BIOPSY-SECTIONAL COURSE

FOR STUDENTS OF THE HIGHER MEDICAL EDUCATIONAL INSTITUTIONS OF THE III - IV ACCREDITATION LEVELS

Specialities: 7.110101 “General medicine”
CONTENTS

**Theme 1.** Drawing up of path anatomic documents: Incision report clinic-anatomic epacris, path anatomic diagnosis, doctor death certificate……………………… 3

**Theme 2.** The opening died in case of death from an illness of a therapeutic structure and infectious pathology. The clinical-anatomic analysis……………… 38

**Theme 3.** Opening died from surgical and obstetrics pathologies. The clinic-anatomic analysis……………… 70

**Theme 4.** Opening of the died child. Features of the clinic-anatomic analysis and the organization of openings in pediatric practice…………………………… 93

**Theme 5.** The role of pathoanatomical service in the control over quality of treatment-and-prophylactic work. The organisation of work of medical - control commission (mcc) and clinic-pathoanatomical conferences……………………………………………… 100

**Theme 6.** Biopsy investigations…………………………… 112
Theme 1
Drawing up of path anatomic documents: incision report clinic-anatomic epacris, path anatomic diagnosis, doctor death certificate

Motivation: It is necessary to draw up the appropriated pathologoanatomic documents after a deceased body incision: protocol, path anatomic epacris, doctor’s death certificate.
Aim: To study the main rules of incision protocol drawing up, path anatomic diagnosis, clinic-path anatomic epacris, doctor’s death certificate.
Task’s: To know the structure of incision protocol, path anatomic epacris, doctor’s death certificate.
To learn to make pathologoanatomic diagnosis base on pathogenesis principle, write out doctor’s death certificate and encipher the diseases according to MKX-X.
To know how to draw up the principal pathologoanatomic documents.

Lesson equipment
1. Incision protocol.
2. Doctor’s death certificate.
3. MKX-X.

1. Material for pre-auditorium independent work
1. Study the incision protocol structure.
2. Study the doctor’s death certificate structure.

2. Questions for self-control of the theoretic material knowledge of lesson
1. Concept on diagnosis formulation.
2. Structure and logic of clinic and pathologoanatomic diagnosis.
3. Primary disease concept.
4. Complication of primary disease concept.
5. Concurrent diseases concept.
6. Combined primary disease concept.
7. Competitive diseases concept.
8. Conception on united und background disease.
10. International classification and nomenclature of diseases.
11. The peculiarities of diagnosis formulating in the presence of surgical intervention, doctor’s error and incorrect manipulation.
12. Compression of clinical and pathologoanatomic diagnoses.
13. The rules of doctor’s death certificate drawing up.
14. Concept on “final”, ”previous” for substitution of previous death certificate.
15. Filling up peculiarities of the points first part with singling out the sub points a, b, c and filling up the point 8 second part.
16. Te peculiarities of doctor’s death certificate filling up in child’s practice under the prenatal pathology.

(I. MATERIAL FOR FREE BEFORE-CLASS WORK)
Compressed exposition of theoretical and instructional materials

I. Order and methods of section of deceased in stationary medicoprophilactic institutions

After ascertainment of fact of biological death the doctor of permanent institution a body of deceased is in ward during two hours. On the hip they write the last name, name, patronymic, date and time of death, separation with brilliant green. Usually they fasten rubbered tape to the hand, in which passport information is marked on. The last method is more expedient in those medioprophilactic institutions in which single cases of death are observed.
At bearing-out of body and his next research it is necessary to follow all moral-ethical and professional requirements. Ethical requirement is keeping of medical secret of everything that determined at section. It should also remember, that for deceased the body of which serves for science, there are relatives and near. Professor V. Gruberg, for example, required from students and those which work in prepare, to take off hats, "as wearing of hats does not answer dignity of room". It is desirable to caution junior medical workers, that cadaveric hypostasis can disfigure face at placing of body with the up back. It shouldn’t be forgotten that after ascertainment of fact of biological death it is necessary to close eyes, tie up a lower jaw, cover body with clean sheet, etc. At the same time of the body of deceased of fully filled case history of patient is transported into the morgue.

Before necropsy of deceased dissector researches all information about life, diseases and death of patient, which it is possible to know from case history of patient, finds out in treating doctor absent facts which tell about motion of disease and dying. Sometimes it is expedient to specify some information even for relatives, especially in the cases of brief stay of patient in permanent establishment. The laboratory, instrumental and other methods of research, methods of treatment, doses of drugs, used patient, are attentively studied, diagnoses are taken away on the title sheet of medical map, and also all workings diagnoses, fixed in diaries. The study of these circumstances pursues another important purpose - exception or ascertainment of presence of medico-legal aspect.

It is desirable, that dissector, learning all the necessary are given, set diagnosis which can not coincide with a diagnosis treating a doctor. By this measure, P. Kalitievskiy specifies, a dissector to a certain extent puts itself at position treating of doctor, that it is especially important for the mutual understanding between a pathologist and clinicist.
In execution a pathoanatomical section there is a certain algorithm:

1. To provide section at daily illumination, as lamplight changes color reproduction.

2. To dress smock rubbered apron and sleeve protectors on him. They recommend to utilize anatomic gauntlets. It will prevent communicable diseases, and also penetration of ptomaine, through the possible defects of skin.

3. External review of body of deceased. They set sex, constitution, feed, condition of covers, presence of signs of death, rush, hemorrhages, wounds, ulcers, edema, etc. It is desirable, that treating doctor confirm passport information of deceased.

4. Basic sectional cut. It is necessary to watch, that it did not pass through afteroperational cuts, scars and other defects.

5. Detailed research of cavities with finding out of features of location and location related one to another of organs, presence of comissures, exudate, transudate, extraneous bodies, etc.

6. Removal from the cavities of organs and their research (sizes, weight, colour, consistency, form, etc.) with the simultaneous taking of necropsy, and also depending on the tasks of dissector, to material for bacteriological, serologic, biochemical and virology researches. Sometimes conduct X-ray research of bones.

7. Short result with formulation of pathoanatomical diagnosis, reason of death, presence of possible divergences, between clinical and pathoanatomical diagnoses, finding out of additional questions which interest clinicists.

8. Toilet of dead body.

9. Reporting of section.

First Virkhov detaily described method of autopsy. Later it was perfected by Kiari, Letul, O. Abrikosov, G.Shore. Methods of last two are most widespread in prosector practice.
O. Abrikosov suggests to probe organs on cavities. First it is recommended to take out the organs of neck and pectoral cavity in a complex. Then - separately intestine, liver, stomach and duodenum, by one complex, urinary ways and privy parts also by one complex.

G. Shore offered the method of full evisceration of organs - removal of organs of neck, breast, abdominal cavities and small pelvis as the unique continuous complex. At research of organs also are not separated one from other, that keep anatomic-phisiological integrity. This method is comfortable enough at research of bodies of deceased which died after operational aggressions. In such cases it is expedient in detail to inspect the area of the operating field, namely the state of surgical stitches, vessels, presence and character of exudate, rightness of implementation of operation.

**Reporting of section**

Reporting of section is conducted in pathoanatomical document - to chart of pathoanatomical research (section). It consists of such parts: passport, descriptive, pathoanatomical diagnosis and clinical- pathoanatomical epicrisis. In passport part there are last name, name, patronymic of deceased, his age, address, number of case history, profession and speciality, entering in hospital and death diagnoses. In protocol of section they bring in also short information from case history about the features of etiology, clinical symptoms, instrumental and laboratory indexes, methods of treatment. It is desirable to specify speciality, but not "pensionary", and also characteristic signs, diserases, at which diagnosis marked in a clinic can be put.

The order of filling of descriptive part is different. Nowadays it is observed tendency to its simplification, walking away from the classic form of exposition. Impermissible use of general terms, for example, "aterosclerosis", "adenoma", "pneumosclerosis" and others like that in place of description
of pathomorphological symptoms, or comparison of size of pathological changes, with such objects, as a greek nut, pea, egg, in place of the exact pointing of sizes. It should be remembered that pathoanatomical description is judicial document, that’s why even insignificant changes, which, in opinion of pathologist, are not notable, at subsequent research can have main value. Even in the purpose to apply the charts of section, in which character of pathological changes is only mentioned. Such way often causes errors which it is difficult to correct. Photographing and record on videotape are also additional methods of report. The basic requirement which is produced to descriptive part of protocol is sufficient plenitude and clarity, which are combined, on possibility, with the conciseness of exposition.

In pathoanatomical practice such norms of registration of pathoanatomical changes are widely used:

♦ after the anatomic systems of organism;
♦ after the course of providing of section;
♦ after the preliminary certain place of defeat of the system, related to the features of case, and in future - after course of research of other systems.

Always recommend to begin descriptive part from external review of body, registration of feed, state, skin covers, mucus, and eyes, hair, nails, to character of edema, etc. After these signs it is possible to assume the presence any pathology. It is desirable to conduct the record of protocol directly after a section, not delaying to the next day, the best of all under dictation after course of implementation of section or with the use of dictaphone.

Formulation of pathoanatomical diagnosis follows descriptive part of protocol on the basis of macroscopic diagnostics and if necessary with the use of express methods. Formulation of diagnosis it is desirable provide in presence of treating doctors before toilet of body.
Structure and construction of pathoanatomical diagnosis

Diagnosis (grec. diagnosis - recognition) is medical conclusion about the pathological state of health of inspected, presence of disease (traumas) or about reason of death, shown in terms, provided by International classification of diseases, traumas and reasons of death. Setting of it is the finishing stage of analysis of data of anamnesis, clinic, laboratory instrumental researches, results, macro- and microscopic morphological research.

According to the stages of diagnostic process variants they distinguish:

♦ diagnosis at the protracted supervision of the state the health of district or domestic doctors, and also during conducting of prophylactic supervisions;
♦ diagnosis at entering into medical institution;
♦ clinical diagnosis concerning conducted treatment;
♦ finishing clinical diagnosis which is set by treating doctor at extract of patient from permanent establishment or in the case of death;
♦ pathoanatomical (medico-legal) diagnosis which pathologist (forensic pathologist) set based on research of sectional or biopsy material.

Modern clinical and pathoanatomical diagnosis must show nosology, etiology, pathogenesis, morphofunctional symptoms and prognosis of disease. Pathoanatomical diagnosis must include all stages of cognitive process: supervision, morphofunctional description of pathological changes, determination of nosology belonging of disease (formal diagnosis), determination of etiology, mutual relations, and sequence of origin of morphological symptoms with the account of information of anamnesis, clinical symptoms and complex of results of in-life laboratory, instrumental and morphological researches (clinical diagnosis of this patient or
deceased), and also determination of prognosis in the cases of setting of diagnosis on the basis of research biopsy.

It follows to mean that every nosological unit contains both reason and consequence is possible, which will be realized only in certain terms. Reason and consequence connected by possibility and reality, chance and authenticity. Thus connection of reason with accident includes for itself variety of consequences at the same reason, and possibility of transition of reason in consequence is determined authenticity.

At registration of pathoanatomical diagnosis it is necessary to mention, that:

♦ one reason can result in one consequence;
♦ one reason can result in plural consequences;
♦ one consequence can be caused by plural reasons;
♦ reason and consequence (s) can entail death of patient;
♦ reason and consequence (s) can change the symptoms of disease (pathomorphosis).

Treating doctors and pathologists often variously interpret and understand the the same phenomena, their place among found out other for a patient processes both from the point of view cause and effect, their value in course of diseases, and cleanly from diagnostic positions. Clinicists often set by basic nosology unit that is display of disease or complications on which were directed their treatment, or reanimation measures. Exactly it results, that without the unique principles of interpretation and registration of pathoanatomical processes compatible work of treating doctors and pathologists will be ineffective and will not bring those value for clinical practice and professional development of doctor, which must be its result.

Final diagnosis is result of difficult process of comparison and comprehension of numerous facts, collected by doctor in the process of treatment, in basis of which laws of formal and dialectical logic lie. Formulating of diagnosis is not formal
stage, but conclusion of thinking of doctor in verbal form. Consequently, there must be clear principles of its formulating, that are clear both for treating doctor and pathologist, at statistical analysis of death rate of population.

Clinical and pathoanatomical diagnosis consist of 3 sections:

1. Underlying disease
2. Complication of underlying disease
3. Accompanying diseases.

As underlying disease must be proposed that nosology form, which in itself or through pathogenetic mechanism is complicated and cause functional disorders which stipulated clinical picture at patient and caused death. For example, ulcerous disease of stomach, pulnonal cancer, croupous pneumonia, rheumatism, etc. Thus it is not necessary to mention symptoms and syndromes which substitute nosology unit.

It is expedient to appeal to the term "disease". This term is used for denotation of disease of separate man, determining of nosology unit and generalized concept of disease as of the biological and social phenomenon. All existent determinations do not satisfy doctors both in theory, and practically.

The most useful of the known determinations of disease belongs R. Virchow: "Life at abnormal conditions". Yu. Konheim understood disease as overalls deviation from a normal vital process, which caused cooperation of external and internal terms and reflex processes of organism. It is possible to accede to determination A. Strukov: "It is a process of vital activity of integral organism, is process of fight for a survival", also I. Davidovskiy and V. Sil'vestrov: "It is adaptation of organism, which is characterized by specific forms and levels of adaptational acts". On the whole, summarizing these determinations, it is possible to consider, that disease is violation of vital functions of organism under act of factors of
internal and external environment which is characterized by limitation of adaptation with simultaneous mobilization of compensatory-adaptational mechanisms. Consequently, under disease it is possible to understand dug of compensatory-adaptational processes, reactions of organism on a damage. For example, hypertrophy of heart as compensatory process at hypertensive disease is display of fight of body for a survival. Next to it, dilatation of its cavities – it is display of disorder of compensation.

Every damage, adaptational and compensate processes always have disfunctional expression, sometimes of new quality, not characteristic for the healthy organism. Such signs, which can be found out by the clinical and morphological methods of research, and also be used for diagnostics and prognosis of disease, name a symptom. They are distinguished availability of exposure on obvious and hidden, after the terms of expression - on early and late, after a diagnostic value of position of pathogenetic interpretation - on unspecific, specific and pathognomic. For example, Ponse’s rheumatism is the unspecific inflammatory reaction of sinovial shell for a patient with tuberculosis, presence of tubercular granuloma is the specific sign of tuberculosis, and endocarditis is pathognomic sign of rheumatism.

Aggregate of symptoms on the basis of their connection of etiology and pathogenesis or only of pathogenesis at the undetermined etiology of disease makes clinical expression of nosological character of syndrome. For example, hemorrhagic syndrome can be at acute leucosis, haemophilia, cirrhosis of liver, avitaminosis C, urinary syndrome is observed at glomerulo- and tubulopathy, urolythiasis, essential arterial hypertension, diseases of kidneys, hormone productive tumours etc. Syndrome is part of nosology, that’s why in clinical conditions they use syndrome approach, and syndrome diagnosis is the stage to setting of nosologic diagnosis. In
pathological anatomy such syndromes are general pathologic processes which help to determine pathogenesis of diseases; they most often are manifestated as symptoms or complications of disease. There are cases, when syndrome as display of complication comes on the first plan in clinical and morphological picture. Exactly it caused violation of determination of concept of basic and construction of diagnosis pathogenic principle, and also to the selection of new nosologies. For example, cardiac infarction is the cardiac form of expression of atherosclerosis or hypertensive disease. Reason of it is durable ischemia, predefined by spasmus or by the thrombosis of arteries. But, taking into account the social and clinical value of cardiac infarction, new nosology - ischemic disease of heart is selected. In such cases a heart attack comes forward as underlying disease.

In practice of pathologist rarely there are cases, when signs of one disease, for example, of typhoid are present. Mostly on section they find out few pathological states.

_In such cases for determination of underlying disease it is recommended to use principles:

- to give advantage the pathological condition which can be considered as principal reason deaths;
- to give advantage to more severe condition after character and consequences;
- if it is impossible to give advantage after first or second principle, to take into account condition which is most reliable after frequency.

_Most expedient, in our view, the method of determination of basic disease is founded on the basis of such principles:_

1. What pathological condition is direct reason of death?
2. What pathogenetically conditioned process did cause its development?
3. To the symptoms of what nosology is a pathological process most inherent?
The last is nosology unit. For example, asphyxia caused by corking of bronchial tubes by blood; bleeding from erosed vessel as a result of caseose necrosis of wall; cavernous tuberculosis.

In a number of cases it is impossible to select one nosology unit and a few diseases which would in itself entail death. There is nothing use the so-called combined underlying disease.

_Nosology forms which are included in his composition can be combined in such variants:_

♦ competitive diseases;
♦ united diseases;
♦ combination of basic and background diseases.

Under competitive diseases unite two nosologies which in itself and through complication would lead to death. For example, combined underlying disease: ischemic heart disease - initially arising up transmural cardiac infarction of front-lateral wall of the left ventricle of heart and cerebrovascular disease - hemorrhage in the left hemisphere of cerebrum. Complication of underlying disease: edema of lungs, edema-swelling of substance of cerebrum with wedging in the large cervical foramen.

In this case edema of lungs was as a display of left-ventricle insufficiency, edema-swelling of substance of cerebrum with wedging in the large cervical foramen, caused by hemorrhage in a cerebrum, in itself could lead to death. Except it, combining at time of origin they acutely worhtened condition of patient and brought closer time of death.

Unlike competitive diseases, combined diseases, each separately, is not mortal, but at their simultaneous development draw mortal complication.

United diseases can exemplify simultaneous presence at patient of postinfarction cardio sclerosis and chronic non-specific disease of lungs.
Each of these diseases can cause chronic cardiac insufficiency, however at their combination terminal symptoms come quickly.

*Necessary condition of presence of combination of diseases is:*

♦ eloped in time of two diseasees which gives a new qualitative display of pathological process;
♦ general for these nosologies complications.

Rheumatic disease and chronic form of the secondary tuberculosis can be an example. They are different on etiology and pathogenesis of disease, but general for them there can be complication - amyloidosis of kidneys, course of which is finished with uraemia.

Background disease after A.V. Smolyanskiy is nosology, which has substantial role in origin and unfavorable course of pathologic process. For example, pyelonephritis or tuberculosis on background of diabetes melitus, tuberculosis at drug addiction or alcoholism. It follows to mean at setting of such diagnosis, that background nosology is that disease at breaking of which it is possible to warn mortal investigation of underlying disease, or, opposite, the presence of which worsens the flow of disease and speeds up of death. Usually it can be represented in a diagnosis or epicrisis by terms "on background of", "at presence of". For example, acute purulent pyelonephritis on background of diabetes melitus or viral hepatitis on background of chronic toxicomania (alcoholism).

Under complication of underlying disease it follow to understand those pathologic processes which worsen course of underlying disease and pathogenetically is related to him. For example, diffuse purulent peritonitis and at the perforated gastric ulcer or festering leptomeningitis at acute pneumonia and etc. Sometimes one complication can at time of development cause another. For example, ulcerophlegmonous appendicitis, pileflebous abscesses of liver – icterus - icterus
In such cases it is desirable to specify all complications in the sequence of their origin in pathtoanatomical diagnosis, grounding on the given morphology, pathogenesis and clinical picture.

Accompanying disease is considered that nosology unit, of which is etiologically and pathogenetically disconnected with underlying disease. Processes which have substantial pathological symptoms and is possible side influence on resistance of organism are written down in this part.

Thus, registration of pathtoanatomical diagnosis is grounded on the basis of nosology principle with the mention of etiology, pathogenesis and anatomic localization of processes with maximal using headings of ICD OF WHO. Adhering to the last principle, not always it is possible to build a pathtoanatomical diagnosis on pathogenetic principle. Those, in obedience to ICD OF WHO, as underlying disease it is suggested to propose cardiac and cerebral clinical-morphological forms of atherosclerosis and hypertensive disease (cardiac infarction, cerebrovascular disease). It relates to tubercular meningitis. At pathogenesis this pathological process is complication, however, in obedience to ICD OF WHO, it grows as underlying disease (A.7.0- tubercular meningitis).

It is known that the number of medical measures can be complicated by severe, sometimes by incompatible with life, pathological processes.

In obedience to ICD OF WHO, to complications which arose up as a result of therapeutic and surgical aggressions (U40-U84), included:

- complications, linked with the use of medical devices and built on;
- unforeseen unfavorable reactions which arose up at introduction in accordance with setting of medications in a therapeutic or prophylactic dose;
• by chance harm is inflicted to the patient during surgical and therapeutic aggression;
• surgical and therapeutic procedures which are reason of anomaly reaction of patient;
• complication is remote without mention about unintentionally doing harm during procedure.

In those cases, when lethal complications come after the grounded and correctly conducted medical measures, they are considered as lethal complications of underlying disease concerning which it is accepted these measures. For example: underlying disease - pemphigus (L.10), treated with corticosteroids in therapeutic doses.

Complication of underlying disease: acute steroid perforative gastric ulcer, diffuse fibrinous-purulent peritonitis.

Next to it, number of iatrogenic diseases need to be interpreted as basic disease and primary cause of death. They are:

1. Unfavorable results of medical procedures which are conducted at an erroneous diagnosis.
2. Wrong conducted medical measure which caused death. For example, complication of catheterization of subclavial vein, bronchoscopy, infusional therapy. In this case it is suggested to formulate a pathoanatomical diagnosis:

   **Underlying disease:** perforation of wall of cardiac right ventricle by intravascular end of catheter at punction and catheterization of right subclavial vein (date).

   **Complication of underlying disease:** pericardium tamponade by infusional fluid and blood; hydro-hemopericardium, edema of lungs, edema of cerebrum.

   **Accompanying disease:** parainfluenza of second serotype (by results of posthumous immune fluorescence research).

3. Complication of therapy with development of disbacteriosis, endo- and exogenic superinfection.
4. Lethal allergic reactions and other complications after introduction of medicinal preparations without the previous conducting of allergologic tests or ignoring of these information.
5. Incompatible blood transfusion.
6. Death, predefined complication of manipulation, conducted with a diagnostic purpose, and also vaccination.

Clinical-pathoanatomic epicrisis

Clinical-pathoanatomic epicrisis is the most difficult for formulation part of protocol of section. It is a synthesis of clinical course of disease with information, determined at morphological research, determination of etiology, pathogenesis, morphogenesis and mechanism of death. Here dissector writes his opinion about the feature of this case.

In clinical-pathoanatomic epicrisis it is necessary to represent such questions:
2. Finding out of stages of tanatogenesis and ascertainment of primary and direct reasons of death.
3. Analysis of symptoms of pathomorphosis (influencing of medical measures on clinical-morphological symptoms of disease).
4. Comparison of diagnoses is after headings (underlying disease, its complication and accompanying diseases) with pointing of reason of divergence of diagnoses.
5. Finding out of timeliness of diagnostics and hospitalization with the estimation of influencing of this factor on medical process and diagnostics of disease.

