PREVENTIVE MEDICINE

TOPICAL PROBLEMS ON THE ORGANIZATION OF WATER SOURCES AND DRINKING WATER QUALITY CONTROL IN MOSCOW

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*Purpose:* to compare the percentage of unsatisfactory samples of water sources and drinking water in Moscow. To dentify key indicators characterizing the poor quality of underground water sources and distribution network in Moscow.

*Materials and methods:* the analyzes of water samples from surface and underground utility and drinking water sources, as well as drinking water in Moscow, performed in accordance with authorized methods at the premises of Testing Center of Federal Budget Health Care Institution «Federal Center of Hygiene and Epidemiology in Moscow Region». The total number of samples during 2013 from surface utility and drinking water sources of the city of Moscow was 285 by sanitarychemical and 240 by microbiological indications; from underground sources of drinking water supply in Moscow – 2117 by the sanitary-chemical and 1262 by microbiological indications; from the distribution network of domestic water supply of Moscow – 5227 by the sanitary-chemical and 9353 by microbiological indications.

*Results:* the percentage increase in unsatisfactory samples was observed during 2013 compared with 2012 in the surface sources of drinking water supply in Moscow and chemical indications in the distribution network of Moscow. The percentage dicrease in unsatisfactory samples during 2013 compared to 2012 was observed in the underground sources of domestic and drinking water supply in Moscow as well as by microbiological indications in Moscow drinking water. The basic chemicals were indicated to be over the limit of health standards on underground water sources and Moscow distribution network

*Conclusion:* the complex of the activities for improving utility and drinking water sources and drinking water in Moscow should be the basis for the development of the research programs to identify significant differences between the ongoing activities with their assessment of the annual and long-term changes in drinking water quality and natural waters used for utility and drinking water in Moscow.

*Key words:*Drinking water, water sources, groundwater, surface water, laboratory water quality control.

MICROBIAL LANDSCAPE AND THE LEVEL OF ANTIBIOTIC RESISTANCE IN THE NEONATAL INTENSIVE CARE UNIT

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*Purpose:* to study the etiological structure and level of antibiotic resistance of the causative agents of infections in the neonatal intensive care unit.

*Materials and methods:* Overall number of 454 clinical samples from 243 infants in the neonatal intensive care unit was examined.

*Results:* a total of 508 selected strains of microorganisms, with the majority of microbes were detected in pure culture (79.3%). Microorganisms in the associations were mostly represented by Gram-positive and Gram-negative bacteria – 56.9%, bacteria and fungi – 23.5%. Among isolates the most prevalent were Staphylococcus spp. (62.0%), Klebsiella spp. (8.7%), Enterobacter spp. (6.7%), Candida spp. (4.3%), Pseudomonas spp. (3.9%), Acinetobacter spp. (3.5%). It was found the prevalence of methicillin-resistant coagulase-negative staphylococci (66.5%) and methicillin-resistant S. aureus (55.2%). Bacteria of the family Enterobacteriaceae were resistant to cephalosporins of III-IV generations (77.1%), aminoglycosides (41.0%), carbapenems (28.6%), quinolones (19.0%), and 48.6% strains were extended-spectrum beta-lactamase producers (ESBL-positive). Strains of P. aeruginosa were resistant to ceftazidime (64.7%), cefepime (58.8%), imipenem (47.1%), gentamicin (41.2%), amikacin and ciprofloxacin (23.5%, respectively), levofloxacin (11.8%). Strains of A. baumannii were resistant to gentamicin (52.9%), ceftazidime, cefepime and ciprofloxacin (47.1%, respectively), somewhat less – to imipenem and amikacin (29.4%, respectively), levofloxacin (23.5%). *Conclusion*: the most common isolates from infants in the neonatal intensive care unit were methicillin-resistant staphylococci, including coagulase-negative staphylococci, rarely identified extended-spectrum beta-lactamase producing Enterobacteriaceae and multidrug resistant non-fermentative Gram-negative bacteria.

