

Forensic medicine.

Part 1. Subject, task and history of forensic medicine.

Organizational and procedural basics of forensic medical examination.

Forensic-medical thanatology. Forensic-medical traumatology.

Estimation the corpse at the scene of crime.

Forensic-medical examination of the corpse

Theme 2. Organizational and procedural basics of forensic-medical examinations

Guidelines for students and interns



Судова медицина.

Розділ 1. Предмет, завдання і історія розвитку судової медицини. Організаційні та процесуальні основи судово-медичної експертизи. Судово-медична танатологія. Судово-медична травматологія. Огляд трупа на місці події.

Судово-медична експертиза трупа

Тема 2. Організаційно-процесуальні засади проведення судово-медичної експертизи

***Методичні вказівки
для студентів та лікарів інтернів***

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
Харківський національний медичний університет

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Substantiation of the Topic. Forensic medicine is a subdivision of medicine that studies questions in medical and biological character arising during the activities of judicial-investigating agencies. The forensic medicine is an independent medical science studying a certain scope of questions and having specific research methods in order to answer these questions.

Duration of practical classes: 4 academic hours

Purpose of the Practical Class: To study the subject and tasks of forensic medicine, to know branches of forensic medicine, to study legal aspects of the forensic medical experts' work.

Direct purpose of study:

1. To learn general information about forensic-medical examination.
2. To study legal regulations of forensic medical work; the necessary documentation, its structure, the documents' creation order.
3. To know duties and rights of forensic medical expert.
4. To prepare forensic medical conclusion.

Basic level of knowledge and skills (before the practical class):

1. General information on autopsy;
2. Principles of the death development;
3. An essence about trauma and traumatism.

Visual Aids and Material Tools

1. Laws regulating forensic medical work, autopsy reports;
2. Studying tables, photos, and video.

Technological card of carrying out the practical classes

№	Level	Time, min	Manuals	Place
1	Control the initial level of knowledge on the topic	15	Oral answering	Classroom
2	Analysis of the scheme of forensic medical expert's duties and responsibilities	15	Tables with scheme	Classroom
3	Studying the laws regulating the work of forensic medical expert	35	Criminal Procedure Code, Laws	Classroom
4	Analysis of forensic medical experts' documentation	35	Autopsy reports, Death certificate	Classroom
5	The examination - situational tasks	30	Situational tasks	Classroom
6	Class summarizing	5	-	Classroom

BLOCK OF INFORMATION

The forensic medicine is linked to medical sciences, such as pathological pharmacology, surgery, physiology, histology, and traumatology. As a medical science, it applies laboratory analysis, radiological, microbiological, and physicochemical tests.

Sections of forensic medicine include:

Rules and regulations, medico-legal thanatology, medico-legal obstetrics, medico-legal traumatology, medico-legal sexology, sudden death, simulated and artificial diseases, medico-legal toxicology, medico-legal identification of the person, medico-legal deontology, medico-legal research of material evidences, medico-legal examination of alive persons.

The purposes and tasks of forensic medicine are both – theoretical studying of problems and practical application are determined by matters dealt by investigating agencies and court in each particular case.

Forensic medical examination is scientifically-practical research by the forensic medical expert on the basis of knowledge of medico biological character made under the decision or a direction of judicial-investigatory agencies, for drawing up of the conclusion concerning questions of medical and biological character arising during the activities of judicial-investigating agencies.

The concept of forensic medical examination implies realization of knowledge of various medical and non-medical sciences in research of objects of forensic medicine and facts of a criminal or a civil case with observance of the legal rules in action, and drawing a conclusion for the investigation bodies and court.

Forensic medical expert (also medico-legal expert) is the individual having the doctor degree who has passed a special training and works as a forensic medical expert in the bureau of medico-legal examinations.

Doctor-expert is any doctor (of any specialty) who could be involved by prejudicial inquiry investigators, inquiry investigators, or by court to perform functions of medico-legal expert.

Medical-expert in forensic medicine is the individual who is engaged by the inquiry investigator to perform the forensic medical examination of a corpse on the place where that corpse has been found; this individual can be the one having full-time job as a forensic medical expert, as well as any other specialty's doctor.

Forensic-medical examination's *objects*: a corpse, the living person, material of cases, material evidences.

The kinds of medico-legal examination:

Initial – it is a medico-legal research of the subject with the conclusion based on its results; it is carried out first.