There is no clear chart of writing of clinical-pathoanatomic epicrisis, that predefined by possibility of other approach in each case. With other words it is the subjective look of dissector to disease with the use of morphological
analysis. However, mentioning, that bigger part of epicrisis is
dedicated to analysis of clinical picture and treatment,
possibilities of early before-hospital and hospital diagnostics,
using of necessary diagnostic measures, timeliness of
hospitalization, dynamics of diagnostic process, expedience of
operative aggression, description of therapy, reanimation
measures, it follows to decide these basic questions
collectively, at active voice of treating doctors, on meeting of
doctor-control commission, clinical-pathoanatomical
conference. Only in that way is possible to represent the
miscalculations of medical thought and organizations of
medical-prophylactic work in every case.

**Medical death certificate**

Formulating pathoanatomical diagnosis, pathologist proceeds to registration of medical death certificate. It should
be mentioned, that the basic condition of the correct filling of it
is right composed diagnosis and competent using of ICD OF
WHO.

ICD OF WHO (International classification of diseasees)
makes the unique code list of the three-digit headings, each of
which can part on four-dimensional subheadings by number to
ten. In place of the especially digital system of code in previous
editions in tenth revision number code is used with a letter -
first symbol and number - second, third and fourth symbols.
Fourth symbol is located after a decimal point. Thus, numbers
of codes are possible contain in a range from A00.0 to Z99.9.
After ICD OF WHO X revision, all diseases and systems are
divided on a 21 class, every class is answered by the certain
letter of the Roman alphabet.

*Order of filling of medical death certificate:*
1. Medical death certificates are filled with pen, with legible
handwriting.
2. All points of certificate are to be filled. In case of absence
of any information it is necessary to write down there "is not
information", it is not "set". On medical death certificates and parts of them, they fill in the number of ascertainment after the State register of current statistical units of Ukraine, and through a fraction - serial number of medical death certificate.

3. Reason of death is written down in two parts of 11 point of medical death certificates.

First part of it is divided into three lines (I a, b, c).
Etiologically and pathogenetically connected diseases are written there:

a - direct reason of death, that disease, syndrome or symptom, which are lethal complication of underlying disease;
b - the transient conditions which are pathogenetically related to direct reason of death and underlying disease;
c - basic primary disease which stipulated direct reason of death. Basic primary disease which is written down in the line of Ib is encoded one of codes of ICD OF WHO. 44

In the second part of 11 point doctor must mark other diseases, which negatively influenced on course of underlying disease, but causally disconnected with disease or its complication which directly is reason of death. For example:

1) I.
   a. Acute постгеморагічна anaemia.
   b. Bleeding from the varicose widened veins of gullet.
   c. Combined cirrhosis of liver.
II. Rheumatoid arthritis, phase of remission. It is necessary to encode the cirrhosis of liver – K74.6.
2) I.a. Chronic renal insufficiency.
   b. Subacute glomerulonephritis.
   c. Scarlatina.
II. Lymphohypoplastic anemia, anomaly of constitution.
   Encode scarlatina – A38.
   b. Mechanical icterus.
   c. Cancer of caput of pancreas.
II. IHD. Postinfarction cardiosclerosis.

Encode cancer of head of pancreas - S25.0.

At filling of point 11 medical death certificate on dying woman in childbirth or woman recently confined they recommend to do a record in such order:

In the case of complications of pregnancy, births, or postnatal period, and also as a result of other aggressions, wrong conduct of childbirth, information about reason of death is written down in the first part of generally accepted chart in lines Ia, b, c.

For example:

1) Ia. Acute respiratory-cardiac insufficiency.
   b. ------
   c. Embolism by amniotic fluid.
   II. Pregnancy is second, births are first, urgent.
   Encode embolism by amniotic fluid - 088.1.

2) Ia. Acute posthemorrhagic anaemia.
   b. Uterine bleeding.
   c. Pregnancy is first, spontaneous abortion.
   II. Endemic multinodulal goitre.
   Encode spontaneous abortion - 003.

In the case of death of pregnant, woman in childbirth or woman recently confined as a result of disease, which existed before or arose up in the period of pregnancy and unconnected with direct obstetric reason, but burdened the physiology influencing of pregnancy or accident, list, about reason of death write down in lines Ia, b, c but here in part II it must be done record about pregnancy and its time:

For example:

1. Ia. Chronic right ventricle cardiac insufficiency.
   b. Dilatation of right ventricle of heart.
   in. Rheumatism, active phase, stenosis of mitral opening.
   II. Pregnancy is second, 22 weeks.
Encode rheumatism with the defect of mitral valve -I05.9.
2. Ia Cardiopulmonal shock.
b. pulmonary embolism.
c. Cystoma of the left ovary with torsion of pedicle.
II. Pregnancy is first, 32 weeks.
Encode Cystoma of ovary – D27.
In all cases of death of women in post-natal period within the limits of 42 days after births in part II do a record: "Postnatal period .... day".
For example:
1) Ia. Purulent meningitis
b. Abscess forming in lungs.
c. Croupous pneumonia.
II Post-natal period, 28 day.
Encode croupous pneumonia – J15.2.
In cases of death from traumas in point 11 they specify localization and character of trauma.
For example:
1) Ia. subdural hematoma.
b. Dug of the tent of cerebellum.
c. Fracture of basis of skull.

II. Diabetes melitus.
Encode fracture of basis of skull - S02.1.
2) Ia. Posthemorrhagic shock.
b. Dug of femoral artery.
c. Open fracture of middle third of right hip.
II. Encode open fracture of right hip - S78.81.
*In a point 12 it is necessary clearly to specify:
Ia - date of trauma: year, month, day;
b - at accidents, unconnected with a work, specify the type of trauma (domestic, street, traffic etc.);
c - a place and circumstances of trauma.*
For example:
I a. 2000, January, 22;
b. traffic;
in. Highway road, running-down accident of car.

In a point 13 bring information only on the basis of certification of deceased, is given out in accordance with Law of Ukraine "On status and social status of citizens which suffered as a result of the Chernobyl catastrophe".

In a point 14 write down the name of medical ascertainment, date of given out of certificate, signature of doctor which gave out a death certificate, by the certified by seal of establishment.

A record about delivery of medical death certificate (№ of record, date, reason of death) must be done in proper medical documents: case history of patient (form 003/r), case history of births, form №096/c), case history of ambulatory patient (form №025/r).

**Addition № 22**
The main disease writes completely in the pathoanatomical diagnosis as well as all accompanying diseases and their complications.
The disease is directly or through complication closely with him bound has brought about death is considered the main disease.
Pathological processes that directly pathogenetic are bound with the main disease pertain to the complications.
The most main nozological forms that as of autopsy and clinical is not bound directly with main disease is considered the accompanying diseases.
Pathoanatomical diagnosis
The main disease: ulcerous disease of the stomach with ulcer on small curvature.
The complications of main the disease: perforation of ulcer, diffusive fibrinopurulent peritonitis.
The accompanying diseases: adenoma of prostate, chronic cystitis, small polycystosis of kidneys.

Pathoanatomical diagnosis
- The main disease: adenocarcinoma of the left mammal gland with metastases in lungs, pleura, hepar, ovaries.
The complications of main the disease: cachexia.
The accompanying diseases: ascariasis.

Addition № 23
Physician’s death certificate
In part “The cause of death” writes about death condition. It necessary distinguish two conceptions:
  In line “1a” write the directly cause of death.
  In line “1b” write process whose development brings to the directly cause of the death.
  In line “1c” write the main cause of the death which is the main disease.
  In line “II” write accompanying diseases that promote approach to death.

3 Algorithm of auditorium work
1. To give answer’s to situation task’s:
  1. Te patient A., 70-years-old was brought to the hospital with stomach cancer, on transporting to X-ray department room the patient suddenly died.
  During incision cancer with destruction stomach wall and numerous metastases myocardial infarction, myocardium rupture, hem pericardium were revealed what disease should be
considered principal one and what disease is concurrent? Write out doctor’s death certificate
2. Oaring incision of the man deceased from uremia on the base of chronic glomerulonephritis, chronic bronchitis with pulmonary emphysema with reticular diffuse pneumocerosis, generalized etherscleprosies of all arteries inferior lip cancer on the initial stage of invasive growth were revealed. What diseases are principal, concurrent, concomitant ones?
3. After incision of the deceased body P., 80-year-old, following diagnosis was made: principal disease: general atherosclerosis, atherosclerosis of aorta, brain vessels, coronary vessels, cardio sclerosis, hypertrophy of left ventricle (1.6sm) Complications of principal disease: gray softening of brain in the left frontal lobe. Concomitant disease: chromic bronchitis. What is path anatomist’s error in making diagnosis?
4. During the autopsy hypertrophy of heart ventricle, primarily contracted kidney, hemorrhage into the right temporal region of the Brian, Brian edema, prostate adenoma were revealed. Formulate path anatomic diagnoses. Write out doctor’s death certificate.
5. During the incision sclerosis heart valves, polypousulcerous valvulitis of the aortic valve with its perforation, infarctions of spleen, kidneys, chronic bronchitis, atherosclerosis of aorta. Formulate the path anatomic diagnosis.
6. During the autopsy it is was revealed: sclerosis deformation and inosculation of the mistrals valve folds, hypertrophy of the right atrium and the right heart ventricle, brown in duration of lungs, kidneys, spleen, mace liver, as cites, hydrothorax, Anadarko, chronic ulcer of stomach, atherosclerosis of aorta. Formulate path anatomic diagnosis write out doctor’s death certificate.
7. During the autopsy of the dead it is revealed: the left ventricular hypertrophy, secondary contracted kidney, fibrous
pericarditis, ion’s micro focal bronchopneumonia, edema of lungs, serous hemorrhagic enteritis, stones in gallbladder, of abdominal cavity. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

8. During the autopsy it was reveal: blood presence in the stomach lumens, small intestine, pallor of tissues of internal organs, tubercular cavern in the region of the right lung apex, right ventricular hypertrophy, decrease of the liver size with its deformation, large regions of connective tissue and small nodules of regeneration, enlargement of esophagus veins, atherosclerosis of aorta. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

9. During the incision the path anatomist revealed the following picture primary: gangrenous appendicitis on the occasion of which the operation-appendectomy, was performed; hemorrhagic infiltration of pancreas, edema of lungs, fracture of the 4-5-6-7-ribs on the right side and 3-4 ribs on the left side, chronic bronchitis, infarction of spleen, extensive through-and through myocardial infarction of pestered wall of lift ventricle posterior wall, parietal thrombus of the heart left auricle, thrombosis of the right renal artery and mesentery vessels of appendix. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

10. During incision it is revealed: atherosclerosis of coronary vessels, atherosclerotic cardio sclerosis, of abdominal department of aorta and mesenteries arteries, thrombosis of superior mesenteries artery, gangrene of small intestine, generalized, and peritonitis adipose dystrophy of liver, granular dystrophy of epithelium of kidney canalicated. Formulate path anatomic diagnoses. Write out doctor’s death certificate.

11. During the autopsy of the dead M., 47- year-old, following morphologic changer were revealed: fibroin hemorrhagic tracheobronchitis, colitis, fibrin us pericarditis,
hyperplasia of spleen, edema of lungs, brain, impression of cerebellum tonsils into great occipital foramen, calculi in gallbladder, acute diffuse glomerulonephritis, atherosclerosis of aorta and coronary vessels, atherosclerotic cardio-sclerosis. Formulate path anatomic diagnoses. Write out doctor’s death certificate.

12. During the incision of the dead L., 42-year-old, path anomalies revealed following clinical picture: erosive gastritis, ascites, bilateral stagnant plethora of kidneys, indurations of brawny in duration of lungs, hemorrhagic infarction of lower part of the right lung, mace cirrhosis of liver, atherosclerotic cardiosclerosis, hypertrophy of walls of heart right and left ventricles with dilatation of their cavities, rheumatic heart disease: sclerosis of mistral and aortic valves with their insuffaency and stenos is atrioventricular and aortic foramina. There are fibrin us warts on valves, formulate path anatomic diagnosis. Write out doctor’s death certificate.

13. During the incision of the dead K., 52-year-old, from the gynecological department, following morphological changes were revealed: atherosclerosis of aorta, infantile uterus, atrophy and sclerosis of apothecia and uterine tubes, lateral hydronephrosis with vacant spread of adipose cellular tissue around kidneys, chronic bronchitis diffuse pneumosclerosis, emphysema of lungs, chronic pulmonary heart, general venous polygamies mace liver, red pleura obstructive thrombi of left shin veins, throm-boembolia a of main column of pulmonary artery, infarction of lungs in lower lobes. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

14. After incision of the dead N., 58-year-old, following diagnosis was made: atherosclerosis of aorta, brain and heart vessels. Complications of principal disease are: moderate left ventricle hypertrophy, fibrin us pericarditis, edema of pea mater, brain substance. Concurrent diseases are: chronic diffuse gloms rulonephritis with transformation into secondary
contacted kidney, gastritis, fibrin us colitis, fibrin us pleurisies, as cites, emaciation, deforming polyarthristis of hands and feet, sub serous uterine fibromyoma. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

15. After incision of the dead K., 24- year-old, following diagnosis was made: principal disease- ischemic heart disease, atherosclerosis of coronary vessels, atherosclerotic cardio sclerosis, focal of ischemia and dystopia of myocardicyti, subperpicardial hemorrhages. Complications of principal disease are: edema of lungs hemorrhages in the region of panceras hemorrhagic tail trachea bronchitis, serous hemorrhagic enteritis. Concurrent diseases are: ulcer-purification atherosclerosis of aorta, parietal aorta thrombi, chronic bronchitis, polycystosis of kidneys. Point out mistakes, made in formulating of path anatomic diagnosis. Formulate correct diagnosis. Write out doctor’s death certificate.


17. After incision of the dead L., 31-year-old, following diagnosis was made: principal disease sub serous fibromyoma of uterus, spleen hyperplasia. Complications of principle disease: extra uterine pregnancy, rupture of ampler part of the right part of uterine tube, internal hemorrhage, anemia of internal organs, edema of lungs. Point out the mistake made in formulating the diagnosis. Formulate the correct path anatomic diagnosis. Write out doctor’s, death certificate.
18. During bronchoscope the wall of the right main bronchus and parietal pleura of the patient was injured. These resulted in the right lateral pneumothorax and mediastinal emphysema. To eliminate the abovementioned pathological changes the operation as performed applying pleura cavity drainage, suturing of main right bronchus rupture, right lateral bilobectomy. After the operation bilateral aspiration pneumonia, brain edema, impression of tonsil’s into great occipital foramen arose. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

19. During the autopsy of the dead K.,-36-year-old, following pathology was revealed: hypertonic (hypertrophy of heart left ventricle), chronic alcoholism, brain atrophy, moderate internal hydrocephalic, delirium tremens , alexia, general venous plethora , considerable dystrophic changes in parenchymatuous organs , left lateral lobar pneumonia (croup us pneumonia) with fibrin us pleurisies. Formulate correct path anatomic diagnosis write out doctor’s death certificate.

20. During the incision of the dead M., 48-year-old, following changes were revealed: pneumoseclerosis, emphysema of lungs, atherosclerotic nephrosclerosis, ischemic heart disease: stenotic atherosclerosis of coronary arteries, through-and-through interaction of left ventricle, stratifying rupture of myocardium, pericardium dampened. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

21. On  25.10.93 the patient K., 38-year-old, was performed appendectomies in connection with phlegmonous gangrenous appendicitis. On the third day after the operation sutures of stump appendix parted, fibrin us purulent peritonitis, hypostatic pneumonia, adipose liver dystrophy arose. During the inclusion of the dead ulcer petrifaction atherosclerosis of brain aorta was revealed besides the abovementioned pathology. Formulate
correct path anatomic diagnosis. Write out doctor’s dead certificate.

22. In patient C., 50-year-old, who was ill with cancer of pancreas head body, obstructive jaundice arose as a result of common bile duct squeezing and purulent angiocholitis with abcucog bonnet.

On 16/03./93 the operation was performed with gallbladder drainage. During the incision of the dead the purulent bile peritonitis, sub diaphragmatic abscess melting of tedious centre of diaphragm right cupola, right lateral pal thorax with compressive telecasts of the right lung, parenchymatous dystrophy of internal organs, metastases of pancreas cancer in the adrenals were revealed. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

23. During the incision of the dead C., 43-year-old, it was revealed: ischemic heart disease, which appears as atherosclerosis of coronary vessels, atherosclerotic cardiosderosis. Besides, atherosclerosis of aorta, chronic duodenum ulcer with disorder of stomach evacuation function, emaciation, aspiration of stomach content into trachea, bronchi, purulent aspiration pneumonia, dystrophy, in parenchymatous organs were found. Formulate correct, path anatomic diagnosis. Work out doctor’s death certificate.

24. During the incision of the dead F., 56-year-old, following pathology was revealed: cardio sclerosis with moderate left ventricle wall dystrophy, infarction of myocardium in the region of left ventricle with misbalance and rupture of wall, myocardial tamponade, stagnation plethora polymeric of spleen, lungs, kidneys, mace liver, bilateral hydrothorax, pie mater edema atherosclerosis with mainly calliopsis of coronary arteries and lip sclerosis of vessels of brain base. Formulate correct path anatomic diagnosis. Work out doctor’s death corticated.

25. During the incision of the dead A., 62-year-old, it was
revealed: chronic bronchitis diffuse pneumosclerosis, bronchectasia, emphysema of lungs, chronic pulmonary hear, venous polymeric of internal organs, atherosclerosis of aorta, coronary arteries, brain vessels, subtotal heamthoma in the right hemisphere of brain with tissue compression. Edema of parameter. Formulate the correct path anatomic diagnosis. Write out doctor’s death certificate.

26. During the incision of the dead S., 52-year-old, it was revealed: ascariidosis atherosclerosis of aorta and coronary vessels, atherosclerotic cardio sclerosis, bilateral hemorrhagic pleura’s and pericarditis with cardiac compression, decomposition of heart activity, numerous hemorrhagic infarctions of lungs, as cites, edema of low extremities, mace liver, emaciation, nodal cancer of peripheral bronchus of right lung with metastases into pleura , bronchial and cervical lymphatic nodes and liver. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

27. The patient N., 34-year-old, stayed at the hospital and was treated in the gynecological department. On 27/09/93 supranational amputation of uterus with appendages on the occasion of outreach the coma was performed. On 4/10/93 she was operated for wound dilatation of left ileac region and the wound was drained. During the incision it was revealed: injury of bladder wall and sigmoid wall during the operation, restoration of integrity of bladder and intestine, a small number of bladder sutures. Generalized purulent peritonitis , numerous abscesses between intestinal loops, vacuities of branches of mesenteric arteries with their thrombosis , hemorrhagic infarctions of bower, bilateral lower lobar bronchopneumonia, necrotic nephrosis, uremia, edema of lungs, parenchymatous dystrophy of myocardium, liver were revealed as well. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.
28. During the incision it was revealed: Anadarko, plethora of internal organs, edema, of brain and lungs, right lateral macrofocal bronchopneumonia, acute dermatopolymyositis. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

29. During the incision of the dead K., 36-year-old, it was revealed: hemorrhagic encephalitis with brain edema, impression of cerebellum tonsil’s into great occipital foramen, hemorrhagic trachea bronchitis, hemorrhagic middle and lower local luxury pneumonia, dystrophic changes in liver, kidneys, and myocardium enlarge men of heart cavity. During bacteriological investigation influenza type A virus was grown. Formulated correct path anatomic diagnosis. Write out doctor’s death certificate.

30. After the incision of the dead L., 49-year-old, the following diagnosis was made: principle disease amilidosis of kidneys. Complication of principle disease: periphery and cavity edema. Concurrent diseases: atrophic gastritis, fibrin us cavernous tuberculosis of lungs with focal of plebe, pneumonia in the lower lobes and productive acini’s and no dose focal emphysema of lungs, chronics pulmonary heart, atherosclerosis of aorta. Analyses the diagnosis. Formulate correct path anatomic diagnosis write out doctor’s death certificate.

31. The patient K., 42-year-old, who has been with pathology of kidneys (chronic diffuse glomerulonephritis ) for 6 year and died of cerebral hemorrhage. During the incision secondary contracted kidney, hypertrophy of left ventricle wall up to 2.5sm, brain edema, edema of lungs, and hemorrhage in the regions of right media brain ganglia with break into laterial ventricles. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

32. After the incision of the dead U., 49-yea-old, following diagnosis were made: principal disease-ulcer petrifaction atherosclerosis of coronary vessels. Complications of principal
disease: at hero sclerotic cardioslerosis, decomposition of pulmonary heart, relative insufficiency of tricuspid valve, periphery and cavity edema (as cites, hydro pericardium, hydrothorax), mace cirrhosis of liver, venous plethora of internal organs. Concurrent diseases: cirrhotic tuberculosis of lungs, emphysema of lungs. Analyses given examples and formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

33. During the incision of the dead L., 56-year-old, it was revealed: atherosclerosis of aorta and coronary vessels, moderate cardio sclerosis lobar pneumonia with left lateral trans formation fabulous, purulent left lateral pleurisies dystrophies changes in liver kidneys myocardium hyper trophy of prevesicular gland. Formulate correct path anatomic diagnoses. Write out doctor’s death certificate.

34. After the incision of the dead N., 48-year-old, who was treated in the mental hospital, following diagnosis was made: principal diagnosis: chronic alcoholism cerebral atrophy, internal hydrocephaly, pia mater sclerosis, consider abele dystrophic changes in ganglion cells of brain, statuses of liver. Complications of the principle disease: edema and swelling of brain, and its meanings. Concurrent diseases: ischemic hearth disease: stenos atherosclerosis of coronary arteries, infarction of left ventricle posterior wall , general venous plethora, edema of lungs. Analyses given example and formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

35. Patent L., 47-year-old, who has too kenned large doses of alcoholic drinks for a long time, was treated in the psychiatric hospital and suddenly died. After the incision as following path anatomic change were revealed sclerosis of pea mater , dystrophic changes in brain ganglion cell of statuses of liver dystrophic changes in myocardium, kidneys edema and swelling of brain substance, internal hydrocephalic, bilateral, mainly lower lobar macro focal purulent bronchopneumonia.
Glioblastoma with destruction of right frontal region with into the right basal penetration of brain ganglia and shins, truce part of brain were found too. Analyze given example and formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

36. The patient M., 38-year-old, was made abortion in the gynecological department. But in 3 months she died in the neurosurgical department form brain edema, which was developing against the background of brain tune. After the incision following diagnosis was made: principle disease: rheumatic heart disease: sclerosis and mistral incompetence. Complications of principle disease: venous plethora of internal organs, mace liver, cianotic indurations of kidney, spleen, edema of meanings. Concurrent diseases: chortinepithelioma of uterus, metastases of chorionepithelione into the brain and lungs, grey softening of left hemisphere. Analyses given example and formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

37. During the incision of the dead K., 48-year-old, who was treated in mental hospital and suddenly died, the following picture was revealed congenital stenos is of urethras, bilateral hydronephrosis, hypertension: wall hypertrophy of left ventricle, sub serous fibialeimyoma of uterus, anxious-depressive syndrome (according to clinical date), chronic bronchitis, bronchoclerosis, reticular pneumosclerosis, emphysema of lungs, chronic pulmonary heart, general venous plethora, mace liver, edema of legs, atrophic thrombosis of left leg veins, thrombi emboli a of the pulmonary column and branching of pulmonary artery, hemorrhagic infarctions of lungs. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

38. The patient N., 28-year-old, was treated without success in the therapeutic department of the district hospital and died. Following changes were revealed: edema of lungs,
hyadropericardium (150mb) myocardium hypertrophy, cardio fibrosis, hemorrhagic infarction of the right lung, general cyanosis, atrophic mace liver, congestion indurations of kidneys and spleen, brawny indurations of lung, rheumatic myocarditis (presents of Aschoff-Talalayers granules), recurrent warty endocarditic of bicuspid and tricuspid and aortic valves incompetence of bicuspid and tricuspid valves. Analyses this case. Formulate path anatomic diagnosis. Write out doctor’s death certificate.

