

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
ODESA NATIONAL MEDICAL UNIVERSITY**

Medical Faculty

Department of Internal Medicine #2 with postgraduate training

**APPROVED**  
*Vice-rector for scientific and pedagogical work*  
Eduard BURIACHKIVSKYI  
« \_\_\_\_\_ » September 2024



**METHODICAL GUIDE FOR PRACTICAL LESSONS  
IN EDUCATIONAL DISCIPLINE**

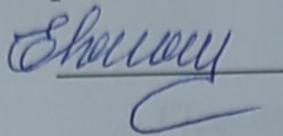
International Faculty, V-th course

Educational discipline: **Practical Outpatient Medical Training «Internal  
Medicine»**

**Approved**

At the meeting of the Department of Internal Medicine #2 with postgraduate training

Protocol № 1 dated «02» September 2024

Head of the Department  Olena VOLOSHYNA

**Developed by:**

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## Practical Lessons # 1-4

**Theme # 1:** Organization of planned and emergency therapeutic care at the primary and secondary levels, number of hours - 8.

**Goals:** consolidation of knowledge gained in the study of basic clinical and theoretical disciplines and skills - examination of the patient, clinical diagnosis, treatment, and further improvement of practical skills, acquaintance with the organization of medical work in outpatient settings, as well as consolidation of skills of health education.

### Basic definitions:

№	Term	Definition
1.	Medical care at the primary level	Medical care, which is provided on an outpatient basis or according to the patient's place of residence by a general practitioner (family doctor) and provides for consultation, diagnosis, treatment, rehabilitation and prevention of internal diseases.
2.	Medical care at the secondary level	Medical care, which is provided on an outpatient or in an inpatient setting by doctors of the relevant specialty in planned or emergency care and provides for consultation, diagnosis, treatment, rehabilitation and prevention of internal diseases.
3.	Emergency medical care	Medical care, which is provided in case of sudden acute diseases, conditions, exacerbations of chronic diseases that threaten the patient's life.
4.	Planned medical care	Medical care, which is provided during preventive measures, for diseases and conditions that do not threaten the patient's life, do not require emergency and urgent medical care.

### The content of the topic

Each applicant during the Outhospital Medical Practice «Internal Medicine» MP together with a general practitioner - family medicine or a specialist in therapeutic profile outpatient reception of patients. During this reception, the applicant conducts / participates in the survey and physical examination of patients, establishing a preliminary diagnosis, prescribing treatment, determining the need for patient consultation with specialists and preparation of medical records. In case of necessary additional examinations of the patient in the offices of functional diagnostics, consultations of related specialists, the applicant accompanies the patient and takes an active part in conducting a certain study.

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**Equipment:** training room, cardiac patient examination simulator Harvey, 6-channel electrocardiograph CARDIOLINE, Echocardiography machine, ultrasound diagnostic system Mylab Six CristaLine, defibrillator / PRIMIDEC DefiMonitor XD (M 280).

## Plan

**1. Organizational moment** (greetings, checking the audience, the message of the topic, the purpose of the lesson, the motivation of applicants to study the topic).

**2. Control of basic knowledge** (initial survey to assess theoretical knowledge and practical skills and manipulations on the topic of the lesson):

2.1. Requirements for theoretical readiness of students to perform practical classes.

Knowledge requirements:

The applicant must know

- etiology, pathogenesis, clinic, diagnosis, principles of treatment of the most common diseases musculoskeletal system and connective tissue, urinary system, digestive, respiratory, and lesions of internal organs in victims of hostilities and in emergencies (disasters) in peacetime;

- protocol for providing emergency medical care to patients with major diseases of the internal organs

List of didactic units:

- to collect in detail the anamnesis of the disease;
- to conduct a physical examination of the patient, to identify and assess changes in his condition;

- make a plan for additional examination, evaluate its results;
- formulate and substantiate a preliminary and clinical diagnosis, taking into account the severity of disorders according to the classification, comprehensive assessment of patients;

- assessment of possible complications;
- evaluation of the results of general clinical examination, laboratory analysis of blood, data of electrocardiogram, echocardiogram, X-rays, CTs, MRIs, ultrasound, etc.

- providing emergency care in an outpatient setting in an internal medicine clinic.

2.2. Questions to test basic knowledge on the topic of the lesson: (oral questioning, the list of situational tasks and list of practical skills are attached – Appendix 1,2).

