

MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Belarusian State Medical University

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OBSTETRICS AND GYNECOLOGY
Teaching curriculum in the speciality
1-79 01 01 General Medicine (in English)
Specialization 1-79 01 01 01 Military Medicine

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Curriculum is composed on the basis of the "Obstetrics and Gynecology" standard program approved _____ « 29 » 04 2016, registration № 2014.546/mun

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It is discussed at the Obstetrics and Gynecology Department methodology meeting, BSMU. protocol №9 dated 19.04.2016;

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EXPLANATORY NOTE

Obstetrics and gynecology is an academic subject containing a system of scientific knowledge about the course of physiological and pathological processes, occurring in the female organism and conditioned by its anatomical and physiological features, as well as the conception, pregnancy, labor and postpartum period; about the methods of diagnostics, treatment, prevention of complications of the pregnancy, labor, postpartum period, diseases of the fetus and newborn, as well as the diseases of the reproductive system organs at different age.

The typical curriculum is developed according to the following standard documents:

The typical curriculum of subject «Obstetrics and Gynecology» includes the newest scientific data in the field of obstetrics and gynecology, general and special subjects, integration with which is provided by teaching Obstetrics and Gynecology. The special feature of the new typical curriculum consists in formulating the tasks of studying and teaching the subject, aimed at the formation of academic, personal-social and professional competence in the students.

The program differs from the previous one by the changes introduced according to the new educational standard of the Republic of Belarus in the speciality «General Medicine», as well as due to the achievements of modern science and practice in the field of obstetrics and gynecology. Taking into account these changes the following themes: «Extragenital and gynecological pathology accompanying pregnancy», «Operative methods of delivery», «Operative gynecology» have been revised. New issues such as: «Medical genetic consultation», «Assisted reproductive technologies», «Endosurgical methods of treatment in gynecology», «Reconstructive plastic operations aimed at the preservation of reproductive function and improvement of women's quality of life» have been included. The themes are revised taking into account innovations in health care services and the «National Program of Demographic Safety of the Republic of Belarus».

The purpose of teaching and studying the subject «Obstetrics and Gynecology» consists in forming and acquiring scientific knowledge about physiological and pathological processes occurring in the female organism at various age periods, as well as during the pregnancy, labor, and postpartum period.

Subject studying tasks consist in acquiring the academic competence by the students, its basis being made by the ability to an independent search of educational information resources, mastering the methods of gaining and comprehending the knowledge of:

- basic concepts of obstetrics and gynecology;
- causes and mechanisms of developing pathology during pregnancy, labor, and postpartum period;
- major manifestations of typical gynecological diseases, including in adolescent girls;
- basic methods of the treatment, rehabilitation and prevention of

gynecological diseases;

- principles of prophylactic medical follow-up examination of the females.

Subject teaching tasks consist in the formation of the personal-social and professional competence which basis consists in:

- knowledge and application of the principles of legislation on protecting the health of the mother and child, principles of providing obstetrical and gynecological care in the Republic of Belarus, prospects of the development of health care services aimed at the improvement of the population's health;
- knowledge of fundamentals of sanitary and epidemiologic rules in obstetrical and gynecological institutions aimed at the prevention of infectious inflammatory diseases in pregnant women, parturients, puerperas, newborns and gynecologic patients;
- knowledge of reproductive medicine fundamentals;
- mastering the methods of examination of pregnant women, parturients, puerperas, newborns and gynecologic patients, as well as girls and adolescents, which will contribute to the formation of clinical thinking while following the regulations of medical ethics and deontology;
- ability to use knowledge received in the course of training for the diagnostics of physiological pregnancy, labor, postpartum period and the period of newborn;
- ability to diagnose and determine the tactics of managing pathological pregnancy, labor, and postpartum period;
- ability to diagnose gynecologic diseases and be familiar with the methods of their treatment;
- ability to render medical aid in emergency situations in obstetrical and gynecological practice;
- acquiring knowledge and skills in the prevention of developing pathology during pregnancy, labor and postpartum period taking into account risk groups and mastering the methods of rehabilitation after having a certain type of pathology;
- acquiring knowledge concerning special features of extragenital diseases course, surgical and gynecologic pathology during pregnancy as well as their influence on pregnancy course and outcome, the condition of the mother, fetus and newborn;
- mastering the methods of preventing gynecologic diseases at various age periods of life and the rehabilitation of gynecologic patients;
- acquiring knowledge in the administration of medicines used in obstetrics and gynecology;
- acquiring knowledge concerning application of assisted reproductive technologies, possibilities of endosurgical and other methods of treatment for the preservation and restoration of women's reproductive health.

The specificity of training doctors in the speciality «General Medicine» determines the necessity for the students to study intentionally the organization of obstetrical gynecological care, including the specialized one in the Republic of Belarus,

the influence of the pathological course of pregnancy, labor, the postpartum period as well as gynecologic pathology on reproductive health. Special attention should be paid to studying the risk factors of obstetrical and gynecologic pathology development, prevention methods, including the ensuring of sanitary epidemic well-being of the population, complications of pregnancy, labor, postpartum period and gynecological diseases, undesirable pregnancy, including in adolescent girls to preserve reproductive health.

Teaching and successful mastering of the subject «Obstetrics and Gynecology» is carried out on the basis of the knowledge and skills acquired by the student in the following disciplines:

General chemistry. Chemical elements and their compounds. Chemical reactions.

Bioorganic chemistry. Inorganic and organic chemical compounds. Rheological properties of tissues and biological fluids. The exchange of organic tissue substances.