*Key words:* neonatal intensive care unit, microbiological monitoring, antibiotic resistance.

SOME RESULTS OF SCHOOL NUTRITION OPTIMIZATION IN ORENBURG REGION

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*Introduction: School nutrition* project was being implemented in Orenburg region during three years to improve the organization of school nutrition, which was aimed at industrializing nutrition by creating school nutrition combine, as well as the mprovement of material and technical resources of food units at educational establishments.

*Purpose:* to assess the impact of the actual nutrition at the premises of general educational establishments on pupils’ nutritional status and health in the course of activities implementation, aimed at improving school nutrition.

*Methods and materials:* the research was carried out among 400 pupils of secondary school age ( 12–14 and 15–17 years old) before the project implementation and two years after implementation of optimized menu. The alimentary status of cardiovascular, central nervous, respiratory and musculoskeletal systems was investigated as well as the level and balance of physical development.

*Results:* it was found that the alimentary status of organs and systems significantly improved after the project implementation; children’s performance level significantly increased as well as the number of schoolchildren having harmonious physical development. The obtained data demonstrates the effectiveness of school nutrition modernization in educational establishment.

*Conclusion:* regional hygienic monitoring of nutrition and pupils’ health made it possible to obtain new data related to quantitative content and kinetics of macro- and micronutrients in pupils, demonstrating high information value as a prediction criterion of early changes in children’s health.

*Key words:*monitoring of school nutrition; pupils’ alimentary status; organization of nutrition at educational institutions

THE analysis of interrelations between school CHILDREN’s sub jective perception of A teacher and psychological characteristics of his personality

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*Purpose:* to study interrelations between subjective perception of a teacher and psychological characteristics of his person.

*Materials and methods:* 322 pupils of the 1-11th forms of rural school № 13 and city school № 40 in Rostov-on-Don were examined. The subjective attitude of the schoolchildren to 29 teachers giving lessons in their class was defined on a single occasion together with the parameters of the teachers’ psychoemotional status. The subjective attitude of pupils to a lesson and to the teacher was estimated in points by results of the color test of the relations (based on Lyusher 8-color test); pupils also evaluated the difficulty of lessons and their interest in them in points. The psychological status of the teacher was defined by the means of the shortened multifactorial personality questionnaire (SMOL test): T-points were used to evaluate the general (total) (and on 8 scales separately) degree of the teacher’s main personal features manifestation as well as the aggravation degree (on F scale) and the number of cases with breakpoint values exceeding the basic scales. V.V.Boiko technique was used to determine the general manifestation (in points) of emotional burning out syndrome (EBS) including evaluation of manifestation of its 12 symptoms and three phases (stain, resistance and exhaustion). The analysis of correlations between three groups of parameters was carried out using Pearson moment method in *Basic Statistics* module of the *Statistica 6.0* program. The obtained results have showed direct correlations between subjective attitude to a teacher and manifestation of depression, hypomania and aggravation in him as well as reliable direct correlations between subjective value of the lesson difficulty and hypochondria, depression, hysteria and psychopathy manifestation in a teacher together with a total level of expression of characterologic personality features and the frequency of critical values excess according to SMOL scales. On the contrary, subjective value of the interest in a lesson revealed reliable coefficients of the feedback with psychopathy manifestation level, autism and hypomania in a teacher, as well as a total level of manifestation of his personality features. It was found that there are direct correlation between subjective value of a lesson difficulty and a teacher having the majority of EBS symptoms in him (including “self dissatisfaction”, “alarm and depression”, “reduction of professional duties” and “psychosomatic and psychovegetative disturbances”) together with the general level of “tention” and “exhaustion” phases formation and the general level of EBS manifestation. At the same time the subjective values of interest in a lesson inversely correlated with the parameters of a teachers’ emotional burn out.

