

INDICATORS OF AN INBORN IMMUNITY IN INJECTABLE DRUG USERS.

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Key words: *inborn immunity, injectable drug users, Hepatitis virus B, Hepatitis virus C*

Regular injectable drug users (IDU) form the most numerous and epidemiologically significant risk group for Hepatitis B virus (HBV) and Hepatitis C virus (HCV). According to WHO more than 15 million people are involved in injectable drug use [13].

IDU are not only well known high risk group and important collective “reservoir” for HBV and HCV [2], they also are of a great interest to clinicians due to morphological and functional changes happening in all organs and systems due to drug use that lead to immune insufficiency and immune deficit [1, 3].

Existing literature has limited data on antigen independent part of immune reactivity, which is a base for inborn immunity (II). II is a basic and hereditary component of immune reactivity, while acquired immunity is only its adaptive component [11]. II mechanisms also play an instructive role for protective effect and direction of acquired immunity reactions [6].

This study examines changes in main indicators of II in individuals regularly using injectable opium derivatives and its synthetic analogues.

Materials and Methods. Immunological blood testing has been conducted for 60 injectable drug users that hadn't had serological markers to HBV, HCV and HIV at the time of testing. These individuals were separated into 2 groups based on the years of IDU. First group had ones with an IDU experience less than 3 years, second group – 3 years and over.

II condition of the participating individuals was assessed by identifying functionally active neutrophils (FAN), natural killer cells (NKC), cytotoxic activity (CA) of the NKC in blood, and alpha interferon (AIF) concentration in blood serum.

FAN was identified by a test of nitro blue tetrazolium reduction (NBT-test) and marked as NBT positive FAN (NBT+FAN) [12].

CA of NKC towards allogenic cells was identified by modified cytotoxicity test with biochemical registration of results [7]. CA of NKC is expressed as a CA Index (CAI) [10].

AIF concentration in blood was identified using immune-enzyme assay. It was performed using IEA kit by Pro-Con company of St.Petersburg.

Activity of adenosine desaminase (AAD) was also identified using G.Kalkar method (1947) modified by, G.Tritsch (1983) [14].

Results were statistically analyzed and compared with the results of the similar study of healthy individuals that we have conducted before [5].

Results and Discussion. Results of inborn immunity indicators of examined individuals are presented in a table below.

Table. Indicators of inborn immunity in individuals using injectable drugs less than 3 years (Group 1) and 3 years or more (Group2).

II Indicators and units of measurement	Group 1 * (n=30)	Group 2** (n=30)	Healthy individuals (n=293)
NBT+FAN in blood (%)	9,9 ± 1,1	8,6 ± 1,1	10,7 ± 0,9
NKC in blood (%)	19,4 ± 2,2	17,3 ± 2,0	20,6 ± 1,1
CA of NKC index(%)	23,8 ± 2,6	22,4 ± 2,6	28,0 ± 2,3
AIF (пг/мл)	33,4 ± 4,0	28,0 ± 4,3	37,2 ± 5,3
AAD (нкат/кл)	24,5 ± 1,9	22,0 ± 3,2	27,4 ± 3,3

* individual using injectable drugs less than 3 years

** individual using injectable drugs 3 years and more

Standard deviation for the interval $p < 0,05$

Based on this data we can confirm that injectable drug users can be considered immune compromised even before being infected with HBV and HCV. If these individuals become infected with HBV and HCV we can expect that immune disorders and their severity will significantly increase. This increases its significance since immune disorders play an important role in pathogenesis of hepatitis B and C, which are viewed as immune dependent diseases of viral origin [15]. Unfortunately, there is no sufficient data on clinical features of these infections in IDU, thus, further research in this area will have important scientific impact.

ABOUT INFLUENCE OF ENVIRONMENTAL FACTORS ON DEVELOPMENT OF ATOPICAL DERMATITIS IN CHILDREN

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Prevalence of atopic dermatitis (AD) among children is increasing worldwide and in different countries varies from 5 to 25%. Learning of causes of widespread prevalence of AD, alongside with asthma and allergic rhinitis among children present time are based on studies conducted according to unified methodology in the frameworks of international program on asthma and allergy among "ISAAC".

It is known that many environmental components promote development of allergic diseases, including climate and geographical factors.

In the frameworks of "ISAAC" program in Azerbaijan were interviewed 14,479 of children at the age of 13-14 years in four regions with different climate and geographical settings.

On the base of analysis of answers to the questions of standard "ISAAC", directed to revealing of symptoms of AD among children who live in different climate zones of Azerbaijan it is necessary note that prevalence of AD's symptoms depends on climate and geographical factors. At that symptoms of AD among children who live in industrial city in sub-tropical region and rural districts placed in semi-desert have equal frequency, than among children who live in mountains. Later during examinations of children (II phase of international program "ISAAC") in 561 children diagnosis of AD was confirmed.

Results of conducted studies showed that AD more frequently occurred in children who live in industrial city (4.68%). More rare this disease was revealed in children who live in semi-desert areas (3.79%) and sub-tropical climate zone (3.89%). The prevalence of AD is a minimal in conditions of mountain climate (2.85%). It is necessary to note that children living in mountains suffer from AD rarely than their peers living in other reference regions.

INCIDENCE OF RESPIRATORY DISEASES AND RISK FACTORS AMONG STUDENTS OF INSTITUTES OF HIGHER EDUCATION

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Key words: students, incidence, prevalence, respiratory diseases, risk factors

During last 5 years are characterized by the growth of prevalence among student's youth on 20.3 % - from 932,3 to 1121,3 (per 1000 students). Respiratory diseases have leading positions in the structure of incidence and prevalence among students. For years of observation was revealed an increase in frequency of new cases among students attended medical organizations because of respiratory disease in 3.5 times - from 48.8 to 167,2 per 1000 students.

We investigate dynamics of prevalence and incidence and indicators of incidence with temporary disability of students of two higher educational institutions of Saratov (medical and technical universities) used materials of appealability to medical organizations in 2006-2010 on the basis of the register form # 12 of state statistics, an official report form # 16 VN.

