

## COMMON ERRORS IN FORENSIC MEDICAL EXAMINATIONS

*Xatamova Sarvinoz Muhitdinovna*

*Bukhara state medical institute*

*xatamova.sarvinoz@bsmi.uz*

### Abstract

Forensic medical examinations play a critical role in the legal system by providing scientific evidence for judicial processes. However, these examinations are susceptible to a range of errors that may compromise the integrity of findings and judicial outcomes. This paper explores the most common errors encountered in forensic examinations, categorizing them into technical, procedural, interpretational, and documentation-related mistakes. Understanding and addressing these issues is vital to improving forensic accuracy, reliability, and credibility.

**Keywords:** Forensic medicine, forensic errors, autopsy mistakes, medico-legal examination, quality assurance, postmortem analysis, expert witness

### Introduction

Forensic medicine serves the law by applying medical knowledge to legal questions, particularly in cases involving death, injury, and assault. The validity of forensic conclusions significantly affects judicial outcomes, making accuracy paramount. However, even experienced forensic practitioners may commit errors during examinations due to systemic flaws, human factors, or technical limitations. This paper aims to identify and analyze the common errors that occur in forensic medical practice and suggest preventive strategies to enhance the reliability and legal standing of forensic evidence.

### Main Body

#### 1. Technical Errors in Autopsy Procedures

One of the most frequent categories of mistakes involves improper autopsy technique or failure to follow standard procedures.

- **Incomplete external or internal examination:** Skipping a full examination may cause missed injuries or pathologies.
- **Incorrect incision techniques:** Poor incisions may damage underlying structures or complicate later analysis.
- **Improper tissue handling:** Mishandling can lead to the destruction or contamination of vital evidence.

*Example:* Failure to remove and examine the neck organs in suspected strangulation cases can result in missed signs of asphyxia.

#### 2. Errors in Evidence Collection and Preservation

Improper collection or storage of evidence can lead to contamination, loss of data, or inadmissibility in court.

- **Contaminated DNA samples** due to lack of sterility or improper labeling.
- **Improper storage of biological fluids**, which may degrade before toxicology testing.
- **Lost chain of custody** documentation, leading to evidence being excluded in court.

*Example:* A blood sample left at room temperature may result in decomposition of alcohol levels, affecting BAC (blood alcohol content) readings.

### 3. Misinterpretation of Findings

Forensic interpretation requires a nuanced understanding of pathology and physiology. Common mistakes include:

- **Confusing postmortem changes with antemortem trauma** (e.g., postmortem lividity mistaken for bruising).
- **Overlooking natural disease processes** when diagnosing traumatic death.
- **Assuming a cause of death without sufficient evidence** ("diagnosis by exclusion").

*Example:* Misinterpreting a sudden cardiac death as a drug overdose due to superficial signs may lead to legal misjudgments.

### 4. Inadequate Documentation and Reporting

Accurate, clear, and complete documentation is critical for court proceedings. Errors include:

- **Illegible handwriting**, ambiguous terminology, or missing key findings.
- **Omission of time, date, or identification numbers** in the report.
- **Failure to include diagrams or photographs**, which are essential for visual reference in court.

*Example:* A missing diagram of a stab wound may prevent a court from understanding the angle or depth of injury.

### 5. Ethical and Bias-Related Errors

- **Confirmation bias:** The tendency to fit findings to pre-existing assumptions or police narratives.
- **Conflict of interest:** Personal or institutional bias that may influence conclusions.
- **Lack of objectivity in testimony**, resulting in exaggerated or understated opinions.

*Example:* A forensic expert may unintentionally align their interpretation with the prosecution's theory due to subtle psychological influence.

### 6. Legal and Procedural Misunderstandings

Forensic experts must understand courtroom procedures and evidentiary rules.

Mistakes include:

- **Overstepping expertise boundaries** in testimony.
- **Using non-standard terminology** that confuses the jury.
- **Failing to prepare for cross-examination**, weakening the impact of expert opinio

### Conclusion

Errors in forensic medical examinations can have serious consequences, including wrongful convictions or acquittals. Awareness of the most common types of mistakes—technical, procedural, interpretational, and legal—allows for the development of better training programs, stricter quality control, and the implementation of standardized protocols. Reducing these errors is not only a matter of scientific precision but a moral imperative to uphold justice and protect human rights.

### References

1. DiMaio, V. J. M., & DiMaio, D. (2001). *Forensic Pathology* (2nd ed.). CRC Press.
2. Saukko, P., & Knight, B. (2016). *Knight's Forensic Pathology* (4th ed.). CRC Press.
3. Madea, B. (2015). *Errors and Mistakes in Forensic Medicine*. *Forensic Science International*, 257, 1–7.
4. Byard, R. W. (2014). *Pitfalls in Forensic Pathology Practice*. *Academic Forensic Pathology*, 4(2), 302–310.
5. James, S. H., & Nordby, J. J. (2014). *Forensic Science: An Introduction to Scientific and Investigative Techniques* (4th ed.). CRC Press.
6. Payne-James, J., & Byard, R. W. (2015). *Encyclopedia of Forensic and Legal Medicine* (2nd ed.). Elsevier.