39. During the incision of the dead, 63-year-old, following morphological changes were revealed: ulcerous and petrifaction atherosclerosis of aorta, fibro tic -cavernous tuberculosis of the right lung, emphysema of lungs, pneumosclerosis, pulmonary heart, acute left ventricular aneurism rehexis, hem pericardium (259 ml ), general venous plethora, mace liver, cyanotic indurations of kidneys and spleen, hydrothorax: stemson coronary sclerosis diffuse cardioclerosis, transmarine infarction interaction of left ventricle anterior wall. Analyses given morphological changes. Formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

40. The patient D., 76-year-old, was brought to the hospital with marked dementia. 8 days prior his death the temperature raised, the signs of meningitis appeared and the patient died. During the incision following morphological changes were revealed: ulcerous and petrification atherosclerosis of aorta , brain vessels, stenos Sal coronary sclerosis ( stanosis of 75% of lumens), cardio sclerosis, general venous plethora, chronic bronchitis, cylindrical bronchiectases with suppuration bilateral purulent bronchopneumonia, per bronchial and per vascular sclerosis, metastasis purulent staphylococcal meningitis, edema of brain, penetration of cerebral tonsils into major occipital foramen. Analyses given morphological and clinical data and
formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

41. The patient G., 22-year-old, was admitted to the neurological clinic. She complained of numbness sensation in the right limbs with cerebral symptomatology. The diagnosis was: ischemic infarction in the region of vertebra basilar artery on the basis of general atherosclerosis. The patient died suddenly. Morphological data revealed during the incision supported the clinical diagnosis. But besides this chronic trombone phlebitis and varicose of shins of thighs, thromboembolia of pulmonary column and pulmonary artery branches, numerous hemorrhagic infarctions of lungs, bilateral fibrin us pleurisy, sterna atherosclerosis of brain vessels, brain atrophy internal hydrocephaly, obliterating mixed thrombosis of middle brain artery, ischemic infarction of posterior department of the left hemisphere internal capsule were found. Analyses given morphological and clinical changes and formulate correct path anatomic diagnosis. Write out doctor’s death certificate.

42. In the surgical department the patient L., 72-year-old, died form bilateral bronchopneumonia. Which developed after appendix perforation in spite of the fact that the operation of appendectomies with drainage of peritoneal cavity and jejunostomia were made. On 8/8/92 during the incision it was revealed: plaegmonous-ulcerous appendicitis, diffuse peritonitis, bilateral lover lobar macro focal bronchopneumonia, dystrophic changes in parenchy-matous organs, ulcerous and petrifaction atherosclerosis of aorta, sterna of brain arteries and coronary vessels of the heart. On the base of clinical date and incision results. Formulate path anatomic diagnosis and write out doctor’s death certificate.

43. In the gynecological department the women died with the signs of peritoneal pathology. During the incision sub serous fibroleiomyoma of uteru, right lateral amply rube pregnancy,
rupture of uterine tube, hem peritoneum (200 ml), paleness of mucous membranes, anemia of internal organs, small pathetical hemorrhages into the layers of pleura. Punctuate hemorrhages in epicedium. Formulate path anatomic diagnosis on the bashes of given date and. Write out doctor’s death certificate.

44. In the neurological department the patient of 46-year-old, died under increase intonsifugation of column symptomatology. During the incision it was revealed: edema and swelling of brain, glioblastoma in the region of sub cortical ganglia of the right brain hemisphere, softening of tumor, tissues with penetration of necrotic mass into to the lumens of the right lateral ventricles. White softening of brain around the tumor and in column region under qudrigeminal body was fond too. On the basis of these data formulate path anatomic diagnosis and write out doctor’s death certificate.

45. The women, 34-year-old, was ill with hypertonic, nephropathy and her third pregnancy was over with premature delivery of premature fetus with the signs of intrauterine asphyxia. Formulate the cause of death and principle disease. Write out doctor’s death certificate.

46. The fetus weighting 4900 kg with brain birth injury was brought to the incision. From the patient’s delivery history it is known that the delivery was over by vacuum extraction because of the weak delivery activities and lack of correspondence between pelvis and fetus. The term of pregnancy is 42 week. Fill in doctor’s death certificate.

47. The child, 3-month-old, with numerous nervous system and cardiovascular system developmental defects died from micro focal pneumonia Formulate path anatomic diagnosis. Write out doctor’s death certificate.
Theme 2

The opening died in case of death from an illness of a therapeutic structure and infectious pathology. The clinical-anatomic analysis

Motivation: following position of the order № 81 MO3 Ukraine 1992 corpses died in stationary medical institutions are subject to pathoanatomical opening. Lately all is more in case of death practise section of patients, which have died at home. At the same time there is a whole list of cases when the cancellation of pathoanatomical openings is not supposed.

The purpose: to study features and a technique of carrying out of opening and registration of the pathoanatomical documentation in case of the death connected to a therapeutic and infectious pathology.

The task. To know the basic principles of the technique of carrying out of opening.

To learn to define(determine) morphological displays of complications at therapeutic and infectious diseases.

To be able to carry out clinical-anatomic analysis in a concrete case of death from disease of a therapeutic structure, to formulate the pathoanatomical diagnosis, to write out doctor's certificate about death, to cipher on MKX-X the basic therapeutic and infectious nosology.

The equipment of the occupation.

1. The report of opening.
2. Doctor's certificate about death.
3. MKX-X.
4. The addition Ж (Regulations about the order of opening of corpses in treatment-and-prophylactic establishments) under the order № 81.
5. The addition H (Regulations about carrying out of the clinical-pathoanatomical analysis of fatal consequences) to the order № 81.
6. The addition P (Regulations about pathoanatomical research
7. The addition $T$ (the Instruction on features and the order of pathoanatomical research of corpses which contain radioactive elements) under the order № 81.

8. The addition $V$ (the temporary instruction on measures avoidance infection of the personnel of a pathoanatomical bureau (branch) at pathoanatomical openings and morphological researches of bodies and fabrics, infectious patients, to be infected with immunodeficiency virus (HIV)) under the order № 81.

9. The addition $F$ (the instruction about the bacteriological research of a cadaveric material) under the order № 81.

10. The addition $X$ (the instruction about taking of corpse’s blood and a spinal liquid for biochemical and biophysical researches) under the order № 81.

11. Section set for opening died.

12. Body of the dead man, card of the inpatient which has died.

13. Educational minutes openings.


I A material for beforelecture-room independent work

1 To repeat the contents of the addition $B$ under the order № 81 MO3 Ukraine.

2 To study the contents of the addition $Ж$ under the order № 81.

REGULATIONS about the order of opening of corpses in treatment-and-prophylactic establishments

All corpses of died patients in treatment-and-prophylactic establishments, as a rule, are subject to opening. The head physician, the chief of a pathoanatomical bureau posess the right of a cancellation of opening only in extreme cases. About a cancellation of opening the head physician, the chief
of a pathoanatomical bureau allows in writing indication in a card of the inpatient with a substantiation of the reasons of a cancellation of opening. Urgent opening of corpses is authorized to carry out right after establishments doctors of a medical institution of biological death; opening in according to plan (the planned opening) to be carried out after granting a card of the inpatient or medical card of the outpatient with the visa of the head physician or his assistant on medical part about a direction on pathoanatomical opening. Medical documentations on died. From different hospitals it is delivered in a pathoanatomical bureau (branch) together with a corpse died. Medical cards of inpatients, died in the second part of the day before, are transferred in a pathoanatomical bureau, pathoanatomical branch of hospital not later 9 o’clock in the morning. Medical card of the inpatient with the pathoanatomical diagnosis brought in it not later than 5-7 days after opening is transferred to the medical archive of the hospital. The card can be detained for longer term only after the special sanction of a management of the hospital.

The cancellation of opening is not authorized:
  a) in a case of death of patients which have stayed in treatment-and-prophylactic establishment less than a day;
  b) in cases which demand it judicial - medical researches;
  c) at infectious diseases and their suspicions;
  d) in all cases not the clear lifetime diagnosis (it is not dependent on term of stay in medical establishment);
  e) in cases of death in medical preventive establishment after diagnostic tool researches, carrying out of medical measures in time or after operation, blood transfusion, not accounting individual intolerance of medical preparations. Corpses died, which persons are not established, under the order of the head physician are transferred for judicial - medical openings.

If the death has come from mechanical damages, a
poisoning, mechanical asphyxia, actions of extreme temperatures, electricians, after the artificial abortion which has been carried out outside of a medical institution, violent actions under condition of when there is a certificate on an opportunity of one of these reasons of death, the head physician of the hospital according to the order carries out a direction of a corpse on judicial- medical opening irrespective of time of stay of the patient in a medical institution.

Similar case in a hospital the main (on duty) doctor is obliged to inform bodies of Office of Public Prosecutor and militia on everyone.

If the certificate on one of the reasons of death which are mentioned above, come to light at pathoanatomical opening, opening stop. The doctor, which carry out opening, undertakes measures under the savings of a corpse, all its fabrics for the subsequent judicial - medical research. On the carried out part of pathoanatomical research the report at the end of which the reason for carrying out of judicial - medical opening is proved is made.

The doctor at once is obliged to inform the head physician who immediately informs on it Office of Public Prosecutor or a regional police station on each case of the interrupted pathoanatomical opening and waits the order for the public prosecutor or bodies of militia. Judicial - medical opening of corpses of persons which have died in medical establishments, can carry out in pathoanatomical branch of the given medical establishment regular judicial - medical experts or the doctor appointed for it by bodies of Office of Public Prosecutor.

In case of primary revealing in the time of openings of sharp infectious disease or its suspicion the pathologist is obliged to inform on it the head physician of a medical institution and to send the urgent message about an infectious disease, food, professional poisoning, unusual reaction to an inoculation (φ. № 058y) in CEC in a place of residing of the
With the purpose of the perfect control over quality of diagnostics and treatment of patients of out-patient networks pathoanatomical openings died at home in such cases can to be carried out:

died patients at the age of till 50 years, which have suddenly died at houses with not clear genesis of death (at obligatory exception of violent death), were on the account territorial polyclinics with suspicion of sharp ischemic illness of heart, tserebrovasculyarny illnesses, new growths, sharp disease of bodies of breath.

Delivery of died outpatients in a pathoanatomical bureau (branch) is carried out by motor transport of treatment-and-prophylactic establishment.

Together with a body died the out-patient card with profound epicriz, with the conclusion of the basic clinical diagnosis, the complications, an accompanying pathology and a principal cause of death goes. On the right side of an out-patient card there should be a record of the head physician (assistant) territorial polyclinics - « On opening » and the signature. It acts as the order for divisions of pathoanatomical service on execution of opening.

3 Learn the text of the addition H under the order №81

REGULATIONS
about carrying out of the clinical-anatomic analysis of fatal consequences

The clinical-anatomic analysis is a method of knowledge of circumstances of occurrence of diseases, features of its currents, and also the direct reasons and mechanisms of approach of death.

The main methodological condition of carrying out of the clinical-anatomic analysis is observance of principles unities of morphological and functional changes. Thus on bases
studying clinical sheets about complaints of the patient, character of symptoms which took place at his life, physical, clinical-laboratory and other facts in their comparison to pathoanatomical changes, the pathologist reveals a degree of conformity of clinical displays of illness and its morphological and functional changes.

1. The order of comparison of clinical and pathoanatomical diagnoses.

Results of the clinical-anatomic analysis which are carried out together by the pathologist and the clinical physician, find the display in clinical-pathoanatomical epicriz, the acts of the commission on studying fatal consequences (ЛКК) and in the report of the pathoanatomical conference.

Distinction of clinical and pathoanatomical diagnoses on the basic disease considers:

cases, when the form of disease is incorrectly determined nosological (for example, at chronic glomerulonephritis the exposed diagnosis of a chronic pyelonephritis), it is incorrectly specified localization of process (for example, at a cancer of a stomach - a cancer ovariorum, or at a cancer left easy - a cancer right easy) or in the clinical diagnosis the instruction on them is absent (for example, at a cancer of a direct gut the diagnosis of a tumour of a belly cavity is established);

cases when it is incorrectly established aetiology diseases (for example, at B-12 to a foliewaterdefecient anemia the diagnosis of an irondeficient anemia is put, etc.);

cases when instead of the basic disease in the final clinical diagnosis the symptom or a syndrome (for example, a jaundice, a uraemia, a haemorrhage in brain, volumetric process) is specified only;

cases, when recognize only one of competing or united diseases;

cases when the order of a heading in the clinical diagnosis is broken (for example, the basic disease is put not on the first,
and on the second or on the third place), the encryption of the basic disease is accordingly incorrectly lead and cipher the basic disease.

It is not considered divergence clinical and pathoanatomical diagnoses on the basic diseases:

cases when background disease is not recognized;

cases of hyperdiagnostics of competing, background diseases, united diseases and complications if in result of conducted in connection with hyperdiagnostics of medical measures it has not been caused harm to the patient;

cases when localization pathological process is not correctly recognized within the limits of one body in unspecialized branches (for example if at a tumour in the left temporal part it comes to light in parietal or the heart attack of a myocardium of a back side of a left heart ventricle comes to light a heart attack of its front side, etc.).

Comparing clinical and pathoanatomical diagnoses on other headings in pathoanatomical epicriz, taking into account the unrecognised or hyperdiagnosed complications and accompanying diseases. With this timeliness of diagnostics of fatal complication is estimated and taken into account also.

In case of revealing rough lacks of medical - diagnostic work the chief of pathoanatomical branch is obliged to report on them to the head physician of treatment-and-prophylactic establishment.

4. Learn the contents of the addition P under the order №81.

REGULATIONS
about pathoanatomical research died

1. The order of registration medical documentation on died in treatment-and-prophylactic establishment.

The establishment of the fact of biological death of the patient is carried out in a medical institution by the attendant or
the attending physician about what in the history of illness corresponding record with a mention of time of death in hours and minutes is done.

The label is attached to a body died with a mention of such data - branch, a surname, a name and a patronymic died, year of a birth and date of death, the basic clinical diagnosis. The corpse without a delay is delivered in a mortuary or in cool room, branch for keeping corpses, with temperature 0 - +4 ° to S.Povjazki, drainages, intubatsionnaya and trakheostomicheskaya tubes, cateteres remain on a place.

At once after approach of death of the patient the attending physician makes the posthumous clinical diagnosis, epicriz. In posthumous clinical epicriz such questions should be clarified:

date started of disease and the complaint of the patient;
date of the primary manipulation for the medical help with the instruction, where and to whom the patient whom has received the help has addressed;
date and place of the primary hospitalization, the name of all medical establishments where in the subsequent it was surveyed or received treatment of the patient, the contents of diagnostic and medical measures;
the generalized characteristic of current of disease in time stay in each medical institution;
date of the hospitalization in is given medical establishment, the diagnosis at a direction, the previous diagnosis, the final diagnosis, the date of the establishment, the contents of the the carried out medical measures (at carrying out of operations - the name of the operation, duration, a kind of a narcosis); date of occurrence, character of symptoms of complications, date of their recognition, the accepted measures; the clinical characteristic of a terminal condition, the contents of the reanimatsion measures; time of an establishment of the biological death in hours and minutes, the final clinical diagnosis is a medical conclusion about a
character of a disease which was at the patient, the direct reason and the mechanism of approach of death.

It should be patogenetical caused, to answer the clinical facts.

The made out case record died subscribes the attending physician, the managing of the medical branch.

2. The order of pathoanatomical research died.

Urgent opening of a corpse is authorized at once after an establishment of biological death of the patient. The ordered pathoanatomical opening died is carried out at hours determined by the schedule of work of a pathoanatomical bureau (branch). The case record moves in a pathoanatomical bureau (branch) in the nearest hour after death of the patient (at approach of death after 12.00 it should be delivered not later than 9 o’clock of the next day).

The reception and the registration of bodies died is made by the hospital attendant of a pathoanatomical bureau (branch) who checks the presence labels on a corpse, attributes of its rotting, dental an artificial limb from coloured metals and valuable things about what does a mark in a book of registration reception and distribution of bodies died and reports to the head of the branch.

The pathologist begins to work on ordered pathoanatomical openig studying of a corpse only after studying the case record and other medical documentation died.

On pathoanatomical opening the manager of medical establishment and the attending physician are obliged to be present. Presence of other doctors of a medical institution is authorized.

Before the beginning of pathoanatomical opening examines a corpse with an estimation of a condition of the integument, seen mucous membranes, definition of weight of a body and its long. Pathoanatomical opening should be full, with research of all cavities of bodies and internal bodies, and if necessary the
spine channel, an inert brain of tubular bones, pereferichesky vessels and nerves, vegetative nerve ganglions. As the basic method of pathoanatomical opening is necessary to apply a way full of evistserapy by Shor.

After finishing the pathoanatomical opening the pathologist is made out the doctor's certificate on death under the form № IO6/y-84.

Histologic research of bodies and fabrics of a corpse is carried out in all cases. For this purpose in the time of opening get slices of bodies and fabrics and located in fixing solution.

If necessary histologic research can carry out in the time of opening by manufacturing preparations on freezing microtomy or criostaty. From material, taken for histologic research slices cut out which after registration in the book of the account of laboratorian’s work with a section material give in to the subsequent processing. The rest of material is kept in 10 % solution of neutral formalin before the ending of all researches, then under the order of the doctor its destroys when due hereunder. Histologic research of bodies of a corpse should be ended not later than 5 day after opening.

For specification of a character of a disease, its etiology and patogenez, mechanisms of approach of death follows should widly use bactereologic, virologic, serologic, cytologic, immunofermentic and other methods of research. Taking out a material is carried out according to the instruction on a fence of a material from a corpse for bactereological, biochemical, biophysical, virologic research.

Pathoanatomical research of died is carried out direct after an establishment of the fact of death, but not later than one day from the moment of death.

Opening of corpses of persons which have died of sharp infectious diseases or at a suspicion on it, is carried out whenever possible at the first hours after approaching of death, it is desirable at the presence of the expert protiepidemiological
institutions which takes away a material for bactereological and virologic research. The most reliable results provide bactereologic and the virologic researches which have been carried out at first 6-8 hours after approaching of death, as exception the first 24 hours after death.

Liquids which follow at opening corpses of persons which have died of sharp infectious diseases and sewage gather in utensils with a disinfectant solution (for example chloric to exhaust), contain in it not less than 2 hours then merge in a sewer network.

After the termination of opening of corpses of persons which have died of sharp infectious diseases, before mending executed on a corpse cuts of bodies and cavities of it are processed by desinfectant solution (for example a solution carbolic acids or khloromin). In a cavity of a corpse the cloths moistened with a desinfectant solution are pawned. The corpse is washed by a 1 % by a solution khloromin. A section table hundred is carefully washed by a disinfectant solution, tools are sterilized, linen, which was used at opening (dressing gownes, bedsheets) are disinfected.

3. The documentations of pathoanatomical researches died.

In each case of pathoanatomical research the report of pathoanatomical research is without fail made which includes such sections:

- passport part with a coding column and the list of questions for statistical development on EOM;
- clinical epicriz;
- the clinical diagnosis;
- the text of the report of opening;
- the data of histologic research;
- the pathoanatomical diagnosis;
- pathoanatomical epicriz.

The passport part the report pathoanatomical researches is filled on bases of the history of the illnesses died. In it is
underlined - a surname, a name and a patronymic died, his age, a medical institution in which he has died, the name of branch. For use of electronic-computer facilities for analysis the given pathoanatomical researches in the right part of the title page of the report of pathoanatomical research the coding column which it is necessary to fill is placed.

Clinical epicriz of the report of pathoanatomical researches is made by the pathologist in the laconic form. The special attention is given display of the data on timeliness of recognition of illness and primary hospitalization of the patient.

In case of death from sharp surgical diseases (intestine impassability, appendix, perphoration a stomach ulcer, etc.), sharp infectious and other diseases at which immediate hospitalization of the patient and urgent operation is necessary, except for the date the hours of the beginning of disease are pointed out, the reference to the doctor, hospitalization and operative interference.

In clinical epicriz results of special researches are pointed out, which characterise the flowing of the basic diseases (laboratory and biochemical researches of blood, urine, a bone brain, x-rays researches, serological reactions, parameters of a blood pressure) in the volume of necessary for acknowledgement (or inclusions) given nosological forms of disease. At the end of clinical epicriz total dozes of antibiotics which were accepted, hormones, quantity of blood transfusion and bloodsubstitutes are specified.

In a case of approach of a death in the early postoperative period in clinical epicriz the report of pathoanatomical researches cited the detailed data which concern the carried out operation and conducting the patient in the postoperative period. Thus on separate a sheet graphicly (on hours and minutes) parameters gemodinamic and breath, the maintenance and volume inphusion therapies are marked.
In a text part of the report of pathoanatomical research detailed, consecutive and all changes which have been revealed at opening a corpse are objectively stated. First the structure of a body, color of the integument, seen mucous membranes is described, growth and weight of bodies are underlined. At the presence of operational scars it is underlined its long, a direction according to anatomic areas, appearance, and also the presence in them cateters, graduates, etc. At the description of cavities of a corpse the revealing of accommodation, presence in cavities of contents and its kind, a condition of serous environments is marked of internal bodies internal bodies. The description of internal bodies should be carried out on systems in such sequence: a brain and a spinal cord, bodies of breath, bodies of blood circulation, bodies of bloodcreation, bone-muscular system.

The pathoanatomical changes of internal bodies and fabrics are described objectively, without imposing personal opinion of the pathologist, using standard units and versions of colors, avoiding comparisons with the size and color of those or another subjects. At it is not necessary to apply diagnostic terminology (a pneumonia, a nephritis, etc.) and reductions of words. To describe changes it is necessary, not supposing opportunity of treatment which contradict one another.