Medical and biological physics. Medical devices and the equipment, used in obstetrics and gynecology. The structure and destination of medical equipment, safety measures of work with electric devices. X-ray radiation and its biophysical action mechanisms. Fundamentals of medical statistics and informatics.

Biological chemistry. The structure, functions and exchange of amino acids, nucleic acids, proteins, carbohydrates, lipids. Biosynthesis of nucleic acids and proteins. Energy metabolism in cells. Cellular membranes. Passive and active transport of substances through the membrane structures of cells. Fundamentals of molecular genetics. Biochemical constituents of blood, lymph and amniotic fluid.

Latin language. Practical skills in grammar and word-formation principles. Knowledge of the meaning of Latin word-formation elements and a certain minimum of medical terminology in Latin.

Medical biology and general genetics. Gametogenesis, fertilization, intrauterine development periods, biological determinants of a person's sex.

Human anatomy. The structure of the human body, systems composing it, organs, tissues, organism's sexual and age peculiarities. Nomina Anatomica.

Histology, cytology, embryology Methods of histological and cytological investigations. Histological structure of the uterus, fallopian tube, ovary, mammary gland; folliculogenesis; histogenesis and organogenesis. International histological terminology.

Normal physiology. Main principles of physiological functions formation and regulation. Formation, secretion, metabolism, excretion of hormones of the adenohypophysis and endocrine glands.

Microbiology, virology, immunology. Organism's microflora, specific and nonspecific protective factors. Methods of diagnosing infectious agents of female genitals of nonspecific and specific etiology.

Pathological anatomy. Inflammation, dystrophy, oncogenesis: notion and

biological essence.

Pathological physiology. The doctrine about pathogenesis. The role of the organism's reactivity in pathology. The mechanism of pain. Allergic reactivity of the organism. Pathological physiology of infectious, tumoural process.

Pharmacology. Pharmacodynamics and pharmacokinetics of medicines. Main principles of medicines action. Side and toxic effects of drugs.

Topographical anatomy and operative surgery. Topography of the organs of the abdominal cavity and the organs of small pelvis.

Propedeutics of internal diseases. General clinical and laboratory methods of examination.

General surgery. Aseptics and antiseptics, surgical armaments, types and techniques of laparotomy, suture techniques.

Radiologic diagnostics and radiation therapy. Radiologic diagnostics of gynecologic pathology. Differential diagnostics on the basis of radiologic methods of examination. Roentgenological symptomatology. Main principles of radiation therapy.

The structure of the curriculum of the subject «Obstetrics and Gynecology» includes 12 sections.

Requirements to the level of knowledge of the student on completing the discipline studying

The student must know:

- purposes, tasks and peculiarities of the organization of rendering medical aid to patients with obstetrical and gynecologic conditions in out-patient and in-patient institutions of the Republic of Belarus;
- sanitary and epidemiologic rules in obstetrical and gynecological in-patient departments of hospitals;
- actions for the prevention of nosocomial infection in maternity hospital;
- issues of deontology in obstetrics and gynecology, including children's gynecology;
- place and role of obstetrical and gynecological diseases in the general structure of human's pathology;
- basic indexes of the female population health, causes of maternal, perinatal and infant mortality;
- indications and contra-indications for pregnancy prolongation in the most frequent extragenital, surgical and gynecologic pathology;
- clinical and laboratory signs of main diseases in obstetrics and gynecology;
- indications for hospitalization;
- physiological processes occurring in the female reproductive system organs at various age periods;
- physiological processes occurring in the female organism due to the conception, pregnancy, labor and in postpartum period;
- physiological course and the principles of managing pregnancy, labor,

postpartum period; primary sanitation and cleansing of the newborn and peculiarities of the early neonatal period course;

- methods of the assessment of the functional system «mother - placenta - fetus» condition;

- etiology and pathogenesis of the complications of pregnancy, labor, postpartum period, as well as gynecological diseases and anomalies of the development of female genitals in different age groups;

- classification, clinical manifestations, diagnostics, differential diagnostics, treatment and prevention of complications of pregnancy, labor, postpartum period and main gynecologic diseases;

- basic stages of operative interventions in obstetrical and gynecologic practice;

- principles and methods of general and local anesthesia used in obstetrics and gynecology;

- indications and contra-indications for sanatorium treatment of pregnant women, puerperas and gynecological patients;

- fundamentals of rehabilitation and prophylactic dispensary medical examination of pregnant women, puerperas and gynecological patients.

The student must **be able**:

- to take general and the obstetrical gynecologic history of a pregnant woman, parturient, puerpera and gynecological patient;

- to carry out general examination and to estimate the general condition of a pregnant woman, parturient, puerpera and gynecological patient;

- to carry out an objective external examination of the woman: external obstetrical examination, measurement of the pelvis sizes;

- to determine the term of pregnancy and the date of labor;

- to determine the intrauterine fetus weight;

- to auscultate the fetus heartbeat with a fetoscope;

- to work on his/her own with teaching, scientific, regulatory and reference books;

- to interpret the results of clinical laboratory investigations of pregnant women, parturients, puerperas and gynecological patients for the diagnostics and differential diagnostics of a pathological condition;

- to reveal the risk factors for an obstetrical and gynecological pathology development;

- to reveal the peculiarities of the course of pregnancy, labor and postpartum period;

- to render emergency aid in case of gestosis; bleedings; hemorrhagic and infectious toxic shock; the disseminated intravascular coagulation (DIC syndrome);

- to solve deontological problems associated with gathering the information, prevention, diagnostics and rendering medical aid to pregnant women, parturients, puerperas and gynecological patients.

