THEMATIC PLAN ON OBSTETRICS AND GYNECOLOGY
FOR 4th YEAR STUDENTS OF
FACILITY FOR INTERNATIONAL STUDENTS

Thematic plan was approved at a meeting of the Department of Obstetrics and Gynecology with PD and PC.

7 semester

TOPIC 1. Structure and organization of a maternity hospital. Maternal pelvis. Obstetrical perineum. Fetus at uterus. Fetal skull. Diagnosis of pregnancy. Ethics and deontology in obstetrics

1. Structure and organization of work in maternity hospital. Emergency department of maternity hospital. Delivery unit. The structure, operation block. The second (observational) obstetrical department, principle of work, the indications for hospitalization. The department of pathology of pregnancy. Indications for hospitalization.
2. Ethics and deontology in obstetrics.
3. Asepsis and antiseptics in obstetrics: the sanitary-epidemiological regime in the postnatal ward.
4. Anatomy of internal genitalia. Obstetrical perineum. Muscles of perineum in women.
5. Maternity pelvis from obstetrical standpoint. Planes and diameters of true pelvis. Pelvic axis and inclination. External diameters of pelvis. Sacral rhombus.
6. The fetus-in-utero. Obstetric terminology: attitude, lie, position, type of position, presentation, insertion. Signs of maturity, full-term fetus. The fetal scull, large and small segments.
7. Diagnosis of early and late pregnancy. Methods of obstetrical examination (an objective, external and internal examination, additional methods of examination).Determination of gestational age and predicted date of delivery, estimated fetal weight.

TOPIC 2. Labor. Clinical course and management of labor at different periods

1. The definition of labor. Classification of labors by gestational age, duration. The causes for the onset of labor. Evaluation of the biological availability of pregnant women for labor. Parturition, preliminary period. Clinical course, diagnosis. Obstetrical tactics.
2. The first stage of labor (cervical dilatation). The clinical course and management. Labor analgesia. Indications. Methods. Medications and their effects on the fetus and newborn.
3. The second stage of labor. Clinical course and management. Biomechanism of labor at the occipito-anterior and the occipito-posterior presentation. Obstetrical manuals. The first toilet of newborn. Newborn Apgar score.
4. The third stage of labor. Clinical course and management. Physiological, border and pathological blood loss.

TOPIC 3. Hypertensive disorders in pregnancy. Preeclampsia. Eclampsia

1. Definition. Classification of hypertensive disorders in pregnancy/
2. Pathogenesis of preeclampsia.

3. 3. Clinic and diagnostics of gestational arterial hypertension, preeclampsia.
4. Assessment of the severity of preeclampsia.
5. Eclampsia. HELLP syndrome. Stages of providing assistance to patients with preeclampsia.
6. Principles of treatment of patients with preeclampsia, drugs used.
7. Delivery of patients with preeclampsia.
8. Risk groups and prediction of development of preeclampsia. Prevention of preeclampsia.

TOPIC 4. Breech presentation. Extension presentation. Multiply pregnancy

1. Breech presentation. Etiology. Classification. Diagnosis. Course and management of pregnancy in breech presentation. The clinical course of labor with breech presentation. Biomechanism of birth.
2. Management of labor in the breech presentation. Assistance in labor (Tsovyanov manual, classical hand assistance). Complications for mother and fetus in breech presentation. Assistance when they appear (Mauriceau Maneuver).
3. Malpresentation of fetus. Course and management of pregnancy External-internal classic (combined) rotation of the fetus. Indications, conditions, complications. Total breech extraction (extraction of fetus therefor the pelvis). Indications. Conditions.
4. Extension presentation of fetus. Anterior head (brow), frontal, facial presentation. Biomechanism of birth. Obstetric tactics (management).
5. Multiple pregnancy. Etiology. Classification. Diagnosis. Course and management of multiple pregnancy. Complications for mother and fetus.
6. Course and management of labor in multiple pregnancies. Complications for mother and fetus. Prevention of perinatal losses.

