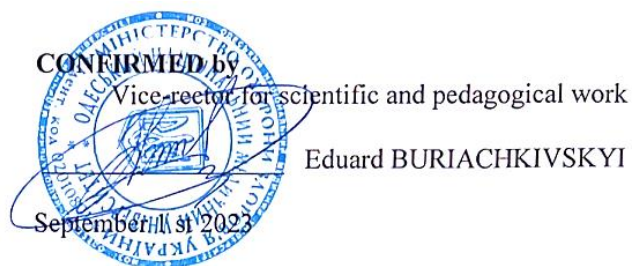


**MINISTRY OF HEALTH OF UKRAINE  
ODESSA NATIONAL MEDICAL UNIVERSITY**

Faculty International  
Department of Obstetrics and Gynecology



**METHODICAL DEVELOPMENT FOR PRACTICAL LESSONS  
FROM THE PRODUCTION POLYCLINICAL MEDICAL PRACTICE**

Faculty of International, course V

Educational discipline "Obstetrics and gynecology"

**Practical lesson №1. Topic: «Medical manipulations in obstetrics»**

**Approved:**

Meeting of the Department of Obstetrics and Gynecology of Odesa National Medical University

Protocol No. 1 dated August 28, 2023.

Head of the department



(Ihor GLADCHUK)

**Developer:**

associate professor of the Department of Obstetrics and Gynecology



Panchuk E.A.

### **Practical lesson 1**

**Topic:** Medical manipulations in obstetrics

**Goal:** To master the correct implementation of practical skills during the examination of pregnant women. Identify from complaints, anamnesis, data of subjective, objective and special methods of examination the signs and features that are needed to establish the final diagnosis, evaluate them. Formulate deontological principles of communication with pregnant women.

**Basic concepts:** Anatomy and physiology of female genital organs in pregnant women. Peculiarities of performance of practical skills in pregnant women. Carrying out pelviometry. Leopold's techniques. Auscultation of the fetus. Determination of the expected date of delivery and the weight of the fetus. Apgar scale. Deontological principles of communication with pregnant women during practical skills.

**Equipment:** Professional algorithms, structural and logical schemes, tables, models, video materials, results of laboratory and instrumental studies, situational problems, patients, medical histories.

#### **1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).**

The topicality of the topic is due to the importance of students of the group acquiring practical skills when working with pregnant women at the stages of clinical, laboratory, and instrumental examination. Practical skills allow students to formulate an algorithm for a modern approach to pregnancy management. Assess the condition of the pregnant woman and the fetus. To acquire deontological skills of communication with pregnant women, that is, it gives students the opportunity to acquire the skills of formulating a possibly earlier, justified and probable diagnostic hypothesis, to carry out a clinical differential diagnosis, to organize a laboratory and instrumental examination to establish a diagnosis. Each doctor should have a clear understanding of this provision, as it enriches his therapeutic tactics in each specific case,

#### **2. Control of the reference level of knowledge (written work, written test, online test, face-to-face survey, etc.).**

**- Requirements for student's theoretical readiness to perform practical classes.**

Knowledge requirements:

- have the skills of communication and clinical examination of the patient;
- determine the list of necessary clinical and laboratory, instrumental studies and evaluate their results;
- to have the correct implementation of practical skills during the examination of pregnant women;
- to identify from complaints, anamnesis, data of subjective, objective and special methods of examination the signs and features that are needed to establish the final diagnosis, evaluate them;
- formulate deontological principles of communication with pregnant women.
- the ability to keep medical records.

List of didactic units:

- anatomy and physiology of female genital organs in pregnant women;
- peculiarities of performing practical skills in pregnant women;
- carrying out pelviometry;
- Leopold's techniques;
- auscultation of the fetus;
- determination of the expected date of delivery and the weight of the fetus;
- assessment on the Apgar scale;
- deontological principles of communication with pregnant women during practical skills.

## **2.2. Questions (test tasks, problems, clinical situations) to check basic knowledge on the subject of the lesson.**

### **Question:**

1. Scheme of examination of pregnant women
2. Carrying out pelviometry
3. External obstetric examination (Leopold's techniques)
4. Determination of the expected date of delivery and the weight of the fetus
5. Carrying out auscultation of the fetus
6. Evaluation of a newborn child according to the Apgar scale

### **Typical situational tasks:**

1. When measuring the pelvis, it was established that the diagonal conjugate is equal to 12 cm. The radius of the carpal joint is 14 cm.

