Kharkiv National Medical University
Propedeutics to Internal Medicine Department N1,
Basis of Bioethics and Biosafety

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The main methods of patients examination. Inquiry of the patient. Anamnesis morbi and vitae.
Contents

Main methods of patients’ examination

Subjective methods of patients’ examination:

Medical inquiry

Anamnesis morbi

Anamnesis vitae
Basis of clinical diagnostics

• Propedeutics (Gk propos - introduction) to internal medicine is introduction to internal medicine, the science about methods of clinical examination of the patient and diagnosis basing.
Basis of clinical diagnostics

• **Diagnostics** (*Gk* *dia* - through, *gnosis* - knowledge) is the science of methods by which disease is identified.
Clinical diagnostics

Based on the subjective and objective methods of patients' examination.
Clinical diagnostics

The main tasks of medical inquiries and status present objectives estimation are:

- Receive complete information about the patient state
- Make the supporting diagnosis with its defining by the additional special assessment
- Distinguish the main syndromes
Propedeutics to internal medicine

- Examination
  - Subjective
    - Inquiry
      - General information
      - Complaints
      - Anamnesis morbi
      - Anamnesis vitae
    - Objective
      - Physical
        - Inspection
        - Palpation
        - Percussion
        - Auscultation
      - Instrumental
        - Radiography, ECG
        - Sonography
        - Endoscopy, MRI, etc.
      - Laboratory
        - Sputum analysis
        - Blood analysis
        - Urine analysis, etc.
  - Diagnosis
  - Treatment

Preliminary diagnosis

Clinical diagnosis

Final (concluding) diagnosis
CASE HISTORY

Subjective part includes:

I. General information;
II. Patient’s present complaints;
III. Inquiry about general condition
IV. Questions on organs and systems;
V. Anamnesis morbi;
VI. Anamnesis vitae;
Objective part includes:

VII  General inspection;
VIII Examination of the respiratory system;
IX   Examination of the cardiovascular system;
X    Examination of the digestive system;
XI   Examination of the urinary system;
XII  Examination of the locomotors system;
Additional special examination includes:

XIII Laboratory examination;
XIV X-ray examination;
XV Electrocardiography;
XVI Ultrasound examination;
The result of clinical examination is the diagnosis of the disease.

**Diagnosis structure**

1. The main disease
2. Complication of the main disease
3. Concomitant disease
Diagnosis Example

1. The main disease: Essential hypertension 2\textsuperscript{nd} stage, 3\textsuperscript{rd} degree

2. Complication of the main disease: Heart failure 2 degree

3. Concomitant disease: Peptic ulcer disease
**Diagnosis type**

**Preliminary diagnosis**
Based on the patient’s present complaints, the history of the present disease (anamnesis morbi), the past history (anamnesis vitae), physical examination data – inspection, palpation, percussion and auscultation.

**Clinical diagnosis**
Based on the subjective examination of the patient (inquiry: complaints, anamnesis morbi and vitae) and objective examination: physical, instrumental and laboratory.

**Final diagnosis**
Based on the subjective, objective examination and treatment.
Patient → Examination → Diagnosis → Treatment

- **Subjective** → Inquiry
  - General information
  - Complaints
  - Anamnesis morbi
  - Anamnesis vitae

- **Objective** → Physical
  - Inspection
  - Palpation
  - Percussion
  - Auscultation

- **Objective** → Instrumental
  - Radiography, ECG
  - Sonography
  - Endoscopy, MRI, etc.

- **Objective** → Laboratory
  - Sputum analysis
  - Blood analysis
  - Urine analysis, etc.

**Preliminary diagnosis**

**Clinical diagnosis**

**Final (concluding) diagnosis**
MEDICAL CARD N ______
OF IN-PATIENT

Hospitalization

Date dd mm yy hrs min

Release (Death)

Department _____ Ward N _____

Bed-days amount __________________________ Move into department

Blood group _______________ Rhesus factor __________ RW [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

dd mm yy

Increased sensibility or intolerability of medication ____________________________

(medication name, character of adverse effects)

1. Surname, first name, second name __________________________

2. Sex: M - 1; F - 2 _____

3. Age ______ dd mm yy

4. Permanent address: city - 1; village - 2 [ ]

(enter address: region, residential place, street, apartment)

