

**MINISTRY OF HEALTH REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
«GRODNO STATE MEDICAL UNIVERSITY»**

APPROVED
RECTOR OF GRODNO STATE MEDICAL
UNIVERSITY

PROFESSOR V.A.SNEZHITSKIY

REGISTRATION NUMBER
PKO-048

OBSTETRICS AND GYNAECOLOGY

**Clinical Residency (Clinical Ordinatura) Postgraduate Training program
Master of Surgery in Obstetrics and Gynaecology
For foreign citizens on a 3-year full-time basis**

Grodno
Republic of Belarus
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Recommended for approval:

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EXPLANATORY NOTE

The Law of the Republic of Belarus of 18 June 1993 «On Healthcare» as amended by the Act of 20 June, 2008, states that the professional activities of medical and pharmaceutical workers is based on the achievements of world and national medical science and practice.

The prescribed three (3) years clinical residency program for foreign citizen was developed in accordance with the DECREE of the Ministry of Health of the Republic of Belarus of 6 January, 2009 № 2 .

The need to improve the professional level of doctors is very relevant in today's environment which requires a qualitative change in the approach to the preparation of a specialist obstetrician and gynaecologist.

The purpose of the prescribed 3 year clinical residency training in obstetrics and gynaecology is to prepare qualified obstetrician-gynecologist possessing modern knowledge and skills (professional competence) in the field of obstetrics and gynaecology and the ability to apply them in clinical practice and professional tasks.

Objectives of training in clinical residency:

The improvement of existing and acquisition of new knowledge about the diagnosis, surgical and conservative treatment of gynaecological patients, tactics of pregnancy and labour.

Development of clinical thinking and skills. Adequate use of modern methods of diagnosis, differential diagnosis and treatment of gynaecological diseases and complications of pregnancy and measures for their prevention and rehabilitation.

Preparation of a specialist to work independently as a obstetrician-gynaecologist. Improving the skills and abilities needed for obstetrician-gynaecologist to provide highly skilled medical care.

The clinical residency course in obstetrics and gynaecology provides clinical reviews of patients, methods of diagnosis, treatment of gynaecological diseases and pregnancy complications. The emphasis of the program is placed on the use of modern medical technology and the improvement of the skills and abilities necessary for obstetrician-gynaecologist to provide highly skilled medical care.

During the clinical residency training, regular assessments of knowledge and skills of the clinical resident are conducted.

The outcome of the regular assessment is marked in the logbook as “*Pass*” or “*Fail*” for each section of training.

At the end of the third year of clinical residency training, a final assessment takes place in the form of a qualifying examination by the Examination Commission of Grodno State Medical University.

Grading System of the Qualifying Examination:

Grade 8, 9, 10.....Excellent

Grade 6, 7.....Good

Grade 4, 5.....Satisfactory

Grade 1,2,3.....Fail

TRAINING PLAN

Speciality: Obstetrics and Gynaecology

Form of training: full-time

Program: Clinical residency

Duration: 36 months (3 years)

Name of Sections	Time distribution								Exams
	Overall		Years						
			1 st Year		2 nd Year		3 rd Year		
	Weeks	Hours	Weeks	Hours	Weeks	Hours	Weeks	Hours	
1. General Professional Training	3	108	2	72	1	36	-	-	
1.1 Fundamentals of the health system in the Republic of Belarus	1	36	1	36	-	-	-	-	EXAM
1.2. Medical Informatics and Computer Technology	1	36	1	36	-	-	-	-	EXAM
1.3. Clinical Pharmacology	1	36	-	-	1	36	-	-	EXAM
2. Specialised Professional Training	141	5076	46	1656	47	1692	48	1728	
2.1. Organization of Obstetrical and Gynaecological care	2	72	1	36	1	36	-	-	EXAM
2.2. Clinical anatomy and physiology of female pelvic organs	4	144	3	108	1	36	-	-	EXAM
2.3. Basic methods of investigation in obstetrics and gynecology	12	432	4	144	4	144	4	144	EXAM
2.4. Anaesthesia in Obstetrics and Gynaecology	6	216	2	72	2	72	2	72	EXAM
2.5. Physiological Obstetrics	4	144	4	144	-	-	-	-	EXAM
2.6. Antenatal care of fetus and Perinatal pathology	8	288	4	144	2	72	2	72	EXAM
2.7. Pathological and Operative Obstetrics	15	540	7	252	-	-	8	288	EXAM
2.8. Medical and Surgical illness in Obstetrics and Gynaecology	10	360	5	180	3	108	2	72	EXAM
2.9. Bleeding in Obstetrics. Shock and terminal states	7	252	3	108	2	72	2	72	EXAM
2.10. Hypertensive Disorders in pregnancy.	6	216	3	108	-	-	3	108	EXAM