Additional – it resolves the questions arising because of insufficient clearness or incompleteness of the initial medico-legal conclusion, in case new data of preliminary investigation are obtained.

Repeated (second) – it is carried out if the conclusion of initial examination is inconsistent or doubtful (it is entrusted to another expert or other experts).

Commission – it is carried out in difficult criminal cases with participation of several specialists - doctors (usually when medical workers are brought to criminal account for professional offence).

Complex Examination – it is provided with participation of experts of various branches of science and technology (chemists, criminalists, motor technicians, etc.).

Legal regulation of Medico-Legal Service

The procedure of forensic medical examination is defined by the Rules, the instruction of carrying out forensic-medical examinations confirmed by the Order N 6 of Health Ministry of Ukraine dated 17.01.95 and a number of special articles of Criminal, Criminal-Procedural, Civil and Civil-Procedural Codes of Ukraine, law of forensic examination.

According to Criminal Procedure Code of Ukraine, Examination is assigned when scientific, technical or other kinds of special knowledge are necessary for decision on certain investigation matters. Forensic medical examination is necessarily in cases as stated below:

- Establishment of the causes of death;
- Establishment of gravity and character of physical injuries;
- Establishment of a sexual maturity of the victim in cases provided by Article 155 CC (Sexual intercourse with a sexually immature person);
- Establishment of age (as referred to criminal liability);
- Mental condition (forensic psychiatric examination).

Forensic medical examination, as well as other kinds of examinations (accounting, motor-technical, criminalistics), is performed under a written offer to investigation or judicial bodies.

Rights, duties, responsibility of forensic medical expert

For successful performance of the expert task, The Criminal-Procedural Code of Ukraine stipulates the rights, duties and responsibilities of the expert.

In judicial sitting, the expert can be invited by court or under the application of the prosecutor, the defender, the defendant.

Forensic medical expert has the RIGHTS as stated below:

1. To get acquainted with the case materials and to make notes to draw a conclusion before the beginning of sitting.
2. To declare a petition for granting additional materials to him or her, if such materials are necessary for drawing the conclusion.
3. To put questions to court, the defender, the accused, the witnesses.
4. To consult experts of all medical branches, with highly skilled experts.
5. With the sanction of the person making inquiry, the investigator, the public prosecutor or court, to be present during interrogation and other investigation actions and, in concern of the subject of examination, to put questions to persons being interrogated.

6. To receive compensation for expertise services, except for those cases when these services are carried out according to the duty task.

7. If for judicial sitting several experts are invited, they have the right to confer with each other and produce one conclusion. If their opinions have not coincided, the doctors produce separate conclusions.

8. The expert, unlike the witness, stays in court room during the whole period of sitting.

The professional rights stipulated by the law of Ukraine "The bases of the legislation of Ukraine about health-care" and the law "on public service" are distributed to medico-legal experts.

Medico-legal experts are subject to obligatory state insurance in the case of disease on AIDS.

The forensic medical expert is OBLIGED:

1. To be on call of the person making inquiry, the investigator, the public prosecutor, and court.

2. To draw the objective conclusion on the questions raised to him.

3. To carry out the expert research, present the conclusion in written form, and sign it.

4. If the question falls outside the limits of special knowledge of the expert or the materials given to him are insufficient for drawing the conclusion, the expert informs, in written form, the body that has assigned the examination on impossibility to draw the conclusion.

5. As the fiduciary, to keep the data of investigation or inquiry.

RESPONSIBILITIES of the forensic medical expert:

At assignment of examination, the expert carries the criminal liability (OC of Ukraine) in the following cases:

- Refusal of the expert to perform his or her duties (Article 385);
- Disclosure of information in the period of pretrial investigation or inquiry (Article 387);
- Knowingly false testimony (Article 384).

The state guarantees independence of the expert and correctness of his or her conclusion that is provided by:

1. The order of assignment of the expert;
2. Interdiction of anyone's interference in carrying out the examination;
3. Existence of establishments of the forensic examination separated from the bodies of inquiry and preliminary investigation;
4. The criminal liability of the expert for knowingly false testimony;
5. Opportunity of assignment of repeated examination;
6. Presence of the process participants at the examination being carrying out.

