DEVELOPMENT OF FAMILY PLANNING SERVICE: GLOBAL TRENDS AND NATIONAL ACHIEVEMENTS

Health is the precious resource of the society; it is a state of complete physical, mental and social well-being and not merely the absence of disease. One of the objectives of the European WHO's Health 2020 framework is to maintain and strengthen public health, extend the time of active ageing, increase life expectancy and improve well-being of populations. UN sustainable development goals (2016–2030) reflect the problems concerned with reproductive health; they are, namely: to ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs.

Currently a lot of attention is paid globally to the quality of life problem, primarily in terms of population ageing. The quality of life will be the central focus for the further development of health care. Quality of life assessment is a highly informative tool, which determines the efficacy of healthcare system and allows for objective evaluation of the quality of medical aid at the level of its main consumer – the patient. The primary objective of the reproductive health services system and its individual institutions are, namely: to implement the strategy of women management starting from their fetal life to the old age and ensure quality of life in adolescence, reproductive and postmenopausal periods.

Family Planning Service (FPS) is represented by the State Center for Family Planning and Reproductive Health, 25 regional family planning centers and 107 departments and offices in outpatient healthcare institutions, exactly ensures achievement of these objectives in Ukraine. The State Center for Family Planning and Reproductive Health was founded at the basis of State Institution “Institute of Pediatrics, Obstetrics and Gynecology of NAMS of Ukraine”. The center provides methodological, analytical and treatment services (consultation on family planning issues for women with extragenital diseases and HIV), as well as educational and advisory support to regional family planning centers across all administrative territories of Ukraine. During recent years the activity of the FPS, which was aimed at prevention of unwanted pregnancies and effective preconception care leaded to significant reduction of abortion rate.

Despite considerable success in this field, maternal and child death rates are above respective rates in European countries, and utilization rate of modern contraceptive methods in Ukraine remains low (as evidenced by statistical data on the abortion rate, which was 255 cases per 1,000 live births in 2015), inspite of WHO data regarding their role in maternal death rate reduction.

This can be explained by both, poor awareness of women and insufficient training of medical personnel, including family physicians – primary care providers, and obstetrician-gynecologists, and their understanding of the place and role of modern contraception use and effective preconception care in above mentioned rates reduction. In this context, the top priority still is awareness-raising and further implementation of the strategy on reliable contraception means and methods along with effective preconception care as a potent component of family planning.

Tasks of FPS in Ukraine with due consideration of global trends

Taking into account modern global trends, the principal goal of Family Planning Service in Ukraine is to improve women’s quality of life and time of active ageing, which achievement can be facilitated by the implementation of 3 priority tasks:

- continued realization of the strategy on reliable contraception use and implementation of effective preconception care to abortions prevention and maternal and newborns mortality rates reduction;
- reduction cardiovascular and oncological diseases (breast cancer, uterine and cervical cancer) incidence rate in women through development and implementation of respective screening programs, informational and preventive measures; implementation of best international practices with respect to FPS efficacy, review and update of family planning clinical protocol with further implementation of such practices at the national and regional levels (with the involvement of regional family planning centers).

Today, it is important to integrate FPS into the development of reproductive health system, which is aimed at the improvement of women quality of life of all age groups. With this in view, FPS should concentrate not merely on the is-
Micronutrient status and women reproductive health

Micronutrient deficiency can be responsible for increased risk of congenital anomalies in fetus and obstetric complications. In non-pregnant women, micronutrient deficiency leads to quality of life reduction and deterioration of physical well-being. Essential vitamins and microelements which are required for maintenance of women's reproductive health and health of future children include iodine, iron, vitamin D and folate.

**Iodine.** To prevent the occurrence of endemic cretinism and congenital thyroid diseases in children, for women living in iodine-deficient areas (nearly 100% of the territory of Ukraine) 150 mg/day iodine supplementation for 3 months before conception is required. The dose of iodine should be increased to 250 mg daily during pregnancy and lactation.

**Iron.** The decision on the iron supplementation shall be based on the blood tests results (blood ferritin, hemoglobin). The recommended daily dose of elemental iron for women of reproductive age is 30–60 mg (WHO, 2016). The dose of iron supplements should be increased for women with iron deficiency and severe anemia. Medical treatment of iron deficiency anemia is conducted by use of iron drugs (tablets, liquid form). In case of acute abnormal uterine bleeding intravenous iron drugs can be used.

**Vitamin D.** Vitamin D does not play a role in bone formation but also participate in mineral metabolism, cell proliferation and differentiation, synthesis of lipids, proteins, enzymes, hormones and organs activity, maintenance of protective and reproductive functions. The recommended daily dose of vitamin D for women of childbearing age is 600 IU. The decision on administration of higher vitamin D doses should be made based on blood 25-hydroxyvitamin D (25OHD) concentration.