2.11. Injuries to the birth canal. Complications during Obstetrical and Gynaecological operations.	5	180	2	72	3	108	-	-	EXAM
2.12. Paediatric Gynaecology	4	144	-	-	1	36	3	108	EXAM
2.13. Endocrinology in Obstetrics and Gynaecology	13	468	4	144	6	216	3	108	EXAM
2.14. Inflammatory diseases and septic infections in Obstetrics and Gynaecology	11	396	3	108	6	216	2	72	EXAM
2.15. Operative Gynaecology	16	576	-	-	8	288	8	288	EXAM
2.16. Neoplasms of female genital organs and Breast Cancer	6,5	234	0,5	18	3	108	3	108	EXAM
2.17. Acute abdomen in Gynaecology	6,5	234	0,5	18	3	108	3	108	EXAM
2.18. Infertility	5	180	-	-	2	72	3	108	EXAM
TOTAL:	144	5184	48	1728	48	1728	48	1728	FINAL QUALIFYING EXAMINATION

Training plan of clinical residents also includes conducting research work, publications in medical journal, study of recent scientific literature on the speciality, participation in international, national, regional conferences, attending lectures, case discussions and presentations and undergraduate teaching.

PROGRAM CONTENT

1. General professional training

1.1. Fundamentals of health system in the Republic of Belarus.

Main directions of health reform.

Principles of Management in Health Care. The principles, features and controls. Management. Management methods. Classic cycle of management. Organizational structure of management in health care.

Introduction to health economics. Economic categories and the nature of the terms used in the analysis of the health system. Economic analysis of the effectiveness of health care as a system. Effectiveness of health criteria, the economic and social aspects. Analysis of the effectiveness of medical and social programs and activities. Cost-effectiveness of reducing morbidity and elimination of certain diseases.

Marketing in Healthcare. The demand for health services and patterns of growth. Medical services in different systems of health. Commodity relations and health care market. Pricing of medical services provided to health care institutions. Medical services as a commodity. Health care market. The concept of cost, and cost of medical services. Medical Insurance.

Medical insurance. The basic principles of health insurance. Compulsory and voluntary health insurance. Object and the subject of health insurance. Medical insurance policy. The rights and duties of citizens in the health insurance system. Insurance medicine abroad. Organization. Experience. Impact on key health indicators. Rights and obligations.

Medical practice. Implementation of professional direction in society. Organization of the work of general practitioners. Family medicine. Medical records. The evaluation system of quality of care. Medico-economic standards (MEC).

1.2. Medical Informatics and Computer Technology

Computer science and its role in medicine and health care. The concept of information technology as a tool for solving various problems of medicine and health. Software information technology in medicine and health. General purpose application programs. Databases and data knowledge. Database management system. Organizational support of information technology in medicine and health care.

Operating systems. Familiarity with files and directories. Service programs. Test and graphic editors. Spreadsheets.

1.3. Clinical Pharmacology

Clinical pharmacology and its place among the other clinical disciplines. Pharmacoepidemiology. Pharmacoeconomics.

Fundamentals of pharmacokinetics and pharmacodynamics.

Adverse effects of drugs.

Age-related physiological characteristics during use of drugs. Contraindication and especial care of drugs during pregnancy, labour, the postpartum period and

lactation. Contraindication and especial care of drugs in children, teens and elderly women.

Medicines for the pharmacotherapy of emergency conditions

Medicines for the correction of hemostatic disorders.

Clinical pharmacology of anti-inflammatory drugs.

Clinical pharmacology of antimicrobial and antiviral agents (antibiotics, antivirals, antifungals, antiproton-tozoynye drugs).

Clinical pharmacology of drugs affecting the reproductive function.

2.Specialised Professional Training

2.1. Organization of Obstetrical and Gynaecological care

Theoretical foundations of maternal health and organization of obstetric and gynaecological services.

Socio-biological aspects of health and population growth. Influence of environmental factors on the health of mother and fetus.

Maternity protection in the Republic of Belarus. Legislation.

The causes of maternal mortality and its prevention.

Structure, prevention of perinatal mortality. Causes and prevention of stillbirth, neonatal mortality.

Family Planning. Contraception.

Obstetric and gynaecological care Committees.

Clinical examination and medical rehabilitation (MR).

Medico-social Examination (MSE).

Medico-Control Committee (MCC), the organization of the medical rehabilitation expert committee (MREC).

Organization of obstetric and Gynaecological care, gynaecological morbidity analysis.

Organization of the scheme of duties of the women's Out Patient Department.

Organization of the scheme of duties of antenatal ward, labour ward and maternity ward.

Inpatient care of gynaecological patients.

Organization of emergency care in obstetrics and gynaecology.

Organization of care for pregnant women, women in labour and gynaecological patients.

Organization of medical and preventive obstetric care to children and adolescents.

Organization of obstetric care I, II, III level.

