INTRODUCTION

Medico-legal case (MLC) refers to a case of injury or illness that indicates investigation by law enforcement agencies to understand, establish and fix the criminal responsibility for the case in accordance with the law of the country in the interest of truth and justice of victim/patient and country ***(Dogra and Rudra, 2007)***

Common medico-legal cases include alleged history of sexual assault, violence, road traffic accidents, firearm injuries, child abuse, poisoning and overdose of substances of abuse, attempted suicide, homicidal injuries, burns (except for minor domestic non-fatal accidental burn injuries) and electrocution ***(Kumar et al., 2014).***

Medico-legal cases are an integral part of medical practice in emergency departments in the hospitals ***(Yogendra et al., 2013).*** Apart from treatment, the physicians has to carefully examine them for proper assessment and documentation of the injuries and appropriate securing, handling and documentation of evidences ***(Agarwal et al., 2008).***

Insufficient experience with dealing of medico-legal cases may result in destroying, throwing away or losing pertinent evidence, illegible records, partial documentation, or incomplete medical records. Delayed forensic examination, missing subtle injuries because of lack of pattern recognition and making “educated guesses” about the mechanism of injury

will also result in improper presentation of the medical evidence in court ***(Edussuriya et al., 2012).***

This reveals the important role of physicians as he/she is the first one see the injuries on its nature before surgical intervention or healing changes. Therefore, medical practitioners share the responsibility of the administration of justice by supplying the court with the relevant medical insight to advance informed decisions on legal matters ***(Wells, 2006).***

In Egypt, about 95% of medico-legal cases were found to be brought to the court under the primary medical report without taking the opinion of the forensic authority.This reflects the seriousness and importance of documentation by the physicians as it may be the only technical document before the judge ***(Egyptian Medical Syndicate- Kafer El Sheikh, 2003).***

AIM OF THE WORK

This study carried on the physicians working in governmental hospitals in Cairo aimed to assess physicians' knowledge, practice and attitude regarding handling of medico-legal cases. This would be of value for planning and organization of training courses for physicians to prepare them to take their responsibilities in establishment of justice

MEDICO- LEGAL CASE

Medico-legal case (MLC) is the case where beside the medical treatment; investigations by law enforcing agencies are essential to fix the responsibility regarding the present state / condition of the patient. The case therefore has both medical and legal implications ***(Harish and Srinivasa, 2013).***

Physicians have several ethical, moral and legal obligations in the performance of their duties. They are liable to be called upon to give. medicolegal assistance in varied circumstances by police and law agencies .They were usually apprehensive in dealing with these situations which implying a lot of disputes and unwanted burden .Without proper learning and training about forensic medicine ,most of physicians will be entangled medicolegal work along with this routine duties against their will ***(Gouda et al., 2013)***

The term MLCs has been creating mayhem in the mind of millions of physicians for year and will continue to do for years to come to find a place in the medical dictionary ***(Meshram and Bastia, 2016)***

Proper knowledge of the roles and responsibilities of a health care provider is of immense importance while handling these cases to facilitate social and legal justice ***(Raj et al., 2014).***

Apart from treatment, careful examination and documentation of the injury, appropriate securing and handling of evidence were of paramount duties of the them ***(Agarwal et al., 2008).***

This includes all cases of unnatural deaths, injuries, poisoning or unnatural events under suspicious circumstances. This can be applied for the following cases;

- All cases of injuries and burns occurred in circumstances which suggest commission of an offence by somebody (irrespective of suspicion of foul play).
- All vehicular, factory or other unnatural accident cases specially when there is a likelihood of patient's death or grievous hurt.
- Cases of suspected or evident sexual assault.
- Cases of suspected or evident criminal abortion.
- Cases of unconsciousness where its cause is not natural or not clear.
- Cases referred from court.
- Cases brought dead with improper history creating suspicion of an offence.
- Cases of suspected self-infliction of injuries or attempted suicide
- Any other case not falling under the above categories but has legal implication.

***(Harish and Chavali,* 2007)**

All cases that are declared "Dead on Arrival" in the hospital should be notified to the police immediately, so that, an inquest can be arranged. Deaths in the operation theatre should be reported to police. Also, the police should be informed about drug or alcohol related death (including deaths of drug addicts) ***(Aggarwal, 2015).***

Receiving MLC:

The physicians can receive a medico-legal case in any of the three ways;

1. A case is brought by the police for examination and reporting.
2. A registered MLC in another hospital who is referred for expert management/ advice.
3. In the other instances, after history taking and thorough examination, the doctor feels that the circumstances/ findings of the case suspecting MLCs. In these cases, the physicians should immediately inform the patient and take his consent for converting the case into MLC.