Among the factors influencing health status of students and high incidence of respiratory diseases, the most significant (according to interview under specially developed questionnaire) are: a low initial health status of students, wide prevalence active (31.6 %) and passive (47.3 %) smoking among youth, presence of chronic dental (61.5 %) and EENT (25.5 %) pathologies, unsatisfactory domestic conditions (40.5 %), an insufficient level social and economical status (19.2 %), defects of preventive work among students. In a number of valuable orientations of youth questions of health promotion have the least value, making only 24.3 %.

Results of complex study of health status among student's youth of two universities of Saratov and incidence of respiratory diseases can serve as an information dataset and a basis for planning and the organization of programs of improvement and regenerative treatment of young people. Wide introduction of techniques of the automated biographical screening on active revealing persons under risk of respiratory diseases with the subsequent duly development of preventive programs to the work of medical organization providing medical care to students is necessity.

MEDICO-SOCIAL REHABILITATION OF EMPLOYEES INJURED AND DAMAGED AT WORK

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Keywords: *medico-social rehabilitation, primary and secondary rehabilitation, group and individual programs (algorithms) of rehabilitation*

Medico-social rehabilitation of employees include a complex of health, psychological, pedagogical and social activities aimed at restoring the overall efficiency of the organism, elimination or compensation of Disability, lost functions. Medico-social rehabilitation of employees gives the possibility to adapt, to achieve more complete restoration of social and professional status. The development of this problem is the need for conservation and development of labor potential, to improve the quality of life of workers, is necessary for adapting the system of protection and occupational medicine to international standards and requirements.

Currently, the quality of living for a worker is determined by the conditions of life support, including in the workplace, and health status. The degree of individual and group risks, including

the combined risk, of developing abnormalities in health and diseases associated with exposure to adverse factors, including physical, chemical, biological, psycho-emotional factors and factors of the information environment and production environment becomes increasingly important in shaping the quality of life at the present stage of civilization.

In order to eliminate or reduce the impact of individual risks to health of workers, there is a system of preliminary and periodic medical examinations. The main goal of medical examinations is to determine whether the health status corresponds to suspected or already carried out work with regard to the general contraindications, individual sensitivity, predictive risk of disease, identification of common diseases, preventing the continuation of the work and the initial forms of professional and professionally-induced pathology.

Goal: to develop science-based approaches to the formation of social and medical rehabilitation for workers and injured at work.

Materials and methods: based on the analysis of problems of medical and social rehabilitation of affected workers in Russia. Were studied the current regulatory framework and practices of medical and social rehabilitation. Were developed modern approaches to the medical and social rehabilitation of patients with diseases of the locomotor apparatus at the level of spa establishments.

The results of these studies, as well as analysis of professional and combined risks to health, including reproductive health, help us to structure health care and social rehabilitation of workers and people, who were injured at work, on primary and secondary rehabilitation. And also identify the main approaches and directions of primary and secondary rehabilitation.

In our opinion, primary health-social rehabilitation includes measures to reduce the negative impact of unfavorable factors and enhance adaptation and reserve capacity of the organism, leading to a general health-improving effect and the restoration of health. [2] Therapeutic activities in primary health and social rehabilitation must be applied practically to all persons working in high-risk conditions. Such activities may include all those that reduce the negative impact of unfavorable factors and enhance adaptation and reserve capabilities of the organism, lead to a general health-improving effect and restore functionality. First of all it is:

Establishment of optimal conditions for rest and remove fatigue in between shifts and holiday time;

Conduct comprehensive endo-ecological rehabilitation;

The use of different complexing agents to facilitate the removal of harmful substances from the body;

Use of vitamin, minerals, dietary supplements, promoting the normalization of metabolic processes in the body of workers;

Implementation of a rational nutrition,(if it is necessary, additional and (or) medical nutrition) and drinking water treatment;

Conducting general health or specific physiological spa and health physical methods, including at the workplace;

Reduce stressful body burden and the implementation of relaxation;

The secondary health care and social rehabilitation can include all measures to restore the lost functions of the body worker (particularly the most affected organs and systems), social and other adaptations to the new quality-adjusted life encountered limitations. In addition to the above measures we can also include:

Different types of restrictions on negative factors and the labor process;

Regular check-up of sick and injured at work, the dynamics of their health;

All kinds of specific and nonspecific course of treatment, including medication, physiotherapy, spa-therapy and other treatments, aimed at the regeneration of damaged tissues, the possible recovery of general and professional ability, quality of life, conducted in medical and spa facilities

Secondary medical and social rehabilitation aimed at restoring the residual disability and vocational guidance, by taking into account the existing constraints. And also the creation of organizational, technical, health-care, including hygiene, ergonomics, medical control and other conditions for the use of residual disability.

However, the current legal and regulatory framework on medical and social rehabilitation in Russia requires further development and defines the problems of rehabilitation of patients with occupational diseases and injuries at workplace. Social rehabilitation is partially financed by social insurance in accordance with Federal Law 125 "On mandatory social insurance against industrial accidents and occupational diseases" (basically it is the consequences of work-related injuries, rehabilitation treatment provided by a limited number of spa facilities, authorized by the Social Insurance Fund of the Russian Federation).

The analysis suggests the need to develop model clinical protocols of group and individual medical and social rehabilitation. In this case, effects of major damaging factors and the most affected organs and systems must be taken into account with algorithms of rehabilitation. That is, some combination of techniques, the volume and consistency of ongoing remedial activities at various stages of rehabilitation (outpatient, hospital, sanatorium). Lists of professionals involved in conducting this study, medical equipment and devices which are allowed to use therapeutic techniques, should also be included in standard clinical protocol. Doctor and specialist of medical and social expert commission should have a right to develop the specific individual and group rehabilitation programs in the light of model protocols and specific situation.

Also required the development of criteria for effectiveness of rehabilitation and calculation the cost of the course of rehabilitation measures that will identify resource requirements and procedure for implementation and funding of rehabilitation programs.

These approaches are implemented in developing and implementing system of medical and social rehabilitation of patients with occupational diseases of the musculoskeletal system. The choice of this direction due to the fact that inflammatory and degenerative diseases of the musculoskeletal system are prone to chronic, steady progression, leading to a sharp deterioration in the quality of life, loss of general and vocational disability.