5. Place of the work, speciality and position __________________________

6. By whom patient was directed __________________________

(name of medical institution)

7. Hospitalized according to urgent indications - 1; after _______ hours after beginning of
the disease or trauma; in plan order - 2 [ ]

8. Diagnosis of medical institution that directed the patient __________________________

9. Preliminary diagnosis __________________________

10. Clinical diagnosis __________________________

Date of determination __________________________ Physician __________________________ (name, signature)

11. Final diagnosis:
a) main __________________________
b) complications of the main __________________________
c) concomitant __________________________
Semiology (Gk *semin* – sign) or symptomatology

- In order to diagnose correctly, it is necessary to determine the signs of the disease and pathological changes in the patient’s organism.

- A healthy individual does not feel any unpleasant sensations.

- Such abnormal phenomena as pain, dizziness, nausea, vomiting, etc., occurring in sick persons are called signs or symptoms of the disease (Gk *symptoma* - that which happens).
Symptoms

Subjective
- Dizziness
- Headache

Objective
- Jaundice
- Heartburn (pyrosis)
- Caput medusae
SYMPTOMS

Subjective
Objective
Pathological
Compensatory
Symptoms

Pathological

Fever

Pain

Compensatory

Tachycardia

tachypnea

fast breathing
Objective
Compensatory
SYMPTOMS
Subjective
Pathological
Compensatory
Early
Late
Symptoms

Early
- Pain in MI
- Elevated temperature in pneumonia

Late
- Elevated temperature in MI
- Pleural friction sound
Symptoms

Favorable
- Pleural friction sound in effusive pleurisy

Unfavorable
- Gallop rhythm in MI
Objective

Compensatory

SYMPTOMS

Subjective

Pathological

Early

Unfavorable

Favorable

Relative

Pathognomic

Nonspecific

Objective

Compensatory

Early
Symptoms

Pathognomic

Diastolic murmur in mitral stenosis or aortic regurgitation

Nonspecific

Headache, fever, nausea

Relative

‘Triple rhythm’ in mitral stenosis
Syndrome

As independent disease:
WPW, CLC, Raynaud’s, Cushing

Syndrome - combination of symptoms that are interrelated and give rise one to another

As a part of the disease:
hypertensive, asthenic, cardiac syndrome
Symptomomocomplex - symptoms that are not interrelated and not give rise one to another
Propedeutics to internal medicine

Patient

Examination

Diagnosis

Subjective

Objective

Inquiry

Physical

Instrumental

Laboratory

General information
Complaints
Anamnesis morbi
Anamnesis vitae

Inquiry

Physical

Instrumental

Laboratory

Preliminary diagnosis

Clinical diagnosis

Final (concluding) diagnosis
I. GENERAL INFORMATION

• First name and surname;
• Date of birth and age;
• Permanent address;
• Place of work and job;
• Occupation;
• The date of admission to the hospital;
• The way of admission to the hospital;
<table>
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<th>Department</th>
<th>Ward N</th>
<th>Date</th>
<th>mm</th>
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**Release (Death)**

Bed-days amount

Move into department

Blood group

Rhesus factor

RW

Increased sensibility or intolerance of medication

(medication name, character of adverse effects)

1. Surname, first name, second name

2. Sex: M - 1; F - 2

3. Age

4. Permanent address: city - 1; village - 2

(enter address: region, residential place, street, apartment)

5. Place of the work, speciality and position

6. By whom patient was directed

7. Hospitalized according to urgent indications - 1; after ________ hours after beginning of the disease or trauma; in plan order - 2

8. Diagnosis of medical institution that directed the patient

9. Preliminary diagnosis

10. Clinical diagnosis

Date of determination

Physician (name, signature)

11. Final diagnosis:
   a) main
   b) complications of the main
   c) concomitant

Current year hospitalization

O first
due to this disease

O second
total times
II. PATIENT PRESENT COMPLAINTS

Doctor have to ask about main complaints with determination in the case history the chief and additional ones. The next point is description of every complaint beginning from the main one.