Structure of medico-legal service in Ukraine

The supreme establishment of forensic medicine is the Main Forensic Medical Examination Bureau of Ukraine that provides scientific, practical and organizational management. The medico-legal service is submitted by a network of establishments – the Bureau of Examination, subordinate to the Health Ministry of Ukraine. The Bureau of forensic medical examination resides only in the regional centres of the country.

The Bureau of forensic medical examination has the following basic Departments:

- Department of examination of corpses (thanatological),
- Examinations of alive persons: suffering, accused and others,
- Department of duty forensic medical experts,
- Maintenance department,
- Department of commission examinations,
- Organizational and methodical department,
- Department of Examination of Material Evidences (Forensic Medical

Laboratory).

The forensic laboratory has 5 branches: Forensic Medical Histological, Forensic Medical Cytological, Forensic Medical Immunological, Forensic Medical Toxicological, and Medico-Criminalistics.

The departments and branches of the Bureau of medico-legal examination perform medico-legal examinations or researches of appropriate objects.

The Department of examination of corpses performs medico-legal examinations with the purpose of establishment the reason of death, character and process of occurrence of physical injuries, the time of death, etc.

The Department of examination of living persons performs medico-legal examinations with the purpose of establishment of the presence of physical injuries, definition of their gravity, in case of sexual crimes – definition of a disputable sexual condition, etc.

The Department of commission examinations is in charge of elimination of contradictions between the earlier examination and other materials involved in the investigation, in case of inconsistency of conclusions or doubts as for correctness of examination; this department also deals with establishment of the time of conception, ability to fertilization, percent of loss of professional working capability and correctness of rendering of medical aid in case of bringing medical workers to criminal account for professional offences.

MEDICO-LEGAL DOCUMENTATION

Medical death certificate

Once a doctor has decided that a person is dead, and then further action depends partly on the legal system of the particular country – and partly upon the nature of the death. Although wide variations in procedure exist between different states – and even sometimes between different parts of the same state –

there are general principles, which are broadly similar. Usually, the doctor is required to issue a certificate of the medical cause of death, often called the *Medical Death Certificate*. An internationally standard system of certifying the cause of death has been adopted by almost all countries. The World Health Organization (WHO) recommends the following system.

The medical death certificate is subdivided into: the *first part* that describes the state that directly led to death and the *second part* that describes additional conditions which are not connected with first part, but which also connected with the death.

First part is divided into 3 subdivisions which are linked to each other: "A" subdivision is caused by the "B" subdivision which is caused by "C" subdivision. Despite the fact that only 3 subdivisions are written on death certificates, the doctor can increase the quantity of letters manually – add "D", "E" subdivisions, etc., if he thinks that it is necessary.

It is very important to understand the sequence of parts: the last letter of 1st part is the main cause of death, and is the one taken for statistical in assembling the mortality numbers. That is why it is important for the medical expert or any other doctor to ensure this least subdivision of the first part to be the main condition which lead to death and not just a way of death.

For example, a satisfactory certificate might look like:

I. a) *Acute anaemia of internal organs.*

b) *Multiple (7) fractures of bones and ribs accompanied by injuries of lungs' tissue.*

c) *Blunt trauma of the thorax.*

II. *Chronic cystitis. Code: S 22.4.0*

There is no need whatsoever to complete all three lines of Part (I), as long as the lowest entry gives the basic pathological disease.

It is unnecessary, though not incorrect, to include modes of death, even if the underlying cause is given, e.g.:

I. a) *Poisoning by ethyl alcohol,*

b) *Toxic action of ethyl alcohol,*

II. *Bronchopneumonia.*

Code: T 51.0

Both these give no information as to the underlying disease process and should be further qualified with the basic pathological process. Even "bronchopneumonia" is unsatisfactory on its own, as this is always a terminal condition in a patient suffering from some other debilitating disease and is unhelpful as a contribution to mortality statistics.

Doctors use the second part to write down the minor pathological condition which is not connected with death. The second part is frequently used when providing examinations of aged patients' corpses, where multiple pathology is often present and it is hard to choose the main cause of death.

The World Health Organization in its *International Classification of Disease (ICD)* categorizes all illnesses which could be used in both a death certificate and clinical diagnosis. Each of many thousands conditions/illnesses are given in a 4-digit number. It is possible to use that number to extract or record the data. Thus, that universal coding could be used all around the globe. Also, there is the "E-code", which is more related to the forensic medicine, because the "E-code" has a suitable digit for all types of violent deaths, or so-called "manner of death", for example drowning, stabbed wounds, traffic accidents, firearm injury, falling, etc.