**Question:** What is the true conjugate equal to?

**Answer:** 10.5 cm.

2. A pregnant woman applied to the housing complex to register her pregnancy. During the internal obstetric examination, the midwife managed to measure the distance between the tip of the sacrum and the lower edge of the pubic symphysis (conjugata diagonalis). After removing the right hand from the vagina, the midwife measured this distance with a tape measure.

**Question:**What is this size? (under conditions of normal pelvis size)?

**Answer:**12.5-13 cm.

**Typical test tasks:**

1.A 17-year-old woman in labor was hospitalized in the maternity ward with active labor. During the internal obstetric examination, a diagonal conjugate was determined. Specify its normal value.

- A. 11-12 cm
- B. 12.5-13 cm
- C. 10-11 cm
- D. 20-21 cm
- E. 30-31 cm

2. Pregnant A., 30 years old, has the dimensions of the pelvis: 26-28-30-20 cm. The diagonal conjugate is 12.5 cm. The circumference of the carpal joint is 15 cm. Determine the true (obstetric) conjugate ?

- A. 11 cm
- B. 28 cm
- C. 12 cm
- D. 25 cm
- E. 13 cm

Correct answers: 1 – B, 2 – A.

**3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).**

**- Content of tasks (tasks, clinical situations, etc.).**

**Interactive task:**

The acquirer of the group are divided into 3 subgroups of 4-5 people each. We work in women's consultation rooms with gynecological patients, we give tasks:

The first subgroup is the assessment of the patient.

Subgroup II – counseling of the patient on family planning, selection of a contraceptive method.

Subgroup III – evaluates the correctness of the answer of subgroups I and II and makes its corrections.

**Unusual situational tasks:**

1.A 32-year-old woman in labor came to the maternity hospital with complaints of cramp-like pain for 2 hours. It was found that the woman has a reduced diagonal conjugate.

**Question:**With which examination was the result obtained?

**Answer:**With the help of an internal obstetric study.

2. A 29-year-old woman applied to a women's consultation regarding registration for pregnancy. During the vaginal examination, the diagonal conjugate, equal to 12.5 cm, was measured.

**Question:** What measurement is necessary for a more accurate determination of the obstetric conjugate?

**Answer:** Solovyov index.

**Non-typical test tasks:**

1. When measuring the size of the pelvis, it is established that the size of the pelvis is 26-29-31-21 cm. Determine the true conjugate.

- A. 12 cm
- B. 9 cm
- C. 10 cm
- D. 13 cm
- E. 10.5 cm

2. During the external obstetric examination, it was established: the shape of the uterus is elongated in the transverse direction, the gestation period is 40 weeks, the head is palpated on the left side of the uterus, the pelvic end of the fetus is palpated on the right, the anterior part is absent above the entrance to the small pelvis. The heartbeat of the fetus is most distinctly heard on navel level. What is the position and position of the fetus?

- A. Transverse position, I position
- B. Longitudinal position, II position, cephalic presentation
- C. Transverse position, II position
- D. Oblique position, II position
- E. Longitudinal position, I position, pelvic presentation

Correct answers: 1 - A, 2 - A.

**3.2. Recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.).**

**Algorithms for performing practical skills**

**Measurement and assessment of the size of the female pelvis.**

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) inform the patient about the necessity of conducting the study;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash hands;
- 7) put on inspection gloves;

- 8) pick up a tazometer;
- 9) place the tasomer buttons on the front-upper spines of the iliac bones (indicate the normative indicator of D. spinarum = 25-26 cm);
- 10) move the buttons of the tazomer to the most distant places of the crests of the iliac bones (specify the standard indicator of D. cristarum = 28-29 cm);
- 11) install tasomer buttons on the large trochanters of the femurs (indicate the normative indicator of D. trochanterica = 30-31 cm);
- 12) lay the patient on her left side with the left leg bent at the knee joint; measure the distance from the upper edge of the symphysis to the suprasacral fossa (indicate the normative indicator of C. externa = 20-21 cm);
- 13) during the internal obstetric examination, measure the distance from the lower edge of the symphysis to the sacral promontory (indicate the normative indicator of C. diagonalis = 12.5-13 cm);
- 14) inform the patient about the results of the study;
- 15) thank the patient;
- 16) remove inspection gloves;
- 17) wash your hands.

