Annual Conference of Punjab Academy of Forensic Medicine & Toxicology (PAFMATCON-2017)

THEME: FORENSIC MEDICINE FOR FIELD DOCTORS

Saturday, 7th October 2017

Department of Forensic Medicine & Toxicology
Adesh Institute of Medical Sciences & Research, Bathinda
PUNJAB ACADEMY OF FORENSIC MEDICINE AND TOXICOLOGY

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Chancellor's Message

It is a matter of utmost pleasure to learn that Adesh Institute of Medical Sciences and Research, Bathinda is going to host 15th Annual Conference of Punjab Academy of Forensic Medicine and Toxicology on 7th October 2017.

It is of course very encouraging & heartening that the students and faculty of the institute are not sparing any effort to add to the glory of this institute for which I congratulate all of them. This conference of course would be another achievement of the Department of Forensic Medicine.

I extend my hearty welcome to the doctors, guests & participants for gracing the occasion and my hearty thanks to the faculty and Management of different constituent colleges of Adesh University for their meaningful support in organizing this conference.

I Congratulate the Organizing Team Captained by Dr Parmod Goyal, Prof & Head, Forensic Medicine for his efforts and pray to SATGURU to bless the event with success.
Vice Chancellor's Message

I am happy to note that Department of Forensic Medicine of Adesh Institute of Medical Sciences and Research is hosting the 15th Annual Conference of Punjab Academy of Forensic Medicine and Toxicology on Oct 7, 2017.

I have always felt a lurking concern with the Irony of the immensely responsible task of Forensic Medical Examinations in serious Medico-legal situations being carried out by relatively less experienced Medical Officers in the Govt hospitals leading to lacunae in dispensation of justice, where sadly the expertise of Forensic Medicine available in the Medical Colleges remains underutilized. I am glad that the Academy has consciously chosen to focus on strengthening the skills of the 'Field Doctors' in this conference.

I wish the conclave grand success for it’s objective.
Registrar's Message

It gives me immense pleasure to know that Department of Forensic Medicine & Toxicology, Adesh Institute of Medical Sciences & Research is organizing 15th PAFMATCON – 2017. I take this opportunity to congratulate Dr Parmod Goyal, Head of the Department and his team on undertaking such an important mission and wish the conference a great success.

God bless and Godspeed!
Principal's Message

Indeed it a matter of great pride and pleasure to know that Department of Forensic Medicine is hosting the Annual Conference of Punjab Academy of Forensic Medicine and Toxicology for the 2nd time in this institute.

I have been informed that delegates are coming from Punjab, Haryana, Rajasthan and Delhi.

Knowledge is of little value when it remains confined within the heads of few individuals and can only be utilized when others understand the concepts involved. The organization of such scientific events gives an insight into overall social and intellectual development of teachers and students, further exploring their ways for contribution in the field of science and research.

Obstetricians and Gynaecologist working in field can immensely benefit from talks catering to their work field. Often in the field, one is flustered by the perceived complexity of medico legal cases and situations. I am hoping the doctors will have opportunity to iron out their doubts that arise in their day to day work.

Keeping in view the theme “Forensic Medicine for Field Doctors”, I am sure that the participants would be immensely benefitted by these deliberations. The Scientific Programme in the conference has been enriched with interesting guest lectures, case presentations, oral papers and poster presentations.

I extend my whole hearted appreciation and best wishes to Dr Parmod Goyal, Professor & Head, Department of Forensic Medicine for organizing this conference and implore all the delegates to enjoy the scientific feast.

With Blessings
Medical Superintendent (Administration) Message

Dear All,

I am extremely happy to meet you all through this souvenir. On behalf of the member of Management, I convey my best wishes for a mutually beneficial and fruitful participation in this conference, PAFMATCON-2017.

The Conference provides an opportunity for face to face interactions leading to knowledge sharing and personal enhancement. I hope each one of you will utilize this opportunity to the fullest extent and benefit from it.

Theme of the Conference “Forensic Medicine for Field Doctors”, indeed an interesting and real need of the society. As in service doctors are not much aware of nitty-gritty of this field and commit mistakes while performing medicolegal duties.

I appreciate the efforts of Dr Parmod Goyal, the organizing Secretary and other organizing team members of this conference.

I extend my best wishes for the grand success of the conference.
Medical Superintendent's Message

It gives me immense pleasure that 15th Annual Conference of Punjab Academy of Forensic Medicine and Toxicology being organized at Adesh Institute of Medical Sciences and Research, Bathinda. The theme has aptly been chosen "Forensic Medicine for Field Doctors". In the present days the increasing litigations on doctors is the biggest concern as doctors are being a soft target. Doctors are being sued for almost any reason for cases of Medical Negligence, Malpractice, TORT, Harassment, Instrument/Machine Failure or Impact, Staff Negligence & many others.

With increased consumer awareness mainly through electronic media and media activism, the doctors community will be under huge stress in the future unless remains updated in medico-legal and forensic medicine field. As medical superintendent of tertiary care hospital I have often witnessed doctors in emergency duty grappling with mundane issues pertaining to forensic medicine and look forward to the advice from the experts in Forensic Medicine.

The same luxury may not be available for doctors working in the periphery. In an endeavour to fill the gap this conference will provide an unique opportunity to the academicians, field doctors and students to learn from each other and work towards a common goal of imparting education about the day today as well as complex issues in the field of Forensic Medicine.

I extend my hearty good wishes for the success of 15th PAFMATCON-2017
Dean's Message

It gives me immense pleasure to extend my hearty congratulations and best wishes to the organizers of 15th Annual Conference of 'Punjab Academy of Forensic Medicine and Toxicology', christened as PAFMATCON-2017. It is second time that PAFMATCON is being organized at Adesh Institute of Medical Sciences and Research, Bathinda; and that's too within a span of five years only. That itself reflects the faith posed by the stakeholders in the organizing skills of the organizing secretary, Dr Parmod Goyal, Professor and Head (Forensic Medicine, AIMSR).

Organizers have chosen a well-planned theme, commensurating with the current obligatory need to have Forensic Medicine related skills in field practice – 'Forensic Medicine for Field Doctors'. While working in field, at Primary and secondary health care facilities, doctors come face to face with many medico-legal cases, requiring the application of knowledge and skills of medico-legal and toxicological aspects of medicine. That's where knowledge and skills of Forensic Medicine come handy; and that's where it is mostly lacking!

I hope that the target audience – field doctors, legal personnel, and faculty and residents of Medical Colleges will be immensely enriched with this upcoming educational bonanza. I am sure, under the command of Dr Parmod Goyal, the PAFMATCON will deliver a well deserved educational feast to one and all attending the same.
President's Message

Dear Colleagues & Friends,

It shall be our great pleasure in assembling and exchanging our views and experiences when we meet on 7th October, 2017 at Adesh University in Bathinda on the 15th Annual Conference of Punjab Academy of Forensic Medicine & Toxicology. On behalf of you all and also on my behalf I extend our sincere thanks to the organising committee under the able leadership of Professor Parmod Goyal, who have put in herculean efforts towards successful organisation of this conference. I have been coming to AIMSR Bathinda as external examiner and on the basis of my experience I can bet that this conference shall break all past records and set new standards in organisational skill, courteous reception and providing delegates well managed scientific programmes.

