, including in marketing.

Thus, in health care to meet the needs of the buyer to use the methods and approaches of marketing, which will increase the provision of health services and, therefore, profits. Market research can analyze all conditions relevant to the successful implementation of the service and the efficiency of its distribution, and analysis of consumer motivations, seasonal demand, of advertising, of the competitors.

At the same time, it is necessary to take into account the specificity of marketing services or marketing of medical organizations, as one of the most difficult types of marketing. Marketing methods and approaches must be used from the point of view to preserving the most important value of a human – his/her life and health.

## ANTI-CRISIS MANAGEMENT AS AN INSTRUMENT OF HR-MANAGEMENT

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In management system it could be often heard the term HR-management. In management still there is no single standardized definition of what HR-management is, but one of the definitions is as follows: HR-Management - a set of activities to develop and implement an effective system of attracting, retaining, managing and controlling personnel, creating a positive image of your organization.

In the healthcare system of the Republic of Kazakhstan (RK) in the last five years there have been momentous changes in the regulatory legal framework, with the result that was adopted by the Code "on people's health and the health care system," State Programme on Health of the Republic of Kazakhstan (GPRZ) "Salamatty Kazakhstan" for 2011 - 2015, published a draft concept of the health workforce for 2012-2020. Each of these documents is proposed that decisions relating to personnel matters were raised with a new level of quality that meets international standards and priorities in the field of human resources.

As it is noted in the Concept of the health workforce for 2012-2020, an important part of strengthening health systems is a human resource strategy. All over the world the effectiveness of health systems and the quality of care depends on the performance of employees who are defined by their knowledge, skills and motivation. International experience, particularly the

experience of the World Health Organization indicates that among the organizational changes related to improving the performance of health systems, the greatest success achieved actions taken in the field of personnel management.

Therefore, we can conclude that the main objective of crisis management - is the restoration of control organization (ability of quick adoption and implementation of managerial decisions, effectively to resolve detected problems).

No one organization can exist without resources, but the main resource is staff (people). In a crisis, organizations need to mobilize all available resources in the first place - human. During this period, the importance of HR increases dramatically since its effectiveness has a direct impact on the stability of the organization.

Currently, the role of health care HR-service leaves much to be desired: the management of human resources, lack of skilled management capacity, outdated principles of personnel services, lack of specialists in the field of management and health economics, social workers is the major barrier to the establishment of an effective potential. Also it must be noted that the lack of clear government personnel policy in the health sector has led to a quantitative and qualitative workforce crisis. New conditions for the functioning of health care more demanding to the potential HR functions and responsibilities that must be greatly expanded.

In modern economic theory people are the main resource of the company, so it is human resource management determines the competitiveness of businesses. Saving the best employees, top management teams is the key to the further development, because the recession will certainly rise.

Thus, the organization at the exit from the crisis is an organization with new knowledge and experiences that will help to be competitive and to better prepare for future changes.

## CATEGORY MANAGEMENT IN PHARMACY

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Pharmaceutical sector in the Republic of Kazakhstan (RK) is under active development. With the approval of the Code "On people's health and the health care system" from September 18, 2009, release some Government regulations and orders of the Minister of Health, the State Development Program of Health "Salamatty Kazakhstan" in 2011-2015 in the health system in general, and in pharmacy, in particular, are major changes. Purchase of medicines for drug coverage under the guaranteed volume of free medical care is single distributor, actively introducing national standards GMP, outpatient drug coverage from 01.01.2012 is only for free prescriptions, ie abolished preferential dispensing.

The purpose of the introduction of category management is to achieve efficiency in the process of interaction between all business functions of the company in relation to the goods, as well as to optimize the interaction between the producer (supplier) and retailer. Category management is based on principles such as: the construction of the matrix on the basis of commodity consumer preferences and perceptions, the formation range of outlet as a set of product categories, category manager responsible for the entire chain of goods movement selected category.

In order to category management gained in a pharmaceutical company, you need to understand the essence of which is that the category management should be seen as a process of planning. The planning process involves setting goals, objectives, develop a plan, which consists of defined steps, oriented in time and with the necessary resource costs (financial, logistical, human and information).