The characteristic of recommended methods of training. While organizing the training it is recommended to use the traditional methods of teaching: lectures, practical classes and also the elements of controlled independent students' work. Training is recommended to be organized with the use of traditional and modern educational and information resources (computer presentations of lectures and practical classes), interactive resources in the local computer network of the high school and Internet.

It is recommended to carry out practical training in obstetrics and gynecology in obstetrical and gynecological in-patient departments of hospitals, antenatal maternity clinics where students under the teacher's guidance participate in the examination of pregnant women, parturients, puerperas and gynecological patients; develop plans of examination and treatment of women, management of normal and pathological labor, participate in clinical analyses and conferences, carry out the analysis of obstetrical and gynecological documentation together with an assessment of the quality of examination, correctness and timeliness of making the diagnosis, choice of therapeutic or obstetrical tactics.

The composing of «Case history of labor» and «Gynecologic case history» is recommended. It is recommended to perform a current control of students' preparation by daily students' oral answers, solving situational and phantom problems, testing.

The use of computer test control of students' knowledge is also recommended. The subject «Obstetrics and Gynecology» makes up 332 academic hours. Including: (32 hours of lectures, 135 hours of practical classes), 165 independent work of students.

Current assessment is carried out according to the typical curriculum in the form of credit test (semester 7) and examination (semesters 8, 10).

The final certification is the graduation examination.

Form of education – full-time.

They are allocated for semesters as follows

Code, speciality, specialization	Semester	Total hours of classes					Forms of certification
		Total	Academic hours	including		Independent work	
				Lectures	Practical classes		
1-79 01 01 General Medicine	7	74	48	8	40	26	credit test examination
	8	110	45	10	35	65	
	9	58	38	8	30	20	examination
	10	90	36	6	30	54	
Total:		332	167	32	135	165	graduation examination

APPROXIMATE SUBJECT SCOPE

Title of the section	Number of academic hours	
	Lectures	Practical classes
1. Organization of obstetrical and gynecological care	1	3
1.1. General issues	1	-
1.2. Organization of medical care to pregnant women, parturient women and puerperas	-	2
1.3. Organization of gynecological care	-	1
2. Anatomical and physiological peculiarities of the female reproductive system	1	2
3. Perinatology	-	5
4. Physiological (normal) pregnancy	2	5
5. Physiological (normal) labor	-	10
6. Extragenital and gynecological pathology accompanying pregnancy	4	20
6.1. Diseases of the cardiovascular system	1	3
6.2. Endocrine pathology	1	2
6.3. Diseases of the urinary system	1	2
6.4. Blood diseases	1	1
6.5. Liver diseases	-	2
6.6. Acute surgical pathology	-	2
6.7. Gynecological pathology	-	3
6.8. Infectious diseases	-	5
7. Pathology of pregnancy and labor	6	23
7.1. Pregnancy and labor in breech birth	-	2
7.2. Wrong fetus positions and presentations	-	2
7.3. Multiple pregnancy	-	1
7.4. Incomplete and prolonged pregnancy	2	2
7.5. Hemorrhages in obstetrics	2	5
7.6. Gestosis	2	5
7.7. Anomalies of labor activity	-	3
7.8. Contracted (narrow) pelvis	-	1
7.9. Birth injury	-	2
8. Operative methods of delivery	2	2
9. Postpartum period	2	5
9.1. Physiology of the postpartum period	-	2
9.2. Postpartum period pathology	2	3
10. Gynecology	16	50

10.1. Main symptoms of gynecological diseases	1	-
10.2. Methods of the examination of gynecologic patients	1	5
10.3. Malposition of female genitals	2	5
10.4. Menstrual function and its disorders	-	5
10.5. Neuroendocrine syndromes in gynecology	2	5
10.6. Inflammatory diseases of the female genitals	2	10
10.7. Background, pre-cancer and benign diseases of the female reproductive system organs	2	10
10.8. Gynecological diseases requiring an urgent medical aid	2	5
10.9. Operative gynecology	-	5
11. Infantile gynecology	-	5
12. Infertile marriage and family planning issues	2	5
Total number of academic hours	32	135

TEACHING MATERIAL

1. Organization of the obstetrical and gynecological care

1.1. General issues

Basic stages of the development of obstetrics and gynecology.

The system of motherhood and childhood protection, principles of the organization of rendering obstetrical gynecological aid. Maintenance of sanitary epidemic well-being of the population.

The notion of demography. The demographic policy of the state. Modern demographic tendencies in the world and in the Republic of Belarus

Main principles of ethics and deontology in obstetrics and gynecology.

1.2. Organization of medical care to pregnant women, parturients and puerperas

The structure and basic indexes of the work of antenatal maternity clinics and maternity hospitals. Sanitary and epidemiologic rules in obstetrical institutions.

Prophylactic medical follow-up examinations of pregnant women and puerperas.

Specialized obstetrical gynecological care.

Medical and genetic consultation.

Maternal mortality and the ways of its decrease.

1.3. Organization of the gynecological care

Organization and the basic indexes of the work of antenatal maternity clinics and gynecological in-patient departments of hospitals treating gynecological patients.

Prophylactic medical follow-up examinations of women with gynecological pathology.

Organization of gynecologic aid to children and teenagers.

Principles of therapy and medical rehabilitation expert examination in gynecology.

2. Anatomical and physiological peculiarities of the female reproductive system

Peculiarities of development and structure of female genitals at different age periods.

External and internal genitals. Mammary glands.

Physiology of the female reproductive system.

3. Perinatology

The objective and tasks of perinatology.

Perinatal mortality and the ways of its decrease.

Perinatal protection of the fetus and newborn.

Critical periods in the embryo and fetus development.