The task of the Forensic Medicine is particularly challenging as it requires the blending of the skills of doctors, a lawyer and a police officer. However, their professional skills need to be updated by such scientific meetings. It is therefore appropriate that the theme of conference is "Forensic Medicine for field doctors". I foresee a very positive role of Forensic Medicine experts in diagnosis and detection of crimes by applying the knowledge of the subject of Forensic Medicine.

We look forward to the information and highly educative deliberation in the sphere of Forensic Medicine. I hope that besides us there shall also be active participation of in service doctors, police officers, lawyers, forensic scientists and medical students. Such a desired broad based participation shall be beneficial to all concerned.

I hope that the conference shall be a grand success and it will gave an opportunity for our younger members to present their research work and to interact with senior members. I profusely thank Management of Adesh University for providing support in organizing this conference and other officers who I am told have extended their kind and unstinted support to the organising committee. With these few words, I wish all the honourable delegates my sincere thanks for attending this conference and I am very sure that all of you shall return home with enriched knowledge for its practical application in your field.
General Secretary's Message

Dr. Rajiv Joshi
M.D. D.N.B
General Secretary (2015-2017), PAFMAT
Professor & Head
Department of Forensic Medicine & Toxicology
Guru Gobind Singh Medical College, Faridkot

It gives me immense pleasure to learn that Department of Forensic Medicine & Toxicology, Adesh Institute of Medical Sciences and Research, Bathinda is organizing 15th Annual Conference of Punjab Academy of Forensic Medicine & Toxicology with the theme “Forensic Medicine for Field doctors”.

I am happy that tradition of holding of Annual Conference of PAFMAT under the present Governing council has remained intact alike previous Governing Council. Lots of young experts have attached with the association and are actively participating through social media.

Forensic Medicine and Toxicology is specialized discipline which has important role to play in administration of justice. Task of Forensic expert requires blending of skill of doctor, lawyer and police officer.

Due to ever increasing complexities of crime in modern society, there is urgent need to update knowledge in the field of Forensic Medicine for improvement of criminal investigation. Due to shortage of Forensic Expert in India, most of medico-legal works are done by untrained Medical officers in Government hospitals. Present day society needs better medico-legal services to help the judicial system in dispensing justice. Theme of conference is rightly chosen by organizer for improvement of Forensic services in primary and secondary level also. Academic interaction between Forensic experts, Police department and Legal luminaries during conference will definitely sensitize all concerned with updated knowledge. I am confident that this conference will prove beneficial to all the delegates and provide them common platform to share their views.

On this occasion I would like to send my best wishes for the success of this conference with the hope that it will go a long way in benefitting the society.

I am thankful to all those who are instrumental in shaping this Mega event into practical reality.
Organizing Secretary's Message

Welcome and Genesis of PAFMATCON 2017: It gives me an immense pleasure to welcome you all for the 15th Annual Conference of Forensic Medicine and Toxicology at Adesh Institute of Medical Sciences and Research, Bathinda. This is the 2nd time that PAFMAT is organized by me at Adesh Institute of Medical Sciences and Research, Bathinda. The Genesis of this Conference dates back to General Body meeting held at GMCH Chandigarh during previous Conference where except Dr D S Bhullar, no one else consented for next Conference. But As Dr D S Bhullar was also organizing Mid Year CME So option was given to me and two month time was given for confirmation. I discussed the matter with our Medical Superintendent Dr Gurpreet Gill, who said to go ahead with Conference and motivated to bring even National Conference at the institute. After that formal consent letter signed by Our Principal was sent to Dr Ashok Chanana, President, PAFMAT and I got the approval from Executive Committee to hold the Conference for year 2017. After discussions held with various members of the Executive Committee, 7th October was finalized for the event.

Theme of Conference: Initially the Proposed Theme for the Conference was Child Sexual Abuse as it was thought that inspite of POCSO Act 2012, medical Professionals even Forensic Medicine Doctors are not aware about various aspects of this Act and cases of Child sexual Abuse are increasing day by day. But at the same time, I was getting many queries from PCMS doctors indulging in medicolegal work. Many of our past students are in PCMS and were consulting me for their day to day medicolegal problems. At this time I realized that Field Doctors are having a limited knowledge to handle the medicolegal cases so after consulting with the executive members, the organizing Committee decided to change the Theme to “Forensic Medicine for Field Doctors”.

Problems: It is very pity situation that Many times, Postmortem and MLR are conducted by MBBS doctors or Postgraduate doctors (Not MD in Forensic Medicine), who are least interested in this work or are not fully trained to do this work. Because of their unintentional ignorance, lacunae are left in the report and accuse get the benefit of doubt. Field Doctors are not interested in doing dissection in case of postmortem and most of the time; this important task is left for Class-IV employee (Mortuary Attendant).
Doctors’ stand at six feet distance from the dead body (especially for decomposed bodies) and Attendant will show and dictate the findings to the doctor. The reason for these shortcomings is lack of proper training to the doctors. Reason for improper training is lack of sufficiently trained forensic medicine doctors, reduced requirement of faculty in forensic medicine departments as per MCI, optional internship training in the subject, less number of teaching hours and government policies for not allowing private medical colleges to conduct medicolegal autopsies.

It always surprises me that Why in Punjab, private medical colleges are not permitted for postmortem work but at the same time neighbouring states allow private medical colleges to conduct postmortem work. For conducting MTP, doctor is required to observe minimum 25 cases and conduct at least 5 cases independently, but there is no such requirement for postmortem and medicolegal work.

**Proposed Solutions:**

- Private Medical College be permitted for Autopsy work.
- Mortuary of Civil Hospitals be attached to Forensic Medicine department like In Mangalore (Karnataka), where Mortuary of Government Hospital is under the administrative control of Forensic Medicine department of a Private Medical College.
- Vision 2015 Curriculum be implemented, where number of teaching hours has been increased and Competency based curriculum is advocated.
- Regular Training Program of PCMS doctors be conducted. Services of Forensic Medicine department of Private Medical Colleges can be taken for this purpose.
- Mortuary Technician course should be started by universities and only trained personnel be employed for this sensitive work.
- Postgraduate students of forensic medicine be posted in emergency for handling clinical cases (Say for 2 months only)
- Research Methodology Training should be mandatory for Postgraduate students of forensic medicine.
- Whenever available, Advanced Imaging Techniques should be used for preparing final reports in case of postmortem and MLR.

**Present Conference:** This Conference has been organized to focus on training to PCMS doctors. Although one day is not sufficient so a Souvenir has been prepared and important guidelines regarding handling of medico legal cases has been incorporated in it. The Scientific Programme has been prepared keeping in mind the requirement of field doctors.