International experience shows that implementation of category management takes several months, and sometimes years, accompanied by structural changes, personnel changes, and even complete replacement of certain product lines and groups - not every pharmaceutical organization can afford it.

At the same time it should be noted that the introduction of new technology is not always perceived only positively. The main obstacles to the implementation of category management:

Unwillingness of senior management (the first head of Pharmaceutical Organization) to recognize the need for change in the management of assortment.

The absence of clear strategic plans for a pharmaceutical company.

Unwillingness to address the needs of customers while working with a range of pharmacy.

Inefficient organizational structure of the pharmaceutical companies, the lack of a clear division of responsibilities between departments.

Absence of trained professionals in the field of inventory management as at the management level and at the level of the performers.

Difficulties in the perception of suppliers as allies with whom to share information.

Lack of skills in working with the new information technology and computer systems.

Resistance to change among staff.

Introduction of category management is not an advantage itself. Advantages arise because of study strategies of the pharmaceutical companies, structuring the range, setting the financial and organizational challenges category managers and efficient interaction of all departments.

Thus, category management - a strategy of an organization's inventory management, with proper treatment that provides a competitive advantage in the pharmaceutical market of the Republic of Kazakhstan.

## MORTALITY AT THE THERAPEUTIC DEPARTMENTS OF THE CENTRAL CLINICAL HOSPITAL IN ALMATY

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The results of the analysis of mortality at therapeutic departments of the Central Clinical Hospital in Almaty in 2012 compared with 2011.

The CCH in Almaty serves emergency patients of Bostandyk and Medeu districts and regular patients from all over the s. There operates five medical departments, including 3 - self-supporting. Only 135 beds have therapeutic profile (27% of total hospital beds large boundary), including self-supporting 75. Medical care at the therapeutic departments is provided to all nosological forms of diseases, including cardiology, rheumatology, gastroenterology, neurology, nephrology and respiratory diseases.

In the offices of therapeutic profile in 2012 mortality rates compared to the previous year did not change and amounted to  $2,3 \pm 0,21$  with absolute weight  $80,5 \pm 1,08\%$  (in 2011,  $-2,7 \pm 0,22$  with absolute weight of  $2,7 \pm 0,22\%$ ).

The highest mortality rate recorded at the budget therapeutic and neurological wards -  $6,8 \pm 0,69$  and  $1,2 \pm 0,30$ , with absolute weight of  $80,5 \pm 1,08\%$  and  $14,2 \pm 0,96\%$  respectively, while at the self-supporting departments figure was much lower. This situation is due to the organization of hospitalizations, where a contingent of the most severe cases are hospitalized, usually to the budgetary wards.

Leading position in the structure of mortality causes of the disease take cardiovascular diseases; more than 56.6% of the total number of fatal strokes were observed at the therapeutic wards (in 2011 - 53%). Of these, most often the cause of death was decompensated heart failure

in the background of chronic ischemic heart disease, which was  $56,3 \pm 2,3\%$  of the total number of deaths from all cardiovascular diseases in the medical departments.

Analyzing the structure of mortality on nosology, it may be noted that cardiovascular disease, as well as last year, took the lead and make up more than  $56,6 \pm 4,7\%$  of the total number of deaths at the therapeutic departments ( in 2011 -  $53 \pm 4,1\%$ ). Second leading cause of lethal outcome occupied by respiratory diseases, the absolute weight of which was  $13 \pm 3,2\%$  ( in 2011,  $14,3 \pm 2,9\%$ ) of the total number of deaths at the wards of therapeutic profile. Among the common causes of death in hospital such complications as pneumonia and cirrhosis of the liver, the weight of which was 13.3% (2011 to 11, 6%) and 10.6% (2011, 17, 7%), respectively, of the total number of deaths of therapeutic block. All patients with a fatal outcome received care on emergency basis. Routine patients had no lethal outcomes.