TOPIC 5. Miscarriage. Post-term pregnancy. Abnormal uterine action

1. Definition: miscarriage, recurrent miscarriage, missed pregnancy, preterm labor. The causes of miscarriage.
2. Spontaneous abortion: stages, diagnosis, treatment, rehabilitation. Hormonal therapy of miscarriage: principles, indications, medications, monitoring of treatment efficacy.
3. Cervical incompetence: causes, clinical features, methods of correction, management of pregnancy and labor.
4. Preterm labor: causes, classification by gestational age and the clinical course. Conservative management of preterm labor: tocolysis, magnesium therapy, prevention of RDS in fetus and newborn. Management of premature rupture of the amniotic membranes. Active management of preterm labor. Principles and methods of preterm delivery. Signs of immaturity of the newborn. Nursing of premature infants.
5. Port-term pregnancy. Etyology, diagnostics, complications during pregnancy and delivery. Methods of pre-induction and induction of labor.
6. Physiology of uterine contractions. Causes of abnormal uterine action. Classification.
7. Pathological preliminary period: clinical signs, differential diagnosis, treatment, obstetrical tactics.
8. Uterine inertia: clinical signs, diagnosis, clinical course of labor, treatment, obstetrical tactics.

9. Generalized tonic contraction: clinical signs, diagnosis, clinical course of labor, treatment, obstetrical tactics.

10. Incoordinate uterine action: causes, severity, clinical manifestations, diagnosis, differential diagnosis, clinical course of labor, methods of treatment.

TOPIC 6. Contracted pelvis. Obstetrical injuries

1. The concept of an anatomically contracted pelvis. Etiology. Classification of contracted pelvis by shape and degree of contraction. Diagnosis of contracted pelvis. The course and management of pregnancy in women with contracted pelvis.

2. Particularities of biomechanism in: transverse pelvic contraction; justo minor pelvis; flat pelvis (simple and rachitic).

3. Cephalopelvic disproportion: definition, causes, diagnosis, obstetrical tactics. Complications for mother and fetus.

4. Lacerations of the birth canal. Perineal lacerations. Etiology, classification, clinical signs, diagnosis, treatment. Long-term complications. Prevention.

5. Lacerations of the vagina and cervix. Causes, clinical signs, diagnosis, treatment, prevention.

6. Hematomas of the external genitalia and vagina. Clinical signs, diagnosis, treatment, prevention.

7. Uterine rupture. Etiology and pathogenesis, classification, diagnosis, obstetrical tactics, treatment, prevention.

8. Obstetrical fistulas. Etiology, pathogenesis, classification, clinical signs, diagnosis, treatment, prevention, rehabilitation. Management in subsequent childbirth.

9. Damage to pelvic joints. Etiology, pathogenesis, clinical signs, diagnosis, treatment, prevention.

TOPIC 7. Pregnancy and extragenital diseases.

1. Physiological changes in the cardiovascular system and hemostasis system during pregnancy.

2. The course and management of pregnancy and labor in case of heart defects. Contraindications for carrying a pregnancy in case of heart diseases.

3. The course and management of pregnancy in case of arterial hypertension. Management of labor in case of chronic arterial hypertension.

4. Physiological changes in the urinary system in pregnant women.

5. Pyelonephritis in pregnant women: etiology, clinical features, diagnostics, treatment.

6. Glomerulonephritis in pregnant women: clinical features, diagnostics, treatment.

7. Urolithiasis and pregnancy: clinical features, diagnostics, indications for surgical treatment.

8. Contraindications for maintaining pregnancy in case of kidney diseases. Management of pregnancy and childbirth in case of kidney diseases.

9. Changes in endocrine function in pregnant women. Placental hormones and their functions. Metabolism in pregnant women.

10. Diabetes mellitus in pregnant women. The course of diabetes mellitus in pregnant women. Complications of pregnancy and childbirth in patients with diabetes mellitus. The condition of the fetus and newborn in mothers with diabetes mellitus,

diabetic fetopathy. Management of pregnancy and childbirth in patients with diabetes mellitus. Contraindications for carrying a pregnancy.