Maternal and child centres (offices) prenatal diagnosis, genetic counselling, pre-conceptual counselling for couples.

Structures of perinatal centres.

Programs of annual health examinations.

Health legislation and its objectives in the Republic of Belarus.

Legislation: protection of women, maternal and child health, abortion, adoption registration, about surrogate motherhood, decrees in the IVF program, a legal aid organization in the antenatal clinic.

Labour discipline and safety of health workers, occupational classification of offenses and criminal liability.

Medical ethics and deontology.

Health education.

Geriatric medicine Aging and Old Age.

Medical and demographic and socio-hygienic importance in an aging population. Modern theories of aging. biological age.

Premature aging. Adaptive capabilities with aging. Socio-hygienic factors and drugs in the prevention of premature aging.

Fundamentals of geriatrics.

Aging - illness. Features of the medical examination of women in perimenopausal and postmenopausal periods. The structure of morbidity. Relations between the physician and geriatric patients. Clinical pharmacology in geriatrics.

Urogenital disorders in women.

Osteoporosis in women.

2.2. Clinical anatomy and physiology of female pelvic organs Anatomy and physiology of the genital organs

External and internal genital organs, muscles and fascia in relation to the pelvic organs, pelvic cellular tissue, female urethra, urinary bladder, pelvic ureter, breast.

Age aspects of children's, puberty, reproductive, menopausal, Peri- and postmenopausal period.

Anatomical and physiological changes in the reproductive organs of women in association with pregnancy.

Features of the blood supply, lymphatic drainage and innervation of the Pelvis.

Hyperplasia, hypertrophy of smooth muscle and uterine growth during pregnancy, the formation of the lower segment, cervical ripening, changes in the ovaries, tubes, vulva, vagina.

Anatomical and physiological factors that ensure the normal position of the internal reproductive organs.

Ligamentous apparatus, supporting, fixing, suspended.

Abdominal pressure.

2.3. Basic methods of investigation in obstetrics and gynaecology

History, examination, diagnostic procedures in obstetrics and gynaecology

Clinical and laboratory methods.

General clinical laboratory tests.

Analytical basis of laboratory diagnosis. Laboratory methods and clinical

evaluation studies of peripheral blood, bone marrow punctate, the results of studies of secretory and excretory body fluids in health and disease.

Clinical immunology.

Laboratory studies of the immune system, the indications for their intended purpose, the clinical evaluation of results.

Clinical investigation methods.

Methods of functional diagnostics: cytohormonal study, karyopyknotic index, maturation index, basal body temperature, cervical and vaginal smear for exfoliative cytology, papanicolaou grading, examination of cervical mucus

Hormonal tests.

Laboratory Methods: Biochemical, immunological, bacterioscopic, bacteriological, hormonal, genetic, biological, cytological, radioisotope.

Maternal and fetal investigation methods.

Methods of fetal monitoring. Continuous electronic fetal monitoring (external and internal) cardiotocography, biochemical

Methods of study of uterine contractility.

Radiological methods.

Computed tomography.

Magnetic resonance imaging

Ultrasound.

Transabdominal and transvaginal sonography

Transvaginal colour doppler sonography

Sonohysterosalpingography

Sonographically guided procedures

Transrectal sonography

Saline infusion sonography.

Radioisotope methods.

In gynaecology: the definition of anatomical and physiological and pathological changes in the pelvic organs. Topography of pelvic retroperitoneal space, Doppler mapping and Doppler blood vessels and space-occupying lesions of the pelvic organs.

In obstetrics: thyroid, adrenal.

In gynaecology: Positron Emission Tomography.

Scanning of the liver, kidney, adrenal gland, thyroid gland.

Endoscopic studies.

In obstetrics: amnioscopy, fetoscopy.

In gynaecology: laparoscopy, hysteroscopy, salpingoscopy, colposcopy.

Morphological studies.

Electronic and fluorescent microscopy.

Histological and histochemical studies in obstetric and gynaecological practice.

Genetic investigation methods.

The value of genetic studies in obstetric practice.

Pathological changes in human chromosomes: aneuploidy, syndrome - Turner, Klinefelter, Down, etc.

The incidence of chromosomal abnormalities among live births and stillbirths newborns.

Diagnosis of chromosomal anomalies.

2.4. Anaesthesia in Obstetrics and Gynaecology

Pharmacotherapeutics in obstetrics

Methods of pain relief: sedatives, analgesics, inhalation agents, patient control analgesia, transcutaneous electric nerve stimulation, regional analgesia(Epidural analgesia, paracervical nerve block, pudendal nerve block..etc),general anaesthesia

Continuous lumbar epidural anaesthesia.

General anaesthesia for caesarean section and its complications.

Pain relief for minor obstetric operations, forceps, vacuum extraction, manual examination of the uterus and placenta separation, repair of cervical injuries, vagina, perineum.