## MORBIDITY AND ORGANIZATION OF CARE TO ADULT POPULATION WITH UROLOGICAL DISEASES IN ALMATY

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Deterioration of the health among male population is associated with a high incidence of urological diseases. Suffice to say that in recent years, steadily is increasing a number of patients with urological diseases. Thus, according to data reported by the Scientific Center after academician B.U. Jarbussynov population morbidity by diseases urinary and male reproductive system in Almaty is higher than the national rate and the absolute number of patients was 656.7 cases.

Men's health exposed a huge number of negative factors - stress, poor nutrition, low physical activity and health widespread harmful addictions. This explains the significant growth and a younger age of urological diseases. The most common urological diseases are diseases of the prostate (DP), a development of that, according to various sources, is recorded in 11-15% of men aged 40-45 years and 80-95% of men over 80 years old.

Based on the above analyzes general structure and age characteristics of urological morbidity Almaty. For analysis there was taken data of primary reported cases of urological diseases in Almaty in 2010-2011.

In the analysis of the incidence of urogenital system in different age groups (18 years and older, 60 years and older), men and women, calculations were carried out on 100 thousand population studied age-sex group.

During the research it was found that in 2011, in Almaty it were registered 85,784 new cases of diseases of the genitourinary system at age 18 and older, that figure amounted to intense 7610.4 per 100 thousand population. A higher level of primary disease was observed in women 11141.9 per 100 thousand populations, while men value of the index was 3100.3.

The absolute number of registered patients with primary diseases of the genitourinary system at age 60 and older in 2011 amounted 6,894 cases, and the rate of reported cases per 100 thousand population amounted to 4582.4 cases. In the first place there is kidney and tubulointerstitial disease - 511.2 cases, followed by diseases of the prostate - 402.1 cases and third in prostatic hyperplasia - 297.1 cases per 100 thousand populations. Gender distribution of the total sample showed that men dominate the prostate disease 1138.2 per 100 thousand populations.

Conclusions. Based on the analysis has seen stabilization of level of the primary incidence of urogenital disease at age 18 and older in both sexes. Among all the clinical entities of diseases of the genitourinary system in 2011, renal and tubulointerstitial renal disease occupy high rates. The greatest indicator of the incidence of this disease is seen in women.

Thus, continuous monitoring of morbidity and mortality from diseases of the genitourinary system, provides the ability to monitor statistics including the temporal aspect, timely area of risk in terms of disease and predict change in performance, and in general allows you to control the level of health of the population of the region and the quality of the specialized medical care.

## THE STIGMATIZATION OF PEOPLE WITH EPILEPSY

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The prevalence of epilepsy in different countries range from 1.5 to 50 cases per 1,000 of population. At least 1 seizure during life carries 55% of the population, 20-30% of patients experience a disease during life span. The ability of the modern pharmacology allows effective treatment of epilepsy. Many people with epilepsy in the modern society familiar with severe social discrimination, patients find it difficult not only because of their illness, but in connection with the biased attitude of the society, the fact that individuals or groups in the community are deprived of other rights or assistance related stigma and prejudiced attitudes.

It is distinguished the stigma (discrimination) and internal stigma (personal, autostigmatization, self-stigmatization). It should be noted that stigmatization is a significant lack of knowledge about epilepsy in the community, the lack of information on the epidemiology of epilepsy.

Stigma sometimes observed in respect of doctors to patients with epilepsy, which may play an unfavorable role in the recommendations and actions of the doctors themselves, in their message to the patient and relatives. It is natural that people with epilepsy are shared by all the stereotypes that exist in society, give a pessimistic prognosis of the disease and are therefore social withdrawal.

Thus, stigma interferes with normal social and psychological functioning person. Studying the structure of the perception of the disease is especially true for social environment of the country, due to the fact that research in this field is not present. Confirming the importance of this problem is the fact that destigmatization of epilepsy is one of the leading areas of the Health program.

