

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

Faculty international

Department of Obstetrics and Gynecology



**METHODICAL RECCOMENDATIONS FOR A PRACTICAL LESSON
FROM MEDICAL PRACTICE**

Faculty international, 4th course

Academic discipline "**Obstetrics and Gynecology**"

Practical lesson № 4. Topic: " Major and minor gynecological operations"

Approved:

Meeting of the Department of Obstetrics and Gynecology
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Practical lesson № 4.

Topic: Major and minor gynecological operations

Objective: To be able to draw up a plan for the examination of a patient before elective and urgent surgery. To make a plan of preoperative preparation for planned and urgent gynecological operations. Gain practical skills in the management of the postoperative period.

Basic concepts: Preoperative preparation, examination of the patient, major and minor gynecological operations, urgent surgical interventions, planned surgical interventions, postoperative period.

Equipment: Professional algorithms, structural and logical diagrams, tables, models, videos, results of laboratory and instrumental studies, situational tasks, patients, medical histories.

1. Organizational activities (greetings, checking the attendees, announcing the topic, the purpose of the lesson, motivating students to study the topic): Definition of the concept - major and minor gynecological operations; urgent and planned surgical interventions is of great importance for the future doctor. Therefore, the acquisition of practical skills in drawing up an algorithm for examining a patient before surgery and rational management of the postoperative period is essential to preserve the health and life of a woman.

2. Control of the reference level of knowledge (written work, written testing, online testing, frontal survey, etc.)

Knowledge requirements:

- Communication skills and clinical examination of the patient;
- Ability to determine the list of necessary clinical, laboratory and instrumental studies and evaluate their results;
- Ability to establish a preliminary and clinical diagnosis of the disease;
- Determine the criteria for postoperative management, the nature of nutrition, the necessary work and rest regimen;
- perform medical manipulations;
- Maintain medical records.

List of didactic units:

- Algorithm of patient examination;
- Preoperative preparation plan.
- Major gynecological operations;

Questions:

1. Definition of "major gynecological operations".
2. Definition of "minor gynecological operations".
3. Preparation of a gynecological patient for emergency surgery.
4. Preparation of the patient for planned surgical intervention.
5. Create an algorithm for examining a patient before emergency surgery.
6. Create an algorithm for examining a patient before a planned surgical intervention
7. Management of the postoperative period.

Typical test tasks

1. A 33-year-old woman has undergone two previous operations for ectopic pregnancy, both fallopian tubes were removed. She came to the consultation with the question: what can be done to get pregnant?
 - A. In vitro fertilization*.
 - B. Insemination with her husband's sperm.
 - C. Surrogate motherhood.
 - D. Artificial insemination with donor sperm.

E. Induction of ovulation.

2. A 36-year-old woman came to the gynecological hospital with complaints of on significant bleeding from the genital tract and delayed menstruation for 1 month. Bimanual examination: cervix barrel-shaped, soft consistency. The uterus is of normal size, slightly softened. Appendages without features on both sides. In mirror examination: cervix is cyanotic, enlarged in size, the external os is dilated to 0.5 cm. Urine test for hCG is positive. What is the most likely diagnosis?

- A. Cervical pregnancy*.
- B. Uterine pregnancy.
- C. Abortion on the go.
- D. Threatened abortion.
- E. Ectopic pregnancy.

Typical situational tasks

1. A 46-year-old woman with dysfunctional uterine bleeding after a 2-week delay in menstruation is admitted to the gynecological department. What should you start treatment with?

Standard answer: Fractional therapeutic and diagnostic curettage of the uterine mucosa.

2. A 34-year-old female patient was admitted to the gynecological department with complaints of acute right lower abdominal pain, which began acutely, nausea, vomiting. Bimanual examination: normal size uterus, its displacement is painful, the right ovary is slightly enlarged, rounded, painful. The vaginal vault is deep, palpation on the right is painful. In the mirrors: the cervix and vaginal mucosa are unchanged. There is no discharge. Which of the research methods is the most informative?

Standard answer: Laparoscopy.

3. Formation of professional skills (mastering skills, supervision, determining treatment regimens, conducting laboratory tests, etc.)