**Detailed descriptions of a complaint include:**

- Site and location;
- Quality of symptoms;
- Intensity, severity of the problem;
- Radiation;
- The character (permanent or periodic);
- Cause of onset and duration;
- How often it occur;
- Relieving/aggravating factors;
- Accompanying symptoms;
Patient's present complains

• **Answer standard:**

  Patient complain on retrosternal pain, pressing, of moderate intensity, with radiation to the left part of the body, periodic, arising after physical and emotional exertion, 2-3 times per day, lasted 10-15 min, relieved at rest and after 1-2 tab of nitroglycerine taking, accompanied by dyspnea, palpitation.
Patient's present complains

*Answer standard:

Patient complain on headache in occipital region, of moderate intensity, periodic, after emotional stress, caused by blood pressure elevation, lasted 20-30 min, relieved by antihypertensive drugs intake, accompanied by dissiness, deranged vision (“nets” before eyes), weakness, fatigue, sweatness.
**Clinical significance**

Patient complain on retrosternal pain, pressing, of moderate intensity, with radiation to the left part of the body, periodic, arising after physical and emotional exertion, 2-3 times per day, lasted 10-15 min, relieved at rest and after 1-2 tab of nitroglycerine taking, accompanied by dyspnea, palpitation.

**Angina pectoris**

**Myocardial infarction**

Patient complain on retrosternal pain, pressing, severe, with radiation to the left part of the body, arising after physical and emotional exertion, lasted more than 20 min, don't relieved at rest and after nitroglycerine taking, accompanied by dyspnea, palpitation.
III. GENERAL CONDITION

*Can be assessed via the question about the following symptoms:*

1. General weakness, fatigue, malaise; the time of appearing (in the morning, evening, during the day); the cause of appearing (without any reason, during the usual work, after the heavy work); duration (last days, weeks, months, cant be detected);

2. Body temperature: normal, hypothermia, fever; fever characteristics;

3. Skin: the presence of itches or rashes;

4. Perspiration;

5. Body weight changes;
Information about nervous system and sense organs contain of:

- Work ability;
- The state of the mood;
- Memory;
- Attention;
- The quality of sleeping;
- The presence of headache;
- Dizziness;
- The problems with vision;
- The problems with hearing;
IV. Questions on organs and systems

The questions about respiratory system have to discover the presence of:

- Sneeze;
- Change of voice;
- Pain in the chest;
- Dyspnoea;
- Asthma;
- Cough;
- Sputum discharge;
- Haemoptysis (blood in the sputum);
IV. Questions on organs and systems

Inquiring about cardiovascular system include:

• Pain in the heart or retrosternal region;
• Dyspnoea;
• Cardiac asthma;
• Palpitation;
• Escaped beats (intermission);
• Edema;
IV. Questions on organs and systems

The questions about **digestive system** enclose:

- Appetite;
- Filling thirsty;
- Dysphagia;
- Pyrosis (heartburn);
- Regurgitation (belching);
- Nausea;
- Vomiting;
- Pain in the abdomen;
- Stool changes;
IV. Questions on organs and systems

Information about urinary system contain of:

- State of urinate (Frequency of urination and amount of urine during the day and night periods);
- Character of urine (color, presence of blood);
- Difficulties during urination;
- Pain before or after urination and its detailed descriptions;
- Colic;
IV. Questions on organs and systems

Inquiring about **locomotor system** include:

- The presence of affected joints;
- Pain in the joints;
- Limited movements if the joints;
- The state of spine;
- The state of muscles;
Answer standard:

- Questions about general condition (general symptoms)
- Body temperature elevation, skin itching and rashing, perspiration, changes of the body mass are absent.
Questions on organs and systems

**CVS**

Asthma attack, escaped beats, edema are absent.

**Central nervous system**

Work ability mood, memory, attention are decreased, complain on insomnia, hearing is without changes.

**Respiratory system**

Sneeze, voice changes, pain in the chest, asphyxia, and cough are not disturbed.
Appetite is preserved, thirst, dysphagia, dyspepsia (pyrosis, regurgitation, nausea, vomiting), pain in the abdomen are not disturbed; stools is 1 time per day, of usual color without blood and mucus admixtures.

Complain on pain in the left lumbar region, of moderate intensity, radiated in left inguinal region, increased during physical exertion, relieved after Urolesan intake, accompanied by general weakness, increased urination rate. Urination 4-6 times per day, free, painless, 24 hours diuresis is to 2 liters with predominance of daily portion, urine is of light yellow color, transparent, without blood and mucus admixtures.