Over the past 5 years in Russia the number of persons with disabilities were first recognized in connection with diseases of the musculoskeletal system, including professional, has more than 20%.

Number of disabled for this reason, annually taking place in the organs of re-examination of medical and social expertise to 2-2,5 times higher than the number of people receiving disability for the first time. Degenerative diseases of joints and spine suffer from 10 to 15% of the inhabitants of the earth.

According to the list of occupational diseases [3], adopted in Russia, the occupational diseases of musculoskeletal system are sciatica, radiculopathy, vegetopolinevritis, periarthrosis, deforming osteoarthritis, miofibrosis, tendovaginitis etc. The most dangerous industries are mining, agriculture, transport, construction and others.

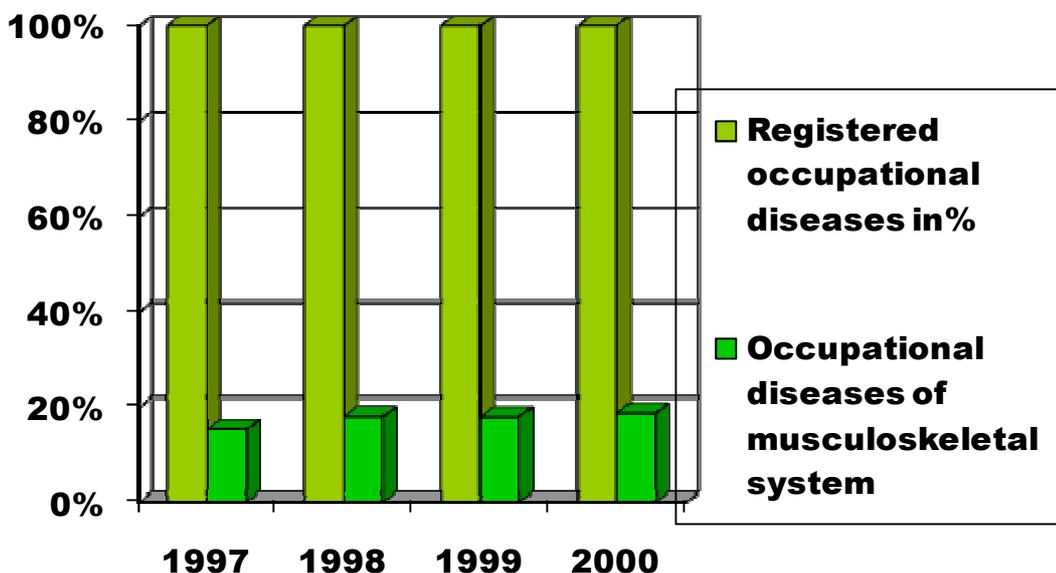


Chart. Proportion of diseases of musculoskeletal system in the general structure of occupational diseases in the Russian Federation

In our opinion the program of medical and social rehabilitation involves the development of the algorithms work. These algorithms model of group and individual rehabilitation programs should include methods of rehabilitation (Medication, physiotherapy, balneotherapy, peloidoterapevticheskie, massage, therapeutic exercise, manual therapy, reflexology, etc.); sequence of their application; volumes (exchange procedures); stages of rehabilitation - outpatient, hospital, health resort.

There were observations of progress and results of the rehabilitation process of 4,5 thousand patients with professional and vocational-conditioned diseases of musculoskeletal system in conjunction with specialists of sanatorium. Kirov Pyatigorsk. They helped to develop the most effective rehabilitation packages for various pathologies [1]. For example, in osteoarthritis the most effective combination of stretching techniques in combination with pelotherapy and mineral baths. And in the early stages of the disease are most effective radon baths, and at later stages - hydrogen sulfide.

Also developed criteria for the effectiveness of sanatorium rehabilitation of diseases of the musculoskeletal system, including the objective, which include reducing the degree of activity of the process, the increase in traffic volume in the joints, increase blood flow according to rheovasography; and subjective - reducing pain, improving overall health.

Taking into account the applicable procedures in accordance with the above criteria, the total and potentiates the effect of applied techniques helped improve the general condition and a partial recovery of motor function in 96.7%.

The proposed approaches can be applied to the development of group programs of medical and social rehabilitation in other diseases, based on these GPs can develop individual rehabilitation programs, taking into account any risks to health.

Conclusion

Systematization of approaches to social and medical rehabilitation workers and injured at work, development and implementation of specialized programs and algorithms for rehabilitation has a significant positive impact on maintaining and improving the health and disability workers. For the successful implementation of the proposed approaches is necessary to improve the regulatory framework of health and the development of rehabilitation programs for the key fields of pathology.

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REGIONAL ASSESSMENT OF QUALITATIVE DRUG SUPPLY OF POPULATION

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To provide availability of medical drugs in the rural area within the framework of the guaranteed volume of free-of-charge medical care distribution of medical products under free-of-charge and reduced recipes is organized through objects of the primary health care (PHC). However the increased loading does not allow health care providers to carry out registration of free-of-charge and reduced distribution, and also realization of medical products for full cost.

Introduction of Formular system of medicinal supply, expansion of the list of the basic (vital) medical products and the list of diseases provided free-of-charge and reduced distribution of medicines allowed to improve provision of the population with the basic medical products.

The analysis of the allocated means for medicinal maintenance of outpatients has shown, that financing of the given branch has grown since 2007 in 1,5 times and for 2009 makes 1755319 thousand tenge.

In turn the analysis, the allocated means for provision of patients with social - significant diseases from the republican budget as target current transfers has shown, that financing has grown almost in 2 times and has made 610818,0 thousand tenge. According to Order of MoH RK from 14.05.2008 # 271 purchase of medical products should be done for the following contingent of the population: patients with a tuberculosis; a diabetes; for oncological patients; dialisators for patients with renal insufficiency, and also for patients who had transplantation.

In oblast also functioning an additional program on supply by antiretroviral drugs for HIV-infected people. With the given drugs have been fully provided a number of oblast hospitals. Financing of the given estimate of the charge since 2005 has grown in 2,5 times, and in 2008 has made 69843,0 thousand tenge.