**Folate.** In non-pregnant women, folate deficiency causes mild symptom-complexes, which significantly reduce the quality of life and physical well-being of a woman. Folate insufficiency increases the risk of neural tube defects (NTDs) development in fetus as well as pregnancy complications. According to EUROCAT (European Surveillance of Congenital Anomalies) data, the incidence of NTDs in Ukraine remains considerably high and is 21.57/10,000 births (2014). Moreover, Ukraine occupies the leading place among the European countries and America in terms of this disorder prevalence. High incidence rate of NTDs in Ukraine can be related to the lack of folate food fortification programs, insufficient dietary folate intake or its poor absorption (the studies have demonstrated that 52–60% of the persons in population have disturbances of folate cycle as a result of methylenetetrahydrofolate reductase (MTHFR) gene polymorphisms).

The studies have shown that nearly 40% of all pregnancies are unplanned and only 28.2% women (Canadian study) use supplements containing folic acid. It should be considered that folate deficiency and disturbance of folate cycle due to MTHFR gene polymorphisms lead to ac-
cumulation of homocysteine in the cells and increased total plasma homocysteine levels. Hyperhomocysteinemia is an independent risk factor of cardiovascular disorders. In view of this, all women of childbearing age should be advised on the benefits of folate (folic acid) during their visits to physicians, irrespective of whether they plan to become pregnant or not. Because many pregnancies are unplanned, it is recommended for all women of childbearing age to take 400 mg folate (folic acid), even if they do not plan to become pregnant.

Combined oral contraceptives (COCs) with active form of folate, with high absorption (even in case of enzymopathy) are reliable contraception method with additional benefits – they ensure adequate folate status in women of childbearing age. Use of COCs with folate in women of reproductive age results in reduced the risk of birth defects in case of unplanned conception (in case of poor adherence to treatment regimen) or during planned pregnancy immediately after discontinuation of hormonal contraception use. The treatment compliance in women using hormonal birth control pills is high (96.6–95.7%) women take COCs on a continuous basis, not missing the doses), which allows for simultaneous gradual and uninterrupted adjustment of blood folate concentration. Even in non-pregnant women, intake of COCs with folate provides the daily dose of folate essential for women's health maintenance.

Postpartum contraception

In general, hormonal contraception is 1.9 times more effective in ensuring optimal postpartum interval than barrier methods. Long-term hormonal contraception methods (including LNG-IUS), which efficacy is not influenced by women's compliance, increases this value to 3.9 times. There are two intrauterine systems containing progestin levonorgestrel registered in Ukraine (as of 06.02.2017): 52 mg LNG-IUS releasing 20 mg LNG daily; 13.5 mg LNG-IUS releasing 6 mg LNG daily (average values over 3-year period). Levonorgestrel intrauterine system is placed into uterus by physician for 3 (13.5 mg LNG-IUS) or 5 (52 mg LNG-IUS) years and releases LNG directly into the uterus.

LNG-IUS (13.5 mg) is a reliable and convenient contraception method for the postpartum period since it is placed for 3 years by this ensure the recommended postpartum interval and is not dependent on user compliance, which is particularly important for mothers with their day-to-day chores. LNG-IUS (13.5 mg) may be used during breast feeding following subinjection of uterus (6 weeks postpartum) because it does not affect the lactation. Apart from contraceptive effect, LNG-IUS (13.5 mg) positively affects the hemoglobin levels, which is important for many women presenting with low hemoglobin concentrations postpartum.

LNG-IUS (52 mg) – is an effective method of contraception for women requiring not only birth control but also the management of abnormal uterine bleedings (AUB).

Methods of contraception for perimenopausal women

Contraception use in women of older childbearing age is a topical issue in a view of the changes in the age pattern of feminine population in Ukraine. Currently, the share of women over 50 in the general feminine population is 47% vs 38% in 2006. It is often falsely assumed that perimenopausal women require no contraception. Advancing female age is really associated with decreased fertility and reduced quality and quantity of oocytes, however the majority of women of this age group have husbands or partners and are sexually active. Women over 45 years may become pregnant even with the absence of menses. Pregnancy during perimenopause is often considered undesirable in a view of the increased incidence of chromosome aberrations and the higher risks of pregnancy complications, perinatal and maternal death. Abortions in perimenopausal women are often characterized by exacerbation of gynecologic and extragenital disorders, and increased severity of climacteric syndrome. Therefore, selection of contraception method should be based not only on its efficacy in preventing unwanted pregnancy but also on its ability to contribute to maintenance of woman's health and improvement of her quality of life. According to WHO criteria, woman's age as a sole factor should not be a contradiction for the use of available methods of contraception.