In some countries, the doctor is expected to include the manner of death on his death certificate, as advocated by the World Health Organization in its useful booklet called *Medical Death Certificate*. However, in most advanced countries with an efficient investigative system, this decision about the manner of death is the duty of the legal authorities, rather than the doctor.

Medico-Legal Report «Conclusion of the Expert»

The medico-legal document (Report) the «Conclusion of the Expert» consists of the 1) Introduction which include briefly-described circumstances of case, 2) Examination part and 3) Final diagnosis, conclusions.

The scheme of medico-legal report

I. Data, which is stated on the title:

- Time (date and hour) of examination.
- The conditions important for expert examination (light, temperature of air, etc.).
- The reason of autopsy (the decision or direction).
- Place of examination.
- Name of the expert, his/her post (position), education, specialty and the experience of work, qualifying category, academic degree.
- Name of died person and his/her age (year of birth).
- The persons, who are present on examination.

The data stated on the subsequent sheets of "Protocol":

The list of the questions to examination.

Circumstances of case (preliminary data), which include: (1) Place of detection of a corpse; (2) position (pose) of a corpse; (3) condition of clothes; (4) character of post-mortem changes; (5) data about damages on a corpse; (6) character of material evidences; (7) conditions of approach of death (from documents).

II. Research Part:

External examination:

1. The description of clothes: its kind, colour, quality, a degree of a deterioration, contents of pockets, traces of extraneous substances (dust, dirt, stains) and its location, form, sizes; damages and its location, character, sizes, and other features.

2. Sex, age, length of the body (in centimetres), an anatomical constitution, level of fatness.

3. Common colour of an integument (deathly pale, pale-grey, swarthy, etc.), its elasticity, maceration, "goose skin", dirtying of the skin (blood stains, traces of vomit masses, traces of sand, ground, etc.).

4. Temperature of corpse at palpation (warm, tepid, cold) in various areas of the body – opened and covered by clothes, on the sites of a body adjoining with each other (axillary's areas, internal surface of thighs). Temperature in rectum.

5. Post-mortem lividity – location, prevalence (poured, in the form of separate stains), colour. Change of post-mortem lividity at pressing and time of its restoration.

6. *Rigor mortis*.

7. Putrefactive changes (if they are present).

8. Hair of the head - length, colour, condition.

9. Face – puffy, colour of skin, haemorrhages.

10. Eyes – closed, opened; colour, haemorrhages; corneas – transparent, muddy; pupils – the form and diameter (in centimetres); presence of spots.

11. Condition of bones of face skeleton at palpation. Contents of nasal ducts.

12. Mouth – opened; presence of foam near the orifice of the mouth, condition and colour of lips and a mucous membrane.

13. Condition of teeth – denture (teeth are described according to the dental scheme). Position of tongue (over or behind the teeth level). Condition and colour of mucous membrane of lips and gums. Damages of teeth, gums, presence or absence of haemorrhages.

14. Ears – condition of auricles (colour, damages), external acoustic ducts (dirtying, excretions, etc.).

15. Neck – long, short, damages (grazes, bruises, wounds, etc.).

16. Thorax – form (cylindrical, conic, barrel [emphysematous] chest), symmetry of its structure, integrity of ribs at palpation.

17. Mammary glands – size, form, consistence; colour and condition of nipples; nipple excretions – colour, character, amount.

18. Abdomen – form (equal, involved), colour of the skin of abdomen, hernia of *linea alba*, umbilical, inguinal, its sizes, features.

19. External genitals – degree and type of hair distribution, correctness of development of external genitals, damages. At corpses of men – excretions of sperm and urine from urethra, parchment spots on the skin of scrotum; at corpses of women – excretions from vagina, colour of mucous membrane of vagina, condition of hymen, urethra.

20. Anus – gaping, closeness, condition of surrounding skin (clean or dirty), haemorrhoid (if are available).

21. Back – condition of an integument, curvature of backbone, integrity of bones at palpation.

22. Upper and lower extremities – correctness of development, integrity of bones, the form of fingers of hands, nails, changes of the skin, etc.