11. Pregnancy and thyroid diseases. The effect of thyroid hormones on fetal development. The course and management of pregnancy and labor in mothers with hypo- and hyperthyroidism. Complications for the fetus. Prevention of iodine deficiency.

12. Acute surgical diseases of the abdominal organs in pregnant women. Epidemiology, clinical picture, differential diagnostics, obstetric tactics, treatment.

8 semester

TOPIC 8. Obstetrical bleeding

1. The causes of obstetric hemorrhage. Features of obstetric hemorrhage. Factors that increase the organism's sensitivity to the blood loss.
2. Methods of blood loss estimation. Physiological, border, pathological blood loss.
3. Placenta praevia. Etiology, pathogenesis, classification, clinical signs, diagnosis, differential diagnosis. Obstetrical tactics, indications for emergent delivery.
4. Placental abruption. Etiology, pathogenesis, classification, clinical signs, diagnosis, differential diagnosis. Obstetrical tactics, indications for emergent delivery. Uteroplacental apoplexy (Couvelaire uterus): pathogenesis, clinical manifestations, diagnosis, obstetrical tactics, complications for mother and fetus.
5. Placental accreta, increta, percreta. Etiology, pathogenesis, classification, clinical signs, diagnosis, differential diagnosis. Indications and technique of the operation of manual placental removal.
6. Uterine atony. Etiology, pathogenesis, clinical signs, diagnosis, differential diagnosis. Obstetrical tactics. Conservative and surgical methods of hemostasis.
7. Retained placental fragments. Etiology, clinical signs, diagnosis, differential diagnosis, tactics.
8. Prevention of obstetrical bleedings. Groups at risk of obstetric hemorrhage.

TOPIC 9. Hemorrhagic shock. Amniotic fluid embolism. DIC-syndrome

1. Amniotic fluid embolism. Etiology, predisposing factors, pathogenesis, clinical signs, diagnosis, differential diagnosis. Obstetrical tactics.
2. Hemorrhagic shock in obstetrics. Causes, predisposing factors
3. Pathogenesis, clinical signs. Classification.
4. Principles of treatment for hemorrhagic shock. Features of infusion-transfusion therapy.
5. Disseminated intravascular coagulation. Obstetrical causes and predisposing factors.
6. Pathogenesis, phases of DIC, clinical course of the DIC-syndrome.
7. Clinical and laboratory diagnostics of the DIC-syndrome.
8. Treatment of the DIC-syndrome.

TOPIC 10. Obstetrical surgery

1. Cesarean section. Indications during pregnancy and labor. Terms and contraindications. Advantages of elected caesarean section. Anesthesia for cesarean section: methods, medications, complications to the fetus.

2. Examination of pregnant women before the operation of Cesarean section. Preoperative care.

3. Methods of Cesarean section. Main stages of abdominal Cesarean section in lower uterine segment.

4. Intra- and postoperative complications of Cesarean section:

- Aspiration syndrome (Mendelson's syndrome): predisposing causes, pathogenesis, clinical signs, diagnosis, first aid, prevention.

- Inferior vena cava syndrome: predisposing causes, pathogenesis, medical tactics, prevention.

- Amniotic fluid embolism: predisposing factors, pathogenesis, clinical signs, diagnosis, emergency care.

- Thromboembolic complications, risk factors, clinical signs, diagnosis, prevention.

- Bleeding after Cesarean section: causes, diagnosis, obstetrical tactics, prevention.

- Peritonitis: the mechanisms of peritonitis after cesarean delivery, pathogenesis, clinical signs, diagnosis, intensive care, the indications for surgical treatment.

5. Postoperative care. Prevention of complications of cesarean section.

6. Obstetrical forceps: indications, conditions and contraindications for forceps. Methods of anesthesia. Technique of forceps. Early and long-term complications of forceps for the mother and fetus.