Fetus developmental anomalies and pathology: influence of harmful environmental factors on the organism of the mother and fetus, fetus congenital developmental anomalies, placental insufficiency, fetal hypoxia, intrauterine fetus growth retardation.

4. Physiological (normal) pregnancy

The formation of the functional system «mother - placenta - fetus»: fertilization, early embryogenesis, implantation, development and functions of the placenta, function of the amniotic fluid, the structure and functions of the umbilical cord and placenta.

Fetus physiology: the fetus during certain periods of the intrauterine development, the fetus as an object of the labor.

Changes in the female organism during pregnancy.

Diagnostics of pregnancy.

Pregnant women examination: questioning and objective examination, determining the term of pregnancy and the date of the labor, granting a medical certificate of incapacity of work to pregnant women and puerperas.

Female pelvis in terms of obstetrics. Pelvic floor.

Methods of the assessment of the fetus condition.

Methods of examination of the placenta functional condition.

Methods of examination of the amniotic fluid.

Physiological pregnancy: its course and management.

Regular medical check-ups of pregnant women in antenatal maternity clinics.

Fundamentals of the balanced diet of pregnant women.

Regimen and personal hygiene of pregnant women.

Principles of preparation of pregnant women to the labor.

The evaluation of readiness of the pregnant woman's organism to the labor.

5. Physiological (normal) labor

Causes of the approach of the labor.

Stage of expulsion.

Labor precursors. The preliminary period.

Clinical course of the delivery: periods of the delivery and their characteristics, the duration of the delivery.

Principles of managing the act of delivery.

Management of the labor in the period of cervix dilation. Partogram.

Management of the delivery in the period of fetal expulsion. The biological mechanism of the labor with anterior and posterior types of the occipital delivery. Primary sanitation and cleansing of the newborn.

Management of the postpartum period. Methods of assessing postpartum hemorrhage.

Labor pain control.

The induced and programmed labor.

6. Extragenital and gynecological pathology accompanying pregnancy

6.1. Diseases of the cardiovascular system

The course of pregnancy in women with acquired and congenital heart defects. Indications for the abortion.

Managing pregnancy in women with acquired and congenital heart defects. Indications for the abortion.

Delivery in women with heart defects, the management of the postpartum period.

The course of pregnancy and its management in women with hypertension. Indications for the abortion. The treatment of hypertension during pregnancy. Delivery in women with hypertension, the management of the postpartum period.

The course of pregnancy and its management in women with arterial hypotension. Indications for the abortion. The treatment of arterial hypotension during pregnancy. Delivery in women with arterial hypotension, the management of the postpartum period.

6.2. Endocrine pathology

Peculiarities of diabetes mellitus course and diagnostics at different terms of pregnancy.

The course of pregnancy and its management in women with diabetes mellitus. Indications for the abortion.

The impact of diabetes mellitus on the fetus and newborn development.

Delivery in women with diabetes mellitus, the management of the postpartum period.

Thyroid gland diseases: hypothyroidism and thyrotoxicosis. The course and management of pregnancy, labor, postpartum period. Complications for the mother, fetus and newborn. Indications for the abortion.

6.3. Diseases of the urinary system

Peculiarities of the course and diagnostics of pyelonephritis, glomerulonephritis, urolithiasis in pregnant women.

The course of pregnancy and its management. Indications for the abortion.

6.4. Blood diseases

Anemia and pregnancy.

Hereditary and congenital thrombophilia. Thrombocytopathy.

6.5. Liver diseases

Acute and chronic virus hepatitis, primary cholestatic liver impairments, hepatolenticular degeneration: the course and management of pregnancy, labor, postpartum period. Complications for the mother, fetus and newborn. Indications for the abortion.

6.6. Acute surgical pathology

Appendicitis, pancreatitis, cholecystitis, gastric and duodenal ulcers, intestinal obstruction: peculiarities of the course and diagnostics at different terms of pregnancy.

The course and management of pregnancy.

Indications for the abortion.

Methods of delivery and the management of the postpartum period.

6.7. Gynecological pathology

Peculiarities of the course and diagnostics of an accompanying gynecological pathology at different terms of pregnancy: sexually transmitted diseases (Chlamydia infection, mycoplasmosis, syphilis, gonorrhea, HIV), hysteromyoma, ovarian neoplasms.

The course and management of pregnancy.

Indications for the abortion.

Methods of treating gynecological pathology during pregnancy.

Reconstructive plastic operations on pregnant women in the presence of hysteromyoma. Organ-preserving operations in pregnancy in the presence of ovarian neoplasms.

Delivery and management of the postpartum period.

6.8. Infectious diseases

Cytomegalovirus and herpes infections, the grippe, rubella, measles, listeriosis, tuberculosis, toxoplasmosis: the course and management of pregnancy, labor, postpartum period. Complications for the mother, fetus and newborn. Indications for the abortion.

7. Pathology of pregnancy and labor

7.1. Pregnancy and labor in breech birth

Etiology, classification, diagnostics and prevention of breech presentation.

The course and management of pregnancy, complications during pregnancy.

Correction methods in breech presentation.

The course and management of the labor.

Operative aids in the breech labor.

7.2. Wrong fetus positions and presentations

The pregnancy and labor at shoulder presentation and oblique lie of the fetus: etiology, diagnostics, tactics of managing the pregnancy, operations correcting wrong fetus positions (obstetrical turning).

Extension cephalic presentation.

Deviations from the normal biological mechanism of the labor in vertex

presentation.

7.3. Multiple pregnancy

Etiology, pathogenesis, diagnostics.

Pregnancy course and management.

Labor course and management.

