

**DETERMINATION OF PERIODS BASED ON PATHOMORPHOLOGICAL  
CHANGES IN PARENCHYMATOUS ORGANS IN INJURIES FROM BLUNT  
OBJECTS IN SURGICAL PATIENTS**

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**Abstract:** The presented work contains a detailed analysis of the activities of the forensic medical service in all territorial forensic medical examination bureaus. It was established that during the analyzed period, with a continuing shortage of personnel, there was an insignificant increase in the number of examinations and studies, except for forensic biological and medical-criminalistic.

**Keywords:** analysis of expert activity, method, injury, treatment.

## **INTRODUCTION**

In the last decade, the requirements for the forensic medical service have increased significantly, especially for the quality and timing of examinations by law enforcement agencies. At the same time, many problems in the work of the forensic medical service have remained virtually unchanged, and in some areas have even worsened. This concerns the state of both the material and technical base of territorial Bureaus, their financing, human resources, and quantitative indicators of various types of expert activity [1].

## **MATERIALS AND METHODS**

It is known that without modern equipment and apparatus it is impossible to perform examinations qualitatively and on time, and the analysis showed that in territorial bureaus in the District as a whole more than 50% of the apparatus and equipment is 100% worn out and requires urgent replacement. It should be noted that more than 50% of the premises in which district offices are located do not meet the requirements of SanPiN and do not have licenses.

The following were named as the reasons for the shortage of medical personnel [2]:

1. Low wages for a large volume of work performed.
2. Weak material and technical base and lack of modern equipment.
3. Lack of working conditions (lack of living conditions, cramped conditions, lack of ventilation, hot water supply, insufficient lighting, non-compliance of workplaces with hygienic requirements, etc.).
4. Increased risk of infectious diseases.
5. Lack of automated software for medical personnel (doctors, laboratory technicians) workplaces.

6. Lack of housing and living conditions, especially in the districts of the region.
7. Lack of career growth.
8. Lack of prestige for the specialty.
9. Low image of the institution.
10. Lack of opportunity to earn extra money in your specialty.
11. Specifics of work in district offices (distance from the Bureau, inability to communicate with colleagues, working alone, etc.).

## RESULTS AND DISCUSSION

Considering that the reason for the shortage of personnel is the insufficient influx of young specialists and, as a consequence, the increase in older people, we conducted an analysis of the medical personnel by gender and age, which is presented.

Such a high shortage of medical personnel (with a significant portion of them being of retirement age), of course, affects the actual workload per individual. In a number of territories, it is 5-7 times higher than the so-called standards of the advisory. Work experience and the availability of a qualification category are of no small importance for the high-quality performance of examinations. Forensic chemical studies in quantitative terms remained practically at the same level as in 2022. It should be noted that a sharp decrease in studies is noted in a number of bureaus. One of the reasons for this decrease, in particular, in the Andijan region, is the lack of appropriate equipment and reagents for conducting forensic chemical studies.

The pathological changes of liver caused by diseases and/or dietary differences are very common. The fatty liver prevalence (alcoholic and non-alcoholic combined) is around 45% [1], and it increases with age. It is also common in children and young adults, reaching 17.3% for ages 15 to 19 years [2]. The estimated prevalence of hepatic fibrosis is around 3%.

Normal (healthy) liver contains 1–4% fibrous tissue, while cirrhotic contains 15–35% fibrous tissue. Normal human liver is estimated to contain approximately 5.5 mg/g of collagen, while cirrhotic liver contains approximately 30 mg/g. Apart from the overall collagen content, type I/type III collagen ratio increases in cirrhotic liver above 20 mg of collagen/g. Based on theoretical considerations, these structural changes should have a negative impact on the biomechanical properties and—more importantly in forensic aspects—on the vulnerability of the liver.

Textbook-based received wisdom suggests that certain diseases (e.g. steatosis) increase the vulnerability of liver, but no experimental data are available on the possible connection between pathological liver changes and blunt force vulnerability of human liver.

## CONCLUSION

An analysis of the activities of territorial bureaus for the period 2021–2024 showed:

1. The staffing level of forensic medical experts remains low – 38%, while pre-retirement and retirement age doctors make up more than 30%.
2. The percentage of forensic medical examinations of those who died from non-violent deaths continues to increase (by 10% in 2024 compared to 2021). At the same time, the number of examinations of those who died from cancer is increasing, which in 2024 amounted to 12.47% of the total number of non-violent deaths.
3. There is a further decrease in the number of forensic biological and medical-criminalistic examinations, respectively, by 23.5 and 10% in 2014 compared to 2011, with a simultaneous increase in molecular genetic examinations (by 72%).

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