Thus, it is possible to draw a conclusion, that positive tendencies were outlined in medicinal supply in Southern – Kazakhstan oblast. Financing of the given branch since the period 2005 on 2008 on the average has increased in 2 - 2,5 times. All purchased preparations concern to group Vital - the vital medical products, and also enter into the National medicinal Data card of the Republic of Kazakhstan that confirms their proved efficiency.

PERFECTION OF STRATEGY ON DRUG SUPPLY IN THE REPUBLIC OF KAZAKHSTAN

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The state system of drug supply carries out some important social functions. First, is reduction of social risks, through provision with preferential and free-of-charge medicines the certain categories of patients. Second, pharmaceutical prevention of diseases helps to prevent development of serious diseases, their complications, deterioration of quality of life, to reduce expenses for expensive hospitalization.

Reforms, conducted during last years in the health care system of Kazakhstan, were concerned also system of drug supply. One of the directions of the State Program on health care development “Salamatty Kazakhstan” for 2011-2015 approved by the President on 29.11.2010 is improvement of availability and quality of medicines for population, enhancement of equipment at the medical organizations. In the frameworks of the Program they plan to conduct reforms in out-patient drug supply of the population. In connection with above plan it is supposed to improve physical availability of medicines through drugstores which will fulfil discount and free of charge distribution of medicines in the frameworks of guaranteed volume of medical care on fixed prices not only in urban area but also in rural settlements. The next step will be harmonization of statistical reporting on all types of medical care, including out-patient

discount and free of charge provision of the population in the frameworks of the Unified National System of Health Care. One of the ways of widespread discount categories of patients is provision of voluntary improvement of participation as co-payment over the minimal guarantees. Introduction of co-payment will permit to save governmental costs and support vulnerable groups of population.

Besides we think that practice of choice of basic medicines on hospital level as well as out-patient level with obligatory register of results of pharmaco-economical studies. These studies are an objective necessity of modern health care system of Kazakhstan.

Thus implementation of above directions will promote optimization of the list of medicines distributed on discount and free of charge base, improvement of physical availability of drugs through increasing number of drugstores, activation of disease prevention, conducting of central control on more effective, qualitative level, raising of patients' satisfaction.

24-HOUR BLOOD PRESSURE MONITORING IN PILOTS FOR PREVENTION OF COMPLICATIONS AND EXTENSION OF WORKING ACTIVITY

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Introduction

Study of pilots' health is an important but neglected in our country issue. Existing system of periodical check-ups of pilots permits to conduct monitoring of health status, early detect pathological changes in cardio-vascular system, manage therapy and prevent development of arterial hypertension and its complications.

24-hour blood pressure monitoring

Measurement of blood pressure (BP) during periodical check-ups is one of the obligatory elements of expertise. But single measurement of BP is not sufficient to receive full picture in some vexed situations.

Materials and methods

24-hour blood pressure monitoring was introduced at the Medical Centre of Civil Aviation in May of 2007. Since 276 patients were examined using 24-hour blood pressure monitoring, 90% of these patients were male pilots at the age of 50-60 years old.

Results and conclusion

Among all tested pilots 57 experienced high blood pressure during day or night time or both. These patients received treatment of ACE inhibitor. After therapeutic correction only in five pilots was confirmed severe arterial hypertension. They were superannuated or shifted to other workplace due to high risk of complications during flights.

These data indicate that 24-hour blood pressure monitoring is an effective tool for in-depth diagnostic of arterial hypertension for early revealing of this pathology, in-time management of medicines, prolongation of flight work and life of pilot.

ASSESSMENT OF KNOWLEDGE IN THE AREA OF OBSTETRIC AND GYNECOLOGY CARE IN OBSTETRICIANS-GYNECOLOGISTS

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Introduction. Surveys of healthcare professionals are important for current and prospective planning of any health services delivery organization, especially the ones that provide obstetric and gynecological care to the population.

Materials and Methods. This survey has covered 63 Obstetrician-Gynecologists from five regions of the country: Pavlodar, South-Kazakhstan, Atyrau, Kostanai and Almaty. The questionnaire was developed to satisfy following requirements: it had to be self-reported questionnaire; questions were formulated in a clear and understandable language; filling out a questionnaire should not be overwhelming.

Results. The survey revealed that 33.3% of respondents work in outpatient healthcare organizations, 30.2% work in inpatient healthcare organizations, 23.8% work in perinatal centers, and 12.7% work in dispensaries.

The survey studied demographics and years of experience. It also studied how well the respondents possess knowledge and skills required for providing obstetric and gynecological care for patients. Only 37.1% of respondents have full knowledge of laws and normative documents related to healthcare. 66.7% of respondents have full knowledge of normal anatomy and pathology. 82.5% of respondents demonstrated full knowledge of normal and pathological physiology of a female body. 95.2% of respondents demonstrated full knowledge of physiology and pathology of pregnancy, birth delivery and post-natal period. The survey also included questions on professional risk factors, general and specific examination methods, genetics and immunology in obstetrics and gynecology, pharmacology related to obstetrics and gynecology, physical therapy, and nutrition,

Thus, this survey creates an objective basis for routine monitoring of health organization providing obstetric and gynecological care for population. This instrument can also be used for systematic self-control.

PECULIARITY AND COMPLEXITY OF INQUIRES OF PATIENT WITH MYOCARDIAL INFARCTION

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It is known, that at inquiry of the patient quite often necessary to meet original attempts of an explanation by patients of the nature of the subjective feelings. Sometimes these explanations are not stacked in traditional clinical frameworks of different diseases, and the wrong understanding of these symptoms could be a source of diagnostic mistakes.

At gathering of anamnesis at patients with myocardial infarction (MI) we paid attention to peculiarity of perception of initial symptoms developing MI or pre-infarction condition among patients. Compressing retrosternal pain they perceived not so much as pain but as an obstacle to breathe, the complicated breath and even a short wind, and all phenomena as a whole (in particular, weakness, hyperhidrosis) considered as cold. Usually they were patients >50 years old, with smoking habits and without experience of a stenocardia earlier.

