THE MEDICO-ORGANIZATIONAL MODEL OF PROTECTION OF REPRODUCTIVE HEALTH OF WOMEN WITH INFLAMMATORY DISEASES OF GENERATIVE ORGANS

Igor Naumov, Yevgenij Tishchenko, Aleksandr Aleksandrovich

The Grodno State Medical University

Naumov I., Tishchenko Y., Aleksandrovich A., (2014) The medico-organizational model of protection of reproductive health of women with inflammatory diseases of generative organs. Health Problems of Civilization 3 (8), p. 4-11.

Summary: The work purpose: To develop, scientifically to prove and introduce medical-organizational model of protection of reproductive health of patients with inflammatory diseases of genitals. **Materials and methods.** The female population of fertile age with inflammatory diseases of the genitals, living in the Grodno area per 1954–2008 is studied. The system approach is used, following methods were applied: sanitary-statistical, economic-mathematical, expert estimations, sociological, historical, organizational experiment, modelling and forecasting. **Results.** On the basis of the carried out complex socially-hygienic research including studying of volumes and quality of medical aid, security of obstetric-gynecologic service material, financial and personnel resources, introductions of new organizational, medical and information technologies, studying of the reproductive equipments of women of fertile age and prospects of realisation by them of reproductive function, and also an expert estimation of the importance of the problems bound to disturbances in reproductive system, develop medical-organizational model of protection of reproductive health of women with inflammatory diseases of the genitals, based on state policy realisation in public health services. Model actions are realised in three stages: pregravidal improvement; medical maintenance in pregnancy; The organisation of medical aid to women in childbirth and newborns, and also aftertreatment after a failure of pregnancy and sorts.

Key words: model, reproductive health, female genitals

Introduction

Now inflammatory diseases of female reproductive organs (further - IDRO) are the most frequent cause of infringement of reproductive health of women. Arising thereof medical, social and economic problems are rather appreciable (Ness et al. 2005). So, 24-30% of women note a pelvic painful syndrome within 6 months and more after the tolerated salpingo-oophoritis, 43% have episodes of an exacerbation of inflammatory process; from 10 to 40% remain fruitless. At patients with IDRO in 6 times more often, than at healthy, the endometriosis, at them in 8 times is taped more often, than in the basic population, the uterus leaves (Banikarim, Chacko 2005). At a purulent lesion of appendages of a uterus there is a real threat not only to health, but also life of the patient. Influence IDRO and on perinatal outcomes - levels maternal, infantile and perinatal mortalities (further - PM), frequency of a case rate of newborns is appreciable (Challis et al. 2009). Therefore the prevention and treatment IDRO is the major problem of health protection of women as a state of health of patients with the given pathology appreciably defines breeding potential of a society, and questions of studying and the decision of such prominent aspects as restoration of reproductive function of patients, formation and maintenance of conditions of their reproductive behaviour - are especially actual.

Research objective: to develop, scientifically to prove and introduce medical-organizational model of protection of reproductive health of patients with IDRO.

Materials and methods. Research is based on the general methodological approach to analysis of medicosocial factors of health and the illness. Basis of work is the many-stage referred selection. The system approach is used. Following methods were applied: sanitary-statistical, economic-mathematical, expert assessments, sociological, historical, organizational experiment, modelling and forecasting.

The female population of the Grodno range in 1954-2008, including, received medical aid in the conditions of gynecologic and obstetric hospitals is studied; in outpatient conditions - in female consultation (further - FC), including in diurnal hospitals (further - DH) FC. The primary medical documentation of patients with IDRO, received medical aid in outpatient and stationary conditions is analysed. The research base is generated in electronic form, statistical calculations and charts are executed by means of computer programs STATISTICA 6.0.

Address for correspondence: Igor Naumov, The Grodno State Medical University, Maksyma Gorkiego St. 80, 230015 Grodno, Belarus, e-mail: kge_grgmu@mail.ru, phone: +375-152-43-54-51

Tables: 1, **Figures**: 4, **References**: 12, **Full text PDF** www.hpc.edu.pl **Copyright** © Pope John Paul II State School of Higher Education in Biała Podlaska, Sidorska 95/97, 21-500 Biała Podlaska **Indexation**: Index Copernicus, Database AGRO, ProQuest, Polish Ministry of Science and Higher Education. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-commercial License (http://creativecommons.org/licenses/by-nc/3.0), which permits use, distribution, and reproduction in any medium, provided the original work is properly cited, the use is non-commercial and is otherwise in compliance with the license.