- Efforts has been done to have a very good academic programme and I hope your stay on the day of conference as well as day before would be comfortable. In case of any deficiency at any stage, I apologize in advance.
- Oral as well as Poster session for Postgraduate students have been kept to encourage and motivate students for research work and improving their presentation skills. Postgraduate students of Forensic Medicine, Pathology, OBG and Anesthesia of various Colleges are attending the Conference and presenting papers. Dental Postgraduate students are also attending the conference and will be presenting paper related to medicolegal aspects of dental injury.
Teaching the Subject of Forensic Medicine to MBBS Doctors: I believe that current teaching of forensic medicine requires reformation and hopefully the competency based curriculum will solve present problems. Dr Sanjoy Dass has specially been requested to deliver a talk. He has completed his FAIMER (The Foundation for Advancement of International Medical Education and Research) fellowship from CMC Ludhiana and his project was on Innovative Techniques of Teaching Forensic Medicine to Students.

Vote of Thanks:

- I am very thankful to Management of Adesh University especially Dr H S Gill, Chancellor, Dr GPI Singh, Vice Chancellor, Col (Retd) Jagdev Singh, Registrar, Dr Harkiran Kaur, Principal,AIMSR and Dr Avtar Singh Bansal for constant motivation and encouragement.
- I am especially thankful to our young and dynamic Medical Superintendent (Administrator) Dr Gurpreet Gill for his motivation, support and encouragement for any academic activity in the institute. I went for permission for State Conference and he encouraged me to bring National Conference.
- I am thankful to Dr Rajiv Mahajan, Dean Academics, AIMSR, my best friend who always does critical analysis of my thoughts, just like my father and give me right advice.
- I am thankful to Dr Vijay Suri, Prof and Head, Pathology for deputing his Postgraduate students to help me for the Conference and otherwise also for any help required.
- My dear MBBS students of Batch 2015 and 2016, who are the source of inspiration and motivation for me. Their constant feedback pushes me for further improvement.
- My Wife, Dr Monika Gupta and children Ishaan and Anisha, who co-operated with me in spite of my absence, most of the time for them. My Parents always supported me for my endeavors in spite of their poor health conditions.
- I am thankful to faculty of AIMSR Bathinda, who always stand with me for academic activity.
- I am very much thankful to Dr Ashok Chanana, my teacher and President PAFMAT for constant encouragement and motivation for organization of this conference.
- I am also thankful to Dr Anil Garg who created the website for the conference at a very short notice.
- I am very thankful to my forensic friends like Dr Akash, Dr Rajiv Joshi, Dr Shilekh Mittal, Dr Dildar Singh and other faculty from different medical colleges of Punjab, Haryana, Himachal, Gujarat, Delhi and Rajasthan.
- I am thankful to PCMS doctors of Civil Hospital Bathinda and surrounding areas who provide me clinical cases to update my knowledge in forensic medicine.
- I also very thankful to Ram Mittal of Subash Mittal Printing who helped in printing of Souvenir on an emergency basis.
- Lastly we are thankful to Punjab Medical Council for awarding Four Credit Hours for the Conference and Dr RC Garg, Former Member, PMC for coming as observer.
Auditorium of University
GUEST LECTURE 1

Court Evidence through Video-conferencing – Practical aspects
Dr Amandeep Singh, Associate Professor
Dr Dasari Harish, Professor & Head

Dept. Of Forensic Medicine & Toxicology, Govt.
Medical College & Hospital,
Chandigarh

In Crl. Misc. No. M-19820 of 2011, [Rajpal @ Labh Singh & Anr. Vs State of Haryana] vide order dated 6th July 2011, Mr. Justice Rajesh Bindal, Honorable Justice, Punjab & Haryana High Court, decreed that all medico-legal work in the states of Punjab, Haryana and the UT Chandigarh shall be computer typed from 1st September 2011. In compliance of this order, the department of Forensic Medicine & Toxicology, GMCH, Chandigarh, indigenously developed fill-able Microsoft Word Templates of all the medico-legal performas, all the forms for forwarding various samples and specimens to different laboratories, subsequent opinion forms, etc. and started using them.

The NIC Haryana developed the MedLEaPR software, based on the Medico-legal Manual of the Haryana state, in collaboration with the faculty of GMCH & PGIMER, Chandigarh; DHS Haryana and Chandigarh and Medical Officers from the three states. Since 7th January 2013, the department started using the MedLEaPR software for online preparation of the PMRs & MLRs.

Hon’ble Punjab & Haryana High court, under the orders of Justice Hemant Gupta [State Of Punjab vs Mohinder Singh on 16th April, 2013 CRM No.18934 of 2013] decided that video-conferencing be started in the states & UT for recording evidence. In compliance of these orders, video-conferencing was started in GMCH, Chandigarh from 25th May 2015, after undergoing a number of trial runs and fine-tuning the equipment and the process.
GUEST LECTURE 2

Key words: Computerization, Med LEaPR, Software, Video-conferencing, Evidence

SAMPLE COLLECTION FOR DNA FINGERPRINTING - PRACTICAL ASPECTS

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President, PAFMAT-143001
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CDFD: The Centre for DNA Fingerprinting and Diagnostics (CDFD) is an autonomous organization funded by the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India. CDFD receives funding also from other agencies on specific collaborative projects. The centre is equipped with world class state-of-the-art instrumentation and computing infrastructure to facilitate working in frontier areas of research in Life Sciences

DESCRIPTION OF SERVICE:

- Establishment of parentage
- Identification of mutilated remains
- Establishment of biological relationships for immigration, organ transplantation and property inheritance cases
- Identification of missing children and child swapping in hospitals
- Identification of rapist in rape cases
- Identification in murder case

PROCEDURE FOR COLLECTION AND FORWARDING OF SAMPLES FOR DNA FP ANALYSIS:

For Establishment of Maternity/Paternity: Samples required- Blood stains of mother, disputed child and alleged /suspected father.

For the Identification of Rapist in Sexual Assault Cases: Samples required- Forensic exhibits i.e. garments, vaginal swabs and slides along with blood stains of the suspect(s) and victim

For the Identification of Deceased: Material required- Blood stains of the nearest relatives i.e. mother, father, brother, sister and children.