During analysis of the inquiries we found some prominent features. First, absence of true short wind at patients. They, as a rule, experienced difficulties in choice of the expressions most precisely describing these unusual to them feelings, but during careful inquiry it was possible to find out, that feelings were more likely painful. Though at some patients with pre-infarction stenocardia these feelings amplified at walking, increase of breath was not observed, as there was no then and orthopnea, a feeling of rattles or "gurgles" in a breast, cough, and the subsequent clinical picture of disease (absence of any attributes of insufficiency of heart) did not allow to

assume an opportunity of heart attack in the beginning. Second, patients did not have other typical attributes of cold: catarrh (running nose, cough) and such symptom of an intoxication, as a headache. Thirdly, suddenness of occurrence paid attention to "the complicated breath", without gradual increase of the phenomenon peculiar to cold and without previous cold situation (overcooling or reduction in resistibility of an organism due to other causes).

Thus, it would be desirable to emphasize once again, that at "cold" type of MI beginning it is necessary correctly diagnosing condition in relation to smoking, to pay attention to suddenness of occurrence "the complicated breath" or for sternal pain, in some cases - on connection of their first occurrence with physical loading, on alternating character (that they are they are not present at pre-infarction stenocardia), on absence previous so called colds situation and convincing attributes of cold, on singularity of displays of given "cold" in comparison with last cold diseases at the patient.

INTERACTION OF VIRAL AND BACTERIAL INFECTIONS DURING ALLERGIC DERMATITIS

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Key words: atopia, bacterial infection, viral infection, hepatitis, allergic dermatitis, allergic reactions, tuberculosis, immune system, immunoglobulin, interleukin, antagonism, synergism.

Abstract

Correlative connection of allergic inflammation and infectious process are not explicit. Mutual influence of infectious diseases, such as TB and Hepatitis, and allergic inflammation that develops during allergic dermatitis (AD) has been studied during past several years. We have conducted clinical and laboratory tests to identify differences in a course of allergic dermatitis and of allergic dermatitis with TB, and allergic dermatitis with HBsAg. The study identified reverse correlation between bacterial infections, viral infections and atopic diseases such as allergic dermatitis.

Materials and methods

This study compared three different groups of allergic dermatitis patients. Group 1 included 30 patients with allergic dermatitis, Group 2 – 30 patients with AD + TB, Group 3 had 30 patients with AD +HBsAg. Main clinical indicator used were relapse rate, digestive tract function, ultrasound examination of abdomen, effectiveness of combine therapy: zetrinal, advantan, Hilak Forte, IL-5; IL-4 IgE.

Results

1. Mutual effect of some infectious and allergic atopic diseases has been identified
2. Infectious hepatitis with positive HBsAg reaction affects more severe course of AD. It also causes higher concentration of interleukins of class 4 and 5, as well as Ig E.
3. Patient with TB have less severe course of atopic dermatitis. of interleukins of class 4 and 5, as well as Ig E was lower, but IL-2 - higher.

VALUE OF ULTRASONIC RESEARCH AT GONARTHROSIS

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Osteoarthrosis deformans (OAD) is chronic degenerative disease of joints. X-ray plays an important part in diagnostics of OAD. Search of new methods of diagnostics without radial load is very important issue.

Purpose of study: Define effectiveness of ultrasonic diagnostics (USD) in patients with OAD of knees (gonarthrosis).

Material and methods. Ultrasonic researches of knees was conducted in 28 patients of LRC “Zhan Clinic” with diagnosed gonarthrosis, with mean age $46,2\pm 5,6$ years, women - 18, men - 10.

Results and discussion: Diagnosis of OAD was confirmed in 28 patients according to proposed diagnostic criteria. Received results of ultrasonic diagnostics of knee joints were completely equal to X-ray results. These results are clinically important because confirmation of OAD requires presence of 2 clinical and one X-ray criterion. that has allowed authors to recommend application of ultrasonic inspection instead of traditional radiological joints.

Due to coincidence of both results we suggest to use USD instead of traditional X-ray diagnostics in confirmation of OAD.

This method has broad perspectives in clinical practice but the majority of specialist are not aware about that method. USD of knees could be included to the list of main methods of diagnostics of joint syndrome. However introduction of that methods into routine practice restrained by lack of sufficient amount of equipment and also specialists on fuctional diagnostics. Solution of the issue requires certain costs.

Conclusion: Received radiologic and ultrasonic changes of knee joints to the full correspond to each other, that has allowed authors to recommend application of ultrasonic inspection instead of traditional radiological joints.

THE QUALITY OF LIFE OF THE STUDENTS

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In contemporary existing concepts quality of life (QoL) is a complex characteristics of socio-economical, political, cultural and ideological, environmental factors, and conditions of human being, placement in a society.

Purpose of study: Learn QoL of 5th course of medical faculty of the KazNMU named after S.D.Asfendiarov by means of the general questionnaire SF-36 about quality of life (The Medical Outcomes Study 36-item Short-Form Health-Survey: SF-36).

Material and methods: A group of almost completely healthy students was selected among student of 5th course of the KazNMU named after S.D.Asfendiarov (n-230), mean age $22,4\pm 1,4$ years. Study was conducted in October-November of 2010.

Results and discussion:

Physical activity of students was estimated as $92,1\pm 9,7$, i.e. daily physical activity was not limited by health condition. Subjective assessment by respondent of life tone (vivacity, energy, and etc.) is defined by indicator as “vitality” which in our study was $62,6\pm 16,7$. Indicator of “social activity” varied from 59.6 to 95.4, mean = 77.5.

The role of emotional problems in limitation of vivacity was $78,7\pm 20,7$, that perceived by students as minor limitation of daily activity emotion-specific problems.

Thus obtained results of survey related to QoL of students have a significant meaning because could serve as a reference group for comparative assessment of health status, vitality and

social activity without respect to nosology, and during monitoring of QoL of other groups of population.

Conclusions: Surveyed students of 5th course of the KazNMU named after S.D.Asfendiarov via general questionnaire SF-36 about quality of life had reduced indicators on the following parameters:

Vitality = 62,6±16,7

Mental Health = 64,6±16,7

RESULTS OF PILOT OPERATION OF SOFTWARE SETS ON MONITORING OF SANITARIAN AND EPIDEMIOLOGICAL SITUATION IN THE FRAMEWORKS OF UNIFIED INFORMATIONAL SYSTEM OF HEALTH CARE

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In separate structures of the Ministry of Health in the present there are own software sets providing a decision of departmental tasks which functioning independently and are not connected with each other. As a result the Ministry of Health has no unified database with available access describing a situation in the branch.