*Conclusions:* 1. It was found that in most cases the intensification of a teacher’s characterologic features manifestation (especially with critical level exess) and symptoms of emotional burning out directly correlate with negative subjective perception of him by the pupils. 2. It was noticed that the intensification characterologic features manifestation and symptoms of emotional burning out of a teacher directly correlates with evaluation of lesson difficulty and inversely – with the level of pupils’ interest in it.

*Key words:* subjective pupil’s evaluation of a teacher, psychological features of a person, correlative interrelations.

Modern technologies of recycling deposits of sewage treatment facilities

in St. Petersburg

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*Introduction:* The sewage sludge that is originated from urban wastewater treatment plants contains most of the elements indicated in Mendeleev’s periodic system table. Moreover, 60-70% are represented by organic substances. The accommodation of accumulated deposits requires about 150 hectares of the urban territory. Millions of cubic meters of disposed sewage sludge on urban land threaten the city as an environmental catastrophe.

*Purpose:* The aim of the study was to compare the modern methods of treatment and recycling rain water treatment plants, as well as the rationale for the hygienic characteristics of the new method such as geo turbocharged processing.

*Materials and methods*: Sanitary-chemical, toxicological, bacteriological, parasitological, radiological investigation methods of sewage sludge, as well as the product of its geoturbocharged processing.

*Results and discussion*: As a result of sanitary-chemical, bacteriological, parasitologic, radiological and toxicological studies product of the geo turbocharged processing of sewage sludge, it was found that the product was practically safe from the viewpoint of hygiene and epidemiology. The concentrations of main toxic substances in the product are found to be below the detection limits.

*Conclusion*: To date, the method of sewage sludge “geoturbocharged treatment” is considered to be the most effective treatment of sediment accumulation providing a decreased risk to public health. It is recommended that detoxified product of the method can be used in road construction and improvement of urban and rural areas.

*Key words:*wastewater treatment plants sludge, ecotoxicants, geoturbocharged treatment, dehydration, heavy metals.

The evaluation of the linear dependance between the indicators in assessment of rehabilitation results of the disabled due to coronary heart disease who underwent percutaneous transluminal coronary angioplasty considering the provisions

of the International classification of functioning , disability and health

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*Introduction*: the reforms in the national system of medical-social expertise and rehabilitation of disabled persons includes the transition to the assessments of disability in accordance with the international standards, namely, with the International classification of functioning, disability and health (ICF).

*Purpose*: to develop the evaluation system of the rehabilitation results of disabled persons subject to the ICF issues

depending on the type and severity of disability due to the circulation disorders. *Materials and methods:* in the course of the study the obtained results were analyzed and evaluated after the individual rehabilitation program (IRP) implementation in the group of patients with disabilities due to coronary heart disease (CHD) who underwent percutaneous transluminal coronary angioplasty (PTCA). The group included 45 patients. The method of paired assessments was used (before and after IPR) based on the profile of disability, specific for a certain medical entity of the disease on the basis of the ICF issues. The correlation data analysis of rehabilitation results was performed.

*Results:* the high correlation dependence on a number of parameters was noted: between thickness of the posterior wall of the left ventricle (LV) and short- and long-distance walking; between the presence of areas of Hypo – akinesia, dyskinesia and short- and long-distance walking; moving within the dwelling area and making purchases, purchasing necessities, full employment, partial employment; between the movement within other buildings and the use of public transport; the purchases and full employment, partial employment; doing household chores and work responsibilities (p<0.002). *Conclusion:* the correlation data analysis revealed a high correlation or linear dependence between the parameters mentioned above, which gives the possibility to assess the results of rehabilitation on single parameters in a whole number of ICF categories with high degree of reliability.

*Key words:* the International Classification of Functioning, Disability and Health, individual rehabilitation program, rehabilitation evaluation, profile of disability, correlation analysis.

