

Introduction to The Forensic Medicine



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Forensic Medicine



- Forensic” comes from the Latin word “forensis” meaning forum.
- During the time of the Romans, a criminal charge meant presenting the case before a group of public individuals.



Forensic Medicine



- The term Forensic Medicine means the application of medical knowledge (all branches of medicine including laboratory examinations) whenever or wherever it is required or necessary for taking decisions in legal affairs both civil and criminal cases to aid the administration of law and justice.
- Forensic Medicine or legal medicine deals with the application of medical and paramedical knowledge to aid the administration of justice.

Forensic Science



- The term Forensic Science means the application of the knowledge of science for the purposes of law and justice. The term includes the application of all sciences such as physics, chemistry, biology
- Almost all branches of science can help in the administration of justice

Clinical Forensic Medicine



- The term Clinical Forensic Medicine involves an application of clinical methods for the administration of justice.
- Clinical Forensic Medicine relates to any area in which medicine, law enforcement and judiciary comes into contact.
- E.g. live rape victim

Aims and objectives of Forensic Medicine



- Application of medical and paramedical knowledge to aid the administration of justice
- It is used by the legal authorities for the solution of legal problems; such as applying medical knowledge in deciding cases of injuries, murder, suicides etc.

Branches of Forensic Medicine



- **Forensic ballistics:** The science dealing with the investigation of use of firearms and ammunition
- **Forensic criminology:** Dealing with crimes and criminal.
- **Forensic pathology:** Medical and pathological principles in determining cause and manner of death
- **Forensic entomology:** deals with the examination of insects in, on, and around human remains to assist in determination of time or location of death.
- **Forensic obstetrics:** Medico legal aspect of normal and abnormal deliveries
- **Forensic osteology:** Study of bones

Branches of Forensic Medicine



- **Forensic odontology**: study of the uniqueness of dentition better known as the study of teeth.
- **Forensic photography** is the art of producing an accurate photographic reproduction of a crime scene for the benefit of a court.
- **Forensic toxicology** is the study of the effect of drugs and poisons on/in the human body.
- **Forensic psychiatry**: Application of psychiatry for legal purpose.
- **Forensic Thanatology**: Medico legal aspect of death

Forensic Pathology



- Forensic pathology is the branch of Forensic Medicine which deals with medical and pathological principles in determining the manner and cause of death.
- It is the application of the knowledge of pathology for the administration of justice.

Importance of Forensic Pathology



- To perform forensic autopsy.
- To determine the cause and manner of unnatural, suspicious death.
- Examines and documents wounds and injuries.
- Histopathological examination of specimen under the microscope.
- Collects and interprets toxicological analyses on body tissues and fluids.
- Forensic pathologists also work closely with the medico-legal authority for the area concerned with the investigations of sudden and unexpected.

Medical Jurisprudence



- Medical Jurisprudence (Juris = law; prudentia = knowledge).
- Medical jurisprudence deals with the legal responsibilities of a physician with particular reference to those arising from physician- patient relationship(such as medical negligence cases, consent, right and duties of a doctor, serious professional misconducts, medical ethics etc)
- Medical jurisprudence means legal aspects of practice of medicine.

Difference between Forensic Medicine and Medical Jurisprudence



Traits	Forensic Medicine	Medical Jurisprudence
Deals with	deals with the application of medical and paramedical knowledge to aid the administration of justice.	Deals with the application of knowledge of law in the practice of medicine
Use	Used by court for the solution of legal problem	Used by the members of medical profession for their guidance
Sub-divisions	Has some sub-divisions	No sub-divisions
Application	It can be applied to all people	It can be applied to members of medical professions
In relations to medical practitioner	It brings the medical man into contacts with courts of law	It brings relationship between doctor and patient & also doctor & society.

History



Forensic Medicine has Humble and Ancient Origins:

- Law-medicine problems are found written in records in Egypt, Sumer, Babylon, India and China dating 4000-3000 BC.
- Manu (3102 BC) was the first traditional king and lawgiver in India. Manusmriti was a famous treatise where rules for marriage, punishment for adultery, incest and sexual offences were formulated.
- Code of Hammurabi specified by King of Babylon (about 2200 BC) is the oldest known medico legal code.



- Hippocrates (460-377 BC), Father of Western medicine discussed the lethality of wounds and contributed to the field of ethics.
- First descriptions of examination of injuries were found carved on pieces of bamboo dating back to the Qin dynasty in China, from about 220 BC.
- First medico-legal autopsy in history was conducted by the Roman physician Antistius who examined the body of Julius Caesar after his assassination in 44 BC.



- Agnivesa Charaka Samhita was the first treatise on Indian medicine which dates back to 7th BC.
- Shusruta, Father of Indian Surgery gave the Shusruta Samhita in 200-300 AD.
- During the 6th century, Justinian law called medico-legal experts to testify in cases of rape, criminal abortion and murder.



- In 1602, first book on forensic medicine was published by Italian physician, Fortunato Fedele.
- The first recorded medico-legal autopsy performed in India was by Dr Edward Bulkley in 1693 at Chennai on a suspected case of arsenic poisoning.
- The first publication on forensic medicine in UK was by William Hunter in the 18th century. His essays were on injuries found on murdered bastard children.



- The three great pioneers of forensic medicine born in the 18th century were Johann Casper (1796-1864), Mathieu Orfila (1787-1853) and Marie Devergie (1798-1879). They devoted their life in the study and development of forensic medicine as we understand it today.
- Dr CTO Woodford is regarded as the first Professor of Medical Jurisprudence in India.

Key Note



- The medico legal expert is not a detective. He may use his knowledge and intelligence to help the police to solve a crime.
- His role should be to furnish the police with specific information on matters of which he has specialised knowledge.
- The medical expert should be very careful when he is examining living people.



Three things are needed for success :

- (1) the power of observation,
- (2) a wide range of exact knowledge,
- (3) the power of deduction.

- The power of constructive imagination is also essential when there are no more facts to be observed, and no further inferences to be drawn.



Thank You