Pain in the joints, bones, muscles, joints movements disorders are not disturbed.
**Propedeutics to internal medicine**

**Patient** ➔ **Examination** ➔ **Diagnosis** ➔ **Treatment**

### Subjective
- **Inquiry**
  - General information
  - Complaints
  - Anamnesis morbi
  - Anamnesis vitae

### Objective
- **Physical**
  - Inspection
  - Palpation
  - Percussion
  - Auscultation

- **Instrumental**
  - Radiography, ECG
  - Sonography
  - Endoscopy, MRI, etc.

- **Laboratory**
  - Sputum analysis
  - Blood analysis
  - Urine analysis, etc.

**Preliminary diagnosis**

**Clinical diagnosis**

**Final (concluding) diagnosis**
The **obligatory information** consists from:

- The date of disease onset;
- The first signs of the disease;
- The cause of the onset;
- Visiting a doctor;
- Examination volume;
- Preliminary diagnosis;
- Previous treatment and its result;
- Last exacerbation;
Feels sick since 10 of September 2013 year when after cold arised elevated temperature till 39.2°C, cough at fist dry, then with sputum, pain in the right part of the chest increased during coughing and deep inspiration, general weakness, sweatness. Visited the doctor, after examination pneumonia was diagnosed and was sent to Kharkiv City Clinical Hospital N11 for treatment.
Feels sick since 2012 year when after emotional stress arised retrosternal pain, pressing, of moderate intensity, with radiation to the left part of the body, periodic, arising after physical and emotional exertion, 2-3 times per day, lasted 10-15 min, relieved at rest and after 1-2 tab of nitroglycerine taking, accompanied by dyspnea, palpitation. Visited a doctor, after examination coronary heart disease was diagnosed and treatment was prescribed. During the year was treated outpatient. Last exarabation occurred on 1 of September 2013, when after physical and emotional exertion the retrosternal pain increased, arised headache, dissiness, general weakness. Visited the doctor and after examination was sent to Kharkiv City Clinical Hospital N11 for treatment.
Propedeutics to internal medicine

Patient

Examination

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Treatment

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Inspection
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Radiography, ECG
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Preliminary diagnosis

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Final (concluding) diagnosis
VI. ANAMNESIS VITAE

Inquiring about past medical history include:

- Place of birth;
- Life conditions in the childhood;
- Education;
- Starting work;
- Occupation;
- Past disease in the childhood;
- Past disease in adult;
- Operations, traumas;
- Chronic poisoning;
- Drinking habits
- Relatives;
- Marital status;
- Obstetric history;
- Profession and living conditions;
- Allergic history;
VI. ANAMNESIS VITAE

• **Answer standard:**
  • Born in Ukraine, living conditions in childhood satisfactory. Went to school at age 7, graduated from Kharkiv Pedagogical University, he began his career with 23 years as a teacher of mathematics in high school.
  
• As a child sick with influenza, measles, chicken pox. Ill adult acute respiratory infections, bronchitis. There were no injuries and surgeries. Do not smoke, alcohol and drugs does not use.
VI. ANAMNESIS VITAE

• **Answer standard:**
• Heredity is burdened: maternal hypertension, paternal - peptic ulcer disease. Children are healthy. Endocrine, neurological, psychiatric, oncological diseases, myocardial infarction, stroke, asthma and tuberculosis in himself and his other relative denies. Parents are still alive: the mother '76 (CHD, arterial hypertension), the father of '78 (chronic gastritis, peptic ulcer disease).
VI. ANAMNESIS VITAE

• **Answer standard:**
• *Married, two children: son - 20 years old, daughter - 17 years old.*
• *Sick leave is not often enjoyed the last half a year ago about a hypertensive crisis. No disability.*
• *Works as a teacher in the school only in the first shift, no night shifts, and trips, regularly uses vacation.*
VI. ANAMNESIS VITAE

• **Answer standard:**

• Living conditions are now satisfactory: lives with his wife and children in an isolated four-bedroom apartment, eat regularly, observes diet with salt restriction, fluid, fried and spicy food.