Material from deceased i.e. teeth, postmortem blood, muscle tissue, bone, hair with root

ACCEPTANCE OF CASES BY CDFD:

- Private cases NO
- CASES REFERRED BY LAW ENFORCEMENT AGENCIES OR COURT OF LAW ARE ACCEPTED BY CDFD

Collection of Blood Stains:

- By any qualified Medical officer
- In presence of Hon’ble Court authorities
- By the use of Lancet and FTA card or
- Sterile EDTA vials/tubes
- Blood Collection material kit

COLLECTION OF BLOOD ON FTA CARD:

- FTA (Flinders Technology associate) are used for room temperature, Collection, Shipment, Archiving, Purification of
Nucleic acid

LABELLING OF FTA CARD WITH APPROPRIATE SAMPLE IDENTIFICATION
(Identification of subjects as per Identification Form)
- Date and time of collection of sample
- Name of the concerned person whose bloodstain is collected
- Name of the Medical officer who collected the blood
- Signature of Medical Officer

FRESH WHOLE BLOOD OF THE SUBJECT OR WITH ANTICOAGULANT IS USED:
- In one circle of card, drop the blood onto card in concentric circular motion within the printed circle and allow it to dry.
  (Avoid “Pudding” of liquid sample as it will overload the chemicals on the card. Also donot rub or smear the blood onto card). In the second circle, spot one drop of blood at 4-6 locations
- Samples applied to FTA cards are ready for immediate room temperature storage
- Do not heat to shorten the drying period
- The sample is now ready for transporting for processing or archive

TRANSPORT:
- FTA cards can be sealed in a clean dry envelope and sent to CDFD for DNA profiling analysis
- Blood samples (2-3ml) can be collected in the sterile blood collection material (EDTA vials) and sent in a thermas flask either by messenger or through courier

OTHER FORENSIC EXHIBITS, FORWARDING AND AUTHORIZATION LETTER:
- All the samples after proper collection are sealed and sent to CDFD with a forwarding certificate of authorization having details of the case and exhibits.
- An extra attested passport size photograph of each individual/subject are to be sent along with Identification form.

COST OF SERVICE:
- Rs.5,000/- for each blood sample/person
- Rs.10,000/- for each forensic exhibit analyzed
- Extra 18% (w.e.f.01-07-2017) since the introduction of GST by Government of India. Payment has to be paid in advance, in the form of crossed DD in favor of “Director, CDFD” payable at Hyderabad

CONTACT INFORMATION:
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GUEST LECTURE 3

An Overview of Toxicological Tests conducted at Forensic Lab in Bathinda

Mrs. Ritika Gupta
Scientific Officer, Regional Forensic Science Laboratory, Bathinda.

No other topic related to the identification of controlled substances causes as much controversy as testing specificity. Forensic science laboratories conduct two different categories of tests. Tests in the first category are called “Screening Tests”. They include a series of tests used to make a preliminary determination of whether a particular drug or class of drugs is present. It must be emphasized that screening tests are not used to positively identify any drug. At best, screening tests can only be used to determine the possibility that members of a particular class of drug may be present. Specificity is the key to the forensic identification of controlled substances. The second category of tests performed which are used to confirm the identity of the substance are “Confirmatory Tests”. Here, we would be discussing all the major Screening Tests which are being performed at Forensic Science Laboratory and also, the Confirmatory Test that is being done for the positive identification of the substance.

GUEST LECTURE 4

Child Sexual Abuse & POCSO Act – Salient Features

Dr DS Bhullar, Associate Professor (D)
Department of Forensic Medicine & Toxicology,
Government Medical College Patiala

The Prevention of Children from Sexual Offences Act (POCSO) 2012 is the first comprehensive law in India on child sexual abuse which expands the scope and range of forms of sexual offences, making reporting of abuse mandatory and defines guidelines for child friendly policies and procedures. Doctors and all other health care professionals are often the first point of contact with abused children and their families. They play a key role in detecting abuse and providing immediate and longer term care and support to children and their families and must have an overall knowledge of child sexual abuse regarding prevention, detection and management of abuse from a legal, medical and mental health angle. Being important stakeholders in the prevention and response to sexual violence against children, it is mandatory for doctors to get acquainted with all aspects of the problem and get sensitized from time to time to help the society against such crimes.

GUEST LECTURE 5

MEDICOLEGAL ASPECTS OF PUNJAB ANATOMY ACT

Dr. Parmod Goyal, Professor & Head, Department of Forensic Medicine*
Dr. Monika Gupta, Associate Professor, Department of Anatomy*
Dr. Preeti Chaudhary, Professor and Head, Department of Anatomy**
*Adesh Institute of Medical Sciences & Research, Bathinda (Punjab)
**GGS Medical College, Faridkot

Introduction: Punjab Anatomy Act was enacted in the year 1963 to supply unclaimed dead bodies to medical colleges for the purpose of anatomical dissections, surgical operation and research work. The Act has bounded the Police, Public Health officers and Village officers to assist authorized officers to take possession of such unclaimed bodies. The Act also mentioned the penalty of Rs 200/- for persons obstructing the Authorised officers to take possession of such unclaimed bodies. There are certain medico-legal issues in the act requiring discussions and explanations. In this review article, we have highlighted these issues and comparison with other states anatomy acts has been done at places. Various media coverage regarding body donations, scarcity of bodies, excess of cadavers etc has been reviewed. Following are the main issues in the Act:
1. Absence of Voluntary Donation Clause: The Act only mention about shifting of unclaimed dead bodies to medical colleges and there is no mention about voluntary body donation, which is the most common method of receiving dead bodies in most of the medical colleges of Punjab. Some States in our Country have amended their Anatomy Acts to include voluntary body donations like Karnataka, Maharashtra, Orissa and Gujarat etc. The amended Acts of these states have specifically included the voluntary donation clause for whole body as well as parts of body. Karnataka Anatomy Act mentioned that if any person at any time before his death had expressed an intention in writing in the presence of two or more witnesses then his body may be donated by near relatives except under following circumstances:
   a. That deceased has revoked/objected his intention any time
   b. That any near relative of the deceased objected for body donation.

   However Amended Acts of these states are also silent over the situation when near relatives of the deceased wish to donate the body in the absence of written will by the deceased. But there has been no such amendment in the Punjab Anatomy Act since 1963. Although Medical colleges of Punjab have not faced any problem till date because of absence of this clause and are continuing receiving bodies by voluntary donation, but still it is a legal deficiency in the Act and should be amended. The Madras High Court in its judgement, Kuma Mahesh Vs State of T.N dated 21 November 1997, has instructed Madras Medical College to receive the body of the deceased in the absence of voluntary donation clause and also duty was caused on the state of Tamil Nadu to expedite the amendment in Tamilnadu Anatomy Act in order to fulfill the aspirations of many persons which in turn would be helpful to the medical education.

2. Principals of Government Medical Colleges only as Authorised officers:
   Department of Medical Education and Research (DRME Punjab), Govt of Punjab vide letter No: 11/197/03-1399 dated 21st October 2003 has appointed the Principals of Government Medical Colleges of Punjab only as Authorised officers.
   In another letter addressed to Deputy Commissioner Bathinda, it has been mentioned that Principals of Private Medical Colleges cannot be appointed as Authorised officers for this Act. However it is mentioned that Private Medical Colleges can contact with Principals of Government Medical Colleges for supply of unclaimed bodies.

   Government Medical colleges are situated at Amritsar, Patiala and Faridkot only. It is very cumbersome for cities other than Amritsar, Patiala and Faridkot cities to approach to Authorised officer for shifting of unclaimed dead body. Even all unclaimed bodies of these cities are not approaching to medical institutions, Many such bodies are handed over to NGO for cremation after post-mortem or without post-mortem.

   Authors have the personal experience where a skeletonised body was recovered by a police from a well near Bathinda and sent for post-mortem examination. After post-mortem examination, author requested the police to hand over the skeleton to a medical college for teaching purpose. Although police agreed and co-operated but formalities took more than 48 hours and finally police had to hand over the skeleton to NGO for cremation as police could not spare much time for an unclaimed autopsied body.