With reference to National consensus on patients' management in climacteric period women should continue contraception use during 1 year after last menstruation, if she is older than 50 years old and in women under 50 – for two years after last menstruation.

Severe AUBs are common in women aged 45–47 and lead to significant deterioration of women's quality of life. Therefore, estradiol valerate/dienogest combination, indicated for the treatment of AUBs commonly occurring in perimenopause due to anovulation, is the best option. Optimal choice is a dynamically dosed COC containing natural estrogen (estradiol valerate/ dienogest). The dynamic dosing regimen of estradiol valerate COCs is associated with relatively stable levels of estrogens throughout the whole cycle, which positively affects the vasomotor symptoms and mood swings; ensures adequate supply of woman's body with natural estrogen; has minimum effect on metabolic and hemostatic systems. Clinical trials data suggest that shortening of hormone-free interval to 2 days, as is the case with estradiol valerate/dienogest combination, can significantly alleviate climacteric symptoms and hormone withdrawal-associated symptoms as compared with standard 7-day hormone-free intervals used in the majority of COCs.

In perimenopausal women with abnormal uterine bleedings and/or dysmenorrhea, cardiovascular diseases who want to use intrauterine contraception, the preference should be given to LNG-IUS (52 mg) over other intrauterine contraceptives. LNG-IUS (52 mg) allows to 97% blood loss, maintenance increase of hemoglobin and ferritin levels improving in such a way to improve women quality of life. Woman aged 45 and older treated with LNG-IUS for contraception purpose may use the system for 5 years or, in case of amenorrhea, until a diagnosis of menopause will be made. Severe AUBs are common in women aged 45–47 and lead to significant deterioration of women's quality of life. Appropriate treatment algorithm includes the use of LNG-IUS for the purpose of contraception and subsequent switch to hormone replacement therapy in combination with estrogen. LNG-IUS (52 mg) allows to reduce the risk of hysterectomy, prevent endometrial hyperplasia,
endometrial and ovarian cancers, reducing of dysmenorrhea (incl. associated with endometriosis). LNG-IUS can be used in women with extragenital pathology (cardiological disorders, diabetes mellitus, obesity).

**Counseling and contraception method choice for HIV-positive women**

As part of the improvement process of organizational and clinical technologies related to effective family planning services providing in Ukraine, the top priority should be given to family planning services for HIV-positive patients due to the fact that unwanted or unintended pregnancies constitute currently the major risk factor of vertical HIV transmission and child abandonment in the country (48.0% of pregnancies in HIV-infected women that have given birth to HIV-positive children were unintended; 50% of families in Ukraine are discordant; 27.0% of all HIV-infected women have HIV-negative partner postpartum; the family planning needs of 40.0% HIV-infected women are not met; 35.6% of all HIV-positive children are social orphans). All of the foregoing indicates the urgent need for development of effective measures of preventing unintended pregnancies in HIV-infected women.

**Counseling and contraception choices for service women**

Due to the extensive integration of women in the defense system, their share in the modern Ukrainian army is constantly growing and today is over 50 000. Ukrainian military women – a unique demographic group of contemporary Ukrainian feminine population, which has the highest risks to their own health and health of their future children.

In order to effectively perform their duties, especially during military operations, service women have significantly higher needs of modern methods and regimens of contraception compared with civilian women. In addition to preventing unplanned pregnancy, these requirements are also driven by the need in alleviation of menstrual symptoms and suppression of menstruation. Interest in temporary amenorrhea is generated, on the one hand, by the desire of military women to minimize gender differences in physical fitness during their service in a predominantly masculine environment and, on the other hand, by problems concerned with sanitary and hygiene that become more pronounced during military deployment.

Preventive counseling is recommended for women as they join the Ukrainian military service to provide timely identification of gynecological diseases and prescribe adequate contraception (for suppression of menstruation and associated symptoms) – COC in continuous regimen or LNG-IUS.

Continuous administration of COCs allows for both, improvement of the quality of life of military women and reduction of the risks of dys hormonal disorders of the reproductive system. Absence of significant hormonal and metabolic fluctuations as a result of drug-induced inhibition of ovulation contributes to the maintenance of adaptive capacity of service women and reduction of the risks of post-traumatic stress disorders, which occurrence in women of this social and occupational group more than 2-fold exceeds the occurrence in men. In case of LNG-IUS use, women do not have to adhere to treatment regimen or carry a sufficient supply of condoms or COCs during disposition and military operations. Reduction in the menstrual blood loss is another benefit of LNG-IUS for service women who have chosen intrauterine contraception as birth control method.

Local “Family Planning” unified clinical protocol of primary, secondary (specialized) and tertiary (highly specialized) medical care on family planning should be updated taking into account abovementioned, because modernization of FPS development approaches in Ukraine with due consideration of effective international practices and specifics of local health-care system will contribute to the improvement of the health of women and their children, strengthening of family values and thus lead to general improvement of demographic situation in the country.