**3. Formation of professional skills, abilities** (mastering the skills of curation, determining the treatment regimen, registration of medical documentation):

3.1. Content of tasks (clinical situation, medical documents):

3.2. Recommendations for tasks: (professional algorithms):

Work at the patient's bedside (according to the algorithm of communication between students and patients).

When examining patients, students must follow the following communication algorithms:

*Collection of complaints and anamnesis in patients with internal diseases*

1. Friendly facial expression, smile.
2. Gentle tone of conversation.
3. Greetings and introductions, expression of interest, respect and care.
4. Collection of complaints and medical history of the patient.
5. Explanation of survey results.
6. Explanation of actions (hospitalization, conducting certain examinations) that are planned to be performed in the future.
7. End the conversation.

*Physical methods of examination of patients with internal diseases*

1. A friendly expression on the doctor's face, a smile.
2. Gentle tone of conversation.
3. Greetings and introductions, expression of interest, respect and care.
4. Explain to the patient which examination will be performed and obtain his consent.
6. Warning about the possibility of unpleasant feelings during the examination.
7. Preparation for the examination (clean warm hands, trimmed nails, warm phonendoscope, if necessary - use a screen).
8. Conducting an examination (demonstration of clinical skills).
9. Explanation of survey results.
10. End the conversation.

*Reporting the results of the examination to patients with internal diseases.*

1. A friendly expression on the doctor's face, a smile.
2. Gentle tone of conversation
3. Greetings and introductions, expression of interest, respect and care.
4. Correct and accessible to the patient's understanding explanation of the results of a particular examination.
5. Involve the patient in the interview (compare the results of this examination with previous results, find out if they understand your explanations).
6. End the conversation.

*Planning and forecasting the results of conservative treatment:*

1. A friendly expression on the doctor's face, a smile.

2. Gentle tone of conversation.
3. Greetings and introductions, expression of interest, respect and care.
4. Correct and accessible to the patient's understanding explanation of the need for prescribed treatment.
5. Involvement of the patient (emphasis on the peculiarities of the drugs, duration of administration, possible side effects; find out whether the patient understands your explanations).
6. End the conversation.

*Treatment prognosis message:*

1. A friendly expression on the doctor's face, a smile.
2. Gentle tone of conversation.
3. Greetings and introductions, expression of interest, respect and care.
4. Correct and accessible to the patient's understanding explanation of the expected results of the prescribed treatment.
5. Involve the patient in the conversation (emphasis on the importance of continuous treatment, adherence to the prescribed treatment regimen, finding out whether your explanations are clear to the patient).
6. End the conversation.

**Work 1.**

1. Collection of complaints, anamnesis, examination of a patient.
2. Detection of clinical symptoms.
3. Grouping of symptoms into syndromes.
4. Definition of the leading syndrome.
5. Interpretation of laboratory and instrumental data (clinical analysis of blood, urine, biochemical analysis of blood, chest X-ray or chest CT-scan, X-ray of joints or MRI or ultrasound of joints, ECG, echocardiography, etc.).
6. Carrying out of the differential diagnosis.
7. Formulation of the clinical diagnosis.

**Work 2.**

Appointment of differentiated treatment programs according to the clinical protocol of medical care.

**Work 3.**

Registration of basic medical documentation (study of the order of recording in the medical card of an outpatient the results of the initial and follow-up examination of the patient, the letter to MSEC, the sanatorium-resort card of the patient, emergency notification of an infectious disease, food, acute occupational poisoning, an unusual reaction to vaccination).

**Work 4.**

Work in the Internet, in the reading room of the cathedral library with thematic literature.

3.3. Requirements for work results, including before registration: the applicant fills out the Diary of Outhospital Medical Practice «Internal Medicine».

3.4. Control materials for the final stage of the lesson (samples of basic medical documentation and protocols of practical skills are attached – Appendix 4).

**4. Summing up**, announcement of the final evaluation, announcement of the task for the next lesson.

## **5. Recommended literature.**

### **Basic literature:**

1. Hutchison's Clinical Methods, 24<sup>th</sup> ed. Editors: Glynn M., Drake M.W. - Elsevier, 2018. – 465 p.

2. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. – 1440 p.

3. Handbook of Liver Disease, 4<sup>th</sup> ed. Editors: Friedman L.S., Martin P. - Elsevier, 2018. – 512 p.

4. From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2020. Available from: [goldcopd.org](http://goldcopd.org).

5. GINA report, global strategy for asthma management and prevention. Updated 2020. <http://www.ginasthma.org/documents/4>

6. 2018 ESC Guidelines for the diagnosis and management of syncope // *European Heart Journal*. – 2018. Vol. 39, Issue 21. – P.1883–1948.