At the description of constant internal bodies are specified only their sizes, weight and absence of pathological changes is marked. If any bodies are not investigated, specify the reason.

In case of death of patients after operations which were accompanied by removal of those or another bodies or fabrics, in the report of opening it is given in details description of an operational material and a site of operational intervention, anatomic interaction of bodies and fabrics which has taken place after operation, the condition of anastomozov, culty of hollow bodies, etc.

The text part of the report of pathoanatomical researches
comes to the end with re-computation of the materials taken from a corpse for carrying out histologic, bacteriological, bacteriumscopic and other researches.

At the end of the report the post, a surname and the initials of all officials of a medical institution which were present at opening are underlined.

Pathoanatomical research comes to the end with a formulation of the pathoanatomical diagnosis and drawing up pathoanatomical epicriz with distinguishing the direct reason and mechanisms of approach of death, comparison of clinical and pathoanatomical diagnoses, an establishment of character and the reasons of lacks of granting medical aid.

The pathoanatomical diagnosis is formulated by a nosologic principle, in pathogenetic sequence with allocation of such headings:

- the basic disease;
- the complication of the basic disease;
- reanimation measures;
- the accompanying diseases and their complications.

The basic disease it is necessary to specify the nosologic unit, which according to qualification and the nomenclature of disease in itself or consequence of its complication appeared the reason of death. The equivalent of nosologic unit is such medical measures (surgical interventions, diagnostic and medical, doctor’s-medical manipulations) which have caused the lethal end in consequence of collateral reactions or complications which have developed in their time, and appeared the reason of death.

If at the patient hospitalized in connection with one disease, in a hospital has appeared new (as a rule sharp) which has caused death in itself or as a result of its complication this disease should be counted the basic.

If the patient had some diseases which were among themselves in etiopatogenetic connection or have developed
independently one from another, but have affected through patophysio-
logic mechanism occurrence of a lethal case, they are specified in a heading of the basic disease which thus refers to combined. The combined basic disease can include:

- two and more independent competing diseases;
- two and more independent accompanying diseases;
- two diseases, one of which are the identified consequence of the second («the second diseases»).

In the certain cases each nosologic unit in a heading of the basic disease enters the name by way of value and is allocated with Arabian figures-1,2,3....

The note: as Competing diseases are considered nosologic units, each of which in itself or through the complications could lead to fatal consequences.

Accompanying consider such diseases which only in the given connection, valid negative influences on an organism of the patient have led to his death.

Background diseases which have played an essential role in occurrence or adverse procurent of other (basic) disease which became the reason of death are considered.

The "Second" illness considers disease which has lost in due course the connection with that disease which has caused it, and has received independent clinical value. Bringing the "second" illness in a basis of the diagnosis, in a heading of the basic disease it is necessary to specify nosologic unit from which this illness has pathogenic connection.

In case of death of the patient in consequence of collateral reactions or complications of medical measures which were carried out in connection with any disease, the last also are specified in a heading of the basic disease.

After the indication nosologic forms of the basic disease it is necessary to list its most expressed morphological displays, the form and a stage of development.

All operative interventions which were carried out in
connection with it with the instruction of their date, are brought in a heading of the basic disease of a way and updatings of execution also.

If biopsiya was carried out to the patient, the diagnosis is determined, putted on the basis of histologic research, and also the date and number of this research.

Complications of the basic disease (of operative intervention, medical manipulations) are also pathological process, a syndrome, nosologic unit, which are connected to it patogenetic (directly or mediocrelly) and have worsened its clinical current.

Complications are specified in chronological sequence in view of their interrelation.

If in the connection with the complication of any operations or such difficult medical interventions, as a hemodialysis, hemosorbsiya, etc. were carried out, they should be specified in the heading of complications.

Accompanying diseases which etiologic and patogenetic are not connected to the basic disease (are considered) and had no essential influence on a fatal consequence.

In pathoanatomical epicriz results of the clinical-anatomic analysis which has been carried out during opening and at carrying out of posthumous clinical and pathoanatomical diagnoses of disease are displayed. Pathoanatomical epicriz should not be the simple list of the clinical and pathoanatomical datas. In the laconic form it is necessary to specify in it, with what the patient was ill, in what pathogenetic connections the diseases (revealed at him) and pathological processes are revealed at him, why the treatment was no effective, what direct reasons and mechanisms of death. The degree of display of these questions in pathoanatomical epicrisis in concrete cases can be different.

The direct reason of death considers pathological reaction, process, a syndrome, nosologic unit, which have led to
irreversible changes in functions of the vital bodies. The direct reason of death can be both the basic disease, and its complications (bleeding, a shock, a pneumonia, a peritonitis, etc.)

Comparison of clinical and pathoanatomical diagnoses is carried out both on the basic disease, and on its complications, accompanying diseases.

The extract from the report of pathoanatomical research, including the pathoanatomical diagnosis, the pathoanatomical epicrisis with the data of comparison of lifetime and pathoanatomical diagnoses, is typed and filed to the case record.

The report of the pathoanatomical research subscribes the pathologist who carried out the opening; checks and vises managing pathoanatomical branch or the chief of a pathoanatomical bureau.

Except for signatures in the report should be legible their surnames are marked.

The first copy of typing report of pathoanatomical research is constantly kept in a pathoanatomical bureau (branch).

5. Study the contents of addition T under the order №81.

THE INSTRUCTION

about peculiarities and the order and features of pathoanatomical research of corpses which contain radioactive elements

In case of death of the patient after introduction to him of radioactive elements or in other cases the attending physician makes the information about a radio-activity of a corpse. In the information the basic sheets about character and quantity of a radioactive isotope, a way and time of its introduction, a level of radioactive radiation from a corpse, concrete recommendations are specified to the pathologist about
security measures at opening.

The information together with other documents is transferred to a pathoanatomical bureau (branch). The corpse is delivered to a pathoanatomical bureau (branch) with the label attached to it on which the mark about a radio-activity also is put.

Pathoanatomical research of a corpse which contains radioactive substances, regular doctors of a pathoanatomical bureau (branch) carry out only. During the opening the presence of a radiobroad gully or the person responsible for radiation safety is expedient. Before opening the manager a pathoanatomical bureau (branch) together with the attending physician and a radiobroad gully stipulate concrete measures on protection of the personnel against an internal irradiation at hit of radioactive substances in the middle of an organism, on integuments, clothes.

The personnel present during opening of a corpse, should be suitably instructed on radiation safety. Opening is carried out in protective clothes (an overalls or a dressing gown, the rubberized apron, rubber gloves and mittens).

All personnel, which has contact to a radioactive corpse, are subjected individual dozometric control. Radioactive pollution of hands, clothes, working surfaces is supervised by the dozometric device both in a process of working, and after opening.

For the prevention of pollution of a working room, the section table is covered with a dense polyethylene film or on it is established deco, made of stainless steel (others similar materials which wash well and do not give in to corrosion), which has boards and a water drain. It is the most convenient to work on section tables, which easily give in deactivations (stainless steel and etc.).

All sewage, blood, contents of intestines gather in the closed buckets then their radio-activity is defined. If the radio-
activity does not exceed as much as possible allowable level of the given isotope for water of an opened basins in 10 times, liquid merge in a sewer network. At higher radioactivity they are maintained in places of time keeping during the time, which provides its decrease up to point out above norms, or surrender in points of a burial place of radioactive waste products according to the instruction(indication) of a radiobroad gully.

Slices of bodies and fabrics for histologic research are kept in archive, undertake whenever possible the small sizes, located in ordinary fixing solutions and give in dozometric control. The order of manufacturing of histologic preparations, their studying and the savings in archive is defined by the manager of branch of a pathoanatomical bureau according to recommendations of a radiobroad gully.

Slices of bodies and fabrics for radiometric research undertake in a quantity of 30-50gr and located in preliminary checked with radiometers clean utensils which is closed by fuses, is sealed up, as at a direction on judicial-chemical research, and sent in sanitary-and-epidemiologic station. The fixing solution is not applied.

The attempts undertake in clean gloves and clean tools, which are washed (by means of tampons) by a 2-3 % solution of a citric acid after a capture of a sample of each body, not supposing carry radioactive elements from one on other bodies.

After the ending of work gloves, aprons, rubber boots and tools carefully wash with water or a soap-soda solution with a brush. The level of their residual radioactivity (radioactive pollution) is defined. If it exceeds the established as much as possible allowable levels repeated processing is carried out, working rooms give in careful damp cleaning and to a radiation control.

Hands wash with warm water with soap, in a soap-soda
solution or 1-2 % a solution of a synthetic washing-up liquid, applying a soft brush. The residual radio-activity is checked and if necessary the processing repeat. Takes the general shower. At presence of casual pollution by radioactive elements sites of a body carefully wash with water and soap.

After the end of the processing hands are greased with vaseline, lanoline or others indifferent ointments.

The chief of the pathoanatomical bureau managing pathoanatomical branch immediately informs on results of opening to the head physician and a radiobroad gully of regional hospital.

Funeral of corpses which contain radioactive elements, is carried out by a funeral command under supervision of the expert – radiobroad gully. At delivery of a corpse the pathologist is obliged to warn the persons, responsible for funeral, about necessity of observance of measures of radioactive safety.

The place and the order of a burial place of corpses is coordinated with bodies of sanitary supervision.

6 Study the contents of the addition Y under the order №81.

THE TEMPORARY INSTRUCTION
about measures of avoidance of infection of personnel of pathoanatimical bureau (branches) at pathoanatomical openings and morphological researches of bodies and fabrics of the infectious patients infected with a virus of immunodeficiency of the person (HIV)

The personnel of pathoanatomical bureaues (branches) is a contingent of very close contact with retrovirus which causes an infection of a HIV, and the activator accompanying HIV infections (cytomegalovirus infection, pneumocystic infection, etc.)
HIV is firm to ultra-violet and to scale - radiation in dozes which exceed usual in 10 times. At temperature 56°C the virus perishes in 10 minutes. The virus is sensitive to ethanol - ethil of spirit (25°C and is higher), chloric to exhaust 0.5 % of a solution, peroxides of hydrogen and lisol, khloramin.

The personnel of pathoanatomical bureau (branches) working with materials from the patient with an infection of a HIV and at pathoanatomical openings, should observe safety measures:

1. With a material from the patient with an infection of a HIV is strictly forbidden to work to persons, patients with a flu, ORVI, the hepatites, infectious mononucleosis, with damage of a skin of fingers, arms with the common indisposition, to pregnant women.
2. On opening dress two dressing gowns, a hat, a double gauze mask, glasses or a transparent board which safes all face, two pairs of rubber gloves, rubber boots or covers on footwear. After opening the clothes are burnt.
3. The section hall and section tables wash carefully with a 0.5 % solution of chloric to exhaust a 5% solution of chloramin.

All tools, which were used during opening, wash with hot water and sterilize in an autoclave during 2-3 hours or process 3 % solution chloramin, or desinfect in a 0,5 % solution of chloric to exhaust during 2-3 hours.

During opening it is not desirable to wash bodies under water under pressure for the prevention of splashing and to use an electric saw for sawing up bones.
4. At cuttings during opening it is necessary to provide the maximal outflow of blood from a wound, to wash out its flowing water, to wash out peroxide of hydrogen and to fill with iodine. It is necessary to inform about this case in CEC. These persons should be under medical supervision and should be surveyed on detection virusspecific antibodies in blood.
5. In laboratory at cutting out a material from patients with an
infection of a HIV (biopsy, a section material) dress an apron, a gauze bandage, a mask, disposable rubber gloves.

6. Material from the patient, who has died of a HIV (slices of bodies and fabrics) are necessary for fixing in formalin of not less than 12-15 days in utensils with bright marks and a designation which well is evident. Only after the specified term of fixing the material is authorized to be cut out for preparation of histologic preparations.

7. All set forth above measures are applied necessarily also at openings died with suspicion of an infection of a HIV.

7 Study the contents of the addition Φ under the order №81

THE INSTRUCTION
on a capture of a material from a corpse for bacteriological and virologic research

1. Bacteriological and virologic research of bodies, blood, likvor, a pathoanatomical liquid of a corpse estimations of correctness and effectiveness of antibacterial treatment which was carried out are applied to revealing (confirmation) etiology of infectious diseases.

2. The fence of a material is necessary for applying to bacteriological research also at opening died of other diseases, which were accompanied by different infectious – inflammatory processes or complications (cholecystitises, endocardit, a sepsis, a pneumonia, to suppurations of wounds).

3. At opening died of an infectious disease it is necessary the presence of bacteriologist or virusologist of a sanitary – protiepidemmiologic establishments which carries out a fence of materials from a corpse, and also crop of this material on corresponding environments directly on a place of opening. At his presence the pathologist is obliged to take away a necessary material itself. For this purpose in section it is necessary to have such equipment and subjects:
refrigerator with temperature -20°C + 4°C;
set of sterile tools and sterile utensils (banks, scalpels, scissors, tweezers, spatula, platinum loops, cups Petry, test tubes);
sterile syringes (10-20ml) with long needles or disposable syringes; sterile rubber gloves; bottles with a sterile physiological solution; test tubes or bottles with a sterile 50 % solution of glycerin on a physiological solution; tightly closed rubber fuses bottles with sterile withoutacid environment; sterile test tubes with wadded tampons on sticks; skim subject glasses in the closed utensils (banks with spirit with a cover); bottle with denaturirovan spirit (300ml); a spiritus fuse and matches; box or a metal container (thermos) for transportation of a material; cotton wool and gauze napkins; pergament and packed paper, polyethylene packages marcked paper labels and banks for a direction of a material to a laboratory; glue, simple pencil for records on glass; disinfectant solutions (chloramin 3-5 % - 10 lit).

4. The fence of a material from a corpse is necessary for carrying out not later than 6-8 hours after death. On occassion under corresponding circumstances the fence of a material after (24-48 hours) is supposed. In these cases for allocation of pathogenic microbes crops on vivifying environments for reception of small copies are carried out.

5. Tests for bacteriological, virologic researches gather: of cutting off slices of a fabric, scrapes, capture of halfliquid weights on a tampon, pump out of blood and other liquids in paster’s pepetca or a syringe. At a fence of a material it is necessary to adhere to rules of aseptics.

6. At a fence of a material parenkhimatos bodies, skeletal muscles, slices of their fabrics in volume 1-2sm³ are cut by a clean scalpel or a knife, picked up for free edge by a tweezers, poured from different directions by spirit and set fire. After combustion of spirit slices immediately are located in sterile utensils by their cutting near the edge of a tweezers with
sterile scissors. The slices of fabrics intended for histologic, bacterioscopic and cytovirusologic, immunophluriscentic researches take away and fix in the order established for histologic researches.

7. A bone brain of a brest of a cell and other tubular bones take away by expression of its with bone nipper. The surface has drunk bones before it carefully is cleared of bone covers by a sterile napkin, moistened in spirit, and then carefully is fired in a flame. A bone brain diaphiz tube bones take away after the opening of bonebrain’s channel and disinfecting of a surface has drunk a flame, in the way of scraping its with sterile tool.

8. Dense contents from cavities (pockets of purulent inflows, of the wound channel, an intestines and etc.) can get on a sterile tampon or шпатель after the termination of a section of a wall of the cavity, preliminary disinfected surface in places of allowable cuts.

9. The fence of a material from a surface of the centers of defeat (a skin), mucous membranes, etc.) is carried out by a scrape of the changed fabrics and dried secretions by means of the sterile tool.

10. For a fence of a material from a cavity of a skull a cranium wash spirit. Has drunk bones is carried out in sterile washed in a 10 % solution of lisol and saw carefully processed by spirit, trying thus to not damage a firm brain environment. After removal of bones the arch of a skull the firm brain environment is wiped by spirit or is fired. The liquid from subdural spaces gets through a puncture by means of a sterile syringe or paster’s pepetca. A possible fence of a material on a tampon after cutting out a firm brain environment sterile scissors.

By the sterile tool are carried out also cutting out slices of the changed brain environment and slices of a fabric of a brain before its extension from a cavity of a skull.

After the removal of a brain from a cavity of a skull slices
of fabrics get accordingly to a part 6 given instructions.


The fence of blood can be carried out also from a cavity of the right auricle or cavity veins.

For reveal of antigenes of a virus of a hepatites some drops of blood are rendered on stripes of a clean filtering paper which after drying on air goes in an envelope to virologic laboratory.

12. A fence of liquid contents of cavities carry out with a syringe, paster’s pepetca or a tampon after cutting out their walls in sterile syringe. Contents of intestines take away by cutting off the whole separately not cutting sites of a gut, preliminary having tied up them from both ends.

Small cavity formations in fabrics and cavity bodies (a bilious bubble after bandaging of bubble’s channel) get entirely.

13. For carrying out bacteriological, cytovirusologic and imunophluorescentsic researches from the same places, whence have taken away tests for bacteriological (virologic) researches, smears-prints on defatted subject glasses are gathered, which after drying at once carry out fixings in acetone (8 min), methyl spirit (5 min) or in Nicipherov’s mix (10-15 min).

14. At a fence of tests, which intended for removal anaerobic florae, except for observance of rules aecptic, contact of a material to atmospheric air is as much as possible limited. Slices of fabrics in volume 2-3sm³ after disinfecting a surface by a flame quickly place in sterile utensils with dense covers and direct to bacterioscopic laboratory. A fence of liquids carry out by means of a syringe, whenever possible from depth of fabrics or from cavities of abstses with the intact walls. The
received liquid at once is injected in a hermetic bottle (by a puncture of a rubber fuse); penetration of air into the middle of a bottle is not supposed.

15. Time between a fence of a material and its research should be maximum short. A taken material or sow on corresponding environments directly in a section hall, near a section table, or immediately deliver to laboratory To keep a material for bacteriological researches it is allowed only in a thermostat (refrigerator) at temperature +4°C or in a 50 % solution of glycerin during one day.

16. A direction to a laboratory should have the basic sheets, necessary for carrying out of research: the name of a material, time and a place of a fence and marks of tests, a surname, a name and a patronymic died, number of the report of opening, clinical and pathoanatomical diagnoses, duration of disease, the sheet about what antibiotics were applied to treatment, a specific goal of research, a surname of the doctor, his post, the address of establishment, which has directed a material. The purpose of research is formulated according to a question which is solved during opening. More often it can be limited to identification pathogenic agent of infectious disease and definition of its sensitivity antibiotics.

18. Before sending of a material to laboratory, edges of utensils in places close with a fuse fill in them sealing wax or paraffin. The utensils put in a polyethylene package in which the label put also, then the package is fastened. During packing a material in containers, boxes it is necessary to adhere to safety measures, including an opportunity of breaking glasswares at transportation. Virologic tests place in containers (thermostats) with dry ice.

19. A delivery of an infected material is carried out by a messenger.

20. An estimation of results of bacteriological (virologic) research carry out complex with the account of the
pathoanatomical datas, lifetime clinical-laboratory researches, features of a clinical picture of disease and epidemiological circumstances.

8. Study the contents of the addition X under the order № 81 MO3 Ukraine

THE INSTRUCTION

on a capture of cadaveric blood and a spinal liquid for biochemical researches

1. Biochemical and biophysical research of blood, a spinal liquid and other elements of a corpse is applied at died in an uncertain coma for revealing etiology and kind of coma, an estimation of tanatogenez and adequacy of patient’s treatment. Such researches also are necessary for revealing the reasons of sudden death of patients during a narcosis, an operation, an inphusion therapy, a hemodialysis, an angiography and after reanimation.

2. The most important information receive at simultaneous research in cadaveric blood and a spinal liquid of parameters osmolyarnosty, concentration of ions of sodium, calcium, potassium, concentration of glucose, urine, cretinin, bilirubin.

3. In case of occurrence at died sharp increase of osmolyarnosty of blood and a spinal liquid simultaneous research of concentration in the same elements of glucose, urine, potassium it is possible to reveal different types giperosmolyarnykh comas, giperglicemic, gipersodium, giperasotemic. Researches of concentration of glucose and potassium enables to distinguish gipo-and giperglicemic coma at died from a diabetes. Researches of concentration of urine, potassium and sodium helps to reveal sharp kidney insufficiency.

4. Fatal consequences for patients one can end fast and deep change of osmolyarnosty, concentration of sodium, potassium,
glucose, urine only in blood, or only in a spinal liquid, separately from one another. Therefore the great value has simultaneous comparison of the set forth above parameters of blood and a spinal liquid at urgent opening died during a hemodialysis, angiography, a narcosis or after reanimation.

5. The list of parameters of cadaveric blood and a spinal liquid and their pathological changes at died patients are stated in methodical instructions: "Features of pathoanatomical diagnostics ionosomatic complications of intensive therapy and reanimation" - Moscow, 1982, and also "Biochemical researches of cadaveric blood in pathoanatomical and medicolegal diagnostics" - Moscow, 1977.

6. In case of death of the patient in a uncertain coma, after clinical death, and also at sudden unforeseen death of the patient during a hemodialysis, angiography, a narcosis it is recommended urgent (during the first two hours after death) carrying out of pathoanatomical opening died by biophysical research of blood and a spinal liquid.

7. The most simple and fast way of extraction 10ml of a spinal liquid is suboktsipital a puncture by means of a clean needle for spinal punctures with mandren (not necessarily sterile) in position of a corpse on one side. A spinal liquid is possible to collect also with 10ml syringe with a long needle after has drunk skulls, or from under basal surfaces of a brain near a stalk of a hypophysis before crossing middlebrain arteries, or a puncture brain of ventricles of the brain, or a puncture of space under soft environments of a brain. It is necessary to take into account, that the impurity of blood raises in a spinal liquid concentration of ions potassium. An impurity of blood it is the easiest to avoid at suboktsipital a puncture.

8. In connection with that parameters of blood died differ in different parts of vascular ring, and also for standardization with already investigated parameters of a corpse, it is desirable to extract during opening 10ml blood from a femoral vein.
Simultaneously it allows to take in the beginning of opening blood from heart for bactereological researches, and then - blood from a femoral vein for biochemical - biophysical research.

9. Are most expedient quantitative biochemical and biophysical (osmometr, a fiery photometer) researches of cadaveric blood and a spinal liquid to carry out in that clinical laboratory in which patients were observed. On such researches the contract between the chief of a pathoanatomical bureau and hospital is made or the order of the head physician for pathoanatomical branch is given out.

10. Cadaveric blood and a spinal liquid without a delay is delivered by the pathoanatomical personnel to clinical laboratory in marked test tubes. Time between a fence of a material and its research should be maximum short. An order to laboratory must have such lists: a surname, a name and a patronymic died, the name of a material in the marked test tube, time of a fence of a material, specific goals of research, clinical and pathoanatomical diagnoses, a surname of the pathologist and the address of establishment which has directed a material. If in blood and a spinal liquid died unequal parameters, fill in separate directions on each marked test tube are investigated. Forms with results of researches get from clinical laboratory by the personnel of a pathoanatomical bureau or branch and should be pasted in the report of opening.