   Why Principals of Medical Colleges are the Authorised officers and not the heads of Anatomy/Forensic Departments or similar officers of other government medical institutions like dental college, homeopathic college, ayurvedic college, physiotherapy college or similar officers of private medical institutions as cadavers are required not for medical colleges but also for dental colleges, homeopathic colleges, ayurvedic colleges and physiotherapy colleges.

   For waiving off post-mortem in medicolegal cases, NOC from executive magistrate required, but in this Act Executive Magistrate role is not mentioned anywhere.

3. Handing over suspicious death cases to Police: Section 10 of the Punjab Anatomy Rules mentioned that where death has taken place under suspicious circumstances, the body will be handed over to police for medicolegal examination. Karnataka Anatomy Act also mentioned that inquest/post-mortem examination may be required for suspicious cases, Karnataka Anatomy Act also mentioned about the clearance from Executive Magistrate for such cases.

   After post-mortem examination, it is presumed that bodies will be of no use for anatomy department. As per Authors opinion, bodies can be made use of by following ways even after post-mortem:
   a) Skeleton can be extracted and bones can be utilized for teaching purpose. Because of increasing awareness among population regarding body donations and efforts of NGO’s, medical colleges in Punjab are getting required number of dead bodies but most of the anatomy department are short of human bones. After post-mortem examinations, bodies are burnt to ashes with the help of NGO’s instead of teaching purpose because of lack of clear guidelines in the Act. Drinderjit Singh Dewan has said in a media that skeleton of decomposed bodies can be extracted.
   b) Limbs can be used.
   c) If post-mortem is done at same medical college then by co-ordinating with forensic faculty- minimal dissection can be done.
   d) Modern imaging techniques can be used to find out the cause of death and dissection can be minimised (so called virtual autopsy).
4. **Dispute as to near relative**: Near relatives of the deceased includes spouse, children, siblings, including consanguineous relatives in collateral relationship within 50 and lineal relationship within 30 or anyone associated through marriage with any of the mentioned relations. Nephew, Niece, friends, live in relation partners, step children and Officers in charge of Old Homes; Orphanage etc are not under the definition of Near Relative as per the Act. The act mentions that dispute as for near relative be resolved by Executive Magistrate or authorised officer, whose decision will be final.

5. **Claiming of Unknown Body**: As per Punjab Anatomy Rules 1966, unclaimed dead bodies may be claimed by a near relative of the deceased with in a period of 96 hrs of the death. It is also mentioned that if claimed within 24 hours, then no preservation charges to be taken. Cases have been reported where family members have claimed a dead body after one month. Cases have been reported where police has handed over a body as unclaimed body to a medical college, which later on got identified and a case of murder was registered and cases were registered against the police as well as doctors.\(^{9,10,11,12}\)

So it is suggested that a preliminary examination be done by a team of forensic and anatomy doctors before receiving an unclaimed body without autopsy. No such examination will be required for autopsied bodies or hospital naturally dead cases.

The Act should differentiate between unclaimed persons dying in a hospital versus persons dying out of hospital. (Certified death versus uncertified death).

Karnataka Anatomy Act mentioned that certificate from Registered Medical Practitioner not concerned with utilisation of body be obtained before shifting the body to a medical college.

Executive Magistrate or authorised officer, whose decision will be final.

6. **Transfer of Body from one Medical College to another or out of State**: Some medical college has excess of cadavers and some are starving for cadavers. However Anatomy Act /Rules are silent over transfer of bodies from government to private medical institutions or from government to government institutions. News Report from "The Hindu" dated 10th May 2005 reads that there is no illegality in transferring cadavers from Government Medical College to private sector teaching institutions coming under the purview of the Kerala Anatomy Act, 1957. Same news reports also reads that the Government (Kerala) has issued an order allowing the sale of cadavers through the Head of the Department of Anatomy of medical colleges on payment of Rs.15000.\(^{13,14,15}\)

Same report also reads that case was registered against head of anatomy department as proper procedure was not followed in transferring a cadaver as Head of Department of Anatomy was not the competent authority to transfer bodies in and out of the Institution. So there is a need to frame uniform procedure for transferring cadavers including the announcement of competent authority and procedure for maintenance of record. It should be clarified about receipt of money as preservation charges/chemicals expenses incurred etc.\(^{16,17}\)

7. **Use of Hospital Ambulance for Transfer of Bodies**: "Horse" van is the official vehicle to be used for transfer of dead bodies. But in absence of "Horse" Van, most of medical colleges use hospital ambulance for shifting of dead body from deceased residence to anatomy department. Although in the motor Vehicle Act, there is no mention of any illegality for use of hospital ambulance yet it seems unprofessional to use ambulance for carrying dead bodies.

**Conclusion**: Punjab Anatomy Act is 53 years old and requires amendment so that more and more bodies can be utilised for teaching purpose.

**KEY WORDS**: Anatomy act, unclaimed body, Voluntary body donation

**Conflict of Interest**
None declared.

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Motivating learning of Forensic Medicine through Student Projects

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A CMCL-FAIMER Project

Abstract
An innovative method of increasing student motivation and faculty satisfaction of the UG program was tried through Project based learning. Feedback analysis showed that students became more interested to learn the subject and were motivated towards self directed learning. The faculty became interested in using innovative TL methods and were satisfied with the UG teaching program.

Introduction
Students are not very motivated to learn Forensic Medicine.
There are many methods to enhance students' interest.
One of these is Project based learning.
Educationalists have studied this method at primary school levels¹ and in the IT sector².

Let us see what happens with our students...

Aims and Objectives
To increase motivation of students to learn the subject of Forensic Medicine and Toxicology and to enhance faculty satisfaction regarding the undergraduate teaching program.

Methodology
1. 101 students divided into 26 groups
2. 26 research projects topics conceived by department faculty.
3. One project assigned to each group under guidance of a faculty from another department.
4. Sensitization sessions held for students and faculty guides.
5. Students wrote project proposals for ethical clearance and started working as per their timeline charts.
6. Projects were submitted in bound form and evaluated by internal and external faculty.
7. Prizes to best ones and certificates to all were awarded in a ceremony.
8. Feedback was obtained from the students and the faculty guides on a Likert scale.
9. Data was analysed using SPSS.

Result

What Students felt
Job of Forensic expert is complex but interesting.
Increased interested in the subject after completion of project.
Motivated towards self directed learning.
Overall motivation to learn Forensic Medicine has increased.

What Faculty felt
A good method to create interest in the subject.
Enjoyed being a part of the project work.
Motivated to use innovative methods to facilitate student learning.

Conclusion
Assigning short term research projects to medical students -
• Increased students' interest in the subject.
• Enhanced their motivation to take steps for self directed learning.
• Motivated students to learn Forensic Medicine.

Working with the students -
• Enhanced the motivation of the faculty to use innovative teaching methods.
• Faculty enjoyed being a part.
• Increased faculty satisfaction regarding the undergraduate teaching learning process.