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8. ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation: The Task Force for the management of acute myocardial infarction in patients presenting with ST-segment elevation of the European Society of Cardiology // *European Heart Journal*. – 2018. Vol. 39, Issue 2. – P.119-177.

9. ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure // *European Heart Journal*. – 2018. Vol. 37, Issue 27. – P. 2129–2200.

10. 2020 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS

### **Additional literature:**

1. ЕКГ у практиці=The ECG in Practice=ЭКГ в практике: Навч. посіб. для мед. ун-тів, інст., акад. Рекомендовано Вченою радою ІваноФранківського НМУ / Джон Р. Хемптон; за участю Девіда Едлема. — К., 2018. — 560 с., кольор. вид. (англ., укр.)

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### ELECTRONIC INFORMATION RECOURSES

1. <https://www.aasld.org> – American Association of Study Liver Diseases
2. <http://www.eagen.org/> - European Association for Gastroenterology, Endoscopy and Nutrition
3. <http://www.ers-education.org/guidelines.aspx> - European Respiratory Society
4. <http://www.gastro.org/> - American Gastroenterological Association (AGA)
5. [www.ginasthma.org](http://www.ginasthma.org) – Global Initiative for Asthma
6. <http://goldcopd.org>. – Global Initiative for COPD
7. [www.ama-assn.org](http://www.ama-assn.org) – [American Medical Association](http://www.ama-assn.org)
8. [www.who.int](http://www.who.int) – [World Health Organization](http://www.who.int)
9. <http://bma.org.uk> – British Medical Association

### Practical lessons # 5-9

**Theme # 2:** Algorithms for providing emergency care in outpatient settings in the clinic of internal medicine, number of hours - 10.

**Goals:** : to form and develop in applicants the ability to make independent decisions in specific professional situations by mastering modern methods and forms of organization of modern medical practice in the field of management of patients with diseases of internal organs and providing emergency care in the outpatient setting in the internal medicine clinic.

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**Equipment:** training room, cardiac patient examination simulator Harvey, 6-channel electrocardiograph CARDIOLINE, Echocardiography machine, ultrasound diagnostic system Mylab Six CristaLine, defibrillator / PRIMIDEC DefiMonitor XD (M 280).

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4. Collection of complaints and medical history of the patient.

5. Explanation of survey results.

6. Explanation of actions (hospitalization, conducting certain examinations)

that are planned to be performed in the future.

7. End the conversation.

*Physical methods of examination of patients with internal diseases*

1. A friendly expression on the doctor's face, a smile.

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4. Definition of the leading syndrome.

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6. Carrying out of the differential diagnosis.
7. Formulation of the clinical diagnosis.
8. Determining the degree of disability.

**Work 2.**

Appointment of differentiated treatment programs according to the clinical protocol of medical care.

**Work 3.**

Registration of basic medical documentation (study of the order of recording in the medical card of an outpatient the results of the initial and follow-up examination of the patient, protocol of emergency care in an outpatient setting in the clinic of internal medicine).

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8. [www.who.int](http://www.who.int) – [World Health Organization](http://www.who.int)
9. <http://bma.org.uk> – [British Medical Association](http://bma.org.uk)

### **List of of situational tasks**

1. Indications and contraindications to the issuance of a letter of incapacity for work as a document of medical, financial, legal, social. Work incapacity e-form.
2. Who has the right to issue a form of work incapacity? The degree of responsibility of the doctor who issues the work incapacity form.
3. Functional responsibilities of a family doctor.
4. The order of recording in the outpatient medical card the results of the initial examination of the patient.
5. The order of recording in the outpatient medical card the results of follow-up examination of the patient.
6. Purpose of a letter to MSEC. In which cases the letter to MSEC is filled in?
7. Which main specialists is involved in filling out the letter to MSEC?
8. Criteria for establishing the first, second and third disability groups.
9. The value of "Emergency notification of an infectious disease, food, acute occupational poisoning, an unusual reaction to vaccination" (f.0.58/a). List of infectious diseases for which emergency notifications are issued.
10. Who should report the detection of an infectious patient?
11. Measures to be taken after notification of an infectious patient? Tactics of the doctor who detected the infectious patient.
12. Appointment of the sanatorium-resort card of the patient at the direction of the patient on treatment in sanatorium. The list of necessary documents for sanatorium card registration.
13. The list of obligatory inspections for registration of the sanatorium card.
14. Contraindications for treatment in the sanatorium and resort.
15. Method of ECG recording in cardiac arrhythmias and conduction disturbance.
16. Clinical indications for electrocardiographic examination.
17. Rules and techniques of ECG registration. Types of electrocardiographs.
18. Protocol for recording the results of the patient's ECG examination.
19. Indications for measuring the patient's blood pressure (BP). Technique of blood pressure measurement by Korotkov's method. Types of devices for BP measuring.
20. Assessment of blood pressure levels and clinical interpretation.
21. Indications for echocardiographic examination of the patient. Basic echocardiographic parameters of heart structure and function.
22. Hemoptysis syndrome, causes. Tactics of managing a patient with hemoptysis syndrome in an outpatient setting.