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

Atypical test tasks:

1. A 22-year-old woman visits an antenatal clinic because she is 11-12 weeks pregnant. The examination revealed a positive Wasserman reaction. The dermatologist diagnosed secondary latent syphilis.

What is the tactic of management of this pregnancy?

- A. Artificial termination of pregnancy after a course of antisyphilitic therapy*.

- B. Induced abortion before the course of antisyphilis therapy.
- C. Urgent termination of pregnancy.
- D. Prolongation of pregnancy after the first course of antisyphilitic therapy.
- E. Antisyphilitic treatment three times during pregnancy.

2. A 17-year-old woman has acute pain in the lower abdomen. She notes a delay in menstruation for 2 weeks. She has been sexually active for a year. She was protected from pregnancy by interrupted sexual intercourse. Objectively: pale. Body temperature 36.60C, blood pressure 95/60 mm Hg, pulse 90 beats/min. Bimanual examination reveals a slightly enlarged uterus, cervical excursions are painful, the appendages are not clearly contoured, and the posterior vault is protruded. Discharge from the genital tract is dark bloody and scanty.

The most informative method:

- A. Ultrasound examination of the pelvic organs.
- B. Complete blood count.
- C. Abdominal puncture through the posterior vault of the vagina.
- D. Colposcopy.
- E. Laparoscopy*.

Atypical situational tasks

1. A 25-year-old female patient complains of pain in the right hypochondrium for 10-12 days. Menstrual delay of 7-8 weeks. On palpation, pain in the right hypochondrium. Gynecological examination: the uterus and ovaries are not enlarged, tenderness in the right vaginal vault. Discharge from the genital tract is mucous. Optimal method of investigation.

Standard answer: Ultrasound examination of the pelvic organs.

2. A 23-year-old patient underwent hysterosalpingography for primary infertility. On the radiograph: the uterine cavity is T-shaped, the fallopian tubes are shortened, rigid, with club-shaped dilatations in the ampullary sections; no contrast medium is observed in the abdominal cavity. Which disease is most characterized by such changes?

Standard answer: Tuberculosis of the genital organs.

1. Recommendations (instructions) for performing tasks (professional algorithms, orientation maps for the formation of practical skills)

Standard examination of gynecological patients for planned endoscopic intervention (operative hysteroscopy, laparoscopy) (according to the order of the Ministry of Health of Ukraine № 620 of 29.12.2003)

1. General physical examination

2. Determination of blood group and Rh factor
3. Blood test for RV, HIV, Hbs - a / h
4. Complete blood count and urine test
5. Blood sugar test
6. Bacteriological analysis of genital tract discharge (urethra, cervical canal, vagina)
7. Biochemical blood test (total protein, creatinine, bilirubin, liver tests)
8. Coagulogram
9. Oncocytological examination of smears from the cervix and cervical canal or the result of pathological examination
10. Electrocardiogram
11. FG or chest radiography
12. Examination by a therapist
13. Examination by specialized specialists according to indications
14. Ultrasound examination of the pelvic organs
15. Colposcopy

Standard examination of gynecological patients before scheduled "minor" diagnostic and therapeutic surgical interventions (according to the Order of the Ministry of Health of Ukraine No. 620 of December 29, 2003)

1. General physical examination
2. Blood group and Rh factor
3. Oncocytological examination
4. Bacterioscopic examination of the genital tract discharge

Standard examination of gynecological patients before urgent surgical intervention (according to the order of the Ministry of Health of Ukraine No. 620 of 29.12.2003)

1. General physical examination
2. Blood group and Rh factor

Antibiotic prophylaxis is carried out during induction anesthesia by intravenous drip administration of antibiotics. According to indications, re-administration of antibiotics in the postoperative period is performed in 6-12 hours.

Indications, contraindications, conditions, and technical features of female genital surgery.

The choice of access to the abdominal cavity depends on the urgency, indications for it; localization of the pathological process; concomitant diseases; and the presence of scars after previous interventions. There are laparotomy, laparoscopic, and vaginal access.

I. Major and minor gynecological interventions.

Minor gynecological surgeries: cervical biopsy, uterine probing, polypectomy, fractional curettage of the uterine cavity, hysteroscopy, abdominal puncture through the posterior vaginal vault, vacuum aspiration of the ovum up to 5 weeks, induced abortion up to 12 weeks.