7. Vacuum extraction of fetus: techniques, conditions, indications and contraindications, complications.

8. Embryotomy: types of operations, indications, conditions. Methods of analgesia, complications.

9. Episio- and perineotomy. Indications and technique of operations. Postoperative management.

10. Rational antibiotic prophylaxis and antibiotic therapy for typical surgical procedures and operations in obstetrics.

TOPIC 11. Infections in pregnant women

1. The state of the immune system of a pregnant woman.

2. Vulvovaginal candidiasis. Etiology. Pathogenesis. Clinic. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment. Prevention.

3. Bacterial vaginosis and pregnancy. Etiology. Pathogenesis. Clinic. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment guidelines. Prevention.

4. Gonorrhea. Etiology. Pathogenesis. Clinic. Diagnosis. Treatment.

5. Genital chlamydial infections. Etiology. Pathogenesis. Clinic. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment.

6. Ureaplasmosis. Mycoplasmosis. Etiology. Pathogenesis. Clinic. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment.

7. Herpesvirus infections (HSV, CMV). Etiology. Pathogenesis. Clinic. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment guidelines.

8. Viral hepatitis A, B, C, D. Diagnosis, differential diagnosis. Complications for mother and fetus. Management of pregnancy and labor.

9. HIV infection. Etiology. Pathogenesis. Clinic. Classification. Minutes of a survey of pregnant women. Diagnosis. Course and management of pregnancy and labor. Effect on the fetus and newborn. Treatment guidelines. Prophylaxis.

TOPIC 12. The course and management of the normal postpartum period. Postpartum septic diseases

1. Clinical course and management of normal puerperium. Post-partum period, duration. Early post-partum period. Hygiene, prevention of mastitis.

2. Postpartum purulent-septic diseases. Etiological agents. Pathogenesis: pathways and phases of infection, immune response of the macroorganism, factors predisposing to postpartum purulent-septic diseases. Classification of postpartum purulent-septic diseases. Prevention of postpartum septic diseases.

3. Postpartum wound infection (puerperal ulcer): clinical signs, diagnosis, differential diagnosis, treatment.

4. Endometritis, metroendometritis: clinical signs, diagnosis, differential diagnosis, treatment. Indications for hysterectomy.

5. Postpartum thrombophlebitis: clinical signs, diagnosis, differential diagnosis, treatment.

6. Indications for surgical treatment. Pelvioperitonitis, peritonitis: clinical signs, diagnosis, differential diagnosis, treatment.

7. Sepsis in obstetrics: particularities, clinical types. Principles of treatment for obstetrical sepsis.

8. Septic shock: clinical signs, emergent care, intensive care.

9. Puerperal mastitis: clinical signs, diagnosis, differential diagnosis, treatment. Indications for surgical treatment.

10. Principles of rational antibiotic therapy in patients with infections and inflammatory complications during pregnancy, childbirth and the postpartum period.

TOPIC 13. Intrauterine development of the fetus, fetal membranes. Prenatal diagnosis. Threatened conditions of the fetus

1. Fertilization. Development of the embryonic membranes. Structure and functions of the placenta. Composition, formation and functions of amniotic fluid. Intrauterine development of the fetus (critical periods).

1. Perinatology. Perinatal period. Groups and risk factors of perinatal pathology.

2. Modern methods of fetal assessment: ultrasound, electro-phono-cardiography of fetus, ante-and intranatal fetal cardiotocography, Doppler study of blood flow.

3. Indications for prenatal diagnosis. Methods of prenatal diagnosis: amniocentesis, kordocentesis, chorionic villi biopsy, biochemical and hormonal methods of investigation the mothers blood. Medical and genetic counseling.

4. Feto-placental insufficiency: pathogenesis, clinical manifestations, diagnosis, treatment.

5. Pathogenetic mechanisms of the immunological conflict between mother and fetus. Reasons of mother’s sensitization. Hemolytic disease of the fetus and newborn: causes, pathogenesis. Clinic forms of hemolytic disease of the newborn. Diagnosis.

Treatment of hemolytic disease in the antenatal and neonatal period. Prevention of hemolytic disease of the newborn/

6. Intrauterine infection. Pathogenesis. Clinic. Diagnostics. Management of pregnancy and childbirth. Prevention.