23. Respiratory failure. Algorithm for diagnosis and emergency care in acute respiratory failure in an outpatient setting.
24. Pulmonary artery thromboembolism (PATE). Risk groups for PATE and prevention. Algorithm for diagnosis and emergency care in case of suspected pulmonary embolism in an outpatient setting.
25. Bronchospasm, exacerbation of bronchial asthma (BS). Algorithms for diagnosis and first aid for bronchospasm, exacerbation of asthma in an outpatient setting.
25. Renal colic. Algorithm for diagnosis and first aid for renal colic in an outpatient setting.
26. Acute kidney injury, acute renal failure. Risk factors, prevention. Algorithm for diagnosis and emergency care in acute renal failure in an outpatient setting.
27. Acute adrenal insufficiency. Algorithm for diagnosis and emergency care in acute adrenal insufficiency in an outpatient setting.
28. Acute liver failure. Algorithm for diagnosis and emergency care in acute liver failure in an outpatient setting.
29. Hepatic colic. Algorithm for diagnosis and emergency care of hepatic colic in an outpatient setting.
30. Gastrointestinal bleeding. Risk factors. Prevention. Algorithm for diagnosing and emergency care of gastrointestinal bleeding in an outpatient setting.
32. Acute heart failure. Classification. Algorithm for diagnosing and emergency care of acute heart failure in an outpatient setting.
33. Collapse, cardiac and respiratory arrest. Algorithm of cardiopulmonary resuscitation in an outpatient setting.
34. Comas. Algorithms for diagnosis and emergency care in an outpatient setting.
35. Hypertensive crises. Classification. Algorithms for diagnosis and emergency care of hypertensive crises in an outpatient setting. Prevention.
36. Paroxysmal heart rhythm and conduction disorders. Algorithms for diagnosing and emergency care for paroxysmal heart rhythm and conduction disorders (including MES syndrome) in an outpatient setting.
37. Cardiac pain syndrome. Algorithms for diagnosing and emergency care for heart pain syndrome at the stage of primary care.
38. Laryngeal oedema and Quincke's syndrome. Algorithms for diagnosing and emergency care for laryngeal edema and Quincke's syndrome.

## **LIST OF PRACTICAL SKILLS THAT THE APPLICANT MUST MASTER**

1. Admit patients at the primary care center or in the counseling and diagnostic center, including visiting patients at home.
2. Be able to distribute the population by health groups.
3. Be able to formulate and encrypt diagnoses according to the ICPC-2 system.
4. Take part in examination of temporary and permanent disability, fill in the necessary documents for MAC, MSEC.
5. Fill in the medical card of an outpatient (f. 025 / o).
6. Fill in the sanatorium-resort card (f. 072 / o)
7. Fill in the medical certificate of death (f. 106 / o), know the rules for issuing a death certificate.
8. Be able to issue an emergency report of an infectious disease (f.058-o)
9. Perform blood pressure measurements according to the Korotkov method in accordance with current recommendations.
10. Record, analyze and interpret ECG
11. Provide emergency care in acute respiratory failure in an outpatient setting according to the current algorithm.
12. Provide emergency care for pulmonary embolism in an outpatient setting according to the current algorithm.
13. Provide emergency care for hemoptysis syndrome in an outpatient setting according to the current algorithm.
14. Provide emergency care for bronchospasm syndrome, exacerbation of bronchial asthma in an outpatient setting according to the current algorithm.
15. Provide emergency care for renal ring in an outpatient setting according to the current algorithm.
16. Provide emergency care in acute renal failure in an outpatient setting according to the current algorithm.
17. Provide emergency care in acute adrenal insufficiency in an outpatient setting according to the current algorithm.
18. Provide emergency care in acute liver failure in an outpatient setting according to the current algorithm.
19. Provide emergency care for hepatic ring in an outpatient setting according to the current algorithm.
20. Provide emergency care to a patient with gastrointestinal bleeding in an outpatient setting according to the current algorithm.