Anaesthesia for abdominal and vaginal gynaecological surgery, abortion and diagnostic operations.

2.5. Physiological Obstetrics

Fundamentals of Reproduction

Fetal development and its physiology

Maternal Physiologic Changes in Pregnancy

Endocrinology of Pregnancy

Diagnosis of Pregnancy

The fetus in Utero and Fetopelvic Relationship

Antenatal care, pre-conceptional counselling and care

Fetus at risk: Identification and assessment

Physiology of normal labour.

The structure of the uterus, innervation, blood supply, the physiology of contractile function.

Onset of labour and uterine activity in labour

The role of hormones and bioactive substances (catecholamines, serotonin, kinins, prostaglandins) in the physiology of the uterine contractility.

The role of the central and autonomic nervous system in placental development and regulation of contractile function of the uterus.

Effects of labour on mother and fetus

Clinical course of labour

Mechanism of labour

Documentation of labour

Management of labour

Induction of labour.

Methods. Indications and contraindications.

Normal puerperium.

Involution of uterus and other pelvic structures

General physiological changes, lactation

Management of normal puerperium

Postnatal care and breastfeeding.

2.6. Antenatal care of fetus and Perinatal pathology

Term new born infant

Physical features, assessment of gestational age, immediate care

Infant feeding ,breast feeding, artificial feeding

Childhood immunisation programme

Rh-immunization

Antigenic blood incompatibility of mother and fetus ABO and Rh factor, diagnosis, management of pregnancy, labour, newborn. Rehabilitation, prevention of sensitization.

Haemorrhage in early pregnancy

Miscarriage: Causes, clinical picture, diagnosis, treatment, prevention. antiphospholipid syndrome.

Induction of abortion, medical termination of pregnancy and its complication,

Ectopic pregnancy

Gestational Trophoblastic diseases

Post-term pregnancy: Causes, Diagnosis, impact on the fetus, pregnancy, childbirth, prevention.

Low birth weight baby: Preterm baby and Intra Uterine Growth Restriction, its etiology, diagnosis, features, management and complications

Diseases of fetus and new born: fetal hypoxia, Respiratory Distress, Meconium Aspiration Syndrome, Resuscitation, Idiopathic respiratory distress syndrome, jaundice, seizures ,birth injuries, congenital malformations and prenatal diagnosis, fetal therapy, Down's syndrome, non-immune fetal hydrops.

Resuscitation and intensive care for term and preterm infants.

2.7. Pathological and Operative Obstetrics

Pathology in obstetrics

Contracted pelvis: Variation of female pelvis. Anatomical and clinical features of parent pelvic types

Mechanism of labour, diagnosis, x-ray pelvimetry

Disproportion, diagnosis and management

Trial of labour

Midpelvic and outlet disproportion

Malposition, malpresentation and cord prolapsed

Occipito posterior position, Deep transverse arrest, Breech presentation
Antenatal management. Management of vaginal breech delivery
Management of complicated breech delivery
Face presentation. Brow presentation, Transverse lie, Unstable lie
Compound presentation
Cord prolapsed

Abnormal uterine action.

types, etiology, diagnosis, effects on the mother and fetus and management

Prolonged labour, obstructed labour, Dystocia caused by fetal anomalies

Multiple pregnancy, diagnosis, course and management of labour

Complication of third stage of labour and its management.

Abnormalities of the puerperium

Operative obstetrics.

Modern methods of abortion in the first and second trimester, indications, technique, complications, prevention of complication, rehabilitation.

Unsafe abortion, diagnostics, medical tactic.

Caesarean section in modern obstetrics: indications, contraindications, preparation, methods of operation, postoperative care, prevention of complications.

Forceps, vacuum extraction of the fetus.

2.8. Medical and Surgical illness in Obstetrics and Gynaecology

Pregnancy and diseases of the cardiovascular system:

Acquired, congenital heart disease and pregnancy: classification, clinical picture, diagnosis, treatment, management of pregnancy, labour, indications for early abortion.

Hypertensive disorders in pregnancy: classification, clinical picture, the effects on the fetus, therapy, indications for abortion.

Dystonia: etiology, clinical features of the course of pregnancy, the effects on the fetus, pregnancy and childbirth.

Myocarditis: etiology, classification, myocarditis during pregnancy, therapy.

Cardiomyopathy.

Respiratory diseases in Pregnancy.

Pneumonia in pregnancy.

Pulmonary tuberculosis in pregnancy, indications for abortion.

Asthma: management in pregnancy, therapy, indications for abortion.

Disease of the gastrointestinal tract, liver in pregnancy.

Biliary tract; management of pregnancy, therapy, indications for abortion.

Appendicitis in pregnancy: differential diagnosis, management of pregnancy, childbirth, the volume of operations, postoperative care.

Pancreatitis in pregnancy: differential diagnosis, management of pregnancy

and childbirth, the indications for termination of pregnancy, therapy.