Creation of the Unified Informational System of Health Care in the Republic of Kazakhstan in the frameworks of implementation of the State Programme reforming and development of health care for 2005-2010 in part 5.3.6. “as organizing of unified informational space of health care” became a solution of the situation. All subjects of health care system, including sanitarian and epidemiological service should be participants of the UISHC.

The main purpose of creation of UISHC of the Republic of Kazakhstan consists in creation of equal opportunities for controls of public health services of all levels in the decision of operative and strategic problems of all system. In frameworks UISHC information of all bodies and establishments of sanitary-and-epidemiologic service is planned, beginning from district level, and including all profile scientific research institutes.

Our SPC SEEM is a leading organization responsible for all work of the participants in pilot project. Lately we, with participation of experts of company - developer JSC “NAT Kazakhstan” carried out pre-production operation, testing and an estimation a component of system “Epidemiological supervision”- “the Account of infectious and parasitic diseases”; “the Account of preventive inoculations and movement of vaccines”, “the Analysis of disease”, a component of system “Sanitary-and-hygienic control”- “the Sanitary-and-hygienic control of objects”, «The Control over factors of an inhabitancy”. By results of this work software was updated, with release of 8 versions.

Work on pilot operation of system of monitoring of a sanitary-and-epidemiologic situation within the framework of UISHC of the Republic of Kazakhstan now proceeds.

STAGES AND PERSPECTIVES OF INTERNATIONAL MEDICAL & SANITARY REGULATIONS (WHO, 2005) INTRODUCTION IN THE REPUBLIC OF KAZAKHSTAN

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International Medical & Sanitary Regulations (2005) or IMSR (2005) are the international code promoting the collaboration of countries in reduction of hazard for lives, health and well-being of people related to diseases' spreading and other risks over the world. Principal aim of IMSR (2005) is the prevention of international diseases' spreading by different preventive and anti-epidemic measures and while not creating exceeding obstacles for international trips, shippings, and trade. Also, IMSR (2005) are aimed at the reduction of diseases' spreading risk in international airports, sea ports, and land transport nodes.

The order of Ministry of Health # 384 on June 27, 2008 «About introduction of International Medical & Sanitary Regulations in The Republic of Kazakhstan» and the same named Act of Principal State Sanitary doctor # 21 on September 22, 2008, regulate the work on voluntary step-by-step introduction of new IMSR according to adopted international obligations.

As stated in the order of The Committee of SSES, Ministry of Health of The Republic of Kazakhstan (CSSES of MoH of RK), Scientific & Practical Centre of Sanitary-Epidemiological Examination and Monitoring of CSSES of MoH of RK is an authority national coordinator of IMSR in Kazakhstan (former «Republican Sanitary & Epidemiological Station»). As the National coordinator on IMSR (2005), SPC SEEM (former «KRSES») has access to the information especially produced for authorities of MoH of RK placed at confidential site of Euro WHO.

Over the period of 2009-2010 we have obtained and passed to MoH of RK more than 70 messages regarding potential hazards for public health of The Republic of Kazakhstan. We use to look through those messages everyday from 7:00 AM to 8:30 AM and pass them immediately to CSSES of MoH of RK. Actually, those messages are available for MoH of RK authorities from 9:00 AM, so that it allows to make operative decisions already during following working day. Alongside with confidential sources of information SPC SEEM actively uses available professional sources based on medical sites and mass-media.

Given information is directed to The Committee of SSES, Ministry of Health and after approval distributed via network. Thus, we created in frameworks of IMSR (WHO, 2005) a system of informational supply based on confidential and available sources of information permitting to receive operational information about related events daily and to make managerial decisions on the ministerial level. Development of horizontal links of countries of Shanghai agreement we see first of all in possibility to provide exchange of confidential information between countries. And very promised proposal, to our mind is development of Website supported by SPC SEEM with visualization of regional outbreaks.

**A ROLE OF A NURSE IN SOLVING MEDICAL AND SOCIAL ISSUES
RELATED TO GERIATRICS IN NURSING HEALTHCARE ORGANIZATIONS.**

S. Sadykova

Almaty city nursing hospital

Modern concept of nursing defines a nurse as a highly qualified specialist – a partner of a physician and a patient, able to work independently as a part of a team.

Most important areas of nursing are:

primary healthcare with emphasis on prevention;

clinical and diagnostic assistance, including intensive care, rehabilitation care and chronic care for children, elderly and disabled patients;

- social care to terminal patients.

Last two areas are very well developing in the nursing hospitals. A nurse plays a role of health professionals, counselor and a care giver. Ministry of Health promotes a new role of a nurse in healthcare by implementing nursing medical records by the Resolution #332 of July 8th, 2005. Nursing hospitals actively implement modern nursing process technologies.

A role of a nurse is very important in prevention and treatment of bed sores. Bed sores are proven to be a great financial burden on healthcare budget. A nurse's role is also very valuable in the area of geriatrics and care after disabled patients.

In addition to care of bed sore prevention a nurse is also responsible for ;

- timely and accurate administration of physician's prescriptions;
- monitoring patient's condition;
- hygiene care after patients unable to perform selfcare;
- controlling sanitary conditions of wards;
- informing a physician on duty of the patient's condition changes;
- psychological support to patients and family members.

Nursing personnel is essential for achieving good quality of rehabilitation treatment. Other feature of nursing hospital is that head nurses of departments also have a function of managers. This confirms that a nurse plays a great role in addressing medical and social issues of geriatrics in nursing hospitals.

THE ROLE OF PHYSICAL ACTIVITY FOR ACTIVE AGEING

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Ageing of the population is a global phenomenon which has mentioned or will mention everyone the man, the woman and the child worldwide. The steady increase in age groups of older persons in structure of the population of the countries, both in absolute sizes, and concerning the population at able-bodied age, renders direct influence on mutual relations inside family, fair distribution between generations, a way of life and the family solidarity being a basis of a society.

Data on influence of fitness on the ageing practically are absent. Physical exercises, diet with reduction of fats and sugar, physical conditioning, promote delay of ageing.