7.4. Incomplete and prolonged pregnancy

Incomplete pregnancy: etiology, pathogenesis, classification, diagnostics, clinical picture, tactics of managing pregnancy.

Social aspects and prevention of miscarriage.

Diagnostics, course and tactics of managing premature birth.

Anatomical and physiological characteristic of the premature newborn.

Prolonged pregnancy: etiology, pathogenesis, diagnostics, prevention, tactics of managing pregnancy.

Differential diagnostics of post-term and prolonged pregnancy.

Diagnostics, course and tactics of managing the delayed labor.

Anatomical and physiological characteristic of the postmature newborn.

7.5. Hemorrhages in obstetrics

Etiology, pathogenesis, classification, methods of diagnosing hemorrhages during pregnancy.

Etiology, pathogenesis, classification, methods of diagnosing hemorrhages in the labor and early postpartum period.

Hemorrhages in early terms of pregnancy.

Hemorrhages in late terms of pregnancy, in the first and second periods of labor: placental presentation, premature abruption of the normal placenta.

Hemorrhages in the placental stage and early postpartum period.

Disseminated intravascular coagulation (DIC-syndrome): clinical picture, treatment methods, prevention, rehabilitation.

Haemorrhagic shock: clinical picture, treatment methods, prevention, rehabilitation.

Amniotic fluid embolism: clinical picture, treatment methods, prevention, rehabilitation.

7.6. Gestosis

Etiology and pathogenesis, classification, diagnostics methods, principles of intensive therapy.

Early gestosis: clinical picture of frequently and seldom occurring forms, tactics of managing pregnancy, indications for pre-term abortion, treatment, prevention, rehabilitation.

Late gestosis: clinical picture, tactics of managing pregnancy, treatment depending on the severity, terms and methods of delivery, labor management, indications for pre-term delivery, prevention, rehabilitation.

Atypical gestosis: etiology, pathogenesis, clinical picture, diagnostics, obstetrical tactics.

7.7. Anomalies of labor activity

Etiology, pathogenesis, classification, diagnostics methods.

Clinical picture of the pathological preliminary period, powerless labor, accelerated (precipitated) labor and discoordinated labor.

Tactics of managing labor. Complications for the mother and fetus.

Methods of correction of labor activity anomalies. Prevention.

7.8. Contracted (narrow) pelvis

Etiology, classification, methods of the diagnostics of bone pelvis anomalies, prevention.

The course and management of pregnancy in various forms of anatomically contracted pelvis.

The course and management of the labor in various forms of anatomically contracted pelvis. Complications for the mother and fetus.

Labor biomechanism in various forms of contracted pelvis.

Causes of cephalo-pelvic disproportion.

Methods of the diagnostics of cephalo-pelvic disproportion.

Managing labor in women with cephalo-pelvic disproportion. Complications for the mother and fetus. Prevention.

7.9. Birth injury

Causes, classification, methods of the diagnostics of birth injuries of the mother and fetus.

Clinical picture, treatment and prevention: hysterorrhexis, vaginal birth injury, postpartum fistulas, pubis diastasis and rupture, postpartum inversion of the uterus.

Birth fetal injury: cephalohematoma, intracranial hemorrhages, traumas of the skeleton, peripheral and central nervous system, organs of the abdominal cavity.

8. Operative methods of delivery.

Caesarean section: stages of the Caesarean section operation development; kinds of the operation; indications, contra-indications and conditions for carrying out the operation; preoperative preparation and pain control, intraoperation complications in the postoperative period.

Techniques of laparotomy inferomedian incision, the Pfannenstiel incision, the Joel-Cohen incision.

The Caesarean section in the bottom segment of the uterus. Caesarean section by M. Stark technique. Corporeal Caesarean section. Extraperitoneal Caesarean section. Caesarean section with isolation of the abdominal cavity.

Minor Caesarean section. Vaginal Caesarean section.

Managing the postoperative period.

Modern methods of the assessment of the uterine scar condition. Tactics of managing pregnant women with the uterine scar, optimum terms and methods of delivery, complications.

Obstetrical forceps: models and structure; indications, contra-indications, conditions for applying obstetrical forceps; pain control methods; rules and stages of

the operation of applying obstetrical forceps; difficulties and complications while carrying out the operation; techniques of applying of outlet and "mid or low" forceps; complications for the mother and fetus.

Vacuum extraction of the fetus: indications, contra-indications, conditions for carrying out the operation, the operation technique, complications for the mother and fetus.

Embryotomy operations: indications, contra-indications, conditions for carrying out the operation, kinds of operations, complications for the mother.

9. The postpartum period

9.1. Physiology of the postpartum period

Changes in the puerpera's organism.

The course and management of the postpartum period.

Anatomical and physiological features of the newborn.

Rooming-in of the mother and newborn. Principles of breast feeding.

9.2. The postpartum period pathology

Postpartum purulent septic diseases: etiology, pathogenesis classification, course features and therapy principles.

Lactational (puerperal) mastitis, chorioamnionitis, postpartum ulceration, endometritis, thrombophlebitis, parametritis, pelviperitonitis, peritonitis, sepsis, infectious toxic shock – clinical picture, diagnostics, treatment.

Postpartum hypothalamic syndrome.

10. Gynecology

10.1. The main symptoms of gynecologic diseases

Classification, clinical picture, diagnostics: pain symptom, pathologic discharge (leucorrhoea), itching, menstrual disorders, sterility (infertility), impairment of adjacent organs function.

10.2. Methods of the examination of gynecologic patients

General, special and additional methods of examination.

Peculiarities of the examination of children and adolescent girls.

Clinical methods of examination: case history, general and objective examination, the examination and palpation of mammary glands, examination and exploration of external and internal genitals.