II. Surgeries for prolapse and prolapse of the female genital organs: anterior, posterior (colpoperineorrhaphy) and middle (Leffor-Neugebauer operation) colporrhaphy.

III. Cervical surgery: cone-shaped cervical amputation according to Sturmdorf, wedge-shaped cervical amputation according to Schroeder, polyp removal, diathermocoagulation, diathermoexcision, cryodestruction.

IV. Gynecological operations: Tubectomy, salpingostomy, ovarian resection, adnexectomy.

V. Conservative surgeries are performed on the uterus (with the preservation of the organ or most of it, which allows a woman to preserve menstrual and reproductive functions); plastic (in case of congenital malformations and reproductive disorders) and radical (removal of the uterus or most of it). Indications: uterine fibroids, adenomyosis, atypical endometrial hyperplasia, cancer of the body and cervix, developmental anomalies.

VI. Radical surgeries: Supravaginal amputation of the uterus without appendages, Extirpation of the uterus with appendages. Radical hysterectomy with pelvic lymphadenectomy (Wertheim operation), Radical hysterectomy according to Clarke-Wertheim, Bohman.

Laparoscopy is an examination of the abdominal organs with an endoscope for the purpose of diagnosing and performing therapeutic surgical interventions.

Indications for urgent laparoscopy: Ectopic pregnancy, ovarian apoplexy with intra-abdominal bleeding, rupture of an ovarian cyst, torsion of the ovarian tumor "leg", purulent inflammatory diseases of the pelvic organs (purulent salpingitis, pyovar, piosalpinx, purulent tubo-ovarian formations, abscesses of the uterine vesicle and recto-uterine space), differential diagnosis of acute surgical and gynecological pathology, necrosis of sub-serous myomatous nodes, diagnosis of complications during or after gynecological procedures

Indications for routine laparoscopy: Diagnostic laparoscopy, tubal sterilization, ovarian tumors, uterine fibroids, abnormalities of the internal genital organs, chronic pelvic pain, monitoring the effectiveness of treatment of endometriosis of the III-IV

stage, oncological and gynecological diseases ("second look" after combined treatment of ovarian cancer).

Hysteroscopy is an examination of the walls of the uterine cavity with an endoscope for the purpose of diagnosis and therapeutic surgical interventions

Indications for urgent hysteroscopy: Menorrhagia or metrorrhagia, metrorrhagia after pregnancy, birth of submucous fibroids, necrosis of submucous fibroids

Indications for routine hysteroscopy: Abnormal uterine bleeding, submucosal uterine fibroids, endometrial polyp, endometrial hyperplasia, suspected endometrial cancer, intrauterine synechiae, adenomyosis, uterine developmental abnormalities, foreign bodies in the uterine cavity, infertility, monitoring the effectiveness of treatment of hyperplastic endometrial processes

Contraindications to hysteroscopy: Profuse uterine bleeding, pregnancy, acute inflammatory diseases of the female genital organs, infectious diseases, cervical cancer, cervical stenosis

Postoperative management of patients.

The postoperative period is the time that passes from the moment of surgery to recovery.

Algorithm of gynecological patient management in the postoperative period.

1. care in the early postoperative period
2. control of genital tract discharge
3. control of hemodynamics
4. control of blood sugar (in case of long-term operations)
5. control of the absence of symptoms of peritoneal irritation

Postoperative management of patients is based on monitoring of the cardiovascular, respiratory, urinary systems, and laboratory data. The frequency of postoperative complications is reduced with a complete examination, correct diagnosis, reasonable scope of surgery, assessment of the patient's general condition, and adequate preoperative preparation.

The postoperative period is aimed at preventing and timely detecting possible complications. Adequate anesthesia, infusion therapy, antibacterial therapy, prevention of bleeding and thromboembolism, normalization of intestinal motility, exercise therapy are provided.

In the postoperative period, hemodynamics, respiration, drainage and genital discharge, the amount of fluid administered, diuresis, and laboratory parameters are monitored. Patients may complain of headache, drowsiness, dizziness, nausea,

vomiting, pain at the intervention site, and urinary retention. Oral nutrition is allowed 24 hours after surgery (in the absence of nausea or vomiting). Laparoscopy can be accompanied by various complications. Some of them are detected during laparoscopy and often require a transition to laparotomy to eliminate them. Others appear in the postoperative period and are accompanied by corresponding symptoms.