11. Results of researches of blood and spinal liquid died, in view of posthumous changes, are compared to similar parameters in the case record (last parameters before death are especially important). Taking into account, that sudden death during medical manipulations or operations is not always connected to medical mistakes (for example, unforeseen individual allergy reactions to medicines, during granting emergency medical help not compatible with a life on last
clinical-biological parameters before reanimation), tanatogenes it is expedient to stipulate a condition of the patient with anesthesiologists, reanimatologists, surgeons and other experts who gave emergency medical aid to the patient or carried out surgical manipulation.

9 Study the structure of the report of opening.
10 Study the structure of clinical-anatomic epirisis

In clinical-pathoanatomical epirisis should find the display the following moments:
1. What was ill died?
2. How disease proceeded?
3. In what measure (in part or completely) have found the display in the clinical diagnosis the pathoanatomical changes revealed on section?
4. The reasons of a divergence of clinical and pathoanatomical diagnoses.
5. Whith had influenced the inaccuracy of lifetime diagnostics (if it took place) on a consequence of disease?
6. What it is possible to count the direct reason of death?

THE CIRCUIT
of clinical-pathoanatomical epirisis

Clinical-pathoanatomical epirisis consists of two parts: clinical and pathoanatomical. In the first the given clinics are stated, where the characteristic of disease is given in short, its current, in the second - an estimation of pathoanatomical changes and their comparisons with the data of clinic is given. In the beginning of epirisis the surname, a name and a patronymic died, sex and age died is underlined. Further a time of stay in a hospital is underlined.

"Petrenko N.I., a male, 55 years which was in the second lung branch TOTD 41 л/д, has been hospitalized owing to an aggravation of a chronic pneumonia. He was ill last two years,
periodically receives treatment in conditions of a hospital. Last aggravation of disease was accompanied by significant insufficiency of intimate activity. In a hospital to the patient carried out symptomatic and pathogenetic treatment. However significant improvement of a condition was not. 12.02.1979 at the patient have developed a prophuzno-lung bleeding, during which there has come death."

Further the second part of epicrisis in which the general estimation of the data of opening in their comparison with the final clinical diagnosis moves follows. If the given openings confirm last, a pathoanatomical part of epirisis is on the following example:

"... pathoanatomical opening changes which have found the display in the clinical diagnosis are revealed..."

If other disease which has caused death so which it is considered as the basic disease in the diagnosis is revealed, the pathoanatomical part begins with ascertaining this mistake of lifetime diagnostics.

"... Pathoanatomical opening the revealed changes which have not found the display in the clinical diagnosis. So, during lifetime of the patient has not been recognized bronchogenic a cancer right lung. A sprouting of tumor a fabric of a wall of vessels have led to an erosion bleeding, which began the process, that has led to death of the patient. Therefore between clinical and pathoanatomical diagnoses are some divergence on the basic diseases. The reason of erroneous clinical diagnostics, most likely, is insufficient of X-ray research, and also the absence of cytologic research of spit on atypical cells. However a fatal outcome of suffering a mistakeness of lifetime diagnostics has not affected, as the patient has addressed for the help at that stage of disease when carrying out of radical treatment was impracticable. It is necessary to count the direct reason of death a sharp anemia in consequence of an erosion bleeding."
If pathoanatomical opening reveals complications of the basic disease, which at a life were not diagnosed, then in a pathoanatomical part of epicrisis it is underlined: "Pathoanatomical opening reveals changes which have found, basically, the reflection in the clinical diagnosis. Unrecognised, however at a life there was its complication. Therefore between clinical and pathological diagnoses are a divergence of complications."

11 To recollect complications and the reasons of death of the basic diseases of a therapeutical structure

II Questions for self-checking by a theoretical part of study
1. Rules and requirements to a spelling of the report of pathoanatomical opening a corpse.
2. Components of the report of opening.
3. Features of registration of a passport part of the report of opening.
4. Features of registration of a descriptive part of the report of opening.
5. Features of technics of opening of a corpse at a therapeutic and infectious pathology.
6. Features of writing of the pathoanatomical diagnosis.
7. Compound components of the pathoanatomical diagnosis.
10. To name principal causes of death of patients at cardiovascular, rheumatic, cerebrovascular, nephrological, infectious diseases, at a pathology of bodies of breath, a gastroenteric path, iatrogens.

III Algorithm of a lecture-room work
1. To take part in opening of the dead man.
2. To discuss clinic-anatomic features of a concrete case of section on study.
3. To carry out the clinic-anatomic analysis of diseases which have ended lethalic in consequence of erroneous lifetime diagnostics and wrong treatment.
4. Features of the clinic-anatomic analysis of diseases which fatal consequences it is connected to the untimely diagnosis and uneffective treatment.
5. The clinic-anatomic analysis of diseases which have ended lethalic because of wrong medical actions.
6. The clinic-anatomic analysis of diseases, which fatal consequences have been caused by a medical pathology.
7. The writing of pathoanatomical diagnosis, clinic-anatomic epicrisis, filling of the doctor's certificate on death in all set forth above cases of death, and also in resulted below situational tasks.
8. To give answers to situational tasks.

Theme 3
Opening died from surgical and obstetrics pathologies.
The clinic-anatomic analysis

Motivation: it agrees with the order № 81 МОЗ Ukraine 1992 all patients who dies in hospitals of surgical and obstetrics-gynecologic branches, subject to pathoanatomical research. In case of death after sorts, operative interventions section research died is carried out without fail.

The purpose: To study features and a technique of carrying out of opening and registration of the pathoanatomical documentations in case of the death connected to a surgical and obstetrics-gynecologic pathology.

The task: To know features of section of a corpse died after operational intervention.

To learn to define morphological displays of complications surgical, obstetrics, gynecologic diseases. To be able to carry out the clinic-anatomic analysis, to formulate the
pathoanatomical diagnosis, to write out the doctor's certificate on death, to cipher on MKX-X death rate which is connected with operative and reanimation manipulations.

The equipment of study
1 The report of opening.
2 The doctor's certificate on death.
3 MKX-X.
4 The addition Ж (Regulations about the order of opening of corpses in treatment-and-prophylactic establishments).
5 The addition Н (Regulations about carrying out of the clinic-pathoanatomical analysis of fatal consequences).
6 The addition Р (Regulations about pathoanatomical research died).
7 Section set of openings died.
8 Body of the dead man, card of the inpatient which has died after a surgical or obstetrics-gynecologic pathology.
9 Educational reports of opening.
10 Clinic-anatomic epicrisis.

I A material for before room independent work
1 To repeat the contents of the addition Б under the order № 81 MOЗ of Ukraine
2 To repeat the structure of the report of opening and clinic-pathoanatomical epicrisis
3 To recollect postoperative complications, the reasons of death at surgical and obstetrics-gynecologic diseases

II Questions for self-checking by a theoretical part of study
1 Rules and requirements to a writings of the report of pathoanatomical opening a corpse.
2 Features of technics of opening of a body died after operational intervention.
3 Features of technics of opening of a body died after sorts and obstetrics pathologies.
4 Features of the clinic-anatomic analysis in case of death from a surgical and obstetrics-gynecologic pathology.
5 Features of an encryption surgical and obstetrics pathologies on X international classification.
6 Features of an encryption of death rate after reanimation manipulations on X international classification.
7 Features of registration of the pathoanatomical diagnosis at iatrogens.
8 To name principal causes of death because of operative intervention after sorts.
9 Mother’s death rate it agrees with X the International classification.

III Algorithm of lecture-room work.
1 To take part in opening of a corpse.
2 To discuss clinic-anatomic features of a concrete case of section on study.
3 To lead clinic-anatomic compare at a surgical pathology.
4 To lead clinic-anatomic compare at a obstetrics-gynecologic pathology.
5 To lead the clinic-anatomic analysis of diseases which have ended lethaly because of mistaken lifetime diagnostics and wrong treatment.
6 Clinic-anatomic the analysis of diseases, which fatal consequences were connected with the untimely diagnosis and uneffective treatment.
7 The clinic-anatomic analysis of diseases which have ended lethaly because of wrong medical actions.
8 The clinic-atomic analysis of diseases which have ended lethaly because of complications of surgical intervention.
9 The clinic-anatomic analysis of diseases, which fatal consequences it is caused by a medical pathology.
10 The writing of the pathoanatomical diagnosis, clinic-anatomic epicrisis, filling of the doctor's certificate on death at
above mentioned cases of death, and also in resulted below situational tasks.
11 To give answers to situational tasks.

THE REPORT OF OPENING № 1
The patient has been in a medical institution – 11m/day.
Settlement, medical establishment - ТОКПНЛ.
To whom it is directed – Terebovlianskiy CRH.
Branch - neurosurgery.
The case record - № 2083.
Surname, name, patronymic died - П.В.М.
Age - 55 years.
Nationality - ukrainian. Profession - the watchman.
Place of residing - the Ternopol area, Terebovlianskiy-region, v. Ostroverts.
Has arrived-12.05.1976.
Has died - 23.05.1976 at 9-15.

Short clinical, laboratory and other given researches. Has arrived in a heavy condition with complaints to the general weakness, weakness in the left hand, a leg, periodically there are pains in the right frontal area. Was ill for two months before has arrived in hospital, connects illness with the transferred craniocereberal trauma. A condition made worse, has appeared left-hand hemiparesis. It is sharply expressed cachexia. Pulse in arteries is not palpated. AT is not determined. Paresis of the left hand, anisocoriya Д <S. The condition of the patient worsened, not looking at treatment. The operation – of imposing diagnostic phresovuy apertures in the right temporal area (20.05. 1976г.)

The diagnosis of a direction: suspicion on volumetric process of a brain. The diagnosis as soon as has arrived in a hospital - a tumour right frontoparietal areas.
The clinical diagnosis. The basic disease. Metastatic defeat of the right frontal-temporal area. Complications: clinical
infringement of brain blood circulation peripheral vessels.

DESCRIPTIVE PART OF THE REPORT OF OPENING

Appearance. A corpse of the man of a correct structure of a body. The average growth, sharply lowered nourishment. Cadaveric stiffness it is expressed well in groups of muscles of hands and legs. Cadaveric stains of light violet colour drain. On a skin of elbow bends of forearm, the right hip there are plural traces from injections. Turgor of the skin is kept. Above the right ear, the right temporal area, has face-to-face cut 7sm long, sew 9 silk central seams. In the left part of a head on border of parietal and occipital departments of a head, on a skin a cyanotic - crimson stain 6,5x5sm, which acts above a level of a skin. Hypodermic cells, accordingly with this area is impregnated with blood, the vascular grid is widen. On a skin of a forward department of a thorax it is visible numerous cyanotic traces of the round form in diameter 3sm, it is obvious from jars.

Internal research. The belly cavity is free from a liquid and malunions, a leaves of belly are smooth and brilliant. Pleural cavities are free, leaves of atrium with the same qualities. An aorta a little the reduced elasticity. An intim is covered numerous atherosclerotic and atheromatosis patches, a part from them with ulcers, a part in a belly department is petrificated. In an aorta and the general glomerular arteries is onwall blood clots. A mucous membrane of a trachea and bronchial tubes hyperemain with dirty grey adjournment. A fabric of lung is pasty in the back-bottom departments, fleshy on a cut. In the bottom department of right lung there is a condensation of 2,5sm, in a cut shows the center of caseous necrosis which is placed subpleural. Similar changes are found in lymph nodes of a gate right lung. The top of left lung is changed scar with the numerous centers of petrification. The back-bottom department of left lung is submitted with grey-red spots with purulent discharge on a surface of a cut. Adrenal
glands are leaf’s forms, without features. Capsules of kidneys are removed easily. Kidneys are flabby. Border of layers precise, a fabric sanguineous. A mucous membrane of urinary excretion ways smooth, equal. Heart in the sizes 12x12x6x2,5sm. The thickness of a wall of right heart ventricle is 0,3 left-1,7sm; valves of heart and vessels thin, smooth and brilliant. A myocardium is with the phenomena of cardiosclerosis. The spleen is small, shrinkage; near a first line is a transmural ischemic heart attack of the triangular form. A pancreas is large parted, of grey - pink colour in a cut. The firm brain environment is a little strained. The soft brain environments is sharply swollen, jelly-like are changed. In the right parietal-occipital area there is indistinctly limited zone impregnated with blood. The fabric of a brain is sharply swollen and is sanguineous. A picture of a brain is kept; in the field of forward soldering is colliquation of white colour. It is sharply expressed hyperemia, a hypostasis of a brain. A strangulation sulcus is visible which covers amygdalas of cerebellum. In vessels vilisiev ring which walls places with atherosclerotic patches, are revealed grey crumbled weights, mixed with blood. The right forward brain artery is obturated in grey dryish weights similar to atwall blood clots of an aorta.

Histologic research. A brain - areas of white colliquation of fabrics with granular layers of violet colour, in the other preparation the area of colliquation is in part impregnated erythrocytes.

Lungs – are limed, the centers of caseous necrosis, are surrounded with zones of a pneumosclerosis; in the subpleural center - osification.

Lympth node of a gate lung – is limed the center of caseous necrosis, a sclerosis perihocal areas.
THE REPORT OF OPENING № 2

Medical establishment - city hospital.
Branch - vascular.
The case record - № 1036.
Surname, name, a patronymic - B.3.A.
Age - 45 years.
Trade - the housewife.
Has arrived in hospital - 24.01.1994г.
Date of opening - 28.01.1994р.

Brief extract from the case record. The patient is delivered in vascular branch of surgical clinic by a brigade of first aid attributes of a thrombosis to a right zdokhvinic artery. In this connection in urgent order she was operated. The postoperative period proceeded difficultly, attributes of intimate insufficiency grew: hypostases, a short wind, general weakness. Treatment has not given effect and the patient has died.
The clinical diagnosis: rheumatism, an active phase, miocardit.
Cirrhosis of liver, sharp thromboembolism the right femoral artery. An ischemia the is IVst. Sharp glomeruloneohritis.
The GIVEN OPENINGS. A corpse of the woman of a correct structure of a body, a satisfactory nourishment. The skin and seen mucous membranes are pale, with a cyanotic shade, are marked hypostases on the bottom and top finitenesses. Cadaveric stiffness is expressed well. Cadaveric stains are of cyanotic - crimson color, are placed on a back surface of a trunk and finitenesses. In right zdokhvinic areas on a skin a postoperative cut, is sewed with 5 silk threads. Pleural cavities contain up to 1,5lit a serous liquid from both sides. A leaves of pleuras are smooth, brilliant, without knits, with a cyanotic shade. The belly cavity contains up to 4lit a serous liquid. Serous environments are smooth, brilliant. A mucous membrane of a throat, a trachea of bronchial tubes are swollen, light pink color. Lugs air, pink color. Parenchyma is
sanguineous, swollen. Bronchial tubes are without pathological changes. In lungs arteries on a place of a branching thromboembols are mixed.

On a forward surface of the top part right lung is an area of dark-red colour with precise borders. A cavity of a pericardium is completely obliterated for the account of spreading grey colour of cartilagesimilarity fabrics. Analogical spreadings are found in a thickness of myocardium ventricles and auricles where they are submitted by units in diameter up to 1sm to moderate density. In the general heart is of high density, heavy, the sizes up to 21x14x8sm.

A cardiac musle is of brown color, flabby. Endocard is without pathological changes. A liver’s size is 30x26x16sm, a dense consistence, dry, with muscat picture, a surface is smooth. Biliary ways are checkpoints. A pancreas is without seen macroscopical changes. A spleen is in the sizes 18x11x8sm, dense, a capsule smooth, a pulp juicy, dark-red. Kidneys are of the usual sizes, weight 320gr both, capsules are removed easily. A surface of kidneys is smooth, border of layers precise; a parenchyma of kidneys is sanguineous. A mucous membrane of urinary excretion ways is without changes. A stomach of the usual sizes, mucous membrane is with numerous dot hemorrhages and erosions.

Results of histologic research: heart - dystrophic changes in cardiomiotsits, a spreading mesothelium cells of the polygonal form and formation of sockets, diffuse cardiosclerosis.

Pericardium – a spreading of mesothelium with attributes of pathological mitoses, the polygonal form, without precise borders, and germination in the next bodies mediastinum.

Lungs – full-blooded vessels, diapedesis in an alveolus and interalveolar partitions erythrocytes, necrotic changes in parenchyma.

Stomach - areas of necrosis mucous with formation of erosion, cellular infiltration mucous, submucous, venous full-blooded.
Lung’s artery - in an enlightenment of thromboembols.
Liver - venous full-blood, a fatty dystrophy hepatocytes, spreading of united fabrics.

THE REPORT OF OPENING №3
Medical establishment - city hospital.
It is directed to a hospital - to a brigade of first aid.
Surgical branch. The case record - № 243/44536.
The attending physician - О.О.П.
Surname, name, patronymic - Б.С.
Age - 57 years. Sex- female.
Trade – a pensioner.
Has died - 1.08.1994. Has stayed in hospital - 5 days.
Date of opening - 2.08.1994.

Brief extract from the case record.. The Patient has arrived in a bad condition, complaints to vomitting, growing thin, the common weakness. From the anamnesis it is known, that 42 days ago has drunk an acetic acid, was on hospitalization in gastroenterological branch owing to burn a gullet and a stomach.


THE GIVEN OPENING OF THE CORPSE. The corpse of the woman of a correct structure of a body, is a sharp lowered nourishment. A skin and seen mucous membranes are pale. Turgor of the skin is lowered. Hypodermic - fatty cellular is almost absent. Cadaveric stiffness is expressed well in groups muscles of hands and legs. The belly cavity is free from a liquid from knittings. Leaves of belly are smooth, brilliant. Pleural cavities are without pathological changes. Heart is in the sizes 9x10x5x3sm, weight 240gr, cavities of it not widen. Valves of heart and the big vessels are not changed. The
myocardium is of brown color. A thickness of a wall of right heart ventricle 0.3sm, left-1,2sm. An intim of an aorta and other large vessels is smooth, with separate yellowish patches and spots. A mucous environment of a trachea, bronchial tubes is light pink. In a gleam breathing ways it is visible mucus-like weights. Lungs are fluffy on all extent, grey - pink colour, from a surface of a cut flows down a foamy hemorrhagic liquid. The mucous membrane of a gullet with scarred changes is atrophied. The mucous membrane of a stomach is atrophied, sclerous, in a pilorichnic department - rough deforming scar which almost completely closes an output from a stomach. On a surface of mucous a stomach there are areas necrotic changes. A liver is in weight 1500gr, a flabby consistence, yellow-brown colour, a usual structure, biliary ways checkpoints. A pancreas is small parted, grey - pink color, dense. A spleen is in the sizes 12x8x3sm, it is flabby, a pulp of dark-red colour. Adrenal glands are leaf-like forms. Kidneys are pale, a flabby consistence, on cut borders cortex and brain substances precise. A mucous membrane of bowls and of urinary excretion ways is smooth, brilliant, pale. A uterus dense, small, mucous light pink color.

Results of histologic research: The stomach – a mucous is atrophied, areas of necrological changes of mucous and undermucous, a diffuse sclerosis and fibrosis of a stomach is wall, spreading of united fabrics in mucous and undermucous environments, cellular infiltration.

Gullet - spreading of a fibrous fabric in a mucous membrane, an atrophy mucous, histiocytical infiltration.

Liver - a fatty dystrophy in hepatocytes, atrophy changes in parenchyma, venous full blood.

Kidneys - dystrophic changes in nephrotelis, venous full blood, atrophy changes.

Heart - dystrophic changes in cardiomioitsits, attributes of a brown atrophy of a cardiac musle.
The REPORT

of OPENING № 4
Medical establishment « regional hospital »
It is directed to hospital ФПП. Branch surgical.
The case record - № 33/5445.
The attending physician - І .Б.Г.
Surname, name, patronymic died - Б.Г.С.
Age - 85 years.
Trade - the collective farmer (pensioner).
Has arrived - 23.12.1994 at 8-00.
Has died - 23.12.1994 about 23-00.
Has stayed in hospital - 15 hours.

Brief extract from the case record. The patient has arrived in urgent order with complaints on bleeding from a direct gut, attributes of a stomach-intestinal bleeding, an ischemia, sharp cardiovascular and respiratory insufficiency. Disease began suddenly, and at the phenomenon of a hypostasis easy and intimate insufficiency there has come death.

The clinical diagnosis 23.12.1994р.: a cancer of a direct gut, gr III, d IV. A bleeding from a direct gut: ССН, ІХС.
Atherosclerotic cardiosclerosis. ДН II d. A pneumosclerosis.

The GIVEN OPENINGS of the CORPSE. A corpse of the old person of a correct structure of a body, lowered nourishment. Integuments and seen mucous membrane are pale. Cadaveric stiffness is expressed poorly. Bones of a skull are the whole. The firm brain environment is a little strained, sinuses of it are free. A soft brain environment transparent, thin, moderately sanguineous Substance of a brain is pale, brilliant. Pleural cavities free. Peritoneum is grey colour, dim, in a cavity is present up to 200 ml serous exudate. A mucous membrane of a throat, a trachea, head bronchial tubes is
smooth, brilliant, in a gleam - mucous spit. Lungs are a little bit increased, grey - pink colour, on cut fluffy, sanguineous, from a surface a plenty foamy of serous-hemorrhagic liquids flows down. A gleam of an aorta is narrowed for the account due to atherosclerotic patches with ulcers and petrification, it is especial in a belly department. Coronary arteries are contour, very dense, thickened on all extent for the account of atheromatic patches. Enlightenment of vintsus arteries is narrowed up to 50 %. Epicardium is brilliant, with moderate adjournment of fat under it. Heart is in the size 11x10x6x8sm. Thickness of a wall of left ventricle is 2sm, right - 0,5sm. The cavity of a pericardium contains 150ml of a transparent yellowish liquid. Leaves of a pericardium are smooth. There are pink-yellow coagulum of blood in cavities of heart, damp and elastic. Valves of heart are thin, brilliant and smooth. A muscle of heart is brown-red, dense, penetrated with a plenty of grey-white layers connecting fabrics. A gullet is not narrowed. A mucous is membrane in longitudinal folds. Under mucous it is visible the expanded veins of a gullet. The stomach is not expanded, in a gleam - small quantity of liquids which reminds a coffee mix, there are defects of a mucous membrane - 0,1-0,3sm. A duodenum gut is without features. In a gleam of thin and thick guts – a bloody liquid. Viennas of a rectum are sharply expanded. A bilious bubble is of the usual form and the sizes, in a cavity - dark-olive bile. A liver is in the sizes 24x18x8x4sm. A surface is small humped, edges are rounded, at palpation is firm. On cut - granular, dry, grey-brown color, a picture reminds a nutmeg. A pancreas is 21x3x5x2sm, it is not deformed, middle parted, with layers of a fatty fabric, grey - pink. A capsule is not strained. A spleen is in the sizes 14x8x4sm, a pulp is flabby, dark-red colour. A scrape from a surface is moderate. Lymph nodes are not enlarged. Kidneys cellular is advanced moderately. Kidneys are in the size 11x5x4sm each one. Fibrous capsules are
removed easily and bare a small humped surface of kidneys grey - pink colour. A parenchyma is pale and deficient blood. On cut scab brain layer are precisely differentiated. In the left kidney in a scab layer the cavity (cyst) is in the sizes 2x1,5sm, is filled with a transparent liquid. A mucous membrane of kidneys and ureter is pale - grey.