21. Provide emergency care in acute heart failure in an outpatient setting according to the current algorithm.
22. Provide emergency care in case of collapse, cessation of blood circulation and respiration in an outpatient setting according to the current algorithm.
23. Provide emergency care in case of coma in an outpatient setting according to current algorithms.
24. Provide emergency care for paroxysmal heart rhythm and conduction disorders, including with MES syndrome, in an outpatient setting according to current algorithms.
25. Provide emergency care for pain in the heart at the stage of primary care according to the current algorithm.
26. Provide emergency care for laryngeal edema and Quincke's syndrome at the stage of primary care according to the current algorithm.
27. Provide recommendations for lifestyle adjustments for disease prevention.

**Samples of basic medical documentation and protocols of practical skills**

**Protocol №1. Filling the referral letter to MSEC (f 088/a)**

№	Steps / tasks
1.	Filling out patient passport data with indication the profession, position, place of work.
2.	History of the basic disease, specifying the disability period during the last 6 months.
3.	Required extract from history while staying in the hospital where reflected dynamics of clinical and biochemical laboratory tests and instrumental examinations (ECG, X-ray, etc.); BP dynamic (in a case of arterial hypertension). Epicrisis of hospital case history attach to a referral letter to MSEC.
4.	Formulate a complete clinical diagnosis of the disease with expert evaluation of the patient's ability to work.
5.	When making a referral to MSEC in the examination of the patient necessarily take part therapist, surgeon, neurologist, ophthalmologist, and, if indicated, other specialists.
6.	Oriented note provided MSEC solution: a) healthy to work, b) to continue treatment for several months, c) initial determination, confirmation or modification of disability on the following criteria set III, II or I of disability groups: III - partial disability, II - total disability, I-- full disability with loss of patient ability to self -service.
7.	Specify one of the listed below reasons for referral to MSEC: ending 4-5 month term insured patient on sick sheet, the adverse employment forecasts to end 4-month stay on sick leave for testimony on MSЭK, for the reduction or increase of disability; on the insistence of the patient.
8.	For a patient who works, to put an excerpt from the work book.
9.	The degree of responsibility and the doctor's rights who fills out a letter to MSEC: shall have the right to defend their point of view (p.6) in MSEC, demonstrated thus responsible for therefferal letter provided information about the patient, in cases of inaccuracies physician be disciplinary, sometimes criminally liable.
10.	Mandatory are all specialists signature that filled referral list, their personal stamp, Head of LCC signature, treatment facility stamp.

**Protocol №2.** Algorithm design of emergency reports about infectious patients (f 058/a)

№	Steps / tasks
1.	In the form write name, age, home and work address, diagnosis.
2.	All the above named entered into the journal of emergency notifications.
3.	In a report lists all family members and staff who had contact with ill person.
4.	If the source was a poisoned product - specify the location of food intake.
5.	About rubeola, angina, hepatitis reported in the central control point (CUP) of regional infectious hospital.
6.	Report transmitted to the polyclinic's cabinet of infectious diseases.

**Protocol №3.** Methodic of ECG registration.

№	Steps / tasks
1.	ECG must be registered in the room with the presence of ground loop apparatus except types of devices that do not require grounding.
2.	Before recording ECG patient should rest at least 5 minutes, the skin at the electrodes placement on the limbs and chest should be degreased by spirit.
3.	Electrodes are placed on the limbs as follows: red - on the right wrist, yellow - to the left, green on the left leg, black - on the right. Rule "traffic light": in the direction of clockwise.
4.	Precordial leads recorded with electrodes in the following points:  V1-4th intercostal space at the right edge of the sternum;  V2-4th intercostal space at the left edge of the sternum;  V3-to mid-distance between V2 and V4 to the left of the sternum;  V4-5th intercostal space in the left mid-clavicular line;  V5-5th intercostal space on the left anterior axillary line;  V6 - 5th intercostal space on the left the mid-axillary line.
5.	Before registering check ECG machine set-up: one millivolts is equal to 1 cm, the speed tape drive mechanism 50 or 25 mm/ ec, pen recording regulated on the middle of tape
6.	Further by toggle switch leads are recorded sequentially 12 leads, or in