Injuries to the gastrointestinal tract are diagnosed within the first four days (sometimes later). Symptoms are acute abdominal pain, fever, nausea and vomiting, diarrhea, leukocytosis. The diagnosis is confirmed by X-ray, ultrasonography. Treatment is surgical.

Injuries of the bladder, ureter. Bladder injuries can occur when inserting a Veresch needle, trocar, tissue dissection, coagulation. If the injury is diagnosed during surgery, it is necessary to restore tissue integrity or drainage. In the postoperative period, undiagnosed bladder injuries are manifested by hematuria, decreased diuresis, anuria, suprapubic hematoma, peritonitis, and urinary ascites. Localization of the injury is established by means of a retrograde cystogram. Treatment is surgical. In case of extraperitoneal bladder injury, a permanent Foley catheter is inserted (1-4 weeks). Ureteral injuries are diagnosed on the basis of such signs as fever, abdominal pain, flank pain, intestinal paresis, signs of peritonitis, hematuria, leukocytosis. To clarify the diagnosis, intravenous urography is performed. Treatment is surgical.

Infectious complications after laparoscopic surgery include wound (suppuration of puncture sites) and intra-abdominal infections. Diagnosis is based on physical examination and auxiliary diagnostic methods. Treatment tactics include measures of local and general influence on the inflammatory process. Prevention of infectious complications is carried out at the preoperative stage, intraoperatively and in the postoperative period.

Postoperative hernias are formed in case of unstitched fascial defects at the sites of trocars insertion. The intestines may be trapped in the hernia defect. They are manifested by localized pain syndrome, sometimes by signs of intestinal obstruction. Prevention consists in evacuation of gas from the abdominal cavity before the removal of trocars; trocars are removed while the patient is relaxed. Punctures after 10 mm of trocars should be fully sutured. Therapeutic tactics include hernia repair.

Hysteroscopy The management of the postoperative period is aimed at preventing and detecting possible complications in a timely manner.

Postoperative bleeding can occur after resection of the endometrium or uterine fibroids with a significant interstitial component, as a result of scab detachment after endometrial ablation, and as a result of cervical trauma. To find out the source of bleeding, an examination in mirrors is performed. Treatment consists of prescribing uterotonic agents, antibiotics (except in cases of cervical bleeding). If the bleeding continues, a revision of the uterine cavity, repeated hysteroscopy, embolization of the uterine arteries, hysterectomy are performed

Hematometer. There are cramping pains in the lower abdomen, amenorrhea. To clarify the diagnosis, ultrasonography is performed (with a vaginal probe). Treatment consists in evacuation of the uterine contents.

Infectious complications. Endometritis, exacerbation of chronic salpingo-oophoritis occur during prolonged operations, frequent repeated insertions and withdrawals of the hysteroscope. They are manifested by pain in the lower abdomen, fever, purulent discharge from the genital tract, which occurs most often 48-72 hours after surgery. It is important to find out if the complication is caused by thermal damage to the abdominal organs. Antibiotics are prescribed for treatment. Surgical treatment is required in rare cases, mostly in the case of tubo-ovarian abscesses.

Thromboembolic complications. In patients undergoing laparoscopic surgery and with additional risk factors for pulmonary embolism, thromboprophylaxis with the use of standard unfractionated heparin (UFH), low-molecular-weight heparin (LMWH), and mechanical methods is recommended. After major gynecological surgery, thromboprophylaxis is recommended for all patients. In patients with a high risk of venous thrombosis, mechanical prophylaxis and LMWH are prescribed. Patients undergoing major gynecological surgery are prophylactically treated until discharge from the hospital, and in case of particularly high risk, for another 2-4 weeks after discharge. In case of a high risk of thromboembolism, surgical treatment can be performed with the implantation of a temporary coffee filter.