A bladder is empty. Adrenal glands are of the triangular form, the sizes 4x1,5x0,5sm each one. Border of scab and brain layers is precised, a thyroid gland is of the usual sizes, pale - red, of coloid kind on a cut.


The heart – a diffuse cardiosclerosis, atherosclerotic changes in vintsevic vessels.

Wall of an aorta - atheromatosus changes of intims, medies, cellular infiltration, liming.

Direct gut - varicose expansion of veins of a mucous membrane, a haemorrhage.

THE REPORT OF OPENING №5

Medical institution - city hospital.
It is directed to a hospital - a brigade of first aid in the first surgical branch.
The case record - № 39/4564.
Surname, name, patronymic died - B.3.I.
Age - 80 years.
Has stayed in clinic - 9 days.
Brief extract from the case record. The patient has arrived in urgent order in surgical branch of city hospital with complaints to sharp pains in the right subrib. Have suspected a gangrene cholecystitis concerning what operation - cholecystotomy –is made in 29.11.1994. The postoperative period proceeded hardly and the patient has died of a peritonitis.

The clinical diagnosis: sharp gangrene cholecystitis.
Complication: a diffuse peritonitis.

THE GIVEN OPENINGS OF THE CORPSE. The corpse of the old woman of a correct structure of a body, a high nourishment. Integuments and seen mucous membranes are pale, with a yellowish shade. On a forward belly wall from an urine-like shoot up to nawel is a postoperative seam long 20sm. In right zdokhvinic areas - a postoperative cut 12sm, through which a glove-trumpet drainage is taken out, in left zdokhvinic areas - a trumpet drainage, at the right subrib - a glove-trumpet drainage, in left subrib - a similar drainage. Right adoveclavicular vein is catheterized. Cadaveric stiffness is expressed poorly. Bones of a skull are whole. Pleural cavities are free. Belly is of grey colour, dim, with numerous fibrinous-purulent stratifications. There is up to 100 ml fibrinous-purulent escudat in a belly cavity. Loops of guts are covered with fibrinous-purulent weights. Postoperative seams hold well. In a stomach - up to 400ml liquids which reminds a coffee thick, in a gleam of a thin gut-bloody contents. On a back wall of a duodenal gut in a descending department is a ulcer of a wall in diameter up to 3sm, with dense cylinder-like edges. At the bottom of a ulcer - defect and erosional vessels. A liver is in the sizes 21x14x6x3sm, a surface smooth, on a cut - numerical fields
of grey - yellow colour without precise borders. A surface of a liver is dry, of brown colour. A pancreas is 20x3x1.5sm, not deformed, middleparted, with layers of a fatty fabric, grey - pink. A capsule is not strained. A spleen is in the sizes 13x6x4sm; a pulp is flabby, of dark red colour. A scrape from a surface is moderate. Lymph nodes are not increased. Kidneys fatty cellular is advanced moderately. Kidneys are in the size 10x5x4sm each one. Fibrous capsules are removed easily and bare a smooth surface of kidneys of grey - pink color. A parenchyma is pale and scarcity blood. Borders between cortex and brain layers is differentiated precise. A mucous membrane of bowls and ureter is light pink. A bladder is empty. The wall of an aorta is struck of atherosclerotic patches on all extent. Vintsevic veins twisting, dense, the gleam is narrowed due to atherosclerotic patches. Epicardium is brilliant, with excessive adjournment of fat. Heart is in the size 11x10x6sm. Chambers of heart are little stretched. Thickness of a wall left ventricle is 1.6sm, right - 0.4sm. Leaves of a pericardium are smooth. Valves of heart are not changed. A cardiac muscle is of brown colour, flabby, with layers of grey colour. Lungs are sanguineous, of pink colour, the usual sizes, from a surface of a cut at compression flows a foamy hemorrhagic liquid in a small amount. Adrenal glands are macroscopic within the limits of norm.

Results of histologic research:

- A wall of a duodenum - a chronic ulcer with attributes of an aggravation of an inflammation, with erosion vessels.
- Wall of a bilious bubble - gangrenoid and necrotic changes with the phenomena of a sharp inflammation.
- Liver – necrobiotic changes in hepatocytes, inflammatory infiltration, congestion of gall in biliary courses.
- Pancreas – a sclerosis and lipomatosis of parenchyma.
- Heart – a diffuse sclerosis, dystrophic changes in cardiomiotsits.
Wall of peritoneum – is purulent – fibrinous infiltration.

THE REPORT OF OPENING № 6
Medical establishment – the 1-st city hospital.
It is directed to in a hospital – Ф.А.П.
Therapeutics branch. The case record - № 34456.
A surname, a name a patronymic-Б. Н. Р.
Has arrived - 20.09. 94.
Has died - 27.09.94.
Date of opening 27.09.94.

Brief extract from the case record: the patient has acted with the phenomena of a exsudativ pleurisy, attacks of an intimate asthma, rise in temperature of a body. Attributes of cardiovascular insufficiency approached despite of treatment death has come.


THE GIVEN OPENINGS OF THE CORPSE
Corpse of the woman of a correct structure of a body, a satisfactory nourishment. A skin and seen mucous membranes are pale, with a cyanotic shade. Cadaveric stiffness is expressed poorly. Cadaveric stains are of cyanotic - crimson colour, are placed on a back surface of a trunk and finitenesses. The belly cavity contains up to 1lit a yellowish liquid with a hemorrhagic shade. There are numerical grey nodules in diameter from 0,2sm up to 0,7sm on a surface of peritoneum. Pleural cavities contain up to 800ml of a similar liquid. Leaves of a pleura are also strew grayish nodules. Heart is in the sizes 10x7x4x2sm. A myocardium is of dark brown colour on a cut, flabby, with grey layers. Valves of heart and the big vessels are not changed. An aorta and vintsevic vessels with numerical atherosclerotic patches which narrow a gleam of vessels. A
mucous membrane of a throat, a trachea, bronchial tubes is swollen, of light pink colour. Lungs are of fluffy, light pink colour, from a surface of a cut a plenty foamy and hemorrhagic liquids flows down. A mucous membrane of a gullet, a stomach, intestines is without seen macroscopical changes. A liver is in the sizes 24x11x10x8sm, a flabby consistence, of brown colour on a cut. Bilious ways freepass. The bilious bubble contains moderate quantity of bile dark - olive colour. Its mucous is velvety. A pancreas is lageparted, of grey - pink colour on a cut. The spleen is increased, on a cut of dark - cherry colour, a flabby consistence. Kidneys are of the usual sizes, capsules are removed easily. A surface of kidneys is smooth, border of layers is precise, parenchyma is sanguineous, a flabby consistence. A mucous membrane of ureter ways is smooth, pale. The uterus is not increased, in a gleam – dark-red weights, endometrium is hypertrophic. Both ovariorums are increased in diameter up to 8sm, gibbous, on cut of red colour, motley, with haemorrhages, grey areas and the centers of necrosis. Adrenal glands are leaf-like forms with a characteristic a structure. Bones of a skull are whole. Brain environments are without seen macroscopical changes. Substance of a brain is of light pink colour with precise borders between white and grey substance.

The given of histologic research: lungs - sanguineous in vessels, serous substance is in alveoluses.

Heart - dystrophic changes in cardiomiotsits, a burning sclerosis.

Ovaries – spreading of atypical ferruterous structures with pathologic mitosis, infiltrative growth, hemorrhages, necrotic changes.

Liver - a fatty dystrophy in hepatocytes, venous sanguineous.

Kidneys - a granular dystrophy in nephrotyely.

Wall of peritoneum – spreading of atypical ferruterous
structures, communicating cellular infiltration.

THE REPORT OF OPENING №7
Medical establishment - regional children's hospital.  
He is delivered by first aid. 
Surname, name, patronymic died - C.O.B. 
Age - 5 years.  
Place residing - Ternopol. 
Has acted - 20.03.1990 about 20-50. 
Has died - 22. 03.1990 about 19-45. 

Brief extract from the case record. The boy has had a fit of coughing during reception of food (ate a cherry plum). He is delivered by first aid with suspicion on aspiration an extraneous subject. During time tracheobronchuscopus (in 20 minutes after has acted) the left bronchial tube with development of left-hand pneumothorax has been injured. It is immediately lead drainage of a pleural cavity on Byoolay. Hypodermic emphysema grew. It is lead drainage of retrosternalic spaces. 21.03.90 about 15-00 operation - mending gap of the left main bronchial tube, left-hand bilobektomy is carried out. During operation - a stop of intimate activity. After operation in consciousness did not come. 22.03.1990 at 19-45 death has come. 

THE DIAGNOSIS AS SOON AS THE PATIENT HAS ACTED IN HOSPITAL: aspiration an extraneous subject. 
Accompanying diseases – gap of the left bronchial tube. 
Left-hand pneumothorax. Hypodermic mediastinal emphysema. 
Condition after operation of sewing together a bronchial tube - left-hand bilobektomy. Deep hypoxical encephalopathy.
Cerebral coma.

DESCRIPTIVE PART of the REPORT of SECTION
Appearance of a corpse: a corpse of the boy of a correct structure of a body, a satisfactory nourishment. The skin and seen mucous membranes is pale, are placed on a back surface of a trunk and finitenesses. On a forward surface of a thorax at the left on a skin it is visible a cross-section operational cut at a level 5 intetcost, closed by 16 silk central seams. On backaxiliric lines at the left, below an operational cut, the polyvinyl tubule in diameter 0,5sm nestles close in a pleural cavity; a drainage tube is fixated by three seams. At palpation a skin in the field of a thorax, a belly wicket appears crepitation. At cleaving fabrics by knife the crunch is audible.

Internal research. There is about 20-30мл a transparent pink liquid in the left pleural cavity. Left lung is submitted only by the top part. On a medial pleura three knotty seams around of which there are congestions of blood are higher than a root of lung. Tongue is without seen changes. A mucous membrane of pharynx is moderately congested, clean. A mucous membrane of a gullet in longitudinal folds is pale. A mucous membrane of a trachea and large bronchial tubes is moderately congested, clean, damages by extraneous subjects it is not revealed. Seams of cuksa of the left bottom partial bronchial tube are well hold a fabric. The mucous membrane of partial bronchial tubes of right lung is congested, is covered with slime and pus. Right lung on all an extent is of dark-red colour. From a surface of a cut flows down dark dense a bloody liquid, fabrics of right lung is condensed.
At compression from partial bronchial tubes droplets of yellow pus act. Adrenal glands are of the usual sizes, with precise border between layers. Kidneys are in the sizes 8x4x2,5sm each one, capsules are removed easily, a fabric of kidneys is flabby, borders of layers are precise. The cavity of heart contains some ml of a transparent liquid of yellowish
colour. Epicardium and a pericardium are smooth, brilliant. Heart is in the sizes 7x6x4sm. On a course of vintsevic arteries dot haemorrhages are revealed. Cavities of heart contain the mixed congestions of blood. Thickness of a wall right heart ventricle hearts is 0,3sm, left – 1sm. Endocard and valves are clean, thin, transparent. A myocardium is strained, of red - brown colour. An intim of an aorta and the big vessels is without seen changes. A stomach is of the usual sizes and forms, its mucous membrane is folded. In a cavity of a stomach the small amount of a liquid of dark-brown colour is visible. A mucous membrane of a gut is without seen changes; in a gleam of a gut are usual contents. Pancreas is of pale - pink colour, large parted, the usual sizes. A liver is in the sizes 15x11x9x7sm, its capsule is smooth, a fabric is flabby, of pale - brown colour, clay. A bilious bubble is without seen changes. A spleen is in the sizes 7x6x3sm, a pulp is of dark-red colour with a moderate scrape. Infringements of soft fabrics of a head it is not revealed, bones of a skull are whole. A firm brain environment is strained, vessels of soft – are congested. A fabric of a brain is pasty, swollen. In area of amygdala cerebellum it is precisely visible strangulatic sulcus from squeezing of an oblong brain in big occipital aperture. On a cut of a brain borders of layers are precise. Ependima of brain ventricles is a brain clean, smooth, damp, pale.

THE REPORT OF OPENING №8
Φ. Ι. Ο.: Curochca Irina Vladimirovna.
Age: 29 years.
Place of residing: the Sumy region. L.- Pisarevca; October street., 36.
Place of death: branch of detoxication Sumy city hospitals 15.
Date of death: 30.09.99.
Date of opening: 1.10.99.
Descriptive part.
Appearance:
The corpse of a female, 29 years, a correct structure of a body, a satisfactory nourishment. Thickness of a hypodermic - fatty layer is at a level of nawel 1-2 sm, sternum 1,0 sm. On a skin of forearm, is plural linear scars, in cubital fossas traces from injections are seen. On a right shoulder a tattoo - the international sign on the addict, in the field of right subclavian veins - the puncture, through which catheter is inserted. In area of nates the separation of epidermis in the sizes 2x3sm. On the other extent integuments are clean. At removal of sternum at the left in a cavity of a joint purulent contents is seen.

Internal research:
There is 500ml a yellowish liquid with impurity of fibrin pleural cavity. The left pleural cavity is completely obliterated. Visceral pleura of right lung is covered plural films; left lung - dense fibrotic accretions. The belly cavity is free, peritoneum is smooth, shines.

Bodies of breath:
Mucous membrane of a throat, a trachea and the main bronchial tubes dim with haemorrhages, in a gleam purulent spit. Lungs non-uniformly air: right lung is condensed on all an extent, it is especial in back bottom departments where it is marked two concentrations of the triangular form in the sizes 4x5sm and 3x2sm of red - brown colour in the center of which is trombed vessels. On the other extent lungs are dim, on a cut a plenty of a muddy liquid flows out is, a surface of grey colour. Left lung condensed on all an extent, on a cut the muddy liquid in a plenty quantity flows out. Main lungs columns contain dark-red thrombotic weights.

Cardiovascular system:
In a gleam of aortas, the main vessels are wide, an intim is smooth, shines. Kidneys arteries are without features. Heart is a little bit increased in sizes, basically due to the left
departments. Thickness of walls left ventricle - 1.5sm, right - 0.3sm. There is 50ml of a transparent liquid In a cavity of a pericardium, a pericardium is smooth, brilliant. In a cavity of right ventricle the congestions of blood are mixed. On stulcas of tristulcovic valve, plural polyposis layers of grey - yellow colour which are placed by conglomerates which are heaped up one on another. Other valves are smooth, brilliant. A myocardium is flabby, dim, brownish - cyanotic.

Bodies of digestion:
The gullet is not narrowed, a mucous membrane is longitudinal-folded in the bottom departments cyanotic. A stomach contents a small amount of liquid, coloured by bile, mucous smooth. There is liquid contents in intestines, mucous is grey - cyanotic, folded. The liver is sharply increased, the sizes 29.0x27.0x11.0sm, a surface is smooth with rounding edges. On a cut is flabby, of yellowish-brown colour. A bilious bubble is of the usual form and the sizes, in a gleam dark - olive bile. Bile’s ways and behindliver bilious courses are freepassing. The pancreas is not deformed, middleparted, greyish-pink.

Bodies of blood creation:
The spleen is sharply increased, the sizes 18.0x11.0, 0x4.0 sm, a capsule is strained, a pulp is flabby, is flowed of, dark red colour. A scrape from a surface is significant. Lymph nodes of all groups are a little bit increased, soft, pink.

Bodies of urinogenital system:
Near kidneys fatty cellular, is advanced moderately. Kidneys are of the usual sizes, the fibrous capsule is removed easily. A surface is red - cyanotic, dim, parenchyma is pale, with a muddy hypostasis, borders of layers are not precise. In a gleam of bowls the rests of muddy contents, mucous with smalldropped haemorrhages is dim. The bladder is without features. A uterus is in the sizes 12.0x14.0x5.0 sm, on neck of the womb - catgut seams. In a cavity of endometrium brilliant,
on back walls – a friable red - brown stain. Ovaries are in the sizes 2,5x1,5sm, with a yellow body, uterine pipes are without features.

**Bodies endocrin systems:**
Adrenal glands are of leaf-like forms, without seen changes. Thyroid gland is a little bit increased, fine-grained, pink-cyanotic.

**Bodies of the central nervous system:**
Bones of a skull are the whole. A firm brain membrane is a little strained, moderately sanguineous. Soft brain membranes are swollen, transparent. Sinuses of a firm brain membrane are free. Sulcuses and crinkles are smoothed, border between grey and white substance is precise. Substance of a brain is flabby, sanguineous. Lateral ventricles contain a small amount of transparent likvor. Arteries of a basis brain are thin-walled.

**Results of histologic research**

**Lungs:** parenchyma is uneven air, there is purulently – hemorrhagic exudate, colonies of microbes in a gleam of the most part of alveoluses. Vessels are expanded, with leukocytal blood clots, the purulent destroyed walls. Bronchial epithelium is desquamoved. In alveoluses and between alveoluses partitions - hemosiderin. On a pleura - adjournment of fibrin.

**Heart:** valves of right ventricle (tricuspidal) in a condition of necrosis, with significant thrombus weights which contain colonies of microbes. Cardiomitsits are in a condition of a granular dystrophy. Diffuse lymph-histiocytar infiltration of a myocardium.

**Spleen:** in a pulp of accumulation segment nucleus leukocytes which are destroyed, proliferation reticul-endothelium the centers of myeloz, plenty of plasmatic cells.

**Lymph nodes** Qatar of sinuses with separation of reticuliaric cells, the centers of myeloz, full blood.

**Liver:** a granular, fatty dystrophy hepatocytes, periportal -
lymph-histiocytar infilration of stroma.
Pancreas, adrenal glands: a usual structure.
Brain: perivascular, periceluliar a hypostasis of substance of a brain, sanguineous, stasises in capillaries.
Uterus: endometrium in a condition of the organization, vessels are sanguineous, in area of attachment of placentae –fibrinoid necrosis.

**Theme 4**

**Opening of the died child. Features of the clinic-anatomic analysis and the organization of openings in pediatric practice**

**Motivation:** Modern achievements and improvements of children's pathoanatomical service in Ukraine testify about essential changes of a structure of children's desease and death rate. It demands from doctors of knowledge of morphological displays of the basic nosologic forms of diseases which meet in perinatology and pediatrics. Besides at children the morphology pathological processes is closely connected to age features which directly depend on constants height changes and development of the child which are frequently broken under influence of genetic factors. It causes development of pathological processes on a background of congenital lacks of development.

**The purpose:** to study features and a technique of carrying out of opening of the died child, a fetus, newborn and registration of the pathoanatomical documentation in case of death connected with a perinatologic pathology.

**The task. To know** features of section of a corpse of a died fetus, newborn, the child. 
**Tol learn** to define morphological displays of complications of
the basic diseases in pediatric practice. To be able to carry out the clinic-anatomic analysis, to formulate the pathoanatomical diagnosis, to write the doctor's certificate on death, to cipher on MKX-X death rate in neonatologic and pediatric practice.

**Equipment of a study.**
1. The report of opening.
2. The doctor's certificate on death.
3. MKX-X.
4. The addition I (Regulations about the order of opening fetal losses in weight of a body from 500,0 and more in terms from 22 weeks of pregnancy irrespective of alive or deadborn in the perinatal period).
5. The addition Ж (Regulations about the order of opening of corpses in treatment-and-prophylactic institutions).
6. The addition H (Regulations about carrying out of the clinic-pathoanatomical analysis of fatal consequences).
7. The addition P (Regulations about pathoanatomical research died).
8. The addition C (The Instruction on features and the order of opening of corpses of children of early age, newborns, deadborn, fetal losses and placentae).
9. The section set for opening died.

10. Body of a died fetus, newborn, the child.
11. Educational reports of opening.
12. Clinic-anatomic epicrisis.

**I A material for beforeroom’s independent work**
1. To repeat the contents of the addition Ж under the order № 81 MO3 of Ukraine
2. To repeat the contents of the addition P under the order №81
3. To repeat the contents of the addition H under the order №81.
4. To learn the contents of the addition I under the order
№81.

REGULATIONS

about the order of openings fetal losses in weight of a body from 500,0 and more in terms from 22 weeks of pregnancy irrespective of alive or deadborn died in the perinatal period.

To opening and registration in the report of pathoanatomical research are subjected all died newborns in medical institutions irrespective of body’s weight and long, from that, what is the time after a birth displays of a life were observed at them, and also deadborn in weight of a body 1000gr and more and long of a body more than 30 sm, fetal losses in weight of a body from 500 gr and more in terms more than 22 weeks of pregnancy and irrespective of live or deadborns. In case of opening fetal losses they are registered in the report of pathoanatomical research, the certificate about perinatalic death on them is not made out. Afterbirth go together with fetal loss and also it is registered as a biopsycal material. Results of research go to medical establishment.

The head physician of a maternity hospital provides 100 % opening of corpses of deadborns and died newborns, their delivery in a pathoanatomical bureau (branch) not later than 12 hours after a birth deadborn or a death newborn. Deadborn directs with a history of development newborn and clinical epicrisis. Deadborn is sent in pathoanatomical branch together with afterbirth. On pathoanatomical research afterbirthes from newborns go also if they have symptoms intrauterine diseases, especially if there is a suspicion on an intrauterine infection. In all cases послед it is registered as biopsycal a material.

Managing pathoanatomical branch provides 100 % microscopic research of materials of opening of corpses of newborns and afterbirths.

The head physician and the manager of pathoanatomical branch organize necessary virologic and bacteriological
researches of a material of opening of deadborn, died newborns and afterbirthes, using for this purpose corresponding laboratories at the given medical establishment or sanepidemstation.

In case of sudden death of children which were not on the dispensary account, outside of a medical institution, their corpses are subject to judicial - medical opening. The pathologist can be attached for the advisory help under the arrangement with the chief of a bureau judicial - medical examinations. In case of sudden death of children which were on the dispensary account, their corpses are opened by pathologists.

For unification of registration of the pathoanatomical diagnosis perinatal died results of opening of corpses and newborns and pathoanatomical research afterbirthses are used only. The clinical datas about a parent pathology during pregnancy and childbirth in the pathoanatomical diagnosis are not brought. They are necessarily fixed in pathoanatomical epicrisis and the certificate on death.

The certificate about perinatalic death or preliminary perinatalic certificate on death, the pathoanatomical diagnosis and the report (card) of pathoanatomical research are made out by the pathologist in day of opening.