Results. Actions of the developed medico-organizational model of preservation of reproductive health of patients with IDRO are based on the system approach and have innovative for Belarus multilevel character; its basic principles are the system approach, interdepartmental character and a stage of performance (figure 1).

The system of actions framed within the limits of model has multicomponent character and includes three stage process of the organisation of medical aid on pregravidal stage, is immediate in the gestation term and after end of pregnancy.

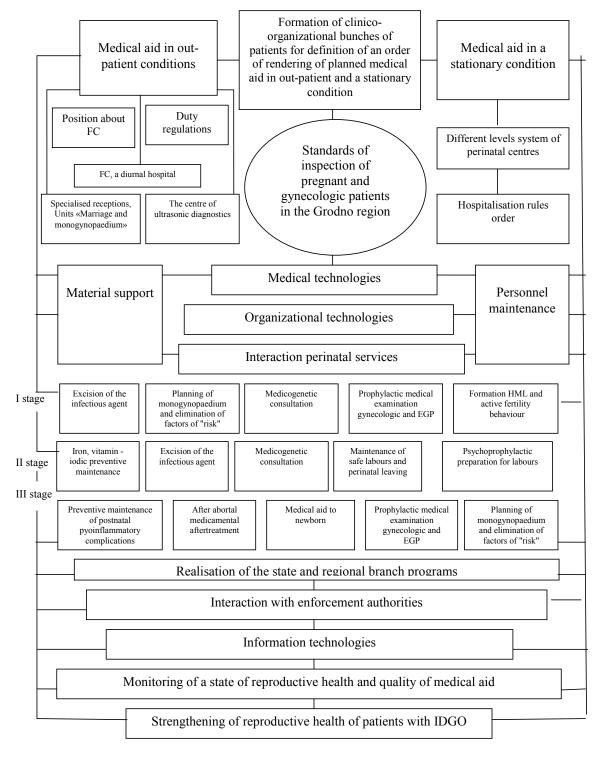


Figure 1. Medico-organizational model of protection of reproductive health of patients with IDRO

At all stages of model mechanisms of the organisation of the medical aid new to Belarus, including is realised: maintenance of obligatory psychophysiological correction for adequate start nejro-gumoral and endocrine parts of regulation that allows to normalise further flow gestation processes; introduction in all public health services (further - OPHS) the developed Standards of inspection and treatment of pregnant and gynecologic patients (further - Standards) which cover for the first time all nosological forms of an obstetric-gynecologic pathology; each stage of their application allows to unify the diagnostic and medical procedures necessary as for statement of the diagnosis and sanation of a pathology in «classical» cases, and to carry out differential diagnostics and to define treatment tactics in complex cases for diagnostics.

Orifices in model are bodies of interest - patients with IDRO. For research objective achievement - strengthenings of reproductive health of the given contingent of women - at the first stage of model are solved problems of building of conditions for elimination of disturbances in functioning FRS and births of healthy children by perfection of the organisation of the treatment-and-prophylactic help on a pregravidal stage, mainly in out-patient conditions. Working out and introduction in all OPHS ranges of sample position about FC with a substantiation of volumes of medical aid, and also the conforming maintenance with resources and perfection of a control system by level of primary medical aid on the basis of the expert control and quality monitoring became a basis of such mechanism.

Building of new phylums of structurally functional units on the basis of already existing sectionings and offices FC specialising on diagnostics and treatment of pathology became the main microeconomic element at the first stage of model. The basic parts in such structure are presented as «by the centre on a functional basis» (the centre of ultrasonic diagnostics), and profile unit in structure FC («Marriage and monogynopaedium»); the special place is shunted to a diurnal hospital as to the structure, allowed to realise in out-patient conditions a principle of the specialised help which has provided on the basis of proved economic feasibility rising of a degree of quality of life and satisfaction of patients. For each concrete variant indications for a direction and hospitalisation, the demand to the medical documentation are defined regular structure, an operating procedure that has allowed to consider medico-social characteristics of patients with IDRO and to provide the nonconventional approach to the organisation of medical-diagnostic process. The given approach consists in studying clinico-anamnestics characteristics, integrates qualitative and quantity indicators characteristic for the given contingent of women of social medium and provides search of a probable cause of illness; an assessment of degree of influence on a state of reproductive health of controlled and is conditional-operated medico-social factors; definition of a priority of problems on which decision the co-ordinated activity of some various services and departments is focused; intensive treatment with application of a complex of medicamental and not medicamental methods; effective aftertreatment; Building of the motivations adapting patients to active social and labour activity; realisation together with educational bodies of a complex of actions for formation healthy mode of life (further - HML) among girls-teenagers and women of young reproductive age with accent on questions of preservation of reproductive health within the limits of the specialised centres, including preventive maintenance IDRO and abortions, realisation of the sex and reproductive rights; definition of the forecast and a disease outcome.