Intrauterine synechiae are formed during expansive hysteroscopic operations with a large wound surface. Clinical manifestations of intrauterine synechiae include oligomenorrhea, uterine amenorrhea, and infertility. With the formation of confined spaces or stenosis of the cervical canal, hematometra occurs, accompanied by cyclical pain in the lower abdomen. In cases of infertility caused by intrauterine synechiae, hysteroscopic synechiolysis is performed. To eliminate hematoma, cervical canal dilation and hysteroscopy are performed. Prevention consists in the introduction of an intrauterine contraceptive into the uterine cavity as a protector and the prescription of estrogens.

Requirements for work results, including design

- Take a special gynecological history.
- Perform gynecological examination (examination in mirrors, bimanual, rectal).
- To take material from the urethra, cervical canal and vagina for bacterioscopic and cytomorphological examination.
- Draw up a plan for preoperative examination of the patient.
- Evaluate the results of the patient's examination, make a preliminary diagnosis.
- Be able to apply in practice the algorithm for managing a gynecological patient in the postoperative period.
- Use of multimedia presentation on the topic of the class (literature review using modern sources; videos, etc.).

- **control materials for the final stage of the class: tasks, assignments, tests,**

etc.

4. Test tasks for self-control.

Test tasks KROK-2:

1. A woman, 32 years old, came to the doctor with complaints of not getting pregnant for 4 years. Anamnesis: 5 years ago, her first pregnancy ended in an induced abortion. According to the results of vaginal examination and ultrasound examination (ultrasound), the diagnosis was made: endometrioid cyst of the right ovary. What is the optimal method of treatment?

- A. Anti-inflammatory therapy
- B. Sanatorium treatment
- C. Androgen therapy
- D. Operative laparoscopy *.
- E. Conservative therapy with estrogen-gestagen drugs

2. A 20-year-old female patient was admitted to the gynecological department with complaints of sharp pain in the lower abdomen after physical activity. The last menstruation was 2 weeks ago. During the vaginal examination, the uterus is not enlarged, painless, the left appendages are sharply painful during palpation, which makes the examination difficult. Promtov's symptom is positive. The posterior vault is overhanging, painful. Pulse 96 beats per minute, blood pressure 100/60 mm Hg. What is the preliminary diagnosis?

- A. Acute left-sided salpingo-oophoritis.
- B. Apoplexy of the left ovary *.
- C. Pyosalpinx on the left.
- D. Disrupted left-sided tubal pregnancy.

Objectives

1. The teacher conducts a survey on the control questions on the topic of the lesson.
2. The teacher distributes the list of medical manipulations in gynecology among the students:
 - Perform a gynecological examination (examination in mirrors and bimanual)
 - To take material for bacterioscopic, bacteriological and cytomorphological studies.
 - Perform a clinical examination of the mammary glands.
3. Evaluate the results of laboratory tests (general and biochemical analyzes of blood, urine, blood coagulation system, etc.)
4. Evaluate the results of bacterioscopic examination.
5. Evaluate the results of cytomorphological examination.

6. Evaluate the results of ultrasound examination of the pelvic organs.
7. To develop a plan of preoperative preparation before planned and urgent surgical intervention.
8. Create an algorithm for managing a gynecological patient in the postoperative period.

Summarizing the results

Current control: oral questioning, assessment of practical skills, assessment of communication skills during a role-playing game, solving situational clinical problems, assessment of activity in the classroom. **Final control:** differential credit.

Assessment of current learning activities in the practical class:

1. Assessment of theoretical knowledge on the topic of the lesson:

- methods: survey, solving a situational clinical problem

maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

2. Assessment of practical skills and manipulations on the topic of the class:

Methods for assessing the correctness of practical skills:

maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

3. Assessment of work with patients on the topic of the class:

Evaluation methods: a) communication skills of communication with the patient, b) correctness of appointment and evaluation of laboratory and instrumental studies, c) compliance with the algorithm of differential diagnosis, d) justification of the clinical diagnosis, e) preparation of a treatment plan;

maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

The grade for one practical lesson is the arithmetic mean of all components and can only have an integer value (5, 4, 3, 2), which is rounded by the statistical method.

Criteria for the current assessment in a practical lesson:

Score	Evaluation criteria
«5»	The applicant is fluent in the material, takes an active part in the discussion and solution of a situational clinical problem, confidently demonstrates knowledge of ultrasound screening diagnostics in obstetrics and the correct appointment of laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«4»	The applicant is well versed in the material, participates in the discussion and solution of a situational clinical problem, demonstrates knowledge of ultrasound screening diagnostics and the correct appointment of laboratory and instrumental studies with some errors, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.