The Evaluation of the Russian Federation compliance with THE international

obligations under the UN Convention on the Rights of Persons with Disabilities

by the disabled from St. Petersburg

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*Purpose:* the survey among people with disabilities from St. Petersburg on the compliance of their complex life conditions with principles and standards of the UN Convention on the Rights of Persons with Disabilities (the Convention).

*Materials and methods:* a sociological method was used including the survey among the disabled from St. Petersburg, as well as the survey among parents of disabled children in the institutions where it is possible to find the target groups according to disability categories. 1,000 respondents were asked to fill in a 51-question questionnaire. On the basis of the statistical analysis of one-dimensional and two-dimensional distributions, the sociodemographic profile and disability category were defined as well as the level of the disabled awareness of their rights guaranteed by the Convention and the opinion of people with disabilities about the conformity of their complex life conditions with the principles and standards of the Convention.

*Results*: The results of the sociological survey allow to characterize the general accordance of the rights of persons with disabilities in St Petersburg with the Convention. From 49 to 75.6% of the surveyed evaluate the rights of the disabled more or less positively concerning various articles of the Convention. In this case, up to the third of the respondents face with different situations of the non-compliance of the rights and guarantees provided by the Convention. The most problematic issues are the employment, the adequate living standards and education, as well as creating a comfortable and affordable environment of daily living. The findings show the low awareness of people with disabilities of the ratification of the Convention.

*Conclusion*: The integration of people with disabilities into society requires additional measures aimed to develop skills of the legal culture, protection of the personal rights, improvement of the legal literacy, which ultimately should be targeted at the development of the active social stand of the disabled. The specifics of the relevant disability groups (age, type of disability, involvement in various public institutions) should be taken into account when organizing outreach activities. Low awareness of the UN Convention ratification and the general low level of the legal literacy of persons with disabilities is a reflection of legal literacy of persons with disabilities as one of the social groups in the Russian society, namely, the state of public consciousness of the Russian society as a whole. Therefore, the information activities should be carried out not only in public organizations of persons with disabilities, but they also should involve various social groups (through the media and other public organizations, etc.)

**Key words**: the United Nations Convention on the Rights of Persons with Disabilities, the rights of people with disabilities, public opinion poll, disabled.

CLINICAL MEDICINE

THE DINAMICS OF THE CARBOHYDRATE AND LIPID METABOLISM PARAMETERS AND HORMONAL STATE OF PATIENTS WITH OVARIAN DISFUNCTION AT THE INITIAL STAGE OF OBESITY TREATMENT

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*Purpose:* To determine the degree of weight loss leading to a significant improvement of the carbohydrate, lipid and hormone metabolism parameters in patients with obesity and menstrual irregularities.

*Materials and methods:* This prospective study included 30 obese women aged 20 to 35 years old (31,1±2,85). The inclusion criteria – the menstrual cycle (in 15 (50%), irregular menstruation, 8 (26,6%) – scarce irregular menstruation, 7 (23,1%) with giperpolimenoreya, including abnormal uterine bleeding). The body weight of the women before treatment ranged from 77 to 115 kg (89,15±1,75kg), body mass index ranged from 27 to 44 kg / m2 (34,3±2,1).

*Results:* It was revealed that fasting hyperinsulinemia occurred in 26,6% of women, while in the first and/or second postexercise samples in the glucose tolerance test, it was 100%. The insulin resistance was identified in 90% of cases, and impaired glucose tolerance in 16,6%. Hypercholesterolemia was found in 53,3%, hypertriglyceridemia – 23,3%, and increasing of the LDL concentration in 6,6% of women. The ncreased concentrations of LH and ratio of LH/FSH more than 2,5 was observed in 16,6% of cases, the increase of testosterone and/or androstenedione – in 36,6%, the increase in the concentration of cortisol and DHEA sulfate in 13,3% of cases. The low concentration of PSSG in the blood was found in 2 (6.6%) patients. The normal hormonal spectrum was identified in 26,6% of women. The patients were administered orlistat in a dose of 120 mg 3 times a day combined with a hypocaloric diet.