The World Health Organization (WHO), the International League and the antiepileptic Bureau for Epilepsy it was announced in 1997 Campaign "Epilepsy - out of the shadows» («Out of Shadows - A Global Campaign»). And in 1998 In Heidelberg (Germany) adopted the European Declaration on Epilepsy. These documents are addressed to policy makers, legislators, health and medical organizations and non-medical all countries. Its aim is to bring epilepsy out of the "shadow" of the social stigma, and the disease itself - from the "shadow" to "light" a priority in health care. Campaign objectives: raising awareness and understanding of epilepsy in the community, attracting the attention of health authorities to the problem of epilepsy, its study and preventative, including education, training and maintenance.

## SUBSTITUTION THERAPY OF DRUG ADDICTS, THE ANALYSIS OF MEDICAL AND NON-MEDICAL ASPECTS

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Essence ST of heroin-dependent patients, in contrast to other methods is the use of psychopharmacological during intensive and supportive care of drug users full or partial opioid agonists (methadone, morphine, buprenorphine, etc.). Methadone therapy is prescribed in the case of repeated failure of other psychopharmacological and psychotherapeutic treatments for patients with long-term experience of substance abuse (opiates). Typically, the patient in the presence of a doctor takes the prescribed dose of methadone in the form of medicine or syrup.

Thinking in line with the proposed paradigm, any effective drug treatment should be considered undesirable as it may be seen as "a way to avoid the medical and social complications of consumption in the future".

Often opponents of ST indicate that the main used tool (e.g., methadone) may appear on the "black market" and trigger a wave of drug addiction. This argument is beyond the scope of science, because priori recognizes that any substance, which may be dependent, due to carelessness of health workers can be used for personal gain with criminal consequences. Continuing this logic, we can assume that if there is good reason to forbid doctors to use benzodiazepines, tranquilizers used in psychiatry and drugs used in anesthesia and oncology.

Supporters of substitution therapy agree that methadone program is not without drawbacks, which include the following: 1) the methadone does not eliminate dependence, 2) there is a probability of penetration of methadone on the "black market", and 3) the concentration of patients around the hospital, and 4) not a complete rejection of the illegal drug people receiving replacement therapy. These failures undoubtedly affect the probability of making a country's decision to implement ST. Attention is drawn to the fact that the recognition of flaws can take proactive measures to combat them. Thus, an important way to resist the spread of illegal methadone is making its liquid form, which is in small demand on the black market.

Thus, the above analysis of the argument proves that there are medical and medico-psychological aspects of the introduction of substitution therapy, which remains the dominant political and ideological disease.

## ANALYSIS OF THE EPIDEMIOLOGICAL SITUATION OF HIV-INFECTION IN PREGNANT OF KOSTANAI REGION

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Annually approximately 1.5 million of women with immunodeficiency virus infections become pregnant, that in turn leads to the fact that nearly 600,000 children will be infected as a result of transmission of the virus from mother to child - or more than 1,600 cases every day. About 7% of AIDS patients - women of childbearing age and their number is constantly growing.

Since 1993. by 01.12.2012 in Kostanai region there were recorded 1,231 HIV-infected people, women - 406 (33%). 385 (94.9%) women at the time of diagnosis of HIV infection were in the reproductive age (15-49). In Kostanai region with increasing total registered cases of HIV infection in 1220, with 404 cases detected among women, including 145 cases among pregnant women.

All HIV-positive mothers gave birth to 111 children, including seven with HIV infection, 75 whom diagnosis of HIV infection was cancelled, 6 died children at the age from 1 year to 6, including 1 child with AIDS aged 3 years.

Prevention from mother to child of HIV-infection transmission (PMTCT) was implemented since 2003, that allowed most of the children to prevent infection. To evaluate the effectiveness of interventions to prevent HIV transmission from mother to child, the analysis of pregnancy and birth outcomes for 2011 gave the fact that the HIV status of children born in

2011, is already known, and therefore are more likely to talk about the possible outcome of PMTCT.