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ОПТИМІЗАЦІЯ СЛУЖБИ ПЛАНИРОВАНИЯ СЕМЬИ В УКРАЇНІ В РЕАЛІЗАЦІЇ СОВРЕМЕННОЇ СТРАТЕГІЇ СОХРАНЕНИЯ ЗДОРОВЬЯ ЖЕНЩИН

Резолюція експертного совета від 24 лютого 2017 року, Київ

Основною метою системи та окремих закладів охорони репродуктивного здоров’я є впровадження стратегії ведення жінки від її внутрішньоутробного розвитку до старості та забезпечення якості життя в губернаторському, репродуктивному і постменопаузальному періодах. Рівень материнської та молочної смертності в Україні перевищують відповідні показники в країнах Європи, а використання сучасних методів контрацепції залишається низьким. Це може пояснити також недостатністю обізнаністю жінок, так і недостатньою підготовкою медичного персоналу. З огляду на це актуальним завданням залишається проведення інформаційно-просвітницької діяльності та подальша реалізація стратегії з використання надійних засобів і методів контрацепції, а також впровадження ефективної передгравідарної підготовки як дієового елементу планування сім’ї.

З урахуванням сучасних світових тенденцій ключовою метою служби планування сім’ї в Україні є покращення якості життя та продовження активного довголіття жінки, досягнення чого сприятиме реалізація трьох приоритетних завдань:

• подальша реалізація стратегії з використання надійної контрацепції та впровадження ефективної передгравідарної підготовки з метою профілактики аборто́в, зниження материнської та малюкової смертності;
• зниження рівня захворюваності жінок на серцево-судинні та онкологічні захворювання шляхом розробки та впровадження відповідних скринінгових програм та інформаційно-профілактичних заходів;
• реалізація сучасного міжнародного досвіду щодо ефективності служби планування сім’ї, перегляд клінічного протоколу з питань планування сім’ї та його подальше впровадження на національному та регіональному рівнях.

З урахуванням цього в Резолюції експертної ради зазначені основні завдання щодо імплементації сучасного міжнародного досвіду та його подальшого впровадження на національному рівні, а також запроваджено зміни та доповнення до Клінічного протоколу первинного, вторинного (спеціалізованого), третинного (високоспеціалізованого) медичного допомоги «Планування сім’ї», затвердженого наказом МОЗ України № 59 від 21 січня 2014 року. Основні доповнення і зауваження торкнені питань мікронутрієнтного статусу і репродуктивного здоров’я жінки, методів контрацепції для жінок в перименопаузі, консультації та підбору методів контрацепції для ВІЛ-позитивних жінок. Окрема увага приділена консультації та підбору методів контрацепції для жінок-військовослужбовців.

Ключові слова: планування сім’ї, резолюція, контрацепція.

OPTIMIZATION OF FAMILY PLANNING SERVICE IN UKRAINE IN THE REALIZATION OF MODERN STRATEGY OF WOMAN HEALTH MAINTENANCE

Resolution of Advisory Board from February 24, 2017, Kyiv

The primary objective of the reproductive health services system and its individual institutions are, namely: to implement the strategy of women management starting from their fetal life to the old age and ensure quality of life in adolescence, reproductive and postmenopausal periods. Maternal and child death rates are above respective rates in European countries, and utilization rate of modern contraceptive methods in Ukraine remains low. This can be explained by both, poor awareness of women and insufficient training of medical personnel.

Taking into account modern global trends, the principal goal of Family Planning Service in Ukraine is to improve women’s quality of life and time of active ageing, which achievement can be facilitated by the implementation of 3 priority tasks:

• continued realization of the strategy on reliable contraception use and implementation of effective preconception care to abortions prevention and maternal and newborns mortality rates reduction;
• reduction cardiovascular and oncological diseases incidence rate in women through development and implementation of respective screening programs, informational and preventive measures;
• implementation of best international practices with respect to Family Planning Service efficacy, review and update of family planning clinical protocol with further implementation of such practices at the national and regional levels.

Considering this, the Resolution of Advisory Board outlines the main tasks for the implementation of modern international experience and its further implementation at the national level, and amendments to the clinical protocol of primary, secondary (specialized) and tertiary (highly specialized) medical care (approved by the order of MOH of Ukraine No. 59 dated January 21, 2014) “Family Planning”. The main additions and comments touched upon the issues of micronutrient status and reproductive health of women, contraceptive methods for women in perimenopause, counseling and selection of contraceptive methods for HIV-positive women. Particular attention was paid to counseling and selection of contraceptive methods for women military personnel.

Keywords: family planning, resolution, contraception.