(Agarwal et al., 2008)

For the later cases, the patient may refuse consent, withdraw the consent already given or may even leave the hospital. The doctor has no right to force anything on the patient. He has to carefully document all the findings, note the exact moment at which the consent was withdrawn and inform the nearest police station regarding the same, giving reasons for

his actions. Sometimes, the decision may be made easier by the patient himself expressing his intention to register a case against the alleged accused

(Meera ,2016).

Registering of MLC:

The attending casualty medical practionners has the authority to decide whether the case is to be registered as medico-legal or not. There is no scope for acceding to request / pressure from the relatives, patient himself or his colleagues regarding the registration of MLC ***(Aggarwal, 2015).***

A "medicolegal register" should be maintained in the emergency department of every hospital and details of all MLCs should be entered in this register. This should include the time, date, and place of examination and the name of the examining doctor. A case may be registered as MLC even if it is brought several days after the incident ***(Meera, 2016).***

Notification to the authorities:

All MLCs should be informed to the police, irrespective of the patient's wish. If the doctor does not inform the police, and doesn't hand over relevant pieces of evidence (injury report, blood stained clothes, weapon, recovered bullets, pellets etc.) he may be charged for causing disappearance of evidence ***(Aggarwal, 2015).***

Protection of the patient's rights should remain the common goal of the health providers at trauma care. Every hospital, regardless of its size and location, must eventually address problems of conflict with law enforcement agencies. Most often, these conflicts concern patients in legal custody and perpetrators of crime, as well as the confidentiality of victims' medical records. Policies that increase mutual understanding,define responsibilities, and promote coordination will contribute to multi-disciplinary, multi-agency cooperation ***(Sharma, 2003).***

Physician's duties on receiving MLC:

Life saving measures are always first in priority. The physician should do everything possible to resuscitate the patient and ensure that he is out of danger **(*Singh et al., 2011*).** Then, the physicians should proceed in proper handling of MLC that include proper examination of the patient to minimize loss of evidence and identify medical needs and concerns ***(Sharma, 2006).***

An apparently looking trivial trauma may have severe damage to underlying organs and a high index of suspicion is required to make an accurate diagnosis ***(Muhammad et al., 2013).***

Precautions to be taken

a. Consent:

The informed consent is a central issue in medico-legal matters. Examining a person without his/her consent could result in charging of the medical practitioners with offences of assault, battery or trespass. In some jurisdictions, the results of an examination conducted without consent cannot be used in legal proceedings ***(World Health Organization, 2003).***

A valid consent to medical procedures is fundamental to the interaction between all doctors and patients. Accordingly, consent of the patient or the legal guardian is mandatory for examination. To be valid, the patient must be competent, and consent should be freely given, informed, and specific to the procedure being performed. In children with suspected non-accidental injuries, the consent from parents/guardians is not essential ***(Aggarwal, 2015).***

In MLC, an informed consent includes information that

- the examination to be conducted would be a medicolegal one and would culminate in the preparation of a medico-legal injury report,
- all relevant investigations needed for the said purpose would be done.
- The findings of the report may go against the patient if they are not consistent with the history given (the most important) ***(Aggarwal, 2015).***

A person arrested as accused in a criminal offence may however, be medically examined without his consent on the

request of a police officer or on the orders of the court, if there are sufficient grounds to believe that such examination will provide evidence of the commission of the offence ***(Agarwal et al., 2008).***

Female patient is preferred to be examined by female physicians, wherever this is not possible, a female disinterested attendant (e.g., nurse) should be present during the examination ***(Harish and Sharma, 2001).***

b. Confidentiality:

The physicians are required to keep all information regarding the patient as confidential. MLRs are not exception and should be treated as strictly confidential ***(Thomas, 2009).***

1. Assessment of injuries:

Examination should begin with general examination and recording of vital signs (pulse, blood pressure, temperature, respiration, consciousness level, gait as well as orientation to time, place and person). Clothes should be checked for any tear or cut, stain or foreign matter ***(Harish and Sharma, 2001).***

Trauma patients may pose a complex clinical challenge, which predisposes to some injuries being diagnosed late, or indeed missed. The Advanced Trauma Life Support (ATLS) protocol has established an internationally accepted approach to primary, secondary and tertiary trauma survey which, if

adhered to, may minimize the chance of unrecognized injury ***(Sharma, 2006).***

Patients sustaining blunt trauma have been reported to have a higher rate of missed injuries than patients sustaining penetrating injury, and the unrecognized injuries have been reported to range in severity from trivial to fatal ***(Sharma et al., 2005).***