*Conclusion:* After weight loss by 2 BMI in 53% of women it was found the normalization of menstruation rate/duration/ script together with the restored ovulation. After weight loss by 3 BMI the normalization of these indicators was achieved in 86,6% of cases. In the course of the treatment a significant improvement in the carbohydrates and fats metabolism is reached after the decrease of BMI by 2 points. Significant reduction in concentrations of testosterone, androstenedione, and a significant increase in the concentration of PSSG are also found after the decrease of BMI by 2.

*Key words:*irregular menstruation, oligomenorrhea, giperpolimenoreya, atypical uterine bleeding, female obesity, lipid metabolism, carbohydrate metabolism, hormonal profile in obesity, hormonal dynamics during the loss of body weight, the goal setting in the treatment of ovarian dysfunction in obesity, body mass index , insulin resistance, dyslipidemia, impaired glucose tolerance, glucose tolerance test.

The need to improve diet therapy for school children with cystic fibrosis

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*Introduction:* despite the trend of improving the nutritional status among children with a mixed form of cystic fibrosis (CF) in Stavropol region (SR), most of them lag behind in physical development of their healthy peers, especially on body weight. *Purpose*: to develop approaches of improving the nutrition for children with CF which are based on nutritional status data, changes in metabolism of lipids and elements.

*Methods:* physical development, lipid metabolism and elemental status of 23 school children with a mixed form of CF registered in the Cystic Fibrosis Patient Registry in SR were analyzed. *Results*: changes in lipid, phospholipid and lipoproteidna spectrum of blood serum, lipid and phospholipid spectrum of erythrocyte membranes and elemental status are persistent in nature among the children with a mixed form of CF in SR. This explains such clinical manifestations of CF, as the lag in physical development, pancreatic insufficiency, predisposition to cirrhosis of the liver, emotional lability, secondary immune deficiency.

*Conclusion*: children with a mixed form of cystic fibrosis in Stavropol region, fall behind in physical development. Changes in their lipid and element status are persistant in nature. This requires improving the food ration among such type of patients.

*Key words*: cystic fibrosis, physical development, index of weight and height, lipids, status elements, improving the diet.

The value of ob jective methods to examine the hearing function

in setting up the speech processor after cochlear implantation : scientific review

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The optimal age for conducting cochlear implantation is the age up to 3.5 years old. When setting up the speech processor, especially among children, the most frequently used method is the objective method of re search. The effeciency of each method depends on many factors. At present there are some unsolved problems when setting up the speech processors among the patients with cochlear implants. The impact evaluation of the etiology of sensorineural hearing loss on the settings of the speech processors will improve the effectiveness of rehabilitation after cochlear implantation.

*Key words:*sensorineural hearing loss, cochlear implantation, neural response telemetry, electrically evoked stapedial reflexes, electrically evoked auditory brainstem response.

The value of some physicochemical and biochemical factors of urine predisposing to recurrent urolithiasis

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*Introduction* urolithiasis is the most pressing problem of urology because of the high disease recurrence.

*Purpose* to explore some hidden endogenous physicochemical and biochemical factors of urine, predisposing to urolithiasis.

*Materials and methods* the two groups of 128 people aged from 25 to 55 years old were observed: the basic group – 78 patients with recurrent urolithiasis without urinary tract obstruction; the control group – 50 healthy volunteers. A comprehensive survey of both groups was performed. Careful attention was paid t research of some physicochemical parameters of urine: surface-free energy; crystal inhibiting activity of urine; electrical conductivity of urine; level of urine osmolarity; potential sedimentation; kinematic viscosity of urine; ionization level of calcium and magnesium of urine, etc. The obtained data were analyzed with a help of the software system named «statistica».

*Results* as a result of a comprehensive study the patients were diagnosed with urolithiasis. Healthy people have clinical and laboratory data of urine and blood within the normal range. Physicochemical parameters of urine showed significant changes which were different in the groups.