Diseases of the stomach, intestines in pregnancy: classification, clinical picture, diagnosis, indications for abortion.

Intestinal obstruction in pregnancy.

Pregnancy in diseases of the urinary tract:

Pyelonephritis, glomerulonephritis, kidney stones, hydronephrosis, renal tuberculosis, chronic renal failure; rehabilitation, indications for abortion.

Endocrine diseases and pregnancy.

Diabetes and diabetes insipidus: clinical features, diagnosis, course and management of pregnancy, childbirth, the effects on the fetus, the indications for hospitalization, treatment, delivery.

Hypothalamic syndrome, and management in pregnancy, indications for abortion.

Thyroid disease (diffuse toxic goiter, hypothyroidism, myxedema, toxic adenoma, inflammatory diseases of the thyroid gland, thyroid cancer) During pregnancy, childbirth and the postpartum period.

Adrenal disease during pregnancy, delivery, indications for abortion.

Pregnancy during blood disorders.

Anaemia in pregnant women, pathogenesis, clinical effects on the fetus, treatment, prevention.

Leukaemia during pregnancy, childbirth, the indications for abortion.

Hemorrhagic diathesis, classification, management of pregnancy, childbirth, the indications for abortion.

Pregnancy during infective diseases.

Viral diseases (influenza, hepatitis A, B and C, HIV, genital herpes, cytomegalovirus) during pregnancy, childbirth, the effects on the fetus.

Toxoplasmosis clinical forms, diagnostics, effects on the fetus.

Malaria, brucellosis, listeriosis and other infectious diseases during pregnancy, clinical picture, diagnosis, treatment, effects on the fetus, pregnancy, childbirth,.

Gonorrhoea, course, treatment during pregnancy, childbirth, the effects on the fetus.

Trichomoniasis during pregnancy, childbirth, the effect on the fetus.

Syphilis during pregnancy, childbirth, the effects on the fetus.

Chlamydia, particularly screening and treatment in pregnancy.

Myco and ureaplasmosis, especially screening and treatment in pregnancy.

Pregnancy and diseases of other organs.

Thrombophilia and pregnancy.

Myopia during pregnancy and childbirth.

Myasthenia gravis and pregnancy, the course and management of pregnancy and childbirth.

Allergic conditions in obstetrical practice.

Diseases of the central and peripheral nervous system (haemorrhage, brain tumours, radiculitis et al.), Pregnancy and childbirth, the indications for abortion.

Extragenital pathology in gynaecologic patients.

Diseases of the cardiovascular system (valvular heart disease, post-myocardial infarction, hypertension and hypotension), management. Preoperative preparation, postoperative care.

Thrombosis and embolism in gynaecological patients: etiology, pathogenesis, clinical picture, diagnosis, treatment, prevention.

Respiratory diseases (chronic pneumonia, bronchitis, pulmonary fibrosis, bronchial asthma, tuberculosis). Preoperative, postoperative care.

Endocrine disorders (diabetes mellitus, diseases of the hypothalamic-pituitary-ovarian axis, thyroid and adrenal glands). The clinical picture, diagnosis, treatment, preoperative preparation, postoperative care.

Diseases of the urinary tract (pyelonephritis, glomerulonephritis, renal calculi, tuberculosis, hydronephrosis, renal dystocia), treatment. Preoperative preparation, postoperative care. Tumours of the urinary tract, urogenital fistula.

Gastrointestinal tract disease (hepatitis, cirrhosis, cholelithiasis, peptic ulcer and others.). Preoperative, postoperative care.

Blood disorders (anaemia, leukaemia, hemorrhagic diathesis), preoperative preparation, postoperative care.

Infectious diseases (viral, septicaemia, typhoid fever, brucellosis and others). Preoperative preparation, postoperative care.

2.9. Bleeding in Obstetrics. Shock.

Antepartum haemorrhage

Placenta praevia, placental migration. Etiology, pathogenesis, diagnosis, clinical features, treatment, prevention, risk groups.

Abruptio placentae, etiology, pathogenesis, clinical features, treatment, prevention. Changes in pregnant women with blood loss.

Bleeding during Labour.

Placenta praevia.

Premature detachment of normally situated placenta and low lying placenta.

Due to failure of separation and expulsion of the placenta.

Bleeding in early and late postpartum period.

Hypotonic, atonic bleeding.

Coagulation failure

Late postpartum haemorrhage.

Shock and terminal states in obstetrics and gynaecology.

The main clinical forms of shock and terminal states.

Shock I degree (period of relative compensation).

Shock II-III degree (period of infringement compensation).

Shock IV degree (decompensated blood loss).

Agony and clinical death.

Treatment of shock and terminal states.

Infusion-transfusion therapy.

Post transfusion complications.

Disseminated intravascular coagulation syndrome (DIC).