2. Documentation:

Accurate documentation of the external traumatic lesions is extremely important in the clinical management of the trauma, as well as in its forensic and judicial assessment. Nevertheless, the quantity and quality of the documented information in the observation charts may be suboptimal, thus significantly affecting the forensic assessment regarding the cause of death, the relationship between injuries and death, and therefore the judicial implications of the case ***(Ioan et al., 2014).***

The lack of correct and comprehensive documentation of the external traumatic injuries present on the victim's body on admission can mislead the medico-legal interpretations ***(Pollanen, 2012)*** and may also raise suspicions of malpractice if the lesions are considered to have been acquired during hospitalization ***(Sauvageau and Racette, 2008).***

- **Medical records:**

Documentation of patient care in medical record formats is always emphasized since medical records are known as the reflecting mirror of the medical affairs ***(American College of Emergency Physicians, 2013).***

Good medical records can also significantly improve the defensibility of a claim or complaint, particularly when a conflict exists between the patient and the practitioner's recollection of events. Therefore, medical records should include according to ***Medical Board of Australia, (2009);***

- Information relevant to diagnosis and treatment, e.g. history, physical examination (including relevant negative findings), mental state, results of any tests, allergies,..etc).
- Clinical opinion
- Plan of treatment
- All prescribed medication
- Information, warnings or advice given to the patient in relation to any proposed medical treatment
- Details of significant discussions or correspondence including telephone calls and copies of referral letters, reports and test results
- All follow up instructions given to the patient
- Details of any medical treatment, including any medical or surgical procedure as date of the treatment, nature of the treatment, name of any person who gave or performed the treatment, any tissues sent to pathology, results or findings

made in relation to the treatment as well as any written consent provided by the patient for the treatment.

It is advisable to preserve all the inpatient records for a period of at least 5 years and outpatient department records for 3 years ***(Meera, 2016).***

- **Photography:**

Photography is used as a means of providing evidence in such lawsuits and claims and is also used as a means of reinforcing the testimony given by an 'Expert Witness' ***(Claridge, 2013)***.

Illustrative clinical records are increasingly used in emergency departments and can become part of the patient health records. Clinical image represents a visual record of the presenting physical sign(s) and can act as an aide-memoir for clinicians. Serial pictures show the progress of the patient's condition over time. ***(Bhangoo et al., 2004).***

Identification and verification: This is mainly of concern with evidential photography. The following should be recorded;

- Date and time.
- Name of consultant, photographer and any others present, including chaperone and parents/guardians in cases of children with non-accidental injuries (NAI).
- The used camera and film type.

- Number of the captured images.
- Sites of injuries on the body (for which photographs were taken) should be documented on a drawn (or template) body map

(Bhangoo et al., 2004)

Photographic views and scales: It is important to take general establishing views of the affected areas so that the location of the individual injuries can be identified. A separate close-up photograph of each injury is then taken. It is very important to use a scale for each close-up ***(Institute of Medical Illustrators National Guidelines, 2006).***

3. Preservation of medico-legal evidences:

Medico-legal evidence refers to any material that must be protected and preserved in such a way as to be admissible in court as evidence. Hospital emergency departments are regularly required to be in contact with essential evidence in criminal cases. **(*Agarwal et al., 2008*)**

The potential medico-legal specimens include, but are not limited to:

- **Clothes:** In victims of reported/suspected rape, murder, assault, and traffic accidents, trace evidence (e.g. blood, semen, saliva etc) may be detected on their clothes. It may also be preserved in burn cases, poisoning cases for any vomitus and firearm cases to detect gun powder and .It may

also show physical evidence of friction or mark on weapon ***(Bhardwaj and Singh, 2003).***

Documentation of the condition of the patient's clothing should be carefully noted. Color, type, unusual markings, and tears or other damages should be recorded. Clothing is often the first circumstantial evidence that may help to identify a missing person or collaborate an eye witness statement ***(Sharma, 2003).***

- **Blood:** This may be needed either for drug or poison screening or it may be preserved for DNA testing. A 5-10 ml of blood is taken into an EDTA plastic tube and frozen in a deep freezer for DNA testing purposes ***(Bhardwaj and Singh, 2003).***

- **Vaginal, anal and seminal stains:** These are preserved in sexual offences. A slide should be prepared from vaginal fluid or extract of seminal stain (1% HCL can be used in dry stains). Fresh semen can be taken on a glass slide. If stain is present on cloths it should be sent to laboratory for forensic examination ***(World Health Organization, 2003)***

-**Gastric lavage**: Preservation of gastric lavage for chemical analysis should be performed before antidote has been administered otherwise the poison may be neutralized. It should be preserved in glass jars without adding any preservative. The container should be covered by tight lid to