### **External obstetric examination, vetermining the topography of the fetus in the uterus**

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) inform the patient about the necessity of conducting the study;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash hands;
- 7) put on inspection gloves;
- 8) by palpating the abdomen with the ribs of both palms, determine the level of the location of the bottom of the uterus and the part of the fetus located in the bottom of the uterus;
- 9) put your palms on the left and right part of the front wall of the uterus;
- 10) alternately palpate the front wall with the fingers of the corresponding hand, simultaneously fixing the opposite side with the palm of the other;
- 11) determine the position, position and type of the fetus;
- 12) place the hand on the upper edge of the pubic arch, cover the anterior part of the fetus;
- 13) determine the presentation of the fetus;
- 14) turn your back to the patient's head, place your palms on the front wall of the uterus;
- 15) move the palms from top to bottom and from the outside to the middle, trying to bring the fingers under the anterior part of the fetus;
- 16) determine the location of the anterior part of the fetus;
- 17) give a complete answer: position, position, type and presentation of the fetus;

- 18) thank the patient;
- 19) remove inspection gloves;
- 20) wash your hands.

### **Carrying out auscultation of the fetus, interpretation of CTG**

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) inform the patient about the necessity of conducting the study;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash hands;
- 7) put on inspection gloves;
- 8) determine the location of the fetus in the uterus (visually on the phantom) - position, presentation, position, type of fetus;
- 9) determine and describe the location of the point for auscultation (on the phantom), attach a stethoscope;
- 10) calculate (on the phantom) the heart rate of the fetus (determine the heart rate of the fetus in 6 seconds, multiply the result by 10);
- 11) evaluate the obtained (on the phantom) fetal heart rate result (normal, tachycardia, bradycardia);
- 12) evaluate the results of CTG:
  - variant of the norm
  - pronounced tachycardia
  - pronounced bradycardia
  - monotonous rhythm
  - late decelerations
- 13) thank the patient;
- 14) remove inspection gloves;
- 15) wash your hands.

### **Determination of the expected date of delivery and the weight of the fetus**

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) inform the patient about the necessity of conducting the study;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash hands;
- 7) put on inspection gloves;
- 8) determine the expected date of delivery based on the data on the last menstruation, using the Nagele formula: add 7 days to the date of the first day of the last menstruation and subtract 3 months from the result;



- 9) palpate the middle of the upper-outer edge of the symphysis with your fingers and press the zero mark of the centimeter tape to it;
- 10) unfold the centimeter tape so that it is located along the middle line of the abdomen;
- 11) find the bottom of the uterus with the edge of the palm, by gently pressing on the abdomen, moving in the direction from the symphysis to the xiphoid process;
- 12) determine and remember the number corresponding to the height of the bottom of the uterus above the pubis on the edge of the palm that presses the centimeter tape;
- 13) place a centimeter tape around the abdomen in front at the level of the navel, behind - at the level of the lumbar region, mark the result obtained;
- 14) calculate the expected weight of the fetus using Jordania's method by multiplying:  
 $LW \times VDM \pm 200 \text{ gr.}$
- 15) inform the patient about the results of the study;
- 16) thank the patient;
- 17) remove inspection gloves;
- 18) wash your hands.

#### **Evaluation of a newborn baby according to the Apgar scale**

- 1) greet the patient;
- 2) identify the patient (name, age);
- 3) inform the patient about the necessity of conducting the study;
- 4) explain to the patient how the study is conducted;
- 5) obtain permission to conduct research;
- 6) wash hands;
- 7) put on inspection gloves;
- 8) evaluate the skin color of the newborn:
  - pink - 2 points
  - acrocyanosis - 1 point
  - generalized pallor of the skin or generalized cyanosis - 0 points
- 9) assess the newborn's breathing:
  - respiratory movements in full volume, loud cry - 2 points
  - respiratory movements are irregular with the involvement of auxiliary muscles, the cry is weak - 1 point
  - absence of respiratory movements - 0 points
- 10) estimate heart rate:
  - more than 100 blows in 1 minute - 2 points
  - less than 100 blows in 1 minute - 1 point
  - absence of heartbeat - 0 points
- 11) assess muscle tone:
  - active movements of the newborn in full - 2 points
  - reduced tone - 1 point
  - lack of movement, atony - 0 points
- 12) evaluate reflex reactions:

- reaction in the form of movements, coughing, sneezing, loud shouting - 2 points
- weak reaction (grimaces) - 1 point
- absence of any reactions - 0 points

13) determine the total number of points on the Apgar scale

14) determine the condition of the newborn (satisfactory, moderate, severe)

15) thank the patient;

16) remove inspection gloves;

17) wash your hands.