«3»	The applicant does not have enough knowledge of the material, uncertainly participates in the discussion and solution of a situational clinical problem, demonstrates knowledge of ultrasound screening diagnostics and the correct appointment of laboratory and instrumental studies with significant errors.
«2»	The applicant does not own the material, does not participate in the discussion and solution of a situational clinical problem, does not demonstrate knowledge of ultrasound screening diagnostics and the correct appointment of laboratory and instrumental studies.

The objective of the practice is to consolidate the knowledge and skills gained in the study of basic clinical and theoretical disciplines (examination of patients, clinical diagnosis, prescription of treatment, prevention, and medical examination) and further improvement of practical skills, familiarization with the organization of medical care and working conditions of obstetrician-gynecologist, as well as strengthening of skills in sanitary and educational work.

Applicants who have completed the internship program are admitted to the OSPI and include

- defense of the history of a gynecological patient,
- demonstration of medical manipulations in gynecology (according to the list 5) on phantoms.

List of recommended literature.

Main:

1. Obstetrics and Gynecology: in 2 books. - Book 2. Gynecology: textbook (university III-IV r.a.) / ed. V.I. Gryshchenko, M.O. Shcherbyna - 3rd ed., vypr., 2020. – 376 s
2. Clinical Obstetrics and Gynecology: 4th Edition/ Brian A. Magovan, Philip Owen, Andrew Thomson. – 2021. – 454 p.
3. Ectopic pregnancy and miscarriage: diagnosis and initial management NICE guideline Published: 17 April 2019; 34p.
4. Angioli R., Plotti F., Capriglione S., et al. The effects of giving patients verbal or written pre-operative information in gynecologic oncology surgery: a randomized study and the medical-legal point of view. Eur J. Obstet. Gynecol Reprod Biol 2014;177:67–71.doi:10.1016/j.ejogrb.2014.03.041

Additional:

1. Nelson G., Altman A.D., Nick A , et al. Guidelines for pre- and intra-operative care in gynecologic/oncology surgery: Enhanced Recovery After Surgery (ERAS®) society recommendations--Part I. Gynecol Oncol 2016;140:313–22.doi:10.1016/j.ygyno.2015.11.015

2. Hemostasis and thrombosis in obstetrics & gynecology / Paidas, Michael J. [et al.] ; Michael J. Paidas ... [et al.]. - Chichester, West Sussex, UK : Wiley-Blackwell, 2016. - ix, 223 p. : ill. ; 25 cm. - Includes bibliographical references. - ISBN 9781405183994
3. Emergencies in obstetrics and gynecology / L.Markin, O.Medvyedyeva, O.Matviyenko. – Lviv: ЗУКІІ, 2018. – 160 p.
4. Acute Pelvic Pain. Pubmed. Dewey K, Wittrock C. Emerg Med Clin North Am. 2019 May
5. The current "Clinical Protocols" are approved by the order of the Ministry of Health of Ukraine on Obstetrics and Gynecology.
6. ORDER No. 417 of 15.07.2011, Kyiv. Kyiv On the organization of outpatient obstetric and gynecological care in Ukraine

Electronic information resources:

1. <https://www.cochrane.org/> - Cochrane
2. <https://www.acog.org/> - 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 for Biotechnology Information
6. <https://pubmed.ncbi.nlm.nih.gov/> - National Library of Medicine
7. <https://www.thelancet.com/> - The Lancet
8. <https://www.rcog.org.uk/> - Royal College of Obstetricians & Gynaecologists
9. <https://www.npwh.org/> - Nurse practitioners in womens health
10. <http://moz.gov.ua>- Ministry of Health of Ukraine
11. www.ama-assn.org – [American Medical Association](http://www.ama-assn.org)
12. www.who.int – World Health Organization
13. www.dec.gov.ua/mtd/home/ - State Expert Center of the Ministry of Health of Ukraine <http://bma.org.uk>– British Medical Association
14. www.gmc-uk.org- General Medical Council (GMC)
15. www.bundesaerztekammer.de – German Medical Association
16. www.euro.who.int - World Health Organization Regional Office for Europe