In 12 months of 2011 there were identified 24 pregnancies in HIV-infected women, including newly diagnosed with HIV infection, 17 pregnant women. Pregnancy outcomes: birth-20, abortions - 4. Courses of ARV prophylaxis were in 20 HIV-infected pregnant women (including two women, who at the time of pregnancy were receiving ART) and 20 babies. All women on time, 24-28 weeks of pregnancy, according to the then current MoH order № 699 from 29.12.2012 "Prevention of HIV transmission from mother to child in the Republic of Kazakhstan" had started ARV prophylaxis. In 10 cases (50%), birth ended cesarean section, of which 3 cases (33.3%) on the recommendation of infectious disease AIDS center, to reduce the risk of vertical transmission of HIV in the presence of a pregnant woman at the end of pregnancy high levels of viral load. In 4 cases (20%) pregnancies ended in preterm delivery. All of the children are alive; however, to the year of dispensary observation to the one child of 20 born in 2011 was diagnosed of HIV infection.

## ANALYSIS OF THE EFFECTIVENESS OF PREVENTIVE PROGRAMS AMONG INJECTING DRUG USERS IN KOSTANAI REGION IN 2012

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The prevalence of injecting drug use in the Republic of Kazakhstan is - 0.95% of the population aged 15 years and older, ranging from 0.3% to 2.4%. In Kostanai region, the figure is - 0.6%. Registered at the drug treatment services number of injecting drug users were 2,457 people, including 334 females. Estimated number of injecting drug users (IDUs) in 2012 in Kostanai region was 5100 IDUs (The data for rapid assessment of the situation (the-RAS) for the year 2012). During the period 23 cases of HIV infection were found among injecting drug users (IDUs further), that was 15.1% of the total number of reported cases of HIV - infection in 2012 (152), of which 11 (47.8%) were identified at the trust points from the newly attracted IDUs in preventive programs.

For 2012 year 80% of RAS (3180 IDUs) were reached with prevention programs (2011 - 96.4% of the BOS, 3856 IDUs, the average for the Republic of Kazakhstan - 55.7%). Reducing regional indicator was linked to the reduction of non-conducted the program "Harm reduction" among IDUs.

In 2012, self-addressed PD 531 IDUs, representing 16.7% of the number of IDUs involved in professional programs and 13.2% of IDUs from BOS (in 2011 - 659 PIN - 17% of programs, 16.4% of BFB). Reducing IDUs attending PD independently of the closure of three SPD at PF "Help."

During the reporting period there were distributed - 643 979 syringes (599 239 pcs. in 2011, or 155 syringes per IDU 1), 202 syringe per IDU in average (with average national supply of 147 pcs.), 190,638 condoms (169346 pcs.-2011). Percentage of returned syringes remains was the same - 76%.

Conclusions:

1. Direct coverage of IDUs with preventive programs in Kostanai region for the year 2012 was 80% with average national index of -55.7%.

2. % of IDUs reached by prevention programs through outreach - employees was one of the most important indicators, as majority of IDUs served through outreach workers and that was in 2012 - 76% of IDUs involved in preventive programs.

3. IDUs involved in preventive programs have been satisfactorily covered services on psycho-social counseling and tested for HIV, 87.4% (1137 of 1300).

4. In 2012, 11 cases of HIV infection found among new customers of preventive programs among IDUs, which amounted to 47.8% of all diagnosed cases of HIV among injecting drug users by region, which confirms the effectiveness of the program among IDUs "harm reduction" as the identification of HIV infection, and to establish safe practices in IDUs injecting behavior subject to the availability of syringes and condoms, and well organized and quality of work of trust points.

5. In order to increase the systematic coverage of IDUs with preventive programs, it is important to prevent the flow of outreach - workers, volunteers and motivate them to work through training and self-esteem, and through involvement in the public life of the collective AIDS centers as important partners.

## ANALYSIS OF THE EPIDEMIOLOGICAL SITUATION OF HIV - INFECTION IN THE POPULATION OF RUDNY ON 01/01/2013

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The epidemiological situation of HIV infection on 01/01/2013, in Kostanai region is in concentrated stage, i.e. distributed mainly among vulnerable groups without taking root in the general population and less than 1%.

The prevalence of HIV infection in the region 01.01.2013 was 118.0 (1240) per 100 thousand people, including among children under 14 years of -7.9 (13) (for the RK-94, 1 per 100 thousand people (19,748), including among children under the age of 14 - 9.0 (400). Region ranks fifth in the Republic of Kazakhstan on the prevalence of HIV infection.