The integrated approaches based on formation and prophylactic medical examination of bunch «reserve of sorts» (further - BRS) are developed innovative for Byelorussia, including прегравидарное improvement which wears a binding character, and its basic actions are carried out 3 months prior to planned pregnancy in out-patient conditions, including the work organisation on medico-genetical consultation of married couples. Within the limits of prophylactic medical examination of patients BRS are carried out: routine inspections with formation on the developed algorithm of bunches of «risk» on development IDRO and disturbances in female reproductive system (further - FRS); stage-by-stage observation and control of a state of health of contingents of bunches of «risk»; the standardised methods of revealing IDRO; formation of clinico-organizational bunches of patients for definition of an order of rendering of planned medical aid in out-patient and a stationary conditions.

Actions of the first stage of model have allowed to organise carrying out of monitoring of a state of reproductive health of patients in the course of medical aid rendering, to automate processing of the information and to estimate on this basis an overall performance as the attending physician, and establishments obstetric-gynecologic service (further - OGS) as a whole.

Maintenance of interaction of technological elements of rendering of medical aid to patients in out-patient and a stationary conditions on the basis of the mechanism of acceptance of the strategic administrative decision on building of new phylum of specialised structures to which additions and changes depending on concrete conditions of functioning OPHS can be made became a basic principle of functioning of model *at the second stage*. Efficacyy of functioning of these structures consists in the following: in a substantiation of necessary volumes of medical aid and real financial requirement of concrete sectionings at priority financing OGS with maintenance with necessary material resources; in perfection of the organisation of the medico-preventive help to patients with IDRO at levels «FC - a maternity home»; in the organisation and wide use of diurnal hospitals for inspection, improvement and

aftertreatment of pregnant women; in working out of the actions providing guarantees of free medical aid to pregnant women, parturient women and newborns in terrain of range with activity reforming of different levels perinatal centres; in building of standard base and working out of the documents which are regulating activity OGS and being a legal basis for introduction of model on the basis of the mechanism of the expert control; in working out of uniform information database OGS of range for maintenance of monitoring of its activity at all levels.

At building of algorithm of observation over patients with IDRO in pregnancy the new approaches which have resolved synchronously to estimate efficacyy of functioning FRS in comparison to its adaptive potential and, the most important thing, with the personal equipments on pregnancy as motivational immaturity at women of the given medico-social bunch substantially defines inadequacy of all kinds of functional «responses» in the term gestation that does not provide optimum performance of different parts of system "mother-placenta-foetus" are applied. In these conditions «risk» bunches on probable unfavorable flow of pregnancy and sorts taking into account definition of patients with the anamnesis burdened IDRO and unfavorable perinatal by outcomes are organizational generated; the chronic extragenital locuses of an infection contamination; disturbances in FRS (sterility, disorders of a menstrual cycle); carrying out free jodo - iron - and vitamin preventive maintenance is organised; Interaction of interfacing services at level of primary medical aid is provided; carrying out of ultrasonic inspection and medico-genetical consultation under the standardised indications is organised.

The developed integrated mechanisms of conducting pregnant women with high infectious «risk» at the second stage of model include: the organisation of clinico-laboratory inspection for verification of a genital or extragenital infection contamination not less than two methods, research of the immune status and nonspecific resistance according to the developed algorithm; the organisation of rendering of the emergency obstetric-gynecologic help according to the developed list of extreme situations and the introduced algorithm of actions of the medical personnel at their occurrence, and also order of a call of a regional reanimation brigade; complex system of the actions, allowed to organise an assessment of a pre-natal state of a foetus and it antenatal preservation; forecasting of flow of pregnancy, sorts and a state of health of newborns according to the taped factors of «risk»; carrying out of a course of preventive maintenance of a syndrome of respiratory disorders of newborns; preparation of patrimonial pathes; a childbed induction; analysis of efficacyy of rendering of medical aid according to the developed algorithm.