• Allergic disease and the response to blood transfusion, the introduction of serums, vaccines, medicines, the impact of the disease on a variety of nutrients, cosmetics, fragrances, denies are absent.
Propedeutics to internal medicine

Patient → Examination → Diagnosis → Treatment

Subjective
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Preliminary diagnosis
Clinical diagnosis
Final (concluding) diagnosis
Objective examination of the patient is helpful to obtain information about *status praesens* - condition of the entire body and of the internal organs.
The time-honored sequence of physical examination is

1. Inspection
2. Palpation
3. Percussion
4. Auscultation
Inspection

• Visual examination of the patients
Palpation

• Palpation (L *palpare* - to touch gently) is the method of clinical examination, which is known from the ancient time. Despite the wide use of modern instrumental methods of examination, palpation remains one of the main and important techniques of the internal organs diseases diagnostics.
• Palpation is used to determine elasticity and dryness of the skin, to assess condition of the subcutaneous fat, to detect edema. The size, consistency, tenderness, and mobility of the peripheral lymph nodes it is possible to determine by the help of the palpation. Muscles development, the size of the joints, their tenderness or possible swelling, deformities, presence of fluid in the articular capsule can also be revealed by palpation.
• Palpation is widely used in examination of the chest to detect its elasticity, tenderness, and vocal fremitus.
PALPATION

- Apex beat location, and its properties; presence of the chest thrill ('cat’s purr' symptom) can be detected in palpation of the precordium.
• Palpation is very important in examination of the abdominal organs: intestine, liver, gall bladder, spleen, etc.
PERCUSSION

- Percussion (L *percutere* - to strike through) is a method of physical examination, which was proposed by an Austrian physician Leopold Auenbrugger in 1761.

- Tapping various parts of the body sets underlying tissues into motion, producing audible sounds. Percussion helps to determine whether the underlying tissues are air-filled, fluid-filled, or solid.
PERCUSSION

Loud, light, and lightest percussion are differentiated.

**Loud** percussion is used to examine deep located organs (the vibrations reach a depth of 4-7 cm).

**Light** percussion - for examining superficial organs, their size and borders (the vibrations reach a depth of 2-4 cm).

The **lightest** percussion technique is used to outline the borders of the absolute cardiac dullness.
• Comparative and topographic percussion are distinguished. The aim of comparative percussion is to compare the sounds on the symmetrical parts of the body. Topographic percussion is used to detect the borders, size, and shape of the internal organs.
Auscultation (L *auscultare* - to listen) means listening the sound inside the body. Auscultation was first proposed by French physician Laënnec in 1816; in 1819 this method was described and introduced into medical practice.
Laënnec also proposed an instrument, called stethoscope, that uses for auscultation. He described and named almost all auscultative sounds: bronchial and vesicular breathing sounds, crepitation, heart murmurs, and confirmed clinical significance of auscultation by checking its results during section.
French physician René Laënnec invented the stethoscope in 1816, when he was unable to feel a patient's heartbeat through his hand or by pressing his ear against the chest due to the patient's "great degree of fatness".
He developed the understanding of peritonitis and cirrhosis. Although the disease of cirrhosis was known, Laennec gave cirrhosis its name, using the Greek word (kirrhos, tawny) that referred to the tawny, yellow nodules characteristic of the disease.

He originated the term melanoma and described metastases of melanoma to the lungs. In 1804, while still a medical student, he was the first person to lecture on melanoma. This lecture was subsequently published in 1805.
He wrote the first detailed medical descriptions of bronchiectasis, emphysema, pleuritis, and pneumonia, and showed that lesions called tubercles, visible in any of the body's organs, are a definitive symptom of tuberculosis.

Ironically, this finding allowed Laënnec to diagnose his own advancing tuberculosis, which killed him at the age of 45.
The modern binaural stethoscope with two ear pieces, was invented in 1851 by Arthur Leared.

George Cammann perfected the design of the instrument for commercial production in 1852, which has become the standard ever since.
Auscultation can be direct - by ear, or indirect - using stethoscope. The binaural stethoscope is now widely used. It is closed acoustic system where air serves as a transmitting medium for sounds. Phonendoscope differ from simple stethoscope is that it have a membrane covering the bell, which intensifies auscultative sounds.
AUSCULTATION

• Auscultation is one of the most important diagnostic technique for examining the lungs, heart and vessels, blood pressure measuring by Korotkoff’s method. Auscultation is used in obstetrical practice, for the study of digestive organs.
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