Increase in the incidence of HIV infection in the region in 2012 was due to three factors:

- 1) Increasing of population screening for HIV infection in 1.1 times (10,591)
- 2) Purposeful activities among vulnerable groups increase in both the patients, and the reported cases of HIV infection;
- 3) The largest increase in cases over the regions registered Rudny-1.5-fold (41), and due to the fact that for the first time in 2012, SES was conducted among IDUs of Rudny that gave rise to the number of newly diagnosed cases of HIV.

For deterrence and prevent the deterioration of the epidemiological situation of HIV infection among residents of Rudny, it is necessary:

1. To strengthen anti-epidemic and preventive work with vulnerable groups, especially drug users and access to and coverage of prevention services: raise awareness of HIV prevention, training, safe injection and sexual behavior, access to syringes and condoms, motivate IDU to the proper disposal of used syringes.
2. Strengthen interagency cooperation with the Department of Internal Affairs, as one of the reasons for refusal to participate in the program on harm reduction people are the repressive actions of the police
3. Cover young people in prevention, especially not occupied, to organize training of the population aged 15 - 49 in-demand occupations Rudny, to conduct systematic work on job creation and job security monitoring of the population.
4. Given the high frequency of detection of HIV infection among industrial workers, as well as trading companies and service, to organize and conduct business seminars in enterprises Rudny.
5. Strengthen advocacy outreach through local media to provide reliable and effective information on preventing HIV infection.

## ANTIRETROVIRAL THERAPY FOR HIV-INFECTED CHILDREN IN KOSTANAI REGION

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Today HIV- infection in children is one of the most urgent problems, that is caused by several reasons: the epidemiological situation in general in the Republic of Kazakhstan and Kostanai region remains unfavorable. Running total (since 2000) on 01.01.2013 in the Republic of Kazakhstan registered 19,748 HIV-positive people, including 400 children.

The goals of antiretroviral therapy in HIV-infected patients are: clinically: prolonging life and improving its quality; immunological: preventing damage and / or restoration of the immune system; virology: inhibition of viral replication and to achieve an undetectable viral load, epidemic: prevention of the further spread of HIV infection, including children. Estimation of efficiency of antiretroviral therapy is conducted with the inclusion of clinical and laboratory monitoring, as well as in evaluating drug regimens with a multiplicity of at least 1 time per month, focusing on key criteria: physical development, psychomotor development, neurological symptoms, type and frequency of opportunistic infections. Laboratory monitoring (viral load and CD4 lymphocyte levels) is held 1 time in 3 months. Monitoring of adherence to ARVs especially necessary because of adherence depends clinical, virological and immunological efficacy. Antiretroviral therapy in HIV-infected persons in the Republic of Kazakhstan began to be applied from 2004., In Kostanai region in May 2005. On 01.01.2013, the 11 is HIV-infected children all receive ART. Preliminary results showed that in the course of treatment in almost all patients feel better, children become more active, improved appetite, marked weight gain and growth, improved general clinical laboratory parameters. In determining the viral load after 3 months of starting ART decline occurred in 35% of cases, but in 6 months as a result of viral load in 82% of children had been achieved undetectable results show significant efficacy. Compared with baseline viral load in two children has decreased significantly, but undetectable levels not reached since its original level was very high, as well as a violation of ARVs. Work on adherence to ART.

Conclusions:

Factor that contributes to the progression of HIV infection in children is - an early age (preferably up to two years), the presence of heavy background, some children comorbidity.

HIV infection in children has its differences in the clinical course, that must be considered when determining the indications for initiation of ART.

ART prescription on the proposed treatment has been shown to be effective: a clinical - 100%, -72.7% immunological, virological - 82%.

Only one child out of 11, because of the failure of therapy was transferred to therapy two series (9%).

The survival rate, "The percentage of HIV-infected children at 12 months after initiation of ART continue to live and are treated" - 100%.