The organisation of medical aid to patients with IDRO in a puerperal period became the purpose of actions of the third stage of model. New procedures of preventive maintenance of the pyoinflammatory complications, including are developed and applied: introduction of methods of rational antibacterial therapy after operations cesarean sections; an acceleration of healing of postoperative wounds; application of procedures of preventive maintenance of a postnatal metroendometritis and mastitis, including the patented technologies.

The framed system of aftertreatment after a failure of pregnancy and sorts includes the new two-level mechanism: at level of establishment of obstetric aid: the organisation of the general and psychologic assessment of a state of health of the woman in childbirth and its correction; at level FC: a complex of actions for the dispensary observation organisation, including excision of the infectious agent; research of adaptic potential of a female organism; psychologic testing; consultation by the doctor-therapist and if necessary - doctors of other specialities; carrying out of medico-genetic consultation; child-bearing planning at observation in BRS. The organisation of inspection of patients for finding-out of a pathogenetic variant of disturbance of reproductive function with the subsequent carrying out of therapy, an assessment of its efficacyy and planning of the following pregnancy became a nonconventional component of the third stage of model.

On a model exit the important role is shunted to forecasting of results on the basis of an assessment of a state of resource maintenance OGS and analysis of the real reached parametres of reproductive health of patients with IDRO, and also level and structure of reproductive losses. Framed for the decision of this problem innovative for Belarus the technological system of the collecting and the automated processing of the medico-statistical information includes the developed computer programs which features are completely a computer three-level quality monitoring of reliability of the given data, the automated formation of summary reports with possibility of their converting in different electron formats, efficiency of analysis, possibility in case of disharmony of the expected and reached indicators of reproductive health to subject to perfection components or to correct statement of problems, objects, the volumes, expected indicators. Results of analysis with the established periodicity are given in control of public health services of regional executive committee and administration OPHS for the purpose of acceptance of timely administrative decisions on optimisation of interaction of services of public health services on strengthening of reproductive health of patients with IDRO, health protection of mother and the child.

It is established, that actions of the developed and introduced medico-organizational model have high medical, social and economic efficiency.

It is established, that in 1999-2008 in the Grodno area there were no cases of parent death from infectious-inflammatory complications of pregnancy and childbirth.

In 2004-2008 in comparison with the previous fifth anniversary level PM in area it is considerable - on 42,3 % - has decreased (p <0,05). By 2008 the difference of indicators PM between city and rural settlements to 0,1 % that testifies to medical aid improvement of quality to rural inhabitants was reduced. In 2008 will reach a minimum level of indicator PM for a decade, made 4,1% (figure 2) which was considerable below an average republican (5,0 %) (p <0,05).

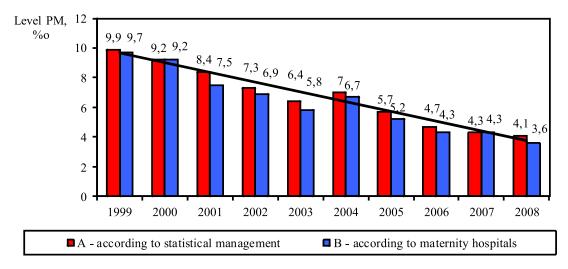


Figure 2. Dynamics PM in 1999-2008

In 2004-2008 in comparison with 1999-2003 structure PM has changed: a leading place has borrowed the foetus asphyxia because of infringement uterus-plecenta-umbilical blood circulations - $52,16\pm14,37$ %. The second rating place belonged congenital developmental anomalies at the fruits which share has made $26,90\pm4,32$ %. On the third place there were pre-natal infections - $7,80\pm2,13$ %. The syndrome of respiratory frustration has taken the fourth rating place - $4,64\pm2,67$ %.

Structure PM change has been connected with reduction of a share of pathological changes of inflammatory character in a placenta and an umbilical cord with $100,0\pm0,0$ % in 1999-2003 to $46,41\pm2,87$ % in 2004-2008 (p <0,05), a consequence associate (simultaneous or consecutive) becoming infected of various activators in different terms of pregnacy (r=0,8479). It has led to reduction of mid-annual number of cases (on 16) deadbirths and early neonatal death rate.