	automatic program mode singly, 3 and 6 leads.
7.	Sign (if no automatic recording) the date, time, ECG, name, age of the patient.
8.	Interpretation of ECG (after validation technique ECG recording - <i>availability of correct millivolts, the presence of minimum 3 cardiocycles in each of leads, clear baseline</i> ).
8.1	Identify rhythm (sinus or not sinus) – according to the characteristics of P wave.
8.2	Assess regularity of rhythm – according to the RR intervals
8.3	Calculate heart rate (unless the automatic counting).
8.4.	Assess heart axis (preferably calculate $\alpha$ ) or in the direction of the leading waves in leads I, III, AVL and AVF.
8.5	Calculate all intervals: RR (PQ), QRS, QT and evaluate wave amplitude of QRS complex.
8.6	Assess P wave characteristics (amplitude, duration).
8.7	Assess repolarization phase (depression (its type) or elevation of ST segment, T wave changes).
8.8	Interpretation of the received data, for example: <i>sinus rhythm, heart rate 89 beats / min., left axis deviation, PR = 0, 24 s- av- block first degree, QRS = 0,128 s - violation of introventricular conductivity - left bundle branch block; QT = 0,388 s, P = 0.12 s - overload of left atrium, ECG - signs of left ventricular hypertrophy (Layon- Sokolov index = 38mm).</i>

**Protocol №4.** Office BP measurement (according to the Order of Ministry of Health of Ukraine № 384, 2012)

№	Steps / tasks
1.	Measurement of blood pressure should be conducted in a quiet environment after a 5-min rest. Within 30 min to measure patient should not smoke or drink coffee.
2.	The cuff should cover at least 80% of the circumference of the upper arm and cover 2/3 of its length. Using too narrow or short cuff leads to increased BP level, too broad - to BP level understatement (decreased). The standard cuff (12-13cm in width and 35cm in length) is used in patients with normal and thin hands. In persons with muscular or thick hands should apply cuff 42cm in length, in children under five years old - 12 cm in length.
3.	Placed cuff in the middle of the arm at heart level, its lower edge is 2-2.5 cm above the antecubital fossa, and between the cuff and the surface of the shoulder should held a finger.
4.	First, determine the level of SBP by palpation method. It is necessary to

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	determine the pulse on a. radialis and then quickly pump air into the cuff to 70 mmHg. Next, you need to pump up to 10 mmHg to the value at which the pulse disappears. That assess at which it reappears during deflation - corresponds SBP. This palpation method helps avoid errors related to "auscultatory failure" (disappearance of Korotkoff sounds immediately after their first appearance). Re-air pumped by 20 - 30 cm above the SAP values that were identified by palpation.
5.	Take off air slowly - 2 mm per second and determine the phase I Korotkoff sounds (appearance) and phase V (disappearance) relevant SBP and DBP. When listening to Korotkoff sounds to very low values or to 0 for DBP consider blood pressure, which is fixed at the beginning of the V phase. The value of BP rounded to the nearest 2 mm.
6.	Measurements should be made at least twice at intervals of 2 - 3 minutes. When divergence results by more than 5 mm Hg, additional measurements should be done in a few minutes.
7.	The first BP measurement should be determined on both hands, and in sitting, standing and lying down position. Taken into account the higher values that more accurately meet intraarterial BP.
8.	Measuring BP at the first and fifth minutes after transferring to orthostasis must necessarily hold in elderly patients and in patients with diabetes and in all cases the presence of orthostatic hypotension or suspected it.
	<p>In the last years, automatic devices for measuring BP, that the accuracy does not differ from the results obtained by the traditional method of Korotkov, who have passed the international certification and can be used for professional (doctor or nurse) BP measurement. Such instruments for professionals to be distinguished from devices for home BP measurement (patients). International list of all types of devices for BP measuring with their characteristics and information about certification, accuracy, as well as recommendations for use (professional, home, daily measurement) can be found on the independent website <a href="http://www.dableducational.org">www.dableducational.org</a></p> <p><b>Comment:</b> <i>It's necessary to add "BP measurement in patients with rhythm disturbances, particularly in atrial fibrillation" because in that case recommended tensiometry using Korotkoff auscultative method. The use of automated devices in the pathology - especially in self-measuring patient at home, can not reliably estimate the level of BP".</i></p>