The person can and must be engaged in physical culture since childhood and finishing extreme old age. In advanced age weakens a muscular tone, means, physical exercises are especially necessary. Easing of a muscular tone conducts to deterioration of a metabolism, reduction of a lumbar bend of a backbone, and in due course - to approach of restriction of mobility not only a backbone, but also joints. Physical exercises salutarily operate on an organism. Under their influence becomes stronger bone and muscular systems, the amplitude of mobility of joints increases.

Deep and rhythmical respiratory movements help correct blood circulation, rendering the big influence on intimate activity. The daily gymnastics should become the same habit, as brushing of teeth. The morning gymnastics promotes transition from a passive condition after dream to the active worker. After gymnastics douche by 2-3 buckets of cold water or rubdown of a body by cold water with the subsequent grinding by a rigid towel or self-massage are useful cool souls. Rubdown begins with a neck, then is transferred to shoulders, hands, a breast, a stomach, a back and legs. Movements are directed from periphery to heart. Walking - the most natural condition of the person. A fine kind of productive leisure for older persons is rowing, fishing, "gorodki" game, a croquet, badminton, tennis.

All these kinds of sports should be combined with physical conditioning of organism - water procedures, the solar and air baths, raising resistibility of an organism in struggle against diseases and adapting it to conditions of the environment.

Thus, physical activity increase force and endurance of muscles, improve functional parameters of all internal organs.

OUTBREAK OF FOOD BORN TOXIC INFECTION AMONG EMPLOYEES OF SHIFT SETTLEMENT IN ATYRAU OBLAST, 2010

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Introduction. Every year 2-8 outbreaks of food born toxic infections are registered in the Republic of Kazakhstan. Food born toxic infections (FBTI) – is disease caused by toxins but not bacteria itself. Basic activators of FBTI are the conditional - pathogenic bacteria producing exotoxins: Staphylococcus aureus, Proteus vulgaris, Bacillus cereus, Clostridium perfringens and others. Many toxins are capable to be kept in the infected products, and be resistant to cooking including boiling during a few minutes. Specific characteristic of FBTI is outbreak during a short period of time affecting groups of people.

Goal of investigation: to describe an outbreak of food born infection by person, place and time; define possible factors and conditions that affected an outbreak; identify unregistered case of infection to provide timely medical care and organize preventive measures.

Materials and Methods: case definition via questionnaires. Data sources were questionnaires, medical records, statistical reports of Administrative office of State Committee on sanitarian and epidemiological surveillance of Zhylyoy district (rayon), food menus for last three days prior to outbreak, record of rejections and patronage, results of lab tests. Data was analyzed with Epi Info software.

Results: On 09.03.2010 from 10.00 to 19.00 32 employees attended medical point with complaints to diarrhea. All of them had food at the same cafeteria. To identify cause of outbreak and define its borders there was conducted interview of all patients, and analysis of menu during last three days. Results of investigation revealed that employees were infected during dinner occurred on 08.03.2010. All infected people confirmed consuming of plov. As a result of microbiological investigation among patients B. cereus was released in 18 patients and in a sample of plov with the same identity of culture. During inspection were revealed fouls in a food processing and sanitarian and hygiene regimen.

Conclusion: An outbreak of FBTI caused by B.cereus was revealed during study period among employees of JSC “B” with 32 patinets. On the base of defined fouls of sanitarian and hygiene regimen there were issues proposals on improvement and prevention in a future.

PRELIMINARY RESULTS OF IMPROVING AN EPIDEMIOLOGIC SURVEILLANCE SYSTEM OF FLUE LIKE DISEASES IN THE REPUBLIC OF KAZAKHSTAN

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S.M. Aubakirova, G.T. Makhmetova, A.A. Mantakova, G.H. Naurzalina, M.J.Kadyr, K.G. Orazova, N/O/ Mulikova, A.I. Ozhanova, Ya.M. Bezmaternykh, A.J. Chiderbaeva

Introduction. Epidemiological surveillance for flu-like diseases (FLD) and severe respiratory infections (SRI) has been established in 7 regions in order to improve influenza surveillance and prepare for possible influenza pandemic in 2008-2009.

Case Identification

A population of interest are people living in surveillance cities seeking medical care in 37 surveillance centers, 1 years old and older, with symptoms durations of no more than 72 hours. Selection of patients with FLD was conducted in surveillance outpatient clinics, in hospitals every admitted patient with SRI was selected.

Materials and Methods

Lab tests were conducted in virology labs of surveillance regions. PCR in real time was used for testing. Every patient with FLD and SRI had a standard questionnaire filled and entered to EpiInfo 2000. Same software was used to analyze data.

Results and Discussion

Routine epidemiologic surveillance over Acute Respiratory Virus Diseases and influenza is established in the Republic of Kazakhstan. The data from surveillance shows that epidemiological curve of ARVD and flu picks in January and in March. The most vulnerable groups are young children and adults over 65yo. Influenza and ARVD season of 2009-2010 is different. It has started early at 48-49 weeks, and predominantly affected children of preschool and school ages, as well as young adults.

According to ARVD epidemiologic surveillance system the pick of ARVD and flu was mostly represented by type A influenza virus. Type B influenza virus was dominant through the second pick. Similar picture was found in hospitalized patients with FLD. In addition, routine ARVD and flu surveillance during 2009-2010 season tested 1154 probes using PCR method: 244 were positive, 161 of them were identified as A, 66 as A1 and 17 as B. Influenza type A virus (H1N1) was confirmed by virology method in 78.2% cases.

Routine and epidemiologic surveillance systems complement each other. At the same time epidemiologic surveillance is less expensive and allows more efficient use of existing resources.

OUTBREAK OF FOOD BORN TOXICO INFECTIONS AMONG CHILDREN RELATED TO ORGANIZATION AND NUTRITION SERVICES, 2010

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Introduction. An issue of food born infections is still relevant in the Republic of Kazakhstan. One of the outbreaks caused by St.aureus occurred in a pre-school of the city of Pavlodar during the period of March 16-17, 2010. This outbreak affected 54 children.

Goal of investigation: to describe an outbreak of food born infection by person, place and time; define possible factors and conditions that affected an outbreak; identify unregistered case of infection.