*Conclusions* The obtained results of the research give a reason to reliably state the fact of clinical manifestations of urolithiasis in the early phases of the disease, which allows the specialist effectively influence the development and course of the early stages, as well as to exercise the pathogenic metaphylaxis of urolithiasis.

*Key words:* urolithiasis, pathogenesis, physicochemical and biochemical parameters of urine.

Dynamics of observed and relative survival rate of lung cancer patients

(population -based study )

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*Introduction* Estimations of survival rate of cancer patients at the population-based level should be carried out according to international standards. In Russia for many years this methodology was being fulfilled only by the Population-based Cancer Registry of St. Petersburg. In 2014 the first estimations of these parameters were implemented by cancer registries of Karelia and Pskov. In a previous article [6] we have presented estimations of observed and relative survival rate of lung cancer patients up to 2001. This paper summarizes the results up to 2010. A special place is devoted to estimations of survival rate of lung cancer patients by histological tumor types based on the age groups. For the first time it is showed the dynamics of not only a five-year observed and relative survival rate but also a ten-year survival rate separately for men and women.

*Purpose* To continue a study of survival rate of lung cancer patients by sex, stage of disease, survival rate in accordance with histological structure of tumors based on materials of the Population-based Cancer Registry in St. Petersburg.

*Methods* Estimation of observed and relative survival rates according to international standards [3-5, 8, 9, 18]. *Results* It was observed that a 5-year survival rate of lung cancer patients, especially at the first stage (90-s years of the twentieth century), was higher than the European average one (program Eurocare) in connection with the ongoing activities on screening of malignant tumors of lungs. The paper presents detailed description of the survival rate of lung cancer patients by stage of disease, dynamics of the observed and relative 1-, 3-, 5-, 7- and 10-year survival rate. No significant improvement of rates was found. The highest level of a 5-year survival rate was found among the patients with malignant carcinoma. Regardless of the histological type patients less than 60 years old have a higher survival rate.

*Conclusion* Thus, this study showed that there were serious problems with estimation as well as the quality of diagnosis and treatment of lung cancer patients. It is important to point out that all of these problems exist in many other countries. However, in spite of the above mentioned, the level of observed and relative survival rate of lung cancer patients among men in St. Petersburg, Karelia and Pskov region is higher than the European average one (program Eurocare – 4) [21].

*Key words:*lung cancer, survival rate, sex, stage of disease, dynamics of survival rate by histological structure, median of survival rate, the Population-based Cancer Registry of St. Petersburg

A case of successful treatment of gastrointestinal stromal tumor of the stomach

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The article presents a clinical observation of gastrointestinal stromal tumor of the stomach, showing complicacy-in diagnosing localization. The authors have successfully used modern endoscopic technique to diagnose and surgical treatment. The radical laparoscopic operation was performed.

*Kеy words:*gastrointestinal stromal tumor of the stomach, endovideosurgery, laparoscopic surgery.

HYDATID DISEASE: CURRENT STATE OF THE PROBLEM AND DIAGNOSTIC IMAGING OF DIFFERENT DISEASE LOCATIONS

(part II: own cases )

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*Purpose.* To improve the diagnosticity of echinococcosis and alveococcosis of different localizations.

*Materials and methods.* 194 patients with hydatid cysts of different locations within age limits from 3 to 81 years were identified by X-ray, ultrasound, CT and MRI examination. Analysis of the data was based on the structure, shape and contours of hydatid cysts, as well as the state of the adjacent bone and soft tissue structures. Radiological method results were confirmed by surgery and pathology.