My Reflections
• I learned that students enjoyed working in teams.
• I realized that students learn better through enjoyable tasks.
• I had the opportunity to work with faculty from other departments.
• I could motivate the faculty to use innovative teaching learning methods.

Acknowledgement

References

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Recent Government Circulars in respect of Examination and Reporting of Medico legal Cases
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The Medicolegal work including MLRs and PMRs and even medical certificates of illness always mired in controversy. There is no clarity of rules in this regard for most of the medical officers. Further the existing rules are so archaic that their accountability and interpretation is always questioned. The various rules that govern the medicolegal work in Punjab include Punjab Medical Manual (1910,1933,1965), Punjab police Rules, Punjab High Court Rules, Government of India Hospital Manual, Punjab Jail Manual apart from Guidelines from NHRC, Supreme Court/High Court, National Consumer dispute redressal commission etc. Recently some new instructions from DHS office have brought forth some more controversies in this regard.

PG students to conduct minimum 100 forensic cases

B Staff Reporter
NAGPUR, Sept 13

In a welcome initiative, Medical Council of India (MCI) has made it mandatory for the Post Graduate (PG) trainees of Forensic Medicine (FM) department of medical colleges across the country to do clinical forensic medical work and the PG trainee shall be required to conduct minimum of 100 clinical forensic cases during the entire training period in addition to autopsy cases. MCI also made mandatory to FM department having PG courses to do Medico Legal Examination (MLE) of sexual assault victims. The recently issued guidelines by MCI for competency based PG training programme for MD in forensic medicine and Standard Assessment form for inspection explains these facts.

This is a very big change in the medical education of the country, said Dr Indrajit Khandekar (Professor of FM, Mahatma Gandhi Institute of Medical Sciences (MGIMS) who is pursuing this matter since 2010.

In 2012, MGIMS by taking into consideration the poor quality of medico-legal reports of rape and other clinical forensic cases; had established unique Clinical Forensic Medicine Unit (CFMU) under the leadership of Dr Khandekar by the orders of the then Dean Dr BS Garg and Medical Superintendent Dr SP Kalantri. In 2012, FM department of MGIMS was the only department in the country that was handling forensic issues of rape and other clinical cases round the clock through CFMU. Thereafter, few medical colleges followed the same.

In 2012 Dr Khandekar had filed PIL in Nagpur bench of Bombay High Court for revamping the curriculum of FM subject and to make mandatory to handle clinical forensic work by the FM department for effective practical teaching. In view of High Court’s order, Dr Khandekar was invited by Dr Vedprakash Mishra (Chairman Academic Committee of MCI) in 2014 to discuss the issue. He explained the whole concept of CFMU to Dr Mishra who assured him that in a step wise manner (first in PG courses and then to others), concept of CFMU would be established in the country.

And now in 2017, MCI acted on the said assurance, said Khandekar.

Another PIL was filed in 2010 on Dr Khandekar’s report of poor quality of forensic exam of rape cases, in which he had suggested to Government that forensic issues of rape cases shall be handled by Forensic Department and now his views have been endorsed by MCI. Now, it is hoped that MCI will work on to increase the staff requirement of FM dept due to increase in workload.
Oral Presentation or Posters
PAPER-1

A 10 year Retrospective Study of Fatal Snake Bites

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Objective: Retrospective analysis and demographic study of cases of fatal snake envenomation in Government Medical College & Hospital, Chandigarh

Materials and Methodology: This was a 10 year retrospective hospital based observational study from 1st September 2006 to 30th August 2016, conducted in the Department of Forensic Medicine and Toxicology, GMCH, Chandigarh. The age and sex wise distribution of cases, occupation, the most frequent month of snake bite incidence, date and time of presentation of cases, distribution of bite marks and their nature and the most affected organ in histopathological examination were analysed from the data compiled both from case files and the post-mortem reports.

Results: A total of 7082 cases brought for medicolegal post-mortem examination to the mortuary of the department were the subjects of the study. Of these, 88 (1.24%) cases were of fatal snake bite. Males, 68 (77.3%), comprised the maximum cases, the male : female being 3.4 : 1. The most commonly involved age group was the 20-40 years group. Majority of the cases, 74 (84.4%) belonged to rural areas and the time period of occurrence was both in the working hours as well as at night when sleeping on the floor. The most common area involved was the lower limb, 46 (52.3%) cases. In 26 (29.5%) cases, bite mark was not seen however the limb involved showed wet gangrene and cellulitis.

Conclusion: Snake bite cases are one of the important cause of death, particularly in the rural areas; males were involved more than females, 20-40 yrs age group was the most affected, lower limb was the most common area involved. Awareness programmes about snakes and snake envenomation and its treatment should be initiated and popularised to increase the general awareness about this important cause of deaths in rural India.

Keywords: Snakes, Snake envenomation, Animal Irritant Poison, Wet gangrene, Autopsy

PAPER-2

A RAILWAY ACCIDENT OR HOMICIDE: A CASE REPORT

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The railway is an important means used by people for travelling and communication. Its tracks are extended all over world so it is an important source of tragedy met by mankind. Though railway premises are prohibited areas for unauthorized public but still beggars illegally travel in the train and even take shelter at the railway station which are not cared by the railway authorities. These beggars meet with railway accidents because of their to and fro movements in the prohibited zones of railways. Frustrated people also select railway track as best places for committing suicide. Other crime like burglaries, dacoity, snatching are also quite common in the railway station or in the running trains and met railway accident while trying to escaping from crime. The railway police also reported Assaults/homicides. Sometimes crime is committed at different place and bodies are placed in the railway compartments/tracks to ditch the investigation regarding their identity/manner of death to avoid punishment for the crime. The authors present a case report of an unknown male who was found unconscious between railway tracks and died during treatment. The dead body was brought to the mortuary for post-mortem examination. The motive, manner and various factors behind this crime along with the difficulties encountered while conducting postmortem examination in such cases have been discussed.

Keywords: Railway accident, homicide, manner, head injury pattern
PAPER-3

Review of The Mental Healthcare Act, 2017 in relation to medical profession

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Human rights are those rights to which an individual is entitled by virtue of his status as a human being. In the year 2007, India became a signatory to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) - a global human rights treaty. So, a need arose to make the existing Lunacy Act, 1987 compliant to the UNCRPD. The reform process gave birth to The Mental Healthcare Act, which was notified on 7th April, 2017. The hallmarks of this Act are the provisions of advanced directive, decriminalization of suicide and a wholesome approach to guarantee the rights of the mentally ill. It defines mental illness and enlists the rights of persons with mental illness, thus, effectively providing them protection from discrimination. The act mandates setting up of central mental health authority and state mental health authorities which are quasi-judicial authorities for the purpose of this act. The act focuses on protection, promotion and fulfillment of rights of such persons during delivery of mental healthcare and services and for matters connected therewith or incidental thereto. As a part of medical jurisprudence, every medical professional must have sufficient knowledge of law in order to avoid conflicts against law during the practice of his profession. For this, he has to be familiar with various acts and rules and regulations including the Mental Healthcare Act, 2017.