Materials and Methods: surveying parents and staff of the pre-school. Data sources were questionnaires, medical records, statistical reports, and other documents. Data was analyzed with Epi Info software.

Results: epidemic curve of the outbreak is characterized by sharp raise and decline, which indicates an outbreak with a single source.

The cultures isolated from the patients had identical sensitivity to 5 antibiotics.

Conclusion: During a period of March 16-17 2010 an outbreak of food born toxicoinfection caused by St.aureus was registered in children attending a pre-school of

Pavlodar city. Totally 54 children were affected. Laboratory examination of materials from 11 children and 2 staff members of cafeteria isolated *St.aureus*. The highest risk factor for affected children was breakfast, especially a milk wheat porridge, which was cooked with violation of technology and sanitary conditions in the kitchen.

ASSESSMENT OF ACCESSABILITY AND QUALITY OF PRIMARY MEDICAL CARE TO FEMALE POPULATION IN ALMATY CITY

L.V.Kalugina

Antenatal clinics of city outpatient clinics # 12, Almaty

Introduction. One of the main directions of implemented transformations was development of primary medical care (PHC), as the most effective and cost-benefit part of public health services, and demanding now increase of availability, efficiency and continuity of medical care at all stages of its provision.

Material and methods.

Statistical reports of antenatal clinics of Almaty for the period of 2005-2009.

Results.

The expert estimation of the received results has shown, that in the general number of indicators the first rating was occupied by indicators of the level and a quota of pregnant women with early and late gestoses, and also extragenital diseases. On the second rating place experts placed group of indicators reflecting a level and a quota of pregnant women with miscarriages, requiring hospitalization and actually hospitalized per 1 obstetrician-gynecologist. The third rating place was given to the indicators describing treatment-and-prophylactic work of 1 obstetrician-gynecologist with pregnant women. The fourth - treatment-and-prophylactic work with gynecologic patients and the fifth – to the quantitative characteristics catchments areas.

Thus, such rating estimation creates objective methodical base for daily monitoring of organization of treatment-and-prophylactic activity of each district obstetrician-gynecologist and antenatal clinics as a whole, and the developed technique of studying of volume and structure of the obstetrical -gynecologic care in mixed out-patient clinics, allows to carry out effective monitoring of quality medical care.

ASSESSMENT OF OBSTETRICIAN-GYNECOLOGIST'S ACTIVITY IN HEALTH IMPROVEMENT OF FEMALES WITH EXTRAGENITAL DISEASES

G.K. Kenzhebekova

City out-patient clinics # 6

Introduction. Present time main causes of infant mortality are conditions occurred in perinatal period. Materials and methods. Statistical report of medical (annual form # 30), statistical report on medical care to pregnant, women in childbirth, and women recently confined (annual form # 32).

Results of study. The number of women of reproductive age per 1 district obstetrician-gynecologist at the out-patient clinics # 1, 5, and 8 of Almaty city in 2005 was 4798.7, in 2007 – 4978.3, and in 2009 – 5313.3. Also we studied dynamics of abortions per 1 district obstetrician-gynecologist in 2007-2009 comparing with 2005. We found that mean indicator of

abortions due to social indications in 2005 was 18.0 per 1 district obstetrician-gynecologist, in 2007 - 21.7, and in 2009 – 16.7.

Dynamic of proportions of women with early gestoses per 1 district obstetrician-gynecologist revealed that its mean indicator on 205 was 10.5%, in 2007 – 11.0%, in 2009 – 11.2%. The mean indicator of proportion of pregnant women with extragenital diseases per 1 district obstetrician-gynecologist in 2005 was 24.6%, in 2007 г. – 25.9%, and in 2009 – 32.6%.

Thus studies showed that there is a necessity to improve work of obstetrical and gynecological complex for maximal revealing and treatment of women with extragenital diseases before occurrence of pregnancy. For that purpose it is vitally necessary to involve district therapists for early detection of gynecological diseases and develop tactic of joint management and treatment of pregnant women with extragenital diseases, and also conduct full coverage by contraception of women who have absolute and relative contra-indications for carriage of pregnancy to decrease maternal and infant mortality.

MODERN TENDENCIES IN ORGANIZATION OF FAMILY PLANNING

M.B. Kereitbaeva, K.K. Kurakbaev, E.L. Stepkina

Strategic purpose of our State and one of the leading priorities of national security of the country is an increasing of the population. Health protection of mother and child was allocated as an priority direction in strengthening health in the Republic of Kazakhstan (RK). Realization of the Program on Family planning (1993-2004) brought a certain contribution in reduction of abortions (for the period of realization of the program number of abortions decreased in three times), maternal mortality and improvement of medical -demographic indicators. Despite on reduction of abortions in Almaty, a level of them remains high.

Less cost for the state and acceptable for the population is availability of services on family planning and to the information on methods of contraception. At the same time, despite on achieved progress in technologies of contraception, family planning in RK remains one of the most actual medical -social problem.

In accordance to medical and biological point of view family planning promotes reduction of infant mortality, health promotion of mother and child, and extramarital infertility.

Last years in Kazakhstan are characterized by positive dynamics in increasing of coverage by contraception females of reproductive age. Analysis and dynamics of contraception coverage in 2004-2008 revealed that in 2008 this indicator increased comparing with 2004 on 161.8%. It was established that increasing of the indicator took place in the majority of regions of the country, excluding Eastern-Kazakhstan, Mangystau, and Pavlodar oblasts where it was decreased on 7.1%, 9.6% and 30.7% respectively.

Also we can indicate positive tendency on contraception issues in Almaty. According to the data of Almaty Health Department 158,923 women were included to the dispensary register in 2010 that is higher on 15,689 females in 2009. Contraception coverage in 2010 per 1,000 females of reproductive age was 37% that is on 3.7% higher than in 2009. In 2010 contraception purchase from means of the local budget on sum of 37 648 454.9 tenge, but planned sum was 47, 912, 681 tenge.

Thus appropriately organized activity on family planning promote reduction of such indicators as maternal mortality and morbidity, prevention of abortions, prevention of diseases linked to early sexual debut, STIs, prevention of HIV/AIDS.