It is established, that structure PM change has been caused by introduction perinatal technologies of medicoorganizational model of protection reproductive health (further - RH) of patients with IDRO.

So, as a result of perfection of system of the organisation pregravidal improvements, including the medicogenetic help on pregravidal a stage and during pregnancy, efficiency perinatal diagnostics has increased: in 2004-2008 in term till 22 weeks of pregnancy came to light to 90 % lethal and sublethal to congenital developmental anomalies, and after 22 weeks - no more than 10 % (table 1).

Table 1. Detectability of congenital developmental anomalies in the Grodno area in 1999-2008 (in % to the general number)

Indicators	M±m		
	1999-2003	2004-2008	р
Annually detected congenital developmental anomalies	84,23±4,45	69,57±4,42	<0,05
Annually detected congenital developmental anomalies after 22 weeks of pregnancy	14,36±2,34	7,27±1,32	<0,05

It is established, that, despite relative density of interruptions remaining within decade under medico-genetic indications in structure finished pregnancy (0,4-0,7%), in 2004-2008 a share of women by which pregnancy has been interrupted in term of 12-22 weeks under medico-genetic indications, it was reduced in 1,4 times (p < 0,05).

Direct negative correlation of coverage pregravidal preparation of patients and frequencies of defects of a nervous tube at foetus and newborns (r = -0.9512) is revealed (figure 3).

Besides, accurate dynamics of reduction of cases of revealing congenital developmental anomalies of nervous tube in terms more than 12 weeks of pregnancy has been registered, that in addition testifies to improvement of quality of medical aid to patients with IDRO. It, in turn, has led authentic (p<0,05) to share reduction congenital developmental anomalies neural tubes in structure PM in 2004-2008 in comparison with 1999-2003 which in 2008 have taken last rating place, and their relative density has made 6,3 %.

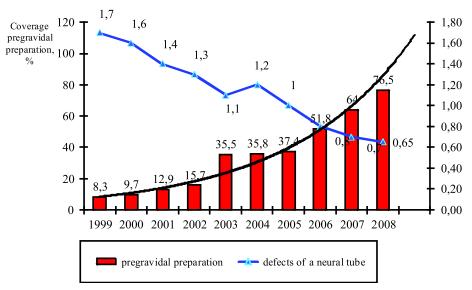


Figure 3. Dynamics of coverage pregravidal preparation (%) and frequencies of defects of a neural tube (‰) (foetuses + newborns) in 1999-2008

Efficiency of the lead actions to pregravidal improvement was expressed also in reduction PM from congenital developmental anomalies (figure 4).

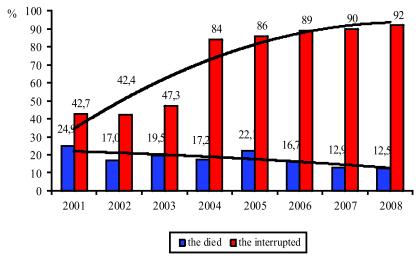


Figure 4. Antenatal elimination and a lethality from congenital developmental anomalies (r = -0,6551)

System of rendering organised according to the international approaches (Nepomnaschy et al. 2007) to the perinatal help in 3 level perinatal centres (further - PC) has allowed to provide availability of the highly skilled help as to pregnant women, and newborns and has made positive impact on decrease in level PM (r = -0.7322). Besides, level reduction perinatal losses has been caused by active application of the developed and introduced techniques of treatment vaginitis and disbiotical conditions at pregnant women at different levels of rendering perinatal help (r = 0.8347), methods antenatal foetus protection (r = 0.7749), rational medicamentous therapy of pregnant women, women in childbirth and newborns, including, carrying out of preventive maintenance of development of a syndrome of respiratory frustration by dexamethasone (r = 0.7129), and also active use artificial surfactant for its treatment (r = 0.6837).

Introduction of technologies of the organisation of preventive maintenance, early revealing and prophylactic medical examination IDRO (r=0.7672), activity activization on formation HML with coverage substantial growth by all kinds of contraception in different age groups of patients (prevalence intrautery contraception on 1000 women fertility age in 2008 has made 341,4, hormonal - 377,8) (r=0.8173) had a consequence in 2004-2008 in comparison with 1999-2003 considerable reduction (in 1,3 times) not planned pregnancy: to 12,7±0,89 on 1000 women fertility age (p<0.05).