### **3.3. Requirements for work results, including to registration**

1. Measure and estimate the size of the female pelvis

2. To conduct an external obstetric examination, determination of the topography of the fetus in the uterus

3. Determine the expected date of delivery and the weight of the fetus

4. Conduct auscultation of the fetus

5. To assess the newborn child according to the Apgar scale

### **3.4. Control materials for the final stage of the lesson: problems, tasks, tests, etc.:**

1. Pregnant A., 25 years old, has a fetal heartbeat of 130 bpm, heard to the left below the navel and closer to the midline of the abdomen. Determine the position, type of position and presentation of the fetus:

- A. I position, front view, cephalic presentation
- B. II position, front view, cephalic presentation
- S. I position, rear view, pelvic presentation
- D. II position, rear view, cephalic presentation
- E. I position, front view, pelvic presentation

2. During the examination of the pregnant woman, the midwife established that the back of the fetus is located on the left side of the uterus, above the entrance to the small pelvis, a soft, "not clear" contours, non-protruding part of the fetus is palpated. Determine the position, position and presentation of the fetus:

- A. Longitudinal position, first position, pelvic presentation
- B. Longitudinal position, second position, cephalic presentation
- C. Longitudinal position, second position, pelvic presentation
- D. Longitudinal position, first position, cephalic presentation
- E. Transverse position of the fetus, second position

Correct answers: 1 - A, 2 - A.

## **4. Summing up.**

**Current control:** survey, testing, evaluation of performance of practical skills, evaluation of communication skills during role play, solution of situational clinical tasks, evaluation of activity in class.

**Final control:** ASPI.

**Assessment of current activity in a practical lesson :**

- Evaluation of theoretical knowledge on the subject of the lesson:
  - methods: survey, solving a situational clinical problem
  - assessment: maximum – 5, minimum – 3, unsatisfactory – 2
- Evaluation of practical skills and manipulations on the subject of the lesson:
  - methods: assessment of the correctness of the performance of practical skills
  - assessment: maximum – 5, minimum – 3, unsatisfactory – 2
- Evaluation of work with patients on the subject of the lesson:
  - methods: communication skills with the patient and his relatives; correctness of appointment and assessment of laboratory and instrumental studies; compliance with the differential diagnosis algorithm; substantiation of the clinical diagnosis; drawing up a treatment plan
  - assessment: maximum – 5, minimum – 3, unsatisfactory – 2

The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

### Current evaluation criteria in practical training

Rating	Evaluation criteria
Perfectly "5"	The student is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills. Excellently interprets the data of clinical, laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
Fine "4"	The student has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills. Interprets the data of clinical, laboratory and instrumental studies well with some errors, expresses his opinion on the subject of the class, demonstrates clinical thinking.
Satisfactorily "3"	The student does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of a situational clinical problem, demonstrates practical skills for and interprets clinical, laboratory and instrumental research data with significant errors.

Unsatisfactorily "2"	The student does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills.
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## 5. List of recommended literature.

### Main:

1. Obstetrics and gynecology: National a textbook for medical universities of IV accreditation levels in 4 vols.// Nat. textbook in 4 volumes / V. M. Zaporozhan, T. F. Tatarchuk, I. Z. Gladchuk, V. V. Podolsky, N. M. Rozhkovska, V. G. Marichereda, A. G. Volyanska. -K.: VSV "Medicine", 2017. - 696 c.
2. Training manual on midwifery (edited by I.B. Ventskivska, V.P. Lakatosha, V.M. Kushcha). - K., 2018. - RA-HARMONY - 210 p.
3. Obstetrics and gynecology: in 2 books. - Book 1. Obstetrics: Textbook for students. honey. ZVO — 3rd edition. Approved by the Ministry of Health / Ed. V.I. Hryshchenko, M.O. Shcherbiny and others. - K.: Medicine, 2018. - 424 p.
4. Obstetrics and gynecology: In 2 books. — Kn. 2: Gynecology: Textbook for students. honey. ZVO — 3rd edition. Approved by the Ministry of Health / Ed. V.I. Hryshchenko, M.O. Cracks — K., 2020. — 376 p.
5. Clinical obstetrics and gynecology: Education. help.: trans. 4th Eng. kind. / Brian A. Magowan, Philip Owen, Andrew Thomson; Ed. of Sciences trans. Mykola Shcherbina. — K., 2021. — X, 454 p., tv. pal., (art. 4 pr.).
6. Family planning and contraception: study guide / V.I. Boyko, N.V. Kalashnyk, A.V. Boyko and others; in general ed. Dr. Med. Sciences, Prof. V.I. A fight — Sumy: Sumy State University, 2018. — 223 p.