In case of detection of injuries, it is necessary to describe under the standard scheme (see above). The description of injuries can be made on a course of the description of body parts or to allocate in separate subitem in the end of "External examination".

Internal examination:

23. Soft tissues of the head – colour, haemorrhages (its localization, sizes and colour).

24. Bones of the skull – its integrity, thickness of bones (frontal, temporal, occipital), an index of a skull (the cross-section and longitudinal sizes), and fractures of bones.

25. Dura mater – its integrity, colour, degree of filling of vessels, contents and a degree of blood filling of venous sinus of dura mater, condition of blood in it (liquid, clots).

26. Soft cerebral membranes – transparency, humidity, shine, thickness, degree of blood filling of vessels, haemorrhages - localization, peculiarities.

27. Brain – weight, symmetry of hemispheres, condition of convolutions and sulci, consistence of brain tissue. Condition of cerebral circulation (vessels of the brain basis). Contents of brain ventricles, colour of liquid, its amount, vascular textures, blood filling and colour. A kind of white and grey matter on section, figure of a structure, clearness of border between white and grey matter, shine, humidity, blood drops and strips, its amount. Condition of IV ventricle, cerebellum, medulla. Focal changes of brain - softening, tumours, haemorrhages (localization, sizes, type, and colour).

28. Hypophysis – size, density, colour.

29. Sinuses of sphenoid, frontal bones, contents of cavities.

30. Presence or absence of haemorrhages in soft tissues of the Neck, Chest and Abdomen; blood filling of venous vessels of the Neck.

31. The thickness of fatty tissue in the areas of chest and abdomen, its colour.

32. Muscles, degree of development, colour, shine.

33. Level of standing of the Diaphragm.

34. Location of internal organs (normal, abnormal).

35. Contents of Pleural cavities – pleural adhesions, congestion of a liquid, its volume and character.

36. Pericardium – contents (volume and colour of liquid) and character.

37. Condition of peritoneum – humidity, colour, shine, colour of serous membranes of Intestine; contents of abdominal cavity (volume, colour, transparency); condition of Intestines (swelling, collapse). Condition of ventral mesentery, lymph nodes, vessels of ventral mesentery, necrosis and haemorrhages in mesentery. Condition of appendix, mesocolon.

38. Tongue – colour of the mucous membrane; edge, tip, prints of teeth (bites), patch, lingual papilla, haemorrhages in muscles (on sections).

39. The sizes of tonsils, its surface, density, colour on section.

40. Condition of entrance in larynx and oesophagus (blocked or not blocked), condition of the mucous membrane of pharynx.

41. Hyoid bone and laryngeal cartilages - integrity, fractures and haemorrhages.

42. Thyroid gland – size of each lobe (three sizes), density, colour, condition of a surface on section.

43. Thymus – three sizes, weight, consistence, colour on section.

44. Contents of respiratory tracts (colour, viscosity, and foam), colour of a mucous membrane of the throat, trachea and bronchi, presence of haemorrhages.

45. Paratracheal and bronchial lymph nodes - size, density, colour.

46. Lungs – colour of the surface; condition of the pleura – transparency, smoothness, thickenings, haemorrhages under the pleura (Tardieu spots, etc.); air filling of tissues at palpation, crunch at pressing. Colour of lungs on section, size and character of dense foci. Volume and character of blood and liquid flowing down from surface of sections (foamy liquid, blood, mucus, pus, contents of stomach, etc.), weight of lungs.

47. Heart – three sizes, cross-section and longitudinal circles, form, fat on surface and its thickness. Density of muscles of heart at palpation. Haemorrhages under epicardium (Tardieu spots, etc.). Contents of cardiac cavities (liquid blood, blood clots, thrombi etc.), condition of all cardiac valves and large vessels (transparency, thickenings, colour); papillary muscles; tendinous cords. Endocardium peculiarities (transparency, smoothness, presence under it of haemorrhages - Minakov's spots, etc.). Thickness of right and left ventricles. Condition of cardiac muscle on section - colour, shine, presence of connective tissue and scars. Condition of coronal arteries (narrowed, dilated), presence or absence of atherosclerotic plaques in internal membrane of vessels; area of lesions; degree of narrowing of vessels (in percentage). Weight of heart, weight of right and left ventricles, ventricular index.