So, for a decade prevalence of abortions has decreased in 2,1 times to 11,2 for 1000 women fertility age (p<0,05). In 2004-2008 in area, there were no cases of criminal abortions. Approximation of data, and also the equation polynomial trend with high degree of reliability (R^2 =0,8423) have allowed to assert, that noted tendency to decrease in quantity of abortions will remain and further.

As a whole, among women fertility age with IDRO mid-annual reduction of number of reproductive losses has made 980 products of conception. It, in turn, had a consequence increase in mid-annual number of births (460 cases) and an indicator of birth rate which in 2008 has reached the highest value since 1993, and has made 11,3%.

With allowance for mid-annual reduction (decrease) of terms of stay of patients with IDRO in a gynecologic hospital, reductions of level of a case rate with temporary disablement, reductions of costs for rendering assistance to patients in labours and the postnatal period, decreases of mid-annual level of reproductive losses (980 products of conception), decreases of mid-annual number of cases it is dead births and an early neonatal mortality (16 cases), augmentation of mid-annual number of births (460), and also the mid-annual income which will be received by the state from in addition born citizen with allowance for costs for it of the state additional economic benefit for the fifth anniversary has made: 21 822 188 652 thousand roubles (in the prices of 2008).

Discussion. In modern social and economic conditions, the state of reproductive health of the female population remains to one of the most acute medico-social problems, being a prominent aspect of national safety.

The factors is essential influencing development of a pathology of FRS, keep within the general concept of conditionality of public health: an external environment, a mode and life conditions, medicobiological factors, a state of public health services (Nakamura et al. 2008).

Thus, medico-social aspects of female reproductive health have strategic value, and the new methodological base of its formation and preservation becomes an essential scientifically-practical problem of maintenance of health of the nation. Thus at the present stage of development of public health services to database building, in particular, in system alarm, mediate and net results in the field of an assessment of potential of reproductive health, the major significance is attached. These data form a basis for introduction in activity of the organisations of OPHS new technologies for optimisation of the administrative process based on use of the international standards.

Experience of the previous researches in the given range testifies, that reproductive health of women is pawned from first days of their life, formed in the conditions of socially-medical medium and determines breeding potential of a society as at influence of unfavorable medico-social factors the obstetric-gynecologic pathology in the form of disturbances of specific functions of a female organism quite often educes, complications of flow of pregnancy and sorts, health of newborns (Grigsby et al. 2010; Shim et al. 2004).

In the lead position in structure of the educed gynecologic pathology is occupied with IDRO. Patients with the given pathology compound more than 50 % outpatient and about 30 % of stationary gynecologic patients, and last years in Belarus, as well as all over the world, constant growth of a case rate is registered (WHO 2007).

There are many the scientific researches devoted IDRO, however it is necessary to notice, that there is a wide spectrum yet not solved problems.

So, till now there are no basic researches IDRO, not studied there is dynamics of a case rate in a time historical retrospective show that does not allow to frame a full-scale picture of a state of reproductive function of patients at subpopulation level and to generate uniform approaches to the decision of a problem of preservation of reproductive health taking into account high prevalence IDRO.

Many problems of strategic and organizational character, including questions of formation of a HML which are not surveyed as a condition and result of successful socialisation of the person are not solved. The system of motivation and valuable orientation, knowledge of young women of factors of "risk", their feature saving up health and reproductive behaviour that does not allow carrying out action of corrective character to the full is not studied.

Degree of influence of a social background on level and structure of a gynecologic and extragenital pathology (further - EGP) is insufficiently estimated at women with IDRO, is incomplete features of formation and a state of their reproductive health are studied, there is no monitoring of research and the conforming analytical assessments for working out of expert approaches and methods on its conservation and strengthening on the basis of the regional scientific concept which would consider a considerable quantity of factors unfavorablely influencing on FRS in the different age seasons of its formation and realisation.

Many prominent aspects of medical aid to patients taking into account perfection of organizational and medical technologies, a network are not surveyed with use of modern demonstrative base in a historical retrospective show, personnel potential and standard base of OGS on the basis of active interaction with enforcement authorities that has not allowed to generate till now the conforming medico-organizational model to estimate its medical, economic and social efficacyy and in a complex to solve a problem of strengthening of reproductive health of women with IDRO.