*Results.* The paper presents the radiology patterns in echinococcosis and alveococcosis in different localization. It was found that despite the localization of hydatid cysts they have inherent characteristics. Typical features of hydatid cyst were fluid formation of round shape, with crisp, smooth contours, with a thick and in most cases double contour wall, with a cavity

or partially calcified capsule. The cyst could be unilocular or multilocular. Alveococcus node in the liver and brain was visualized as the round or oval shape formation with homogeneous or

inhomogeneous content and unevenly thickened walls on CT and MRI. Calcifications in the walls had a shape of individual clumps. The structure of the formation was not homogeneous due to the focal or diffuse calcification, presence of small cysts on the periphery of the formation and areas of decay with uneven contours. The main feature of alveococcosis in the brain

was a visible perifocal edema. Such features of alveococcus as ability to infiltrative growth, spontaneous rupture of cysts and metastases to other organs, make it similar to malignant tumours.

*Conclusions.* 1. Echinococcosis (alveolar and gidated) affects groups of all ages and mostly people of working age. 2. Cases of family infection by echinococcosis are frequent. 3. Hydatid cysts may be located in any organ of the body with a primary lesion in the liver. 4. Liver alveococcus often metastazes to the brain and lungs. 5. In the group studied combined simultaneous echinococcosis and alveococcosis lesion were not revealed. 6. Combined radiation evaluation should include ultrasound for the preventive screening of the population living in endemic alveococcosis and echinococcosis areas and also highly informative methods such as CT and MRI when planning intervention in the liver and brain.

*Key words***:** parasite, hydatid cyst, alveococcus, imaging method.

Psychological features of patients with coronary heart disease undergoing

coronary artery bypass surgery (in connection with the aims of psycho -correction )

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*Purpose*: to examine psychological features of patients with coronary heart disease (CHD) over time (at 3 months) after the coronary artery bypass surgery (CABG)

*Materials and methods*: We observed 25 patients with CHD after CABG surgery. Patients were examined at 3 months after CABG. The mean age 58,06±9,19. We used clinical-psychological method (observation and interview) and experimental psychological method (The Symptom Checklist-90-R (SCL-90-R), “Ways of Coping Questionnaire”(WCQ), “Big Five” (Big 5).

*Results:* Manifestations of interpersonal indicators of “sensitivity”, “anxiety”, “phobic anxiety” were detected in patients with CHD, 3 months after CABG. These characteristics reflect the possible emotional tension, anxiety, sensitivity in interpersonal contacts. We detected indicators of different coping – strategies, with relatively lower values in types of coping behaviour “distancing” and “accepting responsibility”. In the structure of personality characteristics we found increase in the values of scales “extraversion” and “self-awareness”, reflecting sociability, openness, organization. These personal characteristics play an important role in the formation of compliance. Within the framework of psychological work it is important to pay attention to the indicators of anxiety.

*Conclusion:* In patients who underwent CABG surgery 3 month ago we identified increased rates of interpersonal values of “sensitivity”, “anxiety “and “phobic anxiety”. The highest rates were on indicators of coping strategies “confrontation”, “self-controlling” “ seeking social support “, “escape – avoidance”, “planful problem solving “ and “ positive reappraisal “; the rates of scales “distancing” and “accepting responsibility” were lower. In the structure of personality characteristics the performance of “extraversion” and “identity.” was more pronounced. Revealed features are important to consider on planning psychocorrection.

*Кey words***:** ischemic heart disease, coronary artery bypass, anxiety, personality traits, coping strategies, psychocorrection.

Validation of a new experimental pharmacological model of acute cervical lymphadenitis with rats

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The subject of the current study was to conduct researches on validation of a new experimental pharmacological model of acute cervical lymphadenitis with rats.

*Purpose.* The purpose was to study the validation characteristics of a new experimental pharmacological model of acute cervical lymphadenitis with rats: the accuracy and the convergence of the most significant indicators.

*Materials and methods.* Induction of acute inflammatory process in the lymph nodes in the experiment was performed by introducing of an aqueous solution of 0.1% LPS at 0.1 mg/kg directly into the lymphoid tissue under the capsule of the upper cervical lymph nodes. The experiment was carried out with Wistar female rats.