5 To study the contents of the addition C under the order №81.

THE INSTRUCTION

about features and the order of opening of corpses of children of early age, newborns deadborn, fetal losses and placentaeas.

At anatomic research of corpses of children of early age, newborns, deadborn and fetal losses at opening a skull it is necessary to keep undamaged sine of firm brain environment. Separate a skin of a head in the sharp way, scissors which ends
are bent under a corner, the aperture in area of a limbovidic seam is made and on a horizontal line the cut parietal and frontal bones together with a firm brain environment is carried out. Come up to the middle of a frontal bone, the ends of scissors turn back both cutting frontal and parietal bones along frontal and strilovid seam on distance of 1sm from the last. Then a cut conduct on a lambovid seam up to the aperture made earlier in it. The same cut is made and from another side then in the middle of a skull there is a bone plate in width about 1,5-2sm lengthway of frontal and strilovid seam with a crescent shoot of a firm brain environment. Cautiously removing each hemisphere of a brain, attentively looks round namet a cerebellum and a crescent shoot, because in these places most frequently meet gaps and haemorrhages in consequence of a patrimonial trauma. Distinguishing separately each hemisphere, is cut namet a cerebellum near edge of a pyramid of a temporal bone and extracted a trunk part of a brain together with a cerebellum and a long brain. Different methods of opening skulls are possible, which guarantee from artificial died damages of its contents.

The ridge is investigated in all cases for definition measures of its stretching. It is shown by extraordinary mobility of ridges in cervical and chest departments along an axis of a ridge, and also haemorrhages in a forward sheaf of a respective interspine disk. The channel of a ridge cuts not sideways backs, as at adults, and in front after removal organocomplex. For this purpose separate bodies III and IV ridges, enter in spine the channel bransh the peaked scissors bent on a plane, and cut arches ridges from one and other side. After removal of bodies of ridges examine epidural space, spinal roots and interspine units, then extend a spinal cord and investigate it on all length. At opening a forward wall of a belly for preservation of an integrity umbilical vessels average the middle cutting comes to an end on 1-1,5sm above umbilical rings. Whence two cutting
are conducted in a direction of an internal third inguinal folds. At raising of a scin-muscular triangle which thus was formed, the umbilical vein stretches. It cuts by a lengthways cutting up to a gate of a liver. Umbilical arteries which lay on each side, examine on cross-cuttings. At suspicion on an opportunity of an umbilical sepsis from contents of each vessel or from a scrape from a surface of intims smears are made for bacterial (bacterioscopic) researches. Umbilical vessels for histologic research undertake in all cases.

The bottom epiphysis of hip is necessarily researched on longitudinal cuttings where nucleus of ossification are marked and the condition of a line ossification of a cartilage between epiphysis and diaphysis is defined.

Corpses of fetal losses in weight of a body from 500 gr and more, newborns, deadborn and children who have died directly after sorts, are delivered in a pathoanatomical bureau (branch) together with afterbirth. At research of afterbirth its integrity, weight, the form, a place of moving umbilical cords is marked, its diameter and length. Histologic researches of environments is necessarily carried out, umbilical cords and placentae (an environment - 1-2 slices, a umbilical cord - 2-3 slices, a placenta - 6-12 slices from different zones).

6 Repeat the structure of the report of opening and clinical-anatomic epicrisis.

7 Recollect complications, the reasons of death in the perinatalic period and at the basic diseases in pediatric practice.

II Questions for self-checking by a theoretical part of study.

1 Rules and requirements to a writing of the report of pathoanatomical openings of a died child and a fetus.
2 Features of technics of opening of a died fetus, newborn, a child.
3 Features of the clinic-anatomic analysis in case of death of a fetus, newborn, a child.
4 Features of enciphering of a children's pathology and death rate on X the international classification.
5 Features of registration of the pathoanatomical diagnosis and the doctor's certificate on death in a case perinatalic death of a fetus, newborn.

III Algorithm of a lecture-room work
1 To take part in opening of a corpse.
2 To discuss clinical-anatomic features of a concrete case of section on study.
3 To carry out clinical-anatomic compare at perinatalic and a children's pathology.
4 To carry out the clinical-anatomic analysis of diseases which have ended lethaly because of erroneous lifetime diagnostics and wrong treatment.
5 The clinical-anatomic analysis of diseases, which fatal consequences are connected with the untimely diagnosis and uneffective treatment.
6 The clinical-anatomic analysis of diseases which have ended lethaly because of wrong medical actions.
7 The clinical-anatomic analysis of diseases which have ended lethaly because of complications of surgical treatment.
8 The clinical-anatomic analysis of diseases, which fatal consequences were caused a medical pathology.
9 Writing of the pathoanatomical diagnosis, clinical-anatomic epicrisis, fillings of the doctor's certificate on death at all above mentioned cases of death, and also in mentioned below situational tasks.
10 To give answers to situational tasks.
11 A discussion of substantive provisions of a theme.

Theme 5
The role of pathoanatomical service in the control over quality of treatment-and-prophylactic work. The organisation of work of medical - control commission (MCC) and clinic-pathoanatomical conferences

**Motivation:** clinic-pathoanatomical conference is one of the basic methods of scientific - practical work of doctor's collective. It plays the most important role in the improvement of diagnostics and medical work in medical establishments.

**The purpose:** To acquire substantive provisions of carrying out MCC and clinic-anatomic conferences.

**The task.** To know basic tasks MCC and clinic-pathoanatomical conferences.

To learn the basic rules and principles of the organization of carrying out of clinic-pathoanatomical conferences. To be able to assess divergences of clinical and pathoanatomical diagnoses.

**The equipment of study.**
1. The addition K (Regulations about the order of the organization and carrying out of clinic-pathoanatomical conferences in treatment-and-prophylactic institutions).
2. The addition H, item 2 (the Organization and the order of work of medical - control commission (MCC).
3. Educational reports of openings.

I. The material for before room independent work
1. To learn the contents of the addition K under the order №81.

**POSITIONS**
about the order of the organization and carrying out of clinic-pathoanatomical conferences in treatment-and-prophylactic establishments

The basic tasks of clinic-pathoanatomical conferences:

The improvement of professional skill of doctors of treatment-and-prophylactic establishments, improvement of quality of clinical diagnostics and treatment of patients by the
general discussion and the analysis of clinic-pathoanatomical datas;

revealing of the reasons and sources of mistakes in diagnostics and treatment at all stages of medical aid, lacks of organizational character, timeliness of hospitalization in the work of auxiliary services (radiological, laboratory, functional diagnostics, etc.).

On clinic-pathoanatomical conference are discussed:

cases of medicamentous patomorphosis diseases;
cases of death of patients after surgical, diagnostic and therapeutic interventions, especially those patients which were hospitalized urgently;
cases of medicamentous diseases and medicamentous patomorphosis diseases;
cases of late diagnostics, heavy diseases for diagnostics, not clear cases which demand the general discussion.

On one of conferences the report on work for the last year the chief of the pathoanatomical bureau managing pathoanatomical branch (the manager by children's pathoanatomical branch) in which should be submitted the report about lethaly in hospital and the analysis of quality of diagnostics and lacks of medical help at all stages of treatment of the patient is discussed.

Clinic-pathoanatomical conference should establish a category of divergences of clinical and pathoanatomical diagnoses, being guided thus positions:

1 Disease has not been recognized at the previous stages because in the given medical establishment the putting of the correct diagnosis was impossible because of weight of a condition of the patient, prevalence of pathological process,
short duration of his stay in the given institution.

2 Disease has not been recognized in the given medical institution in connection with lacks of inspection of the patient, absence of necessary and accessible researches; thus it is necessary to take into account, that correct diagnostics has unessentially finally affected the end of disease, but the correct diagnosis could be and should be established.

3 Wrong diagnostics has caused erroneous medical actions which appeared deciding(solving) in lethal end of disease.

Only the 1-st and the 2-nd categories of a divergence of clinical and pathoanatomical diagnoses have the direct attitude to a medical institution, where the patient has died. The 1-st category of a divergence of diagnoses concerns to those treatment-and-prophylactic institutions which gave medical aid to the patient in early terms of disease and before his hospitalization in treatment-and-prophylactic establishment in which he has died. Discussion of this group of divergences should be transferred in these medical establishments or the medical personnel of the last should be present at conference at medical establishment where the patient has died.

All doctors of the given treatment-and-prophylactic institution, and also doctors of those treatment-and-prophylactic institutions which took part at inspection and treatment of the patient on previous stages are obliged to be present at clinic-pathoanatomical conferences.

Clinic-pathoanatomical conferences are carried out according to plan, in working hours, not less often than once a month.

In the big hospitals except for generalmedical conferences should be carried out clinic-pathoanatomical conferences on groups of respective profile branches.

The agenda of the next pathoanatomical conference is conducted to all doctors of medical establishment not later than 7 days before the conference. The preparation of clinic-
pathoanatomical conference is made by the assistant of the head physician by a medical part and the manager of branch of a pathoanatomical bureau (pathoanatomical branch).

To cancel discussions of a case which has been offered by the chief of a pathoanatomical bureau, the manager of pathoanatomical branch, the administration of medical establishment has no right.

For carrying out of clinic-pathoanatomical conference by the head of a medical institution two chairmen (the clinical physician and the chief of a pathoanatomical bureau, the managing of pathoanatomical branch), and also the opponent from number of the most qualified doctors (the therapist or the pediatrist, the surgeon, the pathologist and others) are appointed.

For conducting the report of conference two constant secretaries from structure of medical collective are appointed.

It is expedient to limit the agenda of conference to discussion of one supervision.

Cases which are subject to discussion, are reported by attending physicians, the pathologist which carried out opening died which analyzed according to a medical card of the inpatient (for maternity hospitals - a history of sorts, a history of development newborn) the quality of inspection, conducting medical documentations, and then by the participants of the conference are discussed, including doctors of other specialization who participated in diagnostics of disease.

The administration of a treatment-and-prophylactic institution on the basis of materials, conclusions and offers of clinic-pathoanatomical conference develops and carries out measures under the prevention and liquidations of the lacks, admitted in the organization and granting of medical aid to the patient.

By comparison of diagnoses the diagnosis which is written down on the first page of the case record is taken into account.
only; in the clinical and pathoanatomical diagnosis the basic disease, complications and accompanying disease should be precisely allocated. Necessarily on the title page and in epicrisis of case records a date of an establishment of the diagnosis of each disease and their complications are designated.

It is considered the basic that disease which is direct or through complications, it is closely connected to it, has caused death of the patient. According to international classification (MK3) in clinical and pathoanatomical diagnoses as the basic disease should appear only respective nosologye unit. The clinical diagnosis cannot will be changed for transfer of syndromes or symptoms of disease. In the pathoanatomical diagnosis there should be an anatomic essence of disease.

At carrying out of clinic-pathoanatomical conferences it is necessary to take into account, that in modern conditions, it is especial at persons of old age, frequently there are two or more diseases which develop independently one from another, or are in difficult pathogenetic mutual relations.

Among these diseases difficultly, and enough frequently is impossible to allocate the basic. Such situation has caused to introduce into diagnostic definitions of concept and terms - competing, united, background disease, combine the basic disease. Accommodation in the diagnosis and epicrisis revealed diseases according to these concepts allows to present more precisely their interdependence and influences of one on another, and also value of each disease and their complications in genesis to death; thus it is possible to reflect and on expediency, full value and timeliness of medical - diagnostic measures.

Those pathological processes concern to complications of diseases, which pathogenetic are directly connected with the basic disease, though in some cases can have another etiology (for example: a purulent meningitis at a purulent otitis, a
peritonitis at perphorativ cut of stomach ulcer, etc.).

In cases when the death has come not from the basic disease or complication, and from application of medical or even diagnostic procedures and manipulations, in MK3 especial headings are stipulated. For example, headings MK3 E936 (accidents and complications which arise in surgical and other kinds of treatment), № 960-979 (the adverse complications connected to introduction of medicines and other medicamentous substances), № 997 (the specific complications connected to some surgical interventions), № 998 (other complications because of medical interventions).

At discussion of such cases at conference such variants of their analysis are possible:

Medical action which has caused death of the patient, has been used under the erroneous diagnosis.

In similar cases this action (operative, diagnostic intervention, reactions on medicines, radiant energy and others.) in the diagnosis it is put on the place of the basic diseases in conformity with headings MK3 E930-E936.

Medical action which has caused death of the patient, has been accomplished according to the certain indications, but executed incorrectly, as has led to death of the patient (for example, the transfusion blood of another group, than at the patient, over cooling, gemolised; overdosed of strong means, a gross blunder at operative intervention, carrying out a narcosis, etc.).

Similar cases usually become a subject judicial - medical examinations. As well as in the previous category, action which has led to to death of the patient, in the diagnosis should appear on a place of the basic disease.

Medical action which has caused death of the patient, was "adequate", applied on a basis of correctly established indications and is accomplished correctly. Its adverse influence has been connected to individual intolerance or hard conditions
of the patient and neglect of disease which could not be defined before. In similar cases action which has led to death of the patient though can be formally included in one of set forth above headings MK3, should be included in group of complications. However, complications of such character should be allocated from a lump of the revealed diseases which have developed as a result of natural current of disease. Thus, at the analysis it is necessary to distinguish two categories of complications - « complications of illness» and « complications from treatment ». The processes connected to medical actions if they have led to death of the patient should be include in the lest group also.

To the task of clinic-pathoanatomical conference also includes revealing the reasons of divergences clinical and pathoanatomical diagnoses. The divergence under the basic clinical and pathoanatomical diagnoses considers discrepancy of diagnoses:
on a nosologye principle, for example, the diagnosis of a tuberculosis easy instead of a cancer of lungs;
on etiology, for example, the diagnosis of a tubercular meningitis instead of meningocock;
on localization of pathological process, for example, the diagnosis of a cancer of a stomach, instead of a cancer of a pancreas

At the combined basic disease absence or the erroneous diagnosis of one of diseases is considered a divergence of clinical and pathoanatomical diagnoses.

Taking into account, that the clinical diagnosis should be not only correct, but also duly, all section supervision at a divergence of clinical and pathoanatomical diagnoses are analyzed concerning timeliness of their establishment: materials of this analysis are discussed at clinic-pathoanatomical conferences, resulted in reports of pathoanatomical branch.
Sources and the reasons of divergences of diagnoses can be objective and subjective. The objective reasons of the erroneous diagnosis are caused by short duration of stay of the patient in medical establishment, difficulties and impossibility of its inspection in connection with a hard condition, atypical developments and currents of process or insufficiently investigated disease. The subjective reasons of erroneous diagnostics are caused by a level of preparation and qualification of the doctor. At the analysis of these two categories of mistakes in each case specify and allocate the concrete reasons of their occurrence (a hard condition of the patient which does not allow to carry out his inspection, atypical or asymptomatic current of disease, rareness of the disease, insufficient laboratory researches, attention to the anamnesis, etc.). Short-term stay of the patient conditionally considers his stay in medical establishment of less than 24 hours.

Analyzing cases in which concurrence of two diagnoses took place is necessary to allocate those from them when the basic disease and fatal complications have been recognized late, that has caused not timeliness of carrying out of irrational treatment and the lethal end.

Thus, proceeding from tasks which face to clinic-pathoanatomical conferences, it is necessary, that the analysis of assumed mistakes was basic, statements on them were not characterized by charge to address of concrete persons who have admitted those or another mistakes. The benefit for the patient and increase of doctor's qualification should be the basic purpose of carrying out of clinic-pathoanatomical comparison.

2 To study the contents of item 2 of the addition H under
the order № 81.

POSITION

about carrying out of the clinic-anatomic analysis of fatal consequences

2. The organization and the order of work of medical - control commission (MCC).

The medical - supervisory commission (MCC, further the commission) is appointed for all-round and qualifying finding-out of circumstances and features of current of disease, is direct the reasons and the mechanism of approach of death, lacks of granting of medical help the patient who have died in the given medical institution, and also in a polyclinic, houses, in area which is served by the given medical establishment.

The responsibility for the organization and condition of commission’s work is also the head physician of a medical institution which annual order determines the commission’s structure. The head of the commission, as a rule, appoints the assistant to the head physician on medical part, constant members – the main medical experts, the managing branches, the managing branch of a pathoanatomical bureau or pathoanatomical branch and one of interns - clinical physicians as the secretary. Last structure of the commission is established in the operative order depending on character of disease at the died pathologist at participation or the doctor who made opening. Doctors who participated in treatment of the patient, does not follow to appoint members of the commission. The head of the commission is obliged to learn all necessary documentation which concerns to the given case of death (the case record, an extract from the report of pathoanatomical research died and other materials), and to appoint a reviewer from the most qualified doctors of a treatment-and-prophylactic institution. Materials from other medical institutions where the patient was earlier treated are if
necessary requested.

The sitting of the commission is appointed in time not later than 15 days after death of the patient.

At session of the commission brief messages of the attending physician, the pathologist and the reviewer if there were lacks of the pre-hospital period are heard. The report of session of the commission is conducted by the secretary.

The attending physician is obliged to prove putted to the patient the diagnosis, using for this purpose results of his inspection to report, how disease developed, when and for what reason there were complications what in this connection were carried out concrete measures and their results.

The pathologist reports the commission the pathoanatomical diagnosis and epicrisis, carries out comparison of clinical and pathoanatomical diagnoses on all headings, submits sheets about revealed lacks of granting medical help and their reason.

The reviewer on a basis of learning medical documentation reports and represents the commission a written conclusion about timeliness of hospitalization of the patient, completeness of his inspection, correctness of treatment at a pre-hospital stage and at hospital’s period.

Compare the clinical and pathoanatomical datas, the reviewer establishes the concrete reasons admited mistakes, offers measures under their prevention in the future. In a divergence of ideas of the pathologist and the attending physician the reviewer proves one of them or offers his own, using for this purpose the datas of the scientific literature. He defines dependence of mistakes of the attending physician on all system of the organization of medical - diagnostic work in medical establishment, branch.

The commission is obliged to find out circumstances of occurrence of disease (trauma), feature of its current, tanatogenesis, to establish quality of granting medical help, to
develop concrete practical measures on elimination and warning of revealed lacks.

At the analysis of medical help at a pre-hospital stage the commission establishes:

- a condition of active revealing of patients and timeliness of the primary reference of the patient for medical help;
- a full value of inspection in a polyclinic, quality and timeliness of diagnostics, correctness of treatment;
- timeliness of hospitalization;
- a correctness of transportation of the patient to medical establishment;
- a quality of profound medical inspections and dispensary supervision over patients in a hospital.

At analysis of medical help during the hospital period the commission establishes:

- a completeness, groundness and timeliness of inspection of the patient in medical establishment;
- a timeliness of the made diagnosis of disease, its completeness and correctness;
- a groundness medical assignments and operative interventions;
- a correctness of execution of medical procedures and surgical operations;
- an adequacy of postoperative conducting the patient;
- an observance of sequence in diagnostics and treatment of the patient at all stages of hospitalization.

The quality of conducting of medical documentations is estimated by the commission according to each stage of hospitalization. Thus it is paid attention to professional literacy of medical records, completeness of display of complaints, anamnestic sheets, given objective inspection, records presence of detours managing branch, other officials; preoperative epicrisis, postoperative diagnoses, a condition of conducting narcotic cards and cards of intensive therapy.
At the ending of work the commission makes the act which all structure of the commission subscribes.

In case of revealing by the commission of lacks of granting medical help in the act it is necessarily underlined: the essence and character of lacks where they are admitted, surnames and names of doctors who have admitted lacks, of what measure lacks of medical help have caused fatal consequences, and also concrete practical recommendations of the commission on elimination and the prevention of the revealed lacks of medical - prophylactic work of hospital.

At revealing by the commission of lacks of granting of medical help which are admitted by doctors of other medical institutions, head of the commission without fail move to the address of corresponding the head physician an extract from the act of the commission.

In case of a divergence of ideas of members of the commission repeated consideration of a fatal case by the commission with participation of the main experts of regional, city branches of health protection is appointed.

4 Acquaint with situational tasks (educational reports of openings) and prepare for participation in business game as one of participants of clinic-pathoanatomical conference

II Questions for self-checking by a theoretical part of study
1 The history of carrying out of clinic-anatomic conferences.
2 Who organizes and carries out clinic-anatomic conferences?
3 Tasks of clinic-anatomic conferences.
4 Principles and the order of the organization of clinic-anatomic conferences.
5 What cases are considered at clinic-anatomic conferences?
6 The basic lecturers at clinic-anatomic conferences.
7 What categories of a divergence of clinical and pathoanatomical diagnoses are established with clinic-anatomic
conference?
8 The value of clinic-anatomic conferences in work of medical institutions.
9 Main principles of organization MCC and its tasks.

III Algorithm of a lecture-room work
1 Carrying out of business game « clinic-pathoanatomical conference ». The note: the theme of conference and participants is defined by the teacher.
2 The discussion of the basic results of carrying out of business game.

Theme 6
Biopsy investigations
MOTIVATION: Biopsy investigations take an important place in life-time diagnosis of various diseases. Any pathologically changed tissue excised during the operation must be histologically investigated. Biopsy study is especially urgent in oncological practice.
AIM: To learn the principal rules of biopsy investigation carrying out in medical institutions.
TASK: To know the order of biopsy rend operative material investigation in medical institutions. To learn the principal rules of preparing of biopsy and operative materials for histologic and cytologic investigations. To learn how to evaluate the results of biopsy investigation in various pathologic processes.
1. Appendix 2 [Regulations on the order of biopsy and operative material investigation {pathologic investigations}].
2. A set of micropreparations with various pathologic processes.
3. Operative materials for biopsy investigation.

MATERIAL FOR PRE-AUDITORY INDEPENDENT WORK.

1. TO LEARN THE CONTENT OF THE APPENDIX
2. TO THE ORDER 81.

REGULATIONS
on the order of biopsy and operative material investigations {pathohistologic investigation}.

Diagnostic biopsy, all organs and tissues excised during the operation, and afterbirths, abortion scrapings as well performed in the department of certain medical-prophylactic institution and medical institutions reftached to it are subjected to pathohistologic study.

Pathohistologic investigations are performed to define more exactly and confirm clinic diagnosis, to make diagnosis in subclinical cases, to diagnose the initial stages of a disease, inflammatory, hyperplastic and tumoral processes of various form and origin. Biopsy and operative material investigations allow to judge the efficacy of operation, dynamics of pathologic process, neoplasm as a result of treatment etc.

Objects to be investigated are delivered to the path anatomic bureau {department} immediately to ensure the timeliness of conclusions. It is not allowed to accumulate biopsy and operative material {scraping as well} in operating rooms. The operative material should be thoroughly marked: patient’s surname, his{her} initials, case
report, number the label is attached on the pot with the specimens. If several specimens of different patients are placed in one pot each of them is pleased into gauze and tied. The label from the dense paper, which is not sodden in liquid, is attached to the gauze. The surname and initials of a patient are written on the label with the pencil. If the specimen delivered from the department is unfit for investigation {dried off, rotted, frozen} it is not taken and the head of the depart meant is informed about this fact immediately.