Amniotic fluid embolism. Etiology, pathogenesis, clinical features, diagnosis, treatment.

2.10. Hypertensive Disorders in pregnancy.

Preeclampsia, eclampsia. Classification, clinical features, diagnosis, management of pregnancy and childbirth, intensive care, delivery, fetal outcome, HELLP-syndrome, acute fatty liver.

Chronic hypertension in pregnancy

Preeclampsia and eclampsia superimposed on chronic hypertension

2.11. Injuries to the birth canal. Complications during Obstetrical and Gynaecological operations.

Injuries to the birth canal.

Injuries of the external genitalia, perineum, clitoris.

Indications and contraindications for perineotomy and episiotomy.

Re-suturing in secondary wound healing of the perineum.

Lacerations of the cervix, vagina. Management of the patients.

Pelvic Haematoma. Types, clinical picture and treatment.

Rupture of the uterus during pregnancy and labour. Classification, clinical picture, surgical management, intensive care, rehabilitation.

Visceral injuries during labour: bladder, urethra, rectum.

Management of abnormal labour.

Malpresentation, malposition.

Contracted pelvis. Variation of female pelvis.

Cephalopelvic disproportion.

Prolonged labour.

Obstructed labour. Dystocia.

Caesarean section in modern conditions.

Operation forceps, vacuum extraction.

Management of perineal tear III- IV degree.

Uterine perforation, clinical indications for conservative management, the volume of surgical treatment.

Complications during obstetrical and gynaecological operations.

Injury of urethra, bladder and rectum.

Prevention of injury during vaginal plastic surgeries and at laparotomy.

Peculiarities of operations for myomectomy and.

Peculiarities of operation for inflammatory conglomerates in the ovary, endometrioid ovarian cysts.

Peculiarities of surgery for malignant tumours of the body of the uterus, cervix, ovaries.

Repair surgery during trauma to bladder, ureter and bowel.

2.12. Paediatric Gynaecology

Gynaecologic problems from birth to adolescence.

Puberty. Precocious puberty. Delayed puberty. Puberty menorrhagia.

Primary amenorrhea (Mayer-Rokitansky-Kuster-Hauser syndrome, Turner's syndrome, Androgen insensitivity syndrome and etc .) and secondary amenorrhea.

Juvenile bleeding.

Dysmenorrhea. Premenstrual syndrome.

Congenital malformations of female genital organs: aplasia and atresia of vagina and uterus, developmental anomalies of the external genitalia and other abnormalities.

Inflammatory diseases of the genital organs: vulvovaginitis, cervicitis, inflammatory diseases of the appendages, uterus, pelvic peritoneum.

Pelvic infections: Acute pelvic infections, chronic pelvic infections and genital tuberculosis.

Neoplasms of the genital organs: Tumours of uterus, ovary and vagina.

2.13. Endocrinology in Obstetrics and Gynaecology

Neurohumoral regulation of reproductive function.

Neuroendocrine Regulation (cerebral cortex, hypothalamus, pituitary, ovaries).

Other endocrine glands: adrenal cortex, pineal gland, thyroid, thymus, APUD system.

Disorders of the menstrual function, classification.

Amenorrhea.

Dysfunctional uterine bleeding.

Menorrhagia.

Neuroendocrine gynaecological syndromes:

Polycystic ovarian syndrome, congenital adrenal hyperplasia, premenstrual syndrome, climateric syndrome, perimenopausal syndrome, amenorrhea-galactorrhea, ovarian hyperstimulation syndrome.

Sexology.

Sexology, modern ideas. Regulation of sexual function. Biological features of sexuality in women.

Pathology in sexology. Pathophysiological conditions for that causes neurogenic and psychogenic sexual dysfunction.

2.14. Inflammatory diseases and septic infections in Obstetrics and Gynaecology

Septic diseases in obstetrics.

Postpartum septic diseases: the first stage (postnatal ulcer, endomyometritis), the second stage, the third stage (diffuse peritonitis, progressive thrombophlebitis). Peritonitis after cesarean section. Diseases of the fourth stage of postnatal infection (septicaemia, pyosepticaemia, anaerobic sepsis, septic shock).

Lactational mastitis: Clinical picture, classification. Conservative and surgical treatment. Prevention.

Inflammatory diseases of the genital organs, pelvic tissue, peritoneum (nonspecific). Vulva, bartholinitis, genital warts and others. Inflammation of the vagina, cervix, uterus, fallopian tube, ovaries, parametrium and pelvic abscess.

Inflammatory diseases of the genital organs (specific).

Trichomoniasis urinary organs and rectum.

Gonorrhea, the peculiarities of treatment of gonorrhea in pregnant women and girls.

Syphilis. Clinical picture. Treatment during pregnancy.

Tuberculosis of the genital organs.

Mycoplasma infection of genitals.

Bacterial vaginosis.