*Results.* The results of the current study on validation of a new experimental model of acute cervical lymphadenitis suggests that it is able to validate experimental models within the same laboratory observing the necessary conditions by the validation characteristics: the accuracy and the convergence.

*Conclusion.* The results obtained suggest that a new experimental model of acute cervical lymphadenitis is validated by the validation characteristics: the correctness (the accuracy) and the convergence, and support the assumption that it is able to validate experimental models within the same laboratory observing the necessary conditions by these validation characteristics.

*Key words***:** validation, experimental model, tonsillitis, cervical lymphadenitis.

Accreditation of osteopaths and lifelong medical education : new challenges of the new time

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Analysis of the legislative and regulatory framework governing the issues of training, skills development and access to work of healthcare workers, has shown that in recent years, two new trends have emerged in the provision and evaluation of competencies of physicians and nurses – lifelong medical education and accreditation of professionals. This article deals with the basic provisions of these two innovations in health care system concerning new medical specialty – osteopathy. From 1st January 2016, according to the Federal law dated 21/11/2011 No. 323-FZ, only those specialists who have certificate of accreditation are able to exercise medical activities in the Russian Federation. Specialist’s accreditation is a procedure whether person who received higher or secondary medical or pharmaceutical education, is ready for medical or pharmaceutical activities. It is proposed to identify the following types of accreditation: primary accreditation, primary specialized accreditation and repeated accreditation. For this procedure, some Centers of accreditation will be founded and assessment tools will be created. The Ministry of Public Health of the Russian Federation has developed a concept of lifelong medical education in the Russian Federation, there is a Coordination Council for the development of lifelong medical and pharmaceutical education. Lifelong medical education for osteopaths should be personalized, affordable, of high quality and should be implemented with the active participation of Russian osteopathic association. The credit system will be introduced to quantify the educational activity of specialists.

*Conclusion.* The introduction of a mandatory accreditation of osteopaths will create a staff structure of the healthcare system that is able to provide guarantees and quality of medical services as well as will inform about the level of professional competence of osteopaths and about the availability of human resources in institutions and organizations. The implementation of the “concept for the development of lifelong medical education in the Russian Federation” will ensure the effective postgraduate education of osteopaths, which, in turn, will help to ensure the health of the Russian population quality.

*Key words***:** education of osteopaths, ocupational accreditation, lifelong medical education, credit system.

LIFELONG PROFESSIONAL EDUCATION SYSTEM IN ENDOCRINOLOGY EXPERTS TRAINING

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*Purpose* to identify unsolved problems of modern methods of endocrinology teaching in a system of lifelong professional training (NPT).

*Materials and Methods* an overview of current literature on postgraduate education of endocrinologists.

*Discussion* modern educational program for advanced professional retraining on “Endocrinology” is developed on the basis of credit-module system. As a result the most reasonable method of “Endocrinology” course today is a combination of educational credits accumulation, distant education with traditional methods (subject-oriented and general retraining, professional retraining, certification and attestation of medical personnel).

*Conclusion* modern system of LPT for endocrinologists has recently been considerably improved but still requires further complex analysis.

*Key words***:** endocrinology, lifelong professional training, teaching, distance education, on-line education.

Review of the monography

«Health risk assesment in the aspect of state socio -economic development », edited by Acad . of RAS G.G. Onishchenko , Acad . of RAS N.V. Zaitseva

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The monography highlights the analysis of theory development and practice of assessing and managing human health risks from the preventive medicine point of view. Risk analysis is regarded as a synthetic methodology for integrating the results of fundamental biomedical research, theory, and application tools of mathematical statistics and mathematical (situational and simulation) simulation, sociology, chemistry, computer science, using all modern computer technologies – database systems, geographic information software, expert-analytical systems, etc. The monography demonstrates the prospects of methodology development for the successful solution of strategic statetasks to preserve the health of the nation in terms of socio-economic reforms in the Russian Federation.

*Key words***:** health risk assesment, strategies of state socio-economic development