### Additional:

1. Order No. 976 of 12/27/2011 Vaginal delivery after caesarean section (C-section)
2. Order No. 977 of 12/27/2011 Clinical protocol for obstetric care "Caesarean section".
3. Order No. 423 dated 05/24/2013 "On approval of the procedure for providing complex medical care to a pregnant woman during an unwanted pregnancy, forms of primary accounting documentation and instructions for filling them out"
4. Order No. 955 dated 05.11.2013 "Procedure for emergency post-contact prevention of HIV infection among employees in the performance of professional duties".
5. Order No. 59 dated 21.01.2014 On the approval and implementation of medical and technological documents on the standardization of medical care for family planning.
6. Order No. 205 dated 03.24.14. Clinical protocol "Obstetric bleeding".
7. Order No. 236 of April 2, 2014 "On the approval and implementation of medical and technological documents on the standardization of medical care for dysplasia and cervical cancer."

8. Order No. 709 dated November 2, 2015 "Unified clinical protocol of primary and secondary (specialized) medical care "Iron deficiency anemia".
9. Order No. 319 dated 06.04.2016 "On the approval and implementation of medical and technological documents on the standardization of medical care for genital endometriosis"
10. Order No. 353 dated 04/13/2016 "On the approval and implementation of medical and technological documents on the standardization of medical care for abnormal uterine bleeding"
11. Prevention of miscarriage by the use of folates in complex therapy / V.P. Mishchenko, I.V. Rudenko // The world of medicine and biology. - 2020. - No. 1(66).- P.70-73. (Web of Science Core Collection)
12. Pathogenetic rationale for correction of iron content in the blood of women at the stage of preconception preparation for pregnancy / Rudenko I.V., Mishchenko V.P., Holovatyuk-Yuzefpolska I.L., Lavrynenko G.L. // Collection of scientific works of the association of obstetricians-gynecologists of Ukraine. - 2020. - Issue 2(46). - P. 117-124.

#### **Electronic information resources**

1. <https://www.cochrane.org/> - Cochrane / Cochrane Library
2. <https://www.acog.org/> - American Association obstetricians and Gynecologists / The American College of Obstetricians and Gynecologists
3. <https://www.uptodate.com> – UpToDate
4. <https://online.lexi.com/> - Wulters Kluwer Health
5. <https://www.ncbi.nlm.nih.gov/> - National center biotechnological of information / National Center for Biotechnology Information
6. <https://pubmed.ncbi.nlm.nih.gov/> - International medical library / National Library of Medicine
7. <https://www.thelancet.com/> - The Lancet
8. <https://www.rcog.org.uk/> - Korolevska Association obstetricians and gynecologists / Royal College of Obstetricians & Gynaecologists
9. <https://www.npwh.org/> - Practitioners nurses with protection I 'm healthy women / Nurse practitioners in women's health
10. <http://moz.gov.ua> – Ministry of Health of Ukraine
11. [www.ama-assn.org](http://www.ama-assn.org) - American medical association / [American Medical Association](http://www.ama-assn.org)
12. [www.who.int](http://www.who.int) - World Health Organization
13. [www.dec.gov.ua/mtd/home/](http://www.dec.gov.ua/mtd/home/) - State Expert Center of the Ministry of Health of Ukraine
14. <http://bma.org.uk> - British Medical Association
15. [www.gmc-uk.org](http://www.gmc-uk.org) - General Medical Council (GMC)
16. [www.bundesaerztekammer.de](http://www.bundesaerztekammer.de) – German Medical Association