48. Aorta – colour and smoothness of internal membrane, circle of aorta above valves, character of atherosclerotic plaques.

49. Spleen – three sizes, weight, character of capsule (wrinkled, strained, thick); consistence at palpation, colour on section, character and volume of a scrape.

50. Adrenal glands – sizes, colour of cortical and medullar substance on section, clearness of its border.

51. Kidneys – three sizes, weight (right and left separately), capsule is hardly or easy removed from kidneys, surface of kidneys (smooth, granular, lobular), its colour and character on section, character of border between cortical and medullar substance, its thickness and colour. Colour of mucous membrane of pelvis, its contents.

52. Ureteral patency, width of its lumen.

53. Degree of filling of the urinary bladder, volume of urine (in millilitres), colour, transparency, colour of the mucous membrane, haemorrhages.
54. Prostate gland – sizes, density, colour, surface on section.
55. Testicles – sizes, consistence, colour on section, condition and colour of membranes.
56. Condition and colour of the mucous membrane of vagina, damages.
57. Uterus – sizes (length, width and thickness of uteri body), contents of uterus cavity, colour of the mucous membrane of the body and cervix of the uterus.
58. Ovaries – size, form, colour on section, condition of follicular and stromal compartment.
59. Oesophagus – contents, colour, condition of mucous membrane.
60. Stomach – contents, colour, condition of mucous membrane.
61. Gallbladder – sizes, condition of bilious ways, volume of bile, its colour and density, condition of the mucous membrane.
62. Liver – 4 sizes (length, width of the right and left lobes, height), character of edges, surface (smooth, rough), capsule, colour of surface and on section, weight of liver.
63. Pancreas – sizes (length, width, thicknesses), colour, structure, density, weight.
64. Small intestine – contents, colour, condition of mucous membrane.
65. Large intestine – contents, colour, condition of mucous membrane.
66. Bones of the skeleton:
67. Presence of smell from cavities and organs of corpse.
68. The list of organs, referring on laboratorial examination (toxicological, histological, etc.).
69. The list of organs or their parts, which withdrawn for scientific, educational, medical and other purposes.
70. The list of material evidences revealed during examination.

Forensic Medical Expert (*Signature*)

Results of Laboratory Researches.

III. Forensic medical diagnosis could include:

1. Main disease/injury with the list of the signs that confirm the diagnosis which was given.
2. Sequelae of the main disease/injury which were causally linked with the death.
3. Concomitant conditions – diseases/injuries not pertaining to the cause of death.

Conclusion:

The conclusion as to the cause of death must be given, based on the post-mortem findings. This is followed by the signature and qualifications of the forensic medical expert. Conclusions are made according to questions of investigators.

Forensic Medical Expert (Signature)

Appendix (*photos, schemes, etc.*).

Requirements shown to drawing up of the medico-legal report

1. It is made in a state language
2. Reductions are not supposed
3. All measurements are resulted in cm, g, ml
4. It is made in simple accessible language for judicial-investigatory bodies
5. Latin use is not supposed
6. It is made in a typewritten kind
7. Text corrections are not supposed

Requirements shown to the forensic-medical conclusion

1. Scientific validity
2. Motivation
3. Objectivity, conformity to the fact sheet
4. It is made by simple, accessible language for judicial-investigatory bodies
5. Should not fall outside the limits special medical knowledge

Social-Legal Classification of Circumstances of Death

Categories of circumstances of death can be *violent* and *non-violent*. The *violent* death occurs due to action of environmental factors. Manner of violence falls under one of several categories:

- suicidal,
- homicidal,
- accidental,
- undetermined or unexplained origin.

The *non-violent* death is caused only by the internal reasons that are diseases. As for the manners of death, the non-violent death comprises sudden death, death from diseases and physiological death.

Reasons of Forensic Autopsy

1. Violent death or marks of suspicion of it;
2. Sudden death with the unascertained diagnosis;
3. The cause of death is unknown;
4. Death of unknown persons;
5. Death in hospital at the unascertained diagnosis and at marks of suspicion on a violent death;
6. Death in hospital at the established diagnosis, but there are complaints on wrong actions of the medical personnel.