## THE ANALYSIS OF CARRYING OUT VOLUNTARY CONSULTATION AND TESTING FOR HIV ON DISTRICTS OF THE CITY OF ALMATY FOR 2012

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Voluntary consultation and testing (VCT) for HIV is conventional in world practice as a starting point of effective prevention of distribution of epidemic of HIV infection.

On the basis of the analysis of coverage by testing of the population of districts of the city it is possible to draw the following conclusions: in the city of Almaty performance of conditions on control of prevalence of epidemic of HIV is provided and population coverage by testing for HIV within not less than 10% is provided and makes 13,7%; each testing is accompanied by psychosocial consultation; the medical organizations of the city provide with testing of 8,6% of the population.

Keywords: testing for HIV, groups of the population, voluntary consultation and testing.

## HIV POST-EXPOSURE PROPHYLAXIS

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The relevance of this problem that the number of HIV-infected patients is increasing, but stigma is occurring, so that patients lie about their status. It is related with the problem of post-exposure prophylaxis (PEP) - not every patient gives consent for HIV testing. Unfortunately, with all the evidence of an existing problem this question has no rational solutions. Post-exposure prophylaxis is a medical measure to prevent infection after possible exposure to pathogens. For HIV PEP means providing a wide range of services to prevent HIV infection after contact with the pathogen. These services include first aid, counseling and risk assessment, HIV testing after informed consent, depending on the assessed risk, providing a short course (28 days), antiretroviral therapy (ART) to the support and follow-up.

At medical institutions all patients, as well as body fluids should be treated as potentially infectious, so in health care should always: use latex gloves in cases where the expected contact with blood or other body fluids, mucous membranes and non-intact skin.

At MPI Kostanai region for 12 months in 2012 there were detected 18 cases of emergencies medical nature. Among them: 33.3% - 6 cases - needle sticks during injections 11.1% - 2sluchaya - suture needle prick during the operation; 50.0% - 9 cases - at the disposal of medical waste injection needle stick broken pipette and others, 5.6% 1 case - splashing of mucous eyes and mouth by amniotic fluid.

PEP held in 6 cases out of 12. In a retrospective analysis of accidents related to the provision of medical diagnostic medical staff care for HIV-infected patients in Kostanai region of occupational infection have been reported.

## COMPARATIVE ASSESSMENT OF AN EFFETIVNOST OF INSPECTION OF PREGNANT WOMEN ON HIV IN THE CITY OF ALMATY FOR 2010-2012

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Actions for prevention of transfer of HIV from mother to the child can be effective only at successful interaction of several health services – obstetric and gynecologic, infectious, pediatric – for timely identification of HIV infection at pregnant women.

Double testing of pregnant women is proved, 7,1% of women with HIV infection come to light during repeated testing. It is necessary to continue policy of testing of pregnant women in maternity hospitals, 16,7% of pregnant women come to light at the time of delivery. Despite remaining level of coverage inspection on HIV of the pregnant women preparing on interruption of pregnancy, noted a tendency on decrease in identification of HIV infection among this category of the population that testifies to stabilization of epidemic of HIV in Almaty.

Keywords: HIV infection, testing for HIV, prevention of perinatal transfer of HIV.

## COMPARATIVE ASSESSMENT OF PREVENTIVE EFFICIENCY AND AVAILABILITY GROUPS OF THE POPULATION WITH HIGH RISK OF INFECTION OF HIV TO INSPECTION ON HIV IN THE CITY OF ALMATY FOR 2010-2012

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Control of distribution of HIV infection and its social and economic consequences is a priority problem of the state in the field of public health care. The last years stabilization of level of identification of people with HIV infection is noted at remaining high coverage of the population by testing for HIV. Scheduled maintenance on testing for HIV among recipients, both in hospitals, and at primary medical and sanitary level improved. Anti-epidemic work among contact persons, consumers of injecting drugs improved.

It is necessary to speed up scheduled maintenance on testing for HIV among vulnerable groups of the population (workers of sex, persons with symptoms of the infections indulging sexually), in criminal and corrective system.

**Keywords:** testing for HIV, groups of the population with high risk of infection of HIV, population codes.