A special blanc-order is filled in for the investigation of every specimen and is delivered to the path anatomic bureaus department. All columns of the blanc should be filled by a physical-clinic in that way the path anatomist, who will equerry out the investigation, has enough clinic information to evaluate morphological changes.

Besides clinical picture of a disease, there must be short information on anamnesis and treatment {common number of injected hypostatic, and hormonal preparations, the character of radiation therapy etc } and macroscopic description of the preparation on the blanc.

If the blank-order is not filled in proper way, the head department of the path anatomic bureau informs the head of the clinical department, where the specimen was delivered from about it. If such cases are repeated, he informs the head doctor of the hospital {the director of the institute}, assistant director on medical work.

It is strongly prohibited to divide the biopsy and operative material info parts and send to different path anatomic laboratories. In these cases morphological changes typical for the process {cancer, tuberculosis and other diseases} may be revealed only in one part of the specimen, and correspondingly the results will be different.
This may confuse the physician and do harm to the patient.

The physical who prescribes the investigation is responsible for delivering of the materials. It is delivered to the pathologic bureau {department} by somebody of the hospital personae. If the material cannot be sent at once after the operation for some reason or other, the surgeon who has performed the operation must ensure its proper fixation {in 10% formalin solution} and preservation. If the patient died during the operation or just after it, the excised organs together with the dead body are delivered to the path anatomic bureau {department}.

The personnel of the path anatomic bureau {department} bear the responsibility for the proper reception and preservation registration of the taken and treated material.

A laboratory assistant of the path anatomic bureau {department} receives the material delivered to the laboratory together with the blank-order. He check-up whether all columns are filled in completely and in a proper way and the correspondence of the received material to one indicated in the blanc.

Registration of biopsy and operative material is done by the laboratory assistant.

Its variant of registration: the registration book is introduced for every coming year. There are such columns in it: index number {numbering of investigations is begun every year from the very beginning}, the numbers correspond to the quantity of excised specimens from the object, data of receiving and data of investigation the material, patient’s full name, age the number of his/her case report, the object of studying, approximate clinic diagnosis, necessary clinic information about a patient,
histologist description of the preparation and clinic diagnosis, the receipt.

2nd variant of registration: patient’s passport data and corresponding number of investigation are written on the clean blanc. The results of macroscopic and microscopic investigations are written using carbon-paper. The copy of conclusion is sent to the medical institution and the original of the blanc is stitched and preserved in the ensures more efficient documentation, gives the possibility to generalize the results of biopsy work, to fill in all columns of the form in the path anatomic department expediently.

A pathologist carries out macroscopic investigation of the material, chooses the methods of is treatment, the ways of investigation and the necessary kinds of staining. To employ a laboratory assistant for this work is strictly forbidden.

The regular ordinal number is given to every investigation\{bloc, piece \}, which is written on the label. The label is put into the pot with studied material on the bloc when running with paraffin or celandine and is written on histological preparations. On the microscopic slides under the investigation number two last figures of the investigation year painted out as a decimal fraction.

The investigation of delivered specimens of tissue must be done in the following time:

a) the urgent biopsy-not late than 20-25min from the moment of material receipt;

b) diagnostic biopsy and operative material—for 4-5 days. The time of bone tissue treatment and biopsy, which requires additional methods of staining or consultations of highly skilled specialists, may be extended.

The copies of forms with the results of histological investigation are sent to the clinic departments \{make them
sign the document} and must be placed into the case reports.

Archives histological preparations and registration books are recommended to preserve for all time the path anatomic bureau {department} exists.

Depending on local conditions, histological preparations of veriform processes, hernia sacs, tonsils, scraping from uterine cavity after incomplete abortion are preserved for a year. When the term is over these preparations of begin and malignant tumors, tumor-like processes with suspicion of tumor growth and specific inflammation are preserved constantly. Cello din blocs are preserved in the pots in 70% alcoholic solution. There must be labels with the indicated numbers and the year of investigation the pots. For long-term preservation, of the material run with cello din, the latter is taken out of blocs, threaded together with the labels, on which the number and year of investigation is indicated, and put into 70% alcoholic solution. Paraffin blocs with corresponding marking are preserved in conditions, which prevent them from drying out {polyethylene knapsacks, cut off surface is run with paraffin}. Macro preparations or their pieces are preserved in 10% formalin solution for a year, then they can be destroyed.

It is recommended to preserve brain tumor specimens, malignant tumors of soft tissue and tumors, which are seldom met, in 10% formalin solution for all time the laboratory exists, if there are conditions for it.

Histological preparations or, if it is necessary the archives micro preparation, may be given to a patient or his\her relatives or medical institution, there is official Whitten inquiry of this institution. The corresponding application with in quire is written down in the registration book of histological investigations {in
accordance with the preparation number{and after return of these preparations, the record is crossed out. The medical institution, which the preparations were given to, must return them to the path anatomic bureau{department}.

An carrying out off histological investigation it is recommended the following

Amount of investigated material-malignant:

-uterine body cancer {uterine sarcoma etc}:tumor1-4; tumor border with unchanged tissues-2; uterine cervix-1; liver-2; two tubes-2; lymphatic nodes of parametric fat-3; momentous nodes{if there are some}-2; in all-10-14 specimens;

-uterine cervix cancer: cervix tumor-1; from uterine body-1; two ovaries-2; two tubes-2; lymphatic nodes of parametric fat-3; momentous {if there are some}-2; in all-11-15 specimens;

-benign processes in uterus {momma, endometriosis etc}: uterus-2; tubes-2-4; ovaries-2; Para ovarian cysts-1; in all-3-12 samples.

tumor of stomach : tumors-1-4; tumor border with unchanged tissues-1-2; lines of excision, superior and inferior-2; regional lymphatic nodes-1-3; in all-8-14 samples.

-ulcer of stomach: ulcer-margin, fundus-1-3; stomach wall-3; attached region-1-2; regional lymphatic nodes-3; in all 5-9.

-mammary gland: tumor-1-4; tumor border with unchanged tissues-1-2; tissue of mammary gland and attached regions-2-3; lymphatic nodes{by groups}-3; in all 7-4 specimens.

tumors of soft tissues: tumor-2-6; tumor border with attached tissues-1-3; in all 3-9 specimens.

-lungs {tumor}: tumor 1-5; tumor border with unchanged tissues-3; lung tissue with attached regions-2-3; regional lymphatic nodes-3; in all-8-15 specimens.
-lungs {purulent process}: 3-9 specimens.
-intestine with lymphatic nodes: 3-6 specimens.
-gullet: specimens excised in esophagoscopy – all ones.
-excised gullet with lymphatic nodes: 3-5 specimens.
-thyroid gland: from every lobe 1-2 specimens, in the case of nodular goiter 1-2 specimens from each node; lymphatic nodes 1-3 specimens in all 6-10 specimens.
-tumors of ovaries {in the case of extirpation of the uterus with tubes}- tumor specimens 2-3; uterine tube 1-2; from endometrial 2-3; momentous nodes {if there are some}-2-3; in all 8-13 specimens.
-larynx {tumor}-2; lymphatic nodes-2; in all 2-5 specimens.
-prostate: from every node 1-2 or all specimens as scraping when the material is removed by the method of transurethral electro resection.
-vermiform process is investigated either the whole by means of preparing unrolls or 1-3 specimens are excised from the most changed places and from the region, which is remote from the pathologic process zone.
-tonsils and lymphatic nodes, uteninecervix specimens, polyps and other tissues – every specimen is investigated separately.
-uterine tubes in the case of extra uterine pregnancy-1-3 specimens or more.
-gallbladder: 2-3 specimens from the wall or tumor, if there are lymphatic nodes-3, in all 2-6 specimens.
-as to other organs and tissues 2-3 specimens are excised from tumors or the region, affected by the pathologic process; in the case of simultaneous excision of lymphatic nodes are investigated if there are no macroscopic signs of tumor in them.
- the material of scrapings, including the gynecological investigations, aspiration and other kinds of biopsy, trepan biopsy, is completely investigated.

Preparation order of biopsy, operative and sectional material for histological investigation:

1. Tumors of skin are incised and excised in the way to give the possibility to evaluate changes in the centre and periphery of tumor and attached regions while investigating the histological preparation.

2. Before investigation the lungs are fixed for a day by bringing fixatives info bronchus under pressure from raised at the height of 25sm above the level of the table. The lung is run with fixative and covered with gauze or cotton wool. It there are tumors, incision are made along the probe introduced info the bronchus. Not only the regions of tumor but attached walls of bronchi and lung parenchyma but lymphatic nodes of the root of the lung are subjected to histological investigation as well.

3. The fixation of the larynx is done in the open state. The plates along the larynx with pathologic focus and adjacent mucous membrane are excised.

4. The organs of gastro enteric tract are incised along and straightened on the pasteboard and then they are fixed. Pathologic focus changes and condition of adjacent mucous membrane are described. In the specimens of gastric ulcer the search of its malignancy is purposefully carried on, that’s why it is necessary to investigate more quantity of histological sections 12n polyps the search of malignancy regions as indurations ulcers is carried out. When stomach resection is done to exclude duodenum ulcer, delivered preparation there may be the margin of this ulcer, than it is necessary to investigate the places of surgical intervention.
5. Vermiform processes are incised along or across in changed places. The content and changed regions of wall are investigated.
6. Operatively excised testes or their tepidity’s are cut along and boxed.
7. Prostate is cut along and specimens, which clued the walls of urethra and gland capsules, are taken for investigation. If there are tumor node {hyperplasia regions}, then specimens together with the regions of attached gland tissue are excised out of them.
8. The regions of sect oral resection of mammary gland after maceration are incised and examined. The size, density of nodes, content and state of walls of cysts are described. The regions of nodes with mottled pattern and walls of cysts are histological investigated. In every case some specimens with pathologic focus are excised.

In the case of mammary gland total resection, it is prepared from muscles, incised in parallel incisions, perpendicularly to the skin many times. Subcutaneous fat, in which lymphatic nodes are investigated, is incised too.
9. In extirpation of uterus with uterine appendages all excised organs including ovaries, tubes, uterine ligaments are investigated irrespective of presence or absence of pathologic changes in them. Uterine is incised in T-like incision at the front. The uterus size, cervical canal length, thickness of mucous membrane and muscular layer are measured. Uterine cervix is incised and investigated parallel to the cervical canal. In case of leiomyoma all revealed nodes irrespective of their quantity are investigated. The material of uterine cervix electro confiscation is wholly investigated.

Cystic tumors are incised remains of ovaries are found in their walls. Which are obligatory investigated together
bone wall in the regions of its density or villas vegetation.

Démodé cyst are fixed without solution. After release from content the cyst head is investigated. In dermatomes no less than 4-5 specimens are investigated to determine the character of possible tissue different ion.

10. For fixation the hypothesis is incised along capital line into two halves. One of them is histological investigated so that anterior and posterior lobes, hypothesis in fundable enter the sections. The second half is incised into two equal parts along frontal line. Sections for microscopic investigation are prepared along this line.

11. Thyroid gland is incised into plates by 0,5sm thickness with preservation of connection between them or intact and fixed. For histological investigation are taken:
a) in diffuse goiter and torridities-specimens from every lobe and isthmus, and from any fibrosis foci and mosaic structure;
b) in nodular gaiter-from all nodes obligatory with capsule and attached tissue, all zones of density are incised separately.

12. Adren glands are incised into plates of 0,2-0,3sm thickness lengthways with the preservation of connection between them. For investigation the samples in the region of hills are excised. They must obligatory have renal and medullar substance. If there is tumor the samples are excised together with attached tissue.

13. Prostate is incised lengthways into plates of 0,5sm thickness with the preservation of connection between them and fixed. For histological investigation specimens from the centre and found with attached tissue are taken.

14. For liver and spleen investigation tissue plates of 0,5sm thickness are excised along an organ and after fixation the specimens from the region of hills and
nearby capsule are taken. If there are pathologic with attached tissue.
15. Before the fixation lymphatic nodes are incised along curvature major.
  Material for investigation is taken from hills, the centre of node and periphery with capsule.
16. Excised specimens of brain are incised into plates of 0,5sm thickness. After fixation the specimens are excised from pathologically changed regions on the bound of them and unchanged tissue.
17. For bone investigation the plates of 0,5-0,7sm thickness are sawn. In some time these plates become desalinated. It is necessary to saw bones taking into accent pathologic foci {tumor nodes } and attached bone tissue. Soft tissue component is invest frigate without declination.

2. Review morphologic {histological} manifestations of principal pathologic processes.
  2) Questions for self-control of theoretical part of the lesson.
1. Determination of biopsy conception.
2. Kinds of biopsy…..
3. Techniques of biopsy material taking.
4. The rules of biopsy material delivery to histological laboratory.
5. The term of biopsy preparations and answer.
6. For of biopsy answer.
7. The rules of taking the material for biopsy investigation in various diseases:
   --mammary gland pathology;
   --stomach pathology;
   --intestine pathology;
   --ovary pathology.
8. Investigations of usual biopsy.
10. The rules and term of preservation of biopsy material.
11. Documentation of biopsy material.
12. Conservation and processing of investigated material.
13. ………….. and the rules of biopsy carrying out.
14. The biopsy importance in clinic diagnosis.
15. The stages of procession biopsy material processing.

3. ALGORITHM OF AUDITORIUM WORK

1. Take part in excision and preparation of operative and biopsy materials for histological investigation.
2. Evaluate morphologic manifestations of pathology in educational biopsy micro preparations.
3. Give answers to situation tasks.

TASK 1

Carry out clinicomorphlogic biopsy analysis using following data E., 45-year old, menstrual cycle is normal, is ill with chronic salinities, infertility. The objective examination shows diffuse in duration of the breast. There is a focal in duration of 5*2sm under the nipple of the left mammary gland.

The results of puncture biopsy: fibrocystic adenomatosis. The patient refused of operation. In 3months she consulted a doctor again about the enlargement of lymphatic nodes in the left supraclavicular region. The results of histological investigation of lymphatic node: vegetation of atypical glandular structures with pathologic mitosis in epithelial cells.
**TASK 2**

Carry out clinic morphological biopsy analysis according to all available date: N., 48 year-old, one normal delivery, 6 abortions. For 7 year she has suffering from caplpomycosis and cervical erosion. Biopsy investigation wasn’t carried out before.

The results of cytological investigations: the smear from posterior vault vagina has superficial cells of stratified squalors epithelium, a great number of leucocytes.

The results of histological investigation of biopsy material of uterine cervix: squalors cellular non-kurtosis epithelium with pathologic mitosis, atypical cells, infiltration growth.

Carry out clinic morphological biopsy analysis according to all available data: Sh., 38-year-old, is ill with conjunctivitis for a year. The treatment doesn’t give positive result. Clinic diagnosis: chronic conjunctivitis, blepharitis.

The results of histological investigation: there is leukocyte infiltration in conjunctiva, formation of inflammatory granule as with necrosis in the centre, giant macrophages - Lange Hans cells are met among lymphocytes, epithelia cells.

**TASK 3**

Carry out clinic morphological biopsy analysis according to all available date: K., 24-year-old, felt herself sick in 5 moths after delivery, she felt worse, her temperature elevated to 38C, she had cough of blood spitting. The patient expectorated a piece of dark-red loose tissue. Clinic diagnosis: bilateral focal pneumonia. The result of histological investigation blood spitting, a great number of trophoblast cells with numerous atypical mitosis, absence of growth boundaries, absence of vessels, sanctum of polygonal form and size.
TASK 4

Carry out clinic morphological biopsy analysis according to all available data: F., 34-year-old, has chronic tonsillitis in anamnesis. The patient observed the enlargement of cervical lymph nodes, asthenia, sub febrile temperature. Clinic diagnosis: chronic tonsillitis, non-specific lymphadenitis.

The results of histological investigation: the palter of lymph nodes is poorly defined, proliferation of young lymphoblast, large multinucleate cells, focal sclerosis and halitosis.

TASK 5

Carry out clinic morphological biopsy analysis according to all available data: on examination of the patient D., 33-year-old, fibrous-cyst displaces of mammary gland was made to make the diagnosis more exact.

The results of histological investigations. Vegetation of light atypical glandular major cells with numerous pathologic mitosis, inner duct growth without well defined out line boundary.

TASK 6

Carry out clinic morphological biopsy analysis according to all available data: U., 58-year-old, is all with ulcerative disease of the stomach. It is known that ulcer is in the pyloric department of stomach. The patient has lost his weight considerably for the last two months, he often vomits spasms has appeared recently. The skin is dry, grey. Clinic diagnosis: chronic stomach ulcer with malignancy. During the operation the tissue specimen from the fungus of the ulcer was taken for histological investigation.
The results of histological investigation: diffuse vegetation of fibrous tissue in the ulcer funds and surrounding regions of stomach wall.

**TASK 7**

Carry out clinic morphological biopsy analysis according to all available data: the patient C., 48-year-old, consulted a gynecologist about uterine bleeding, which is not connected with menstruation. To make the diagnosis and method of treatment, curettage from the uterine was sent for histological investigation.

The results of histological investigation: vegetation of endometrial glands, change of their forms and size, regions of proliferation of epithelial cells, active reaction of storm. In some places the glands are coiled and form cysts.

**TASK 8**

Carry out clinic morphological biopsy analysis according to all available data: the patient G., 46 – year-old, has been suffering from ulcerative disease of the stomach for 12 years.

He has recently complained about pains in the region of stomach, much weight loss. Clinic diagnosis: chronic stomach ulcer in the stage of exacerbation.

The results of histological investigation: on the ulcer fundus there are regions of fibrinoid necrosis, zone cellular infiltration. Vegetation of atypical glandular epithelium with numerous pathologic mitosis can be seen near the margins of the ulcer and mucous membrane.
**TASK 9**

Carry out clinic morphological biopsy analysis according to all available data: during the preventive examination the gynecologist revealed the signs of cervical erosion. The material was send to the logical laboratory.

The results of histological investigation: vegetation of glandular epithelium in the vaginal part of uterine cervix. Defects on the mucous surface are not revealed.

**TASK 10**

Carry out clinic morphological biopsy analysis according to all available data: the patient A., 52–year-old, has been suffering from ovarian-menstrual cycle disturbance for 4 years. A year ago she palpated the tumour in the left mammary gland. Clinic investigation revealed: the tumor was dens, tuberous its size was 3-8 sm, it iosculated den sly with surrounding tissues. For the last two months the patient noted hemorrhagic fluid discharge in small quantity from mammary gland nipple. Clinic diagnosis: fibrous cyst mastopathat.

The results of cytologic investigation: atypical epithelial cells and blood elements were found.

Histologic express-diagnosis showed fibrous-cystic fibroadenomatosis with proliferation: vegetation of atypical glandular epithelial structures with numerous pathologic mitosis, cellular atypism, infiltration growth of the nipple.

**TASK 11**

Carry out clinic morphological biopsy analysis according to all available data: the patient N., 25-year-old, was admitted to the gynecological department on suspicion of extra uterine pregnancy. Before the operation the patient was made diagnostic scraping from the uterine cavity.

The result of Histologic investigation: endometrium hyperplasia, blood clots decidual tissue, chorion villi.
**TASK 12**

Carry out clinic morphological biopsy analysis according to all available data: patient A., 68-year-old, was admitted to the surgical department with the diagnosis of rectum numerous polyposis, one polyp was excised during the operation and the material was send for Histologic investigation.

The results of pathologoanatomic investigation: glandular polyp. In 10 months the patient was admitted to the surgical department again. He complained of difficult evacuation of bowel, abdominal pain, weight loss, blood in feces.

Clinic diagnosis: rectum cancer with vegetation into neighbouring organs.

The results of histological investigation: vegetation of glandular epithelium with numerous pathologic mitosis, infiltration growth.

**TASK 13**

Carry out clinic morphological biopsy analysis according to all available data: the patient 48-year-old, was treated with lung lesion in the TB dispensary X-ray survey showed lung shadow with distained foundries.

The results of cytological investigation of spitting: neutrophilic leukocytes, solitary macrophages; atypical cells are not found.

The results of pathologoanatomic investigation of mammary biopsy material from the main left bronchus: squamous epithelium vegetation. Without signs of keratinazation with numerous pathologic mitosis, epithelial cells of polygonae froms and size with infiltration growth.
**TASK 14**

Carry out clinic morphological biopsy analysis according to all available data: the patient N., 26-year-old, was operated with acute appendicitis. Clinic diagnosis: acute phlegmonous appendicitis.

The results of histological investigation: vegetation of basophilic structures with the signs of active proliferation, solitary pathologic mitosis, infiltration growth.

**TASK 15**

Carry out clinic morphological biopsy analysis according to all available data: the patient C., 49-year-old, fibrogastroscopic investigation with ulcerative disease of stomach was conducted. The specimen of was taken from the fundus of ulcer for Histologic investigation.

Clinic diagnosis: ulcerative disease of stomach.

The results of histological investigation: vegetation of atypical glandular cricoids sells (in the from of ) with numerous pathologic mitosis, infiltration growth into the stomach wall.

**TASK 16**

Carry out clinic morphological biopsy analysis according to all available data: the patient N., 22-year-old, was admitted to the in-patient department with the complains of fever, weight loss, asthenia, enlargement of lymph cervical nodes.

Blood count showed no deviation from the norm ESR – 49 mm/h.

X – ray study of lungs revealed expansion of their hilus as a result of enlargement of lymph nodes. One of the cervical lymph nodes was taken for Histologic investigation.

The results of histological investigation in the lymph nodes tissue granulematous inflammation were found. This
inflammation manifests with epithelioid cells, lymphocytes, Pirogov – Langerhans cells.

**TASK 17**

Carry out clinic morphological biopsy analysis according to all available data: the patient N., 34-year-old, was admitted to the hospital with complaints of fever, weight loss, asthenia, enlargement of lymph cervical nodes.

Blood count showed no deviation from the norm ESR – 58 mm/h.

X-ray study of thoracic organs revealed enlargement of mediastinum lymph nodes. A cervical lymph nodes was sent for Histologic investigation.

The results of histological investigation lymph nodes pattern is not clear as a result of vegetation of atypical?

**TASK 18**

Carry out clinic morphological biopsy analysis according to all available data: the patient N., 46-year-old, was admitted to the in-patient department. He complained of asthenia, weight loss, enlargement of cervical and subclavicular lymph nodes.

Blood count revealed mild anemia, ESR – 39 mm/h. subclavicular lymph node was sent for histological investigation.

The results of histological investigation lymph nodes pattern is not clear, there is diffuse vegetation of atypical glandular structures in tissue with pathologic mitosis in epithelial cells.

4. Discussion of main conceptions of the theme