Urogenital candidiasis.

Genital herpes.

Genital human papillomavirus infection.

Mixed infections, sexually transmitted infections.

Septic diseases in gynaecology. Peritonitis, septicaemia, septic shock, intensive care, prevention.

2.15. Operative Gynaecology

Preoperative preparation. Methods of preparation: medications, physical, depending on the type of operations. Preoperative preparation with respiratory diseases, cardiovascular diseases, anaemia, endocrine disorders, liver disease, kidney disease, allergic conditions.

Diagnostic operations: dilatation of cervix, curettage of the uterus, biopsy, endometrial aspiration, hysteroscopy, laparoscopy, etc..

Operations on the uterus: Hysterectomy(total, subtotal, pan-, extended hysterectomy, radical).

Operations on the ovaries and fallopian tubes: salpingectomy, plastic, sterilization, ovarian resection, suturing, removal. Laparoscopy in the treatment of purulent diseases of the uterus, ectopic pregnancy.

Surgery in malignant tumours: cervix and body of uterus(radical hysterectomy with lymphadenectomy, removal of tubes and ovaries, supracervical amputation of uterus and etc), vulva and vagina (simple vulvectomy, radical vulvectomy with bilateral inguino-femoral lymphadenectomy).

Methods of surgical treatment of vaginal wall prolapse, uterine prolapse, urinary incontinence, surgery on the cervix.

Anterior colporrhaphy, Colpoperineorrhaphy, repair of enterocele, pelvic floor repair, Fothergill's operation, vaginal hysterectomy with pelvic floor repair, repair of vault prolapse.

Operations on the cervix: thermal cauterisation, cryosurgery, cervical biopsy.

Surgeries in Congenital anomalies of the genitalia.

Recovery operations in trauma and bowel fistulas and urinary tract:

Recovery operations in wounds of the urinary tract: when damaged bladder, ureters, urinary fistula, vesicovaginal, vesico-cervico-vaginal, ureteral-vaginal

Intensive therapy and prevention of complications in the postoperative period.

Restoration of physiological functions: correction of homeostasis, urination, bowel function, liver, kidney.

Postoperative care and prevention of postoperative complications.

Thromboembolism.

Septic complications.

Simultaneous operations on the abdominal organs.

2.16. Neoplasms of female genital organs and Breast Cancer

Benign tumours of the external genitalia and vagina.

Benign and premalignant lesions of female genitals and vagina, cervix:

Ectopy and ectropion of cervix endocervicitis, dysplasia cervical epithelium, endometrial hyperplasia.

Benign tumours of the ovary.

Ovarian enlargement; non-neoplastic and neoplastic

Follicular cysts, Corpus luteum cyst, Polycystic ovarian syndrome, endometrial cyst.

Pregnancy with ovarian pathology.

Uterine fibroids. Radical and conservative therapy.

Genital and extragenital endometriosis. Radical and conservative therapy.
malignant tumours:

Cancer of the external genitalia and vagina.

Cervical Cancer.

Uterine cancer.

Sarcoma uterus.

Gestational trophoblastic neoplasia.

Ovarian cancer.

Hormonal dependent malignant disease and breast cancer.

2.17. Acute abdomen in Gynaecology

Acute abdomen with bleeding into the abdominal cavity. Ectopic pregnancy, ovarian apoplexy, perforation of the uterus.

Acute abdomen in inflammatory diseases of the genital organs. Peritonitis.

Acute abdomen with circulatory disorders of the pelvic organs and tumours.
Torsion of pedicle, rupture of cyst, pseudomyxodema peritonei.

2.18. Infertility

Male and female infertility.

Tubal-peritoneal factor infertility.

Uterine factor infertility.

cervical factor.

Immunological factors infertility.

Endometriosis as a cause of infertility.

SKILLS:

The Clinical Resident should know:

1. The basis of legislation and policy of documents that define the activity of the bodies and institutions of health care.
2. The organization of Obstetric and Gynaecological emergency care.
3. Maternal and perinatal mortality.
4. Topographical anatomy of the anterior abdominal wall, abdomen, retroperitoneum, pelvis, urogenital region and other areas of the body.
5. Interconnection of functional systems of the body, levels of regulation; physiology and pathology of the female menstrual function.
6. Physiology and pathology of pregnancy, labour, postpartum, risk groups.
7. The causes of pathological processes in the body of the woman, the mechanisms of their development, clinical manifestations.
8. The effect of factors on the specific functions of the female body.
9. Physiology and pathology of the haemostatic system, indications and contraindications for transfusion of blood and blood components.
10. The basics of water and electrolyte metabolism and acid-base status of blood.
11. General and special methods of research in obstetrics and gynaecology
12. Issues of asepsis and antisepsis in obstetrics and gynaecology.
13. Basics of Immunology and Genetics in obstetrics and gynaecology.
14. The basis of intensive care and anaesthesia in obstetrics and gynaecology, including newborns.
15. Fundamentals of fluid therapy, the characterization of blood and blood products.
16. Drug therapy in obstetrics and gynaecology.
17. Preoperative management of patients in the postoperative period.
18. Basics of physiotherapy and exercise therapy in obstetrics and gynaecology, indications and contraindications.
19. The principles of nutrition and dietetics.
20. Methods of prevention and treatment of obstetric and gynaecological pathology.
21. Prevention and early detection of malignancies in women.
22. Issues of temporary and permanent disability medical certificate.
23. Indications for hospitalization of pregnant women and gynaecologic patients.
24. Machinery and equipment operation theatre and ICU, safety when working with the equipment, surgical instruments required for Obstetrical and Gynaecological operations.
25. How to work with monitors.
26. Legal Rights in obstetrics and gynaecology.
27. The organization of civil defence medical service.
28. Obtain information on the course of pregnancy and disease.
29. To identify risk factors for obstetric and gynaecological pathology, organize prevention efforts.

30. To apply the methods of obstetrical and gynaecological examination in pregnant woman, to identify general and specific symptoms of gynaecological diseases or complications of pregnancy.
31. To evaluate the severity of the patient, to determine the scope and sequence of resuscitation.
32. Provide the necessary emergency assistance in case of emergency.
33. To determine the need for additional methods of investigation (laboratory, radiologic, endoscopic, and functional).
34. Interpret the results.
35. To identify the early signs of pregnancy, define its terms, the position of the fetus, the size of the pelvis.
36. To determine the indications for hospitalization of pregnant or gynaecological patient, arrange hospitalization in accordance with the state of women.
37. Plan the management of pregnancy.
38. Preparing of patients for emergency or elective surgery.
39. To determine the blood group and perform intravenous blood transfusion. Identify possible transfusion complications and make the necessary treatments and preventive measures.
40. Apply adequate methods of analgesia in obstetrics and gynaecological practice.
41. Medical documentation, perform a continuity between medical institutions.
42. Family planning.
43. Promote health education

PRACTICAL SKILLS

Perform vaginal examination during pregnancy, labour and in gynaecological patient

Venepuncture

Conduct of normal vaginal delivery

Perineal infiltration and pudendal block

Perform episiotomy

Perform amniotomy

Forceps delivery

Conduct breech vaginal delivery

Conduct twin delivery

Perform vacuum extraction of the fetus

Repair of perineal tears, episiotomy.

Exploration of cervix. Repair of cervical tears.

Perform manual removal of placenta, postpartum manual examination of the uterus

Perform abdominal cesarean section

Perform neonatal exchange transfusion with Rh-conflict

Perform blood transfusion

Assesment of the newborn with Apgar score

Perform neonatal intensive care
 Perform medical termination of pregnancy. Vacuum extraction. Dilatation and evacuation.
 To assess fetal well being (cardiotocography, ultrasound, Doppler)
 Correct Cervical incompetence by the introduction of Obstetrical pessary and cerclage
 Management of postpartum haemorrhage
 Perform colposcopy
 Perform biopsy of the cervix, diathermocoagulation, cryotherapy, laser therapy
 low-intensity laser radiation
 Perform removal of cervical polyps
 Perform diagnostic dilatation and curettage of the uterus
 Perform puncture of the abdominal cavity through the posterior vaginal fornix
 Perform hysterosalpingography
 Preoperative preparation of patients
 Internal iliac ligation
 Uterine and ovarian artery ligation
 Destructive operations
 Reposition of inversion uterus
 Amniocentesis
 Laparotomy: ovarian cystectomy, ectopic pregnancy, amputation of the cervix, supracervical hysterectomy , conservative myomectomy, Total abdominal hysterectomy with bilateral salpingoophorectomy. Radical operations for gynecological malignancies
 Vaginal hysterectomy. Repair of rectocele, cystocele and vault prolapse
 Manage patients in the postoperative period
 Management of shock
 IUD insertion
 Make intrauterine lavage
 Perform surgical sterilization
 Convectional pap's smear. Liquid base pap's smear.
 Endometrial biopsy
 Endometrial aspiration
 Dilatation and curettage. Fractional curettage. Polypectomy
 Tuboplasties
 Paracentesis
 Endoscopic surgery (diagnostic and operative laparoscopy and hysteroscopy)
 Repair of genital fistulae
 Vaginoplasty
 Intrauterine insemination
 Basic ultrasound. TVS
 Hydrotubation
 Vulval biopsy
 Intra uterine contraception device insertion and removal
 Female sterilization

RECTOR OF GRODNO STATE MEDICAL UNIVERSITY
PROFESSOR SNEZHITSKIY VIKTOR ALEKSANDROVICH

DEAN OF GRODNO STATE MEDICAL UNIVERSITY
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