Objects of Forensic Autopsy

- the identity of the body;
- the cause of death;
- the nature and number of injuries;

- the time of death;
- the presence of poisons;
- the expectation of duration of life for insurance purposes;
- the presence of natural disease and its contribution to death, especially where there is also trauma;
- the interpretation of injuries, either criminal, suicidal or accidental;
- the interpretation of any other, unnatural conditions, including those associated with surgical or medical procedures;
 - the collection of evidence in order to identify the object causing death and to identify the criminal;
 - in newborn infants to determine the question of live birth and viability, etc.

QUESTIONS FOR STUDENT'S INDEPENDENT WORK

1. The stages of development of forensic medicine, the contribution of individual scientists at each stage.
2. Sections of Forensic Medicine.
3. The regulations on forensic medical examination.
4. Functions of structural units in the bureau of forensic medical examination.
5. Legislative norms regarding the appointment and conducting forensic examination.
6. Duties and responsibilities of forensic medical expert.
7. Rights of forensic medical expert.
8. Types of forensic medical examination.
9. The structure of Medical Death Certificate.
10. The structure of Medico-Legal Report.

TESTS AND SITUATIONAL TASKS FOR SELF-ASSESSMENT

- 1. The evidence in the case according to Criminal Procedure Code is:**
 - A. *Expert conclusion (report).*
 - B. *Indictment (conclusion).*
- 2. The expert concludes:**
 - A. *On behalf of Bureau of Forensic Medical Examination.*
 - B. *On behalf of him.*
- 3. The right to initiate a criminal case belongs to:**
 - A. *Investigator.*
 - B. *Cabinet of Ministers with the permission of the Supreme Court.*
 - C. *Parliament.*
 - D. *Head of the State Administration.*
- 4. Who has the right to collect evidence of a case?**
 - A. *Accused person and his lawyer.*
 - B. *Forensic medical expert.*
 - C. *Investigator.*

5. In what field of knowledge a judicial expert should have a special knowledge?

A. Law.

B. Science and Technology.

ANSWERS

1 – A; 2 – B; 3 – A; 4 – C; 5 – B.

After the practical class every student should know:

1. Concept, meaning and purpose of forensic medical examination.
2. Legal framework for conducting forensic medical examinations.
3. Duties of forensic expert.
4. Structure of Medico-Legal Report.

Should be able to:

1. To explain the principles of organization of forensic medical examination.
2. To interpret the legislative provisions regarding the appointment and conduct of forensic medical examination.
3. To know the functions of structural units in the Forensic Medical Examination Bureau.



BIBLIOGRAPHY

Basic:

1. Mykhailychenko B. V. Forensic Medicine : textbook / B. V. Mykhailychenko, A.M. Biliakov, I.G. Savka ; edited by B. V. Mykhailychenko. – Kyiv : AUS Medicine Publishing, 2017. – 224 p.
2. Franchuk V. V. Forensic Medicine: practical guide / V. V. Franchuk. – Ternopil : TSMU, 2011. – 204 p.
3. Babanin A. A. Forensic medicine : textbook / A. A. Babanin, O. V. Belovitsky, O. Yu. Skrebova. – Simferopol, 2007. – 464 p.

Additional:

1. DiMaio V. J. Forensic Pathology, Second Edition (Hardcover) / V. J. DiMaio, D. DiMaio. – Boca Raton : CRC Press, 2001. – 592 p.
2. McLay W. D. S. Clinical Forensic Medicine 2E / W. D. S. McLay. – London : Greenwich Medical Media, 1996. – 336 p.
3. Jason P. Forensic Medicine: Clinical and Pathological Aspects / P. Jason, B. Anthony, S. William. – London : Greenwich Medical Media, 2001. – 832 p.
4. Shepherd R. Simpson's Forensic Medicine / R. Shepherd. – London : A Hodder Arnold, 2003. – 208 p.
5. Stark M. M. Clinical Forensic Medicine: A Physician's Guide (Forensic Science and Medicine) : 2nd Edition / M. M. Stark. – Totowa, NJ : Humana Press, 2005. – 455 p.

Навчальне видання

Судова медицина.

**Розділ 1. Предмет, завдання і історія розвитку
судової медицини. Організаційні та процесуальні основи
судово-медичної експертизи. Судово-медична танатологія.
Судово-медична травматологія. Огляд трупа на місці події.
Судово-медична експертиза трупа**

**Тема 2. Організаційно-процесуальні засади
проведення судово-медичної експертизи**

***Методичні вказівки
для студентів та лікарів інтернів***

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