On new methodological base should be based and a scientific estimation of the basic indicators of activity of service of obstetric aid on improvement RH of the women which basic directions examined in the literature are *the structure, process and outcomes* (Burrington-Brown et al. 2005).

The structure of an estimation of quality of medical aid by researchers joins material resources (budgetary financing and off-budget means, materials and the equipment etc.), the personnel (number, professional suitability, qualification etc.) and organizational characteristics of activity. However in modern researches to structure of an estimation of quality (except for questions of financing of public health services) it is not given considerable attention, there are no works in which on modern demonstrative base in a historical retrospective show various aspects of medical aid to patients with IDRO would be studied, directed on their improvement RH, taking into account perfection of personnel potential and standard base of obstetric-gynecologic service (further - OGS) (Bonzini et al. 2007).

According to researchers, the estimation of technologies in public health services gets the increasing value in the modern world as achievements of a medical science lead to occurrence of more modern and, frequently, more expensive of the equipment and medicines. Limitation of resources obliges doctors and heads of public health services to provide quality of medical aid within the limits of available budgetary funds. The trustworthy information is necessary for a possibility of acceptance of correct administrative decisions about clinico-economic efficiency and productivity of application of technologies in public health services. However, till now researches of their clinico-economic efficiency at medical aid rendering to the given contingent practically are absent (Dautov et al. 2009).

In this connection in rendering of medical aid to patients with IDRO the system of examination of its quality has special value. The expert estimation allows to do the given reason conclusions about presence of defects in its rendering at different stages and various links OGS. However, the analysis of a problem of quality of the obstetric-gynecologic help to patients testifies, that to the present time there are no standard standard approaches to its decision at level the public health services organisations (further - PHSO). Along with it, also there are no uniform approaches to an expert estimation and the analysis of quality of medical aid territorial PHSO (Stanishevsky 2005).

Thus, despite constant perfection of organizational technologies, medical aid improvement of quality to the female population, ascending of the importance of the existing medical control of improvement of patients with IDRO, new complex researches for a scientific substantiation and working out of the system unified and standardised organizational and medical actions for preservation and strengthening of reproductive health of the given contingent at all stages of medical observation are demanded.

Conclusion. Thus, in the course of research the important medico-social problem is decided - significant strengthening RH of patients with IDRO, and perinatal technologies introduced within the limits of medico-organizational model is reached, have expressed medical, social and economic efficiency.

References:

- 1. Ness R.B. et al. (2005) *Effectiveness of treatment strategies of some women with pelvic inflammatory disease: a randomized trial.* Obsterics and Gynecology, 106(3): 573-580.
- 2. Banikarim C., Chacko M.R. (2005) *Pelvic inflammatory disease in adolescents*. Seminars in Pediatric Infectious Diseases, 16(3): 175-180.
- 3. Challis J.R. et al. (2009) *Inflammation and pregnancy*. Reproductive Sciences, 16: 206–215.
- 4. Nepomnaschy P.A. et al. (2007) *Stress, immune function, and women's reproduction*. Annals of the New York Academy Sciences, 1113: 350–364.
- 5. Nakamura K. et al. (2008) *Stress and reproductive failure: past notions, present insights and future directions.* J. Ass. Repr. Gen, 25: 47–62.
- 6. Grigsby P.L. et al. (2010) *Choriodecidual Inflammation: A Harbinger of the Preterm Labor Syndrome.* Repr. Sc, 17: 85–94.
- 7. Shim S.S. et al. (2004) *Clinical significance of intra-amniotic inflammation in patients with preterm premature rupture of membranes*. American Journal of Obstetrics ang Gynecology, 191: 1339–1345.
- 8. WHO (2007) World health statistics, Geneva: p. 86.
- 9. Burrington-Brown J. et al. (2005) *Defining the personal health record. AHIM releases definition, attributes of consumer health record.* J. American Health Information Management Association, 76(6): 24-25.
- 10. Bonzini M. et al. (2007) *Risk of prematurity, low birthweight and preeclampsia in relation to working hours and physical activities: a systematic review* Occupational Environmental Medicine, 64(4): 219–238.
- 11. Dautov F.F. et al. (2009) Reproductive health of women in territories of a city with different level of an anthropogenous load. Gig. San, 1: 17–19.
- 12. Stanishevsky L.S. (2005) Theoretical bases of demographic safety. Bel Econ, 5: 36-42.

Submitted 27.06.2014 Accepted: 08.09.2014