Keywords: The Mental Healthcare Act 2017, UNCRPD, Human rights, Mental Illness, Advanced directive, Central Health Authority, State Health Authority.

PAPER-4

Sudden death due to ruptured ectopic tubal pregnancy in a case suspected poisoning: A case report

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* IIrd year PG, ** Associate Professor, *** Prof & Head

GMCH 32 Chandigarh

An interesting case of 22 years old newly married female with history of suspected poisoning was brought to the mortuary of the Govt. Medical College and Hospital, sector 32, Chandigarh for autopsy. On dissection it was found to be a case of ruptured tubal pregnancy. The diagnosis was established only after the postmortem examination. Ruptured ectopic pregnancy is one of the causes of sudden and suspicious death in comparatively healthy female. Commonest symptoms like sudden onset of sharp pain in the abdomen and vomiting is usually confused with either intake of some stale food articles or in some cases may arouse the suspicion of poisoning. The possibility of other systemic conditions are often sidelined, and the timely diagnosis and medical intervention for such a condition are often delayed. Suspicion of intake of poisonous substance misleads the treating doctor as well as subjects the dead body for postmortem examination.

Keywords: Pregnancy, ectopic, tubal, poisoning, death

PAPER-5

Safety First

Dr. R.N Bansal, Deputy Medical Superintendent GGS Medical College, Faridkot

Said topic focuses mainly on preventing and controlling infection and or injury risks in mortuary and post-mortem room.
practice. It is concerned with the handling, storage and examination of bodies and pathological specimens in hospital and public mortuaries and in post-mortem rooms. Attempt has been made to highlights the steps that can be considered to prevent the risks and hazards encountered at mortuary.

1. Take precautions to eliminate or adequately control the risks to the health and safety of staff performing autopsies.
2. Consider the risks encountered at autopsy is a mixture of environmental controls, workplace practices and the use of appropriate personal protection.
3. Emphasizing on Practice of universal precautions.
4. Detailing on precautions to be taken by all employees, contractors' staff and visitors.

PAPER-6

Septicaemia- A Dominant Cause Of Burns Mortality In Developing Countries.

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Background: Burn injuries are one of the leading causes of death in all medico-legal cases in developing countries like India and are the most common manifestation of dowry death. It is a major social, economic and public-health problem due to their mortality, morbidity and long term disability. There is steady increase in the number of female victims of burns, particularly the newly married ones, Infection of burn injury leading to septicaemia is most common cause of death in these cases.

Aim: To study the death cases due to burns and to prepare the demographic profile.

Materials and Methods: A two year retrospective study was conducted in department of Forensic Medicine at G.G.S. Medical College, Faridkot from 1st January 2014 to 31st December 2016. During the period a total of 910 cases were autopsied of which 85 cases were those of burns. The most common age group was 31 to 40 years. Most of the victims were from rural background. Maximum number of victims suffered burns to more than 70% of total body surface area. Maximum number of incidents in males was in the month of May. The complete findings of the study would be discussed in the paper.

Keywords: Burns, Septicaemia, Burn mortality.

PAPER-7

LOCAL AND SPECIFIC EXAMINATION OF RAPE VICTIM

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Local Examination: Before embarking on a detailed examination of the genitor-anal area, make the patient feel comfortable & relaxed. A careful observation of the perineum is made for evidence of injury, seminal stains and stray pubic hairs etc. If the patient is menstruating at the time of examination then the process of examination and sample collection of other areas be done. The patient is requested to come back for re-examination immediately after the cycles are over. While describing injuries its detailed description is must. A swab of the external genitalia should be taken before any digital exploration or speculum examination is attempted. Per vaginal and per speculum examination is not a must in case of a child or when there is no history of penetration or when the patient or guardian (as the case) may refuse it. Examination of following areas should be carried out in detail: pubic hairs, labia majora & minora, clitoris, fourhette &
introitus/vagina, hymen, perineal tear, urethra, per speculum, anal examination, oral cavity and any other specific findings should be noted.

Specific Examination: It is done if indicated and facilities are available. It includes Wet mount slide test, Toluidine blue dye test, Anoscopic/Colposcopic examination, UV light exam of clothes and skin, Detecting semen.

Opinion: The issue of weather an incident of rape has occurred is a legal issue and not a medical diagnosis. Consequently, doctors should not on the basis of medical examination conclude weather rape has occurred and should give only their provisional diagnosis based on medical examination.

PAPER-8

Role of Dental expert in Forensic Odontology

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Forensic dentistry requires interdisciplinary knowledge, since the data obtained from the oral cavity can contribute to identify an individual or provide information needed in a legal process. Furthermore, the data obtained from the oral cavity can narrow the search range of an individual and play a key role in the victim identification process following mass disasters or catastrophes. The tooth has been used as a weapon and under certain circumstances, may leave information about the identity of the biter. Dental professionals have a major role to play in keeping accurate dental records and providing all necessary information so that legal authorities may recognize malpractice, negligence, fraud or abuse, and identity of unknown individuals. This poster will try to summarize the various roles of dental experts in forensic medicine.

Keywords: Forensic dentistry, identification, interdisciplinary knowledge, biter

PAPER-9

History-taking and general examination of rape victim

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Introduction: Before beginning, the examiner asks the patient's permission. Because recounting the events often frightens or embarrasses the patient. The examiner must be reassuring, empathetic, and nonjudgmental and should not rush the patient.

Privacy should be ensured. The examiner elicits following specific details:
- Type of injuries sustained (particularly to the mouth, breasts, vagina, and rectum)
- Any bleeding from or abrasions on the patient or assailant (to help assess the risk of transmission of HIV and hepatitis)
- Description of the attack (eg. which orifices were penetrated, whether ejaculation occurred or a condom was used)
- Assailant's use of aggression, threats, weapons, and violent behavior
- Description of the assailant

Many rape forms include most or all of these questions. The patient should be told why questions are being asked (eg, information about contraceptive use helps determine risk of pregnancy after rape; information about previous coitus helps determine validity of sperm testing).

The examination should be explained step by step as it proceeds. Results should be reviewed with the patient. When feasible, photographs of possible injuries are taken. The mouth, breasts, genitals, and rectum are examined closely. Common sites of injury include the labia minora and posterior vagina. Examination using a Wood's lamp may detect semen or foreign debris on the skin. Colposcopy is particularly sensitive for subtle genital injuries. Some colposcopes have cameras attached, making it possible to detect and photograph injuries simultaneously. Whether use of toluidine blue to highlight areas of injury is accepted as evidence varies by jurisdiction.
PAPER-10

General Guidelines For Managing A Rape Victim

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DEFINITION: The World Health Organization (WHO) defines Sexual Violence as: “any sexual act, attempt to obtain a sexual act, unwanted sexual comments/advances and acts to traffic, or otherwise directed against a person's sexuality, using coercion, threats of harm, or physical force, by any person regardless of relationship to the victim on any setting, including but not limited to home and work.