Methods of exploration of ovary functions: functional diagnostics tests, determining the hormone concentration in blood plasma and in urine, hormonal tests.

Morphological methods of exploration.

Endoscopic methods of examination: vaginoscopy, colposcopy, hysteroscopy, culdoscopy, diagnostic laparoscopy, laparoscopy as a method of surgical treatment.

Radiological methods of examination: hysterosalpingography, X-ray of the skull (the Turkish saddle).

Computer tomography. Magnetic resonance imaging.

Transabdominal and transvaginal ultrasonography.

10.3. Malposition of female genitals

Pathogenesis, classification, diagnostics, methods of conservative and operative treatment of the female genitals malposition.

Ptosis and prolapse of genitals: classification, diagnostics, methods of conservative and operative treatment of the female genitals malposition.

10.4. Menstrual function and its disorders

Neurohumoral regulation of menstrual cycle.

Etiology, pathogenesis, classification of menstrual disorders.

Clinical picture, diagnostics, treatment methods, prevention of menstrual disorders: amenorrhea, dysmenorrhea, dysfunctional uterine bleeding in juvenile, reproductive and climacteric periods.

10.5. Neuroendocrine syndromes in gynecology

Etiology, pathogenesis, classification, clinical manifestations.

Diagnostic methods and modern principles of neuroendocrine syndromes therapy: premenstrual, post-castration, climacteric, adrenogenital syndromes; hirsutism and virilization; the syndrome and disease of polycystic ovaries.

10.6. Inflammatory diseases of the female genitals

Etiology, pathogenesis, classification, diagnostics and the clinical course of inflammatory diseases of nonspecific etiology: vulvitis, Bartholinitis, colpitis, cervicitis, endometritis, salpingo-oophoritis (adnexitis), parametritis, pelviperitonitis.

Principles of treatment and prevention of inflammatory diseases of nonspecific etiology. Rehabilitation of women after the diseases suffered.

Etiology, pathogenesis, classification, diagnostics and the clinical course of inflammatory diseases of specific etiology: gonorrhoea, trichomoniasis, tuberculosis, bacterial vaginosis, candidiasis, Chlamydia infection, mycoplasmosis, genital herpes, human papillomavirus (HPV) infection.

Principles of treatment and prevention of specific etiology inflammatory diseases. Rehabilitation of women after the diseases suffered.

10.7. Background, pre-cancer and benign diseases of female reproductive system organs

Background and pre-cancer diseases of the external genitals and vagina.

Background and pre-cancer diseases of the neck of the uterus.

Background and pre-cancer diseases of the endometrium.

Benign tumors and tumor-like masses of the external genitals and vagina.

Hysteromyoma: modern theories of the pathogenesis, classification, diagnostics, clinical manifestations.

Tactics of managing patients with hysteromyoma: conservative therapy, indications and extent of operative intervention in hysteromyoma.

Tumors and tumor-like masses of ovaries: modern theories of the pathogenesis, classification, diagnostics, clinical manifestations, treatment methods.

Endometriosis: modern theories of the pathogenesis, classification, diagnostics, clinical manifestations.

Tactics of managing patients with endometriosis depending on the pathological

process localization. Principles of therapy of patients with endometriosis. Indications for conservative therapy and operative treatment. Prevention. Rehabilitation.

Dyshormonal diseases of the mammary glands.

10.8. Gynecological diseases requiring an urgent medical aid

Etiology, pathogenesis, methods of diagnosing gynecological diseases requiring an urgent medical aid: extrauterine pregnancy, incomplete abortion, ovarian apoplexy, torsion of ovary tumor pedicle, necrosis of myomatous node, pyosalpinx, pyo-ovarium.

Clinical picture and tactics of managing patients with urgent conditions.

Differential diagnostics of the diseases requiring rendering an urgent gynecological aid.

10.9. Operative gynecology

Preoperative preparation and managing the postoperative period.

Typical gynecological operations on the uterus, uterus appendages, those in case of ptosis and prolapse of genitals.

Reconstructive plastic operations aimed at the preservation of women's reproductive function and improvement of life quality.

Endosurgical methods of treatment in gynecology.

Rehabilitation of gynecological patients after operative interventions performed on the organs of the reproductive system.

11. Infantile gynecology

Sexual development disorders: pubertas precox (macrogenitosomia), sexual development retardation, absence of sexual development. Etiology and pathogenesis, classification, methods of diagnostics.

Genitals development anomalies: etiology and pathogenesis, classification, methods of diagnostics, clinical manifestations, correction methods.

Traumas of genitals.

Inflammatory diseases in childhood and adolescence: etiology and pathogenesis, classification, methods of diagnostics, clinical manifestations, treatment methods, prevention.

Benign tumors in childhood and adolescence.

12. Infertile marriage and family planning issues

The objective and tasks of reproductive medicine.

The objective and tasks of family planning.

The organization of rendering medical and socio-psychological aid to a married couple. The causes of the female and male infertility.

Methods of diagnostics of female and male infertility.

Methods of conservative treatment of female infertility.

Indications and methods of operative treatment of female infertility.

Methods of surgical endoscopy in treatment of infertility.

Assisted reproductive technologies. Artificial insemination (In vitro fertilisation [IVF], IntraCytoplasmic Sperm Injection [ICSI]).

Therapeutic abortion: social and medical aspects of the issue, methods of

pregnancy abortion in early and late terms – indications, contra-indications, complications, influence on the reproductive function, prevention, rehabilitation.

Contraception: classification of contraception methods and means, traditional methods, intrauterine contraception, the principle of action and administration of hormonal contraceptives of different groups, sterilization.

Somatic aspects of hormonal therapy.

Peculiarities of adolescence contraception.

Methodical card
«OBSTETRICS AND GYNECOLOGY»

Topics	Total hours of classes		Independent work	Forms of control knowledge
	Lectures	Practical classes		
7 semester	8	40	26	
1. Organization of obstetrical and gynecological care	1	3	3	
1.1. General issues	1	-	1	the survey for homework
1.2. Organization of medical care to pregnant women, parturient women and puerperas	-	2	1	interview, control work
1.3. Organization of gynecological care	-	1	1	interview, control work
2. Anatomical and physiological peculiarities of the female reproductive system	1	2	1	interview, control work, control test, abstracts
3. Perinatology	-	5	2	interview, control work, test control, abstracts
4. Physiological (normal) pregnancy	2	5	3	interview, control work, business games, abstracts
5. Physiological (normal) labor	-	10	3	interview, control work, business games, abstracts
6. Extragenital and gynecological pathology accompanying pregnancy	4	20	21	
6.1. Diseases of the cardiovascular system	1	3	2	interview, abstracts,

				business games
6.2. Endocrine pathology	1	2	2	interview, abstracts, control work
6.3. Diseases of the urinary system	1	2	2	interview, abstracts, control work
6.4. Blood diseases	1	1	2	interview, abstracts, control work
6.5. Liver diseases	-	2	2	interview, abstracts, control work
6.6. Acute surgical pathology	-	2	2	interview, abstracts, control work
6.7. Gynecological pathology	-	3	2	interview, control work, the survey for homework, credit test
8 semester	10	35	65	
6.8. Infectious diseases	-	5	7	interview, abstracts, control work
7. Pathology of pregnancy and labor	6	23	45	
7.1. Pregnancy and labor in breech birth	-	2	4	interview, abstracts, control work
7.2. Wrong fetus positions and presentations	-	2	4	interview, abstracts, control work
7.3. Multiple pregnancy	-	1	3	interview, abstracts, control work
7.4. Incomplete and prolonged pregnancy	2	2	6	interview, abstracts, control work
7.5. Hemorrhages in obstetrics	2	5	8	interview, abstracts,

				control work
7.6. Gestosis	2	5	8	interview, abstracts, control work
7.7. Anomalies of labor activity	-	3	5	interview, abstracts, control work
7.8. Contracted (narrow) pelvis	-	1	3	interview, abstracts, control work
7.9. Birth injury	-	2	4	interview, abstracts, control work
8. Operative methods of delivery	2	2	3	interview, abstracts, control work, the survey for homework, control tests
9. Postpartum period	2	5	10	
9. 1. Physiology of the postpartum period	-	2	5	interview, abstracts, control work, control tests
9. 2. Postpartum period pathology	2	3	5	interview, control work, computers tests, examination
9 semester	8	30	20	
10. Gynecology				
10.1. Main symptoms of gynecological diseases	1	-	3	interview, abstracts, control work, control tests
10.2. Methods of the examination of gynecologic patients	1	5	3	interview, abstracts, control work
10.3. Malposition of female genitals	2	5	3	interview, abstracts
10.4. Menstrual function and its	-	5	3	interview,

disorders				abstracts
10.5. Neuroendocrine syndromes in gynecology	2	5	3	interview, abstracts
10.6. Inflammatory diseases of the female genitals	2	10	5	interview, abstracts
10 semester	6	30	54	
10.7. Background, pre-cancer and benign diseases of the female reproductive system organs	2	10	12	interview, abstracts, control tests
10.8. Gynecological diseases requiring an urgent medical aid	2	5	12	abstracts, control work
10.9. Operative gynecology	-	5	10	interview, abstracts
11. Infantile gynecology	-	5	10	interview, abstracts, control work
12. Infertile marriage and family planning issues	2	5	10	interview, abstracts, control work, computers tests, examination
Total number of academic hours	32	135	165	

INFORMATION-METHODICAL PART

LITERATURE

Basic:

1. **Obstetrics and gynecology** / Beckmann, Charles R. B. [и др.]. - 7th ed. - Philadelphia [etc.] : Wolters Kluwer : Lippinkott Williams & Wilkins, 2014. - 511 p. : ill. - ISBN 978-1-4511-4431-4 Акушерство и гинекология
2. Смирнова. Т. А. Схема написания истории родов=Labor case history scheme : метод. рекомендации / Т.А. Смирнова, Н.С. Акулич, О.М. Костюшкин. - Минск : БГМУ, 2015. - 16 с.
3. **Danforth's Obstetrics and Gynecology** / ed. by J.R. Scott. - 7th ed. - USA : J.B. Lippincott Company, 1994. - 1121 p. : ill. + With Supplement. Акушерство и гинекология Данфорта
4. **Chamberlain, G.** Illustrated Textbook of Obstetrics. - London : Gower Medical Publishing, 1989. - 269 p. : ill. Иллюстрированный учебник по акушерству I
5. **Inslер, Vaclav.** Practical Obstetrics and Gynecology. Manual of Selected Procedures and Treatments. - Basel [etc.] : S. Karger, 1979. - 112 p. Практическое акушерство и гинекология. Руководство по выбору методов лечения
6. **Scientific Foundations of Obstetrics and Gynaecology** / ed. by E.E. Philipp, J. Barnes, M. Newton. - London : William Heinemann Medical Books, 1977. - 922 p. Научные основы акушерства и гинекологии

Additional:

1. Савоневич, Е.Л. Лекции по гинекологии [Электронный ресурс] = Lectures on gynecology: manual for the faculty of foreign student (in English) : пособие для студентов фак. иностр. учащихся (англ. яз. обучения) / Савоневич, Елена Леонтьевна, Гутикова, Людмила Витольдовна, Кажина, Мария Владимировна ; Гродн. гос. мед. ун-т, Каф. акушерства и гинекологии. - Гродно : ГрГМУ, 2012. - 1 электрон. опт. диск (CD-ROM).
2. **Лекции по акушерству** = Lectures on obstetrics: manual for the students of foreign department (in English) : пособие для студентов фак. иностр. учащихся (на англ. яз.) / Гутикова, Людмила Витольдовна [и др.] ; Гродн. гос. мед. ун-т, Каф. акушерства и гинекологии. - Гродно : ГрГМУ, 2010. - 175 с. *Акушерство: учебник для медицинских ВУЗов* / Г.М. Савельева с соавт. М.: «ГЭОТАР-Медиа», 2009. 606с: ил.
3. **Oxford handbook of obstetrics and gynaecology** / ed. by S. Collins [et al.]. - 3rd ed. - Oxford : Oxford University Press, 2013. - 824 p. : ill. - (Oxford Handbook Series). - ISBN 978-0-19-969840-0

LIST OF RECOMMENDED DIAGNOSTIC AIDS

The evaluation of educational achievements of the student is carried out with the use of reserves of valuation means and technologies of high school. The reserves of valuation means of educational achievements of the student include:

Typical tasks in various forms:

1. Oral:
 - interview
 - business games
2. Written forms:
 - test control
 - control work
 - abstracts
3. Oral - written forms:
 - the survey for homework
 - credit test
 - examination
4. Technical forms:
 - computers tests

LECTURES

1. Organization of obstetrical and gynecological care. General issues. Anatomical and physiological peculiarities of the female reproductive system.
2. Physiological (normal) pregnancy.
3. Premature and postdate pregnancy.
4. Hemorrhages in obstetrics.
5. Diseases of the cardiovascular system in pregnancy.
6. Endocrine pathology. Diseases of the urinary system.
7. Gestosis.
8. Operative methods of delivery.
9. Postpartum period.
10. Main symptoms of gynecological diseases. Methods of the examination of gynecologic patients.
11. Neuroendocrine syndromes in gynecology.
12. Inflammatory diseases of the female genitals.
13. Gynecological diseases requiring an urgent medical aid.
14. Background, pre-cancer and benign diseases of the female reproductive system organs.
15. Malposition of female genitals. Genital prolapse.
16. Infertile marriage and family planning issues.

PRACTICAL CLASSES

1. Organization of obstetrical and gynecological care. General issues. Organization of medical care to pregnant women, parturient women and puerperas. Organization of gynecological care. Anatomical and physiological peculiarities of the female reproductive system.
2. Perinatology.
3. Physiological (normal) pregnancy.
4. Physiological (normal) labor.
5. Physiological (normal) labor: placental period. Physiology of the postpartum period.
6. Hemorrhages in obstetrics.
7. Gestosis.
8. Premature and postdate pregnancy. Birth injury. Multiple pregnancy.

9. Diseases of the cardiovascular system in pregnancy and labor. Endocrine pathology in pregnancy and labor.
10. Diseases of the urinary system, liver diseases, blood diseases in pregnancy and labor.
11. Gynecological pathology, acute surgical pathology in pregnancy and labor.
12. Infectious diseases in pregnancy and labor.
13. Pregnancy and labor in breech birth, wrong fetus positions and presentations. Contracted (narrow) pelvis.
14. Anomalies of labor activity. Operative methods of delivery.
15. Postpartum period pathology.
16. Main symptoms of gynecological diseases. Methods of the examination of gynecologic patients. Menstrual function and its disorders.
17. Malposition of female genitals.
18. Menstrual function and its disorders.
19. Neuroendocrine syndromes in gynecology.
20. Inflammatory diseases of the female genitals nonspecific etiology.
21. Inflammatory diseases of the female genitals specific etiology (STD).
22. Infantile gynecology.
23. Gynecological diseases requiring an urgent medical aid.
24. Background, pre-cancer of the female reproductive system organs.
25. Benign diseases of the female reproductive system organs.
26. Operative gynecology.
27. Infertile marriage and family planning issues/

PROTOCOL OF COORDINATION OF THE TRAINING PROGRAM

The name of a subject matter with which coordination is required	Department	Offers on changes in contents of the training program of institution of higher education on a subject matter	The decision made by the department which developed the training program (with specifying of date and numbers of the protocol)
Internal diseases	1st, 2nd departments of internal illnesses, department of a cardiology and internal illnesses	there are no additions and changes	to leave without changes April "19", 2016. Protocol No. 9
Surgical diseases	1st, 2nd departments of surgical diseases	there are no additions and changes	to leave without changes April "19", 2016. Protocol No. 9
Urology	Department of urology	there are no additions and changes	to leave without changes April "19", 2016. Protocol No. 9
Endocrinology	Department of endocrinology	there are no additions and changes	to leave without changes April "19", 2016. Protocol No. 9
Oncology	Department of oncology	there are no additions and changes	to leave without changes April "19", 2016. Protocol No. 9

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O.M. Kostiouchkina

Curriculum content, composition and the accompanying documents comply with the established requirements.

Dean of the Medical Faculty for International Students of Educational Institution «Belarusian State Medical University»
Associate Professor



Davidov V.V.

Methodologist of Educational Institution «Belarusian State Medical University»

“26” 06 2016”



Kharitonova S.A.

Head of Foreign Languages Department of Educational Institution «Belarusian State Medical University»
Associate Professor

“26” 06 2016”

Petrova M.N.

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