The definition of rape: (Section 375 IPC) as per the recent amendment (The Criminal Law (Amendment) Bill, 2013 as Passed By Lok Sabha On 19 March, 2013) apart from peno-vaginal sexual intercourse includes other forms of sexual assault like oral penetration, urethral/anal penetration, fingering, use of objects (other than penis) for vaginal, urethral and anal penetration.

Section 354 IPC: deals with "criminal assault on a woman with intent to outrage her modesty" and Section 377 IPC: deals with "carnal intercourse against the order of nature".

Immoral Traffic Prevention Act deals with human trafficking.

HEALTH CONSEQUENCES OF SEXUAL ASSAULT:

Physical Health Consequences:

- Abdominal pain, Burning micturition, Sexual dysfunction, Dyspareunia, Urinary tract infection, Unwanted pregnancy, Miscarriage of existing fetus, STD (Sexually transmitted diseases/Infections), PID (Pelvic Inflammatory Disease), Unsafe abortion,

Psychological Health Consequences:

Short term psychological effects: Fear and shock, Physical and emotional pain, Worthlessness, Intense self disgust and powerlessness, Apathy, Denial, Numbness, Withdrawal


DUTIES OF HEALTH CARE PROVIDERS:

- Providing necessary medical support to the victim of sexual assault and appropriate referrals as per the need.
- Obtaining informed consent from the victim/patient.
- Detail Forensic medical examination and documentation.
- Collection, preservation and handing over different samples by maintaining proper chain of custody.
- Information to police.

OBJECTIVES OF MEDICAL AND FORENSIC MEDICAL EXAMINATION:

- Providing treatment and appropriate referrals for the patient.
- Ascertaining whether sexual act has been attempted/completed or not.
- Ascertaining whether such a sexual act is recent.
- Ascertaining whether such act was forcible, The evidence of struggle and presence of injuries may help to give opinion on this aspect. However, it must be noted that absence of signs of struggle does not imply consent.
- Collection of samples for FSL examination.
Ascertaining whether there is e/o non penetrative sexual assault (i.e. Indecent assault)

Guidelines for Forensic Medical Examination of Victim of Sexual Assault & Instructions for filling the Forensic Medical Form:

- General Information And Consent
- History/Details of alleged sexual assault
- General Physical Examination
- Injury Examination (injuries on body if any)
- Local Examination of Genitals, Anus And Oral Cavity
- Specific Examination

General Information And Consent:

- Enter the OPD number/ IPD Number or other registration number of the patient, as applicable, if any. Enter the MIC number in the place provided.
- Enter the full name of the patient/victim.
- Enter the age/sex of the patient. Also enter the marital status of the patient i.e., whether single, married, divorced etc.
- Enter the patient’s address with contact number if any.
- Enter the date and time of arrival of the patient or victim at the hospital.

Brought by:

- If the patient is accompanied by a police or law enforcement officer, enter the officer’s name, buckle/identification number (if applicable) and police station of accompanying police with letter no/date etc wherever such information is available.
- If the patient comes on her own then enter the name of the person (if any) with relation (if any) who accompanied the patient.

CONSENT:

- Obtain consent on consent form. This consent form should be kept in hospital file attached to hospital copy of Forensic Medical Report.
- The doctor is required to give the patient a structured explanation of what the examination comprises and how the various procedures may be carried out. All this should be explained in the manner and language which the patient can understand. Then ask the patient (or the patient’s guardian, if the patient cannot legally consent) to read the items and initial.
- Patient and her relative/guardian should be explained that at any stage during examination and evidence collection the patient or guardian as the case may be may ask the doctor to stop and that it will not have any effect on the quality of her treatment.
- If female patient is to be examined by a male doctor then such examination shall be made in presence of a female person i.e., nurse/attendant/etc. with the consent of the patient. In such circumstances, the name and signature of the female person in whose presence the examination is conducted shall be obtained against this column. If female patient is being examined by female doctor then “not applicable” must be written against this column.
- Thumb impression of the victim (Right in case of females and left in case of male) may be obtained on consent form

PAPER-11

TITLE: Dyadic Deaths of five family members (Homicide-Suicide) by the head of the family due to stress of financial burden.

Author: Dr. Rajesh Bhukan, Dr. Deepali Pathak
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PAPER-12

TITLE: Death due to accidental strangulation due to fall from labour table- an unexpected occurrence
Dr. P.C. Saini, Dr. Deepali Pathak

**Introduction:** Accidental hanging and strangulations are rare occurrences. The circumstances of death in such cases are so strange and quite unpredictable thus resulting in doubt over the narrated incident. There may be such confusing findings too in such cases which may lead to difficulty in diagnosis of suicidal, accidental or homicidal intent of fatal asphyxia. We report a case of death due to pressure over the neck due to fall from an obstetric table during labour due to entanglement in the hanging stirrups of the table.

**Case:** A patient was admitted to Zenana hospital for delivery. Induction of labour was done and patient was shifted to the labour room. While in pains, the patient felt nauseating and sat up to vomit at foot end of table and suddenly lost balance and half fell from the table getting entangled in the stirrups of the table. The staff in labour room rushed for rescue and restored her back on table to find her pulse less and BP less with cyanosed face. Cardiopulmonary resuscitation was attempted but the patient could not be revived and was declared dead. In all the chaos even the foetus could not be saved and died in utero. The relatives lodged a case against hospital authorities on knowledge of the event and the dead body was subjected to medicolegal autopsy. Face and both upper limbs were cyanosed with congestion and petechial haemorrhagic spots on face. There were two bruises on right side of neck laterally one above another obliquely medial to each other. Another bruise was present on right side face in lower half extending vertically. On dissection all internal viscera were congested with haematoma on right side of laryngotracheal apparatus. On further dissection extensive haematoma was present on posterior laryngotracheal apparatus extending up to inferior mediastinum on retro-oesophageal aspect. There were petechial haemorrhagic spots on both lungs. The cause of death was concluded as Asphyxia brought about as a result of antemortem pressure over the neck.

**Discussion:** The above case was a pure accidental asphyxial death in a very strange and unexpected manner. However, death occurred due to an unprecedented event during hospital admission which resulted in litigation and thus the dead body was subjected to medicolegal autopsy. The opinion regarding hanging or strangulation was not concluded in the above case. The findings were suggestive of strangulation (extensive soft tissue haematoma underneath bruising) whereas the circumstantial evidences were more suggestive of hanging. There are reports of accidental hangings and strangulations in rare circumstances which are more commonly seen in children and rarely in adults. Workmen falling from scaffolding may be hanged by ropes. Hanging as well as entanglement occurs mostly with a child older than 6 months. It occurs usually with playground equipment. There are independent or synergistic mechanisms, by which accidental hanging may cause death. These include: stretching of the carotid sinus causing reflex cardiac arrest; occlusion of the carotid (and possibly vertebral) arteries; venous occlusion; airway obstruction resulting from pushing the base of the tongue against the roof of the pharynx or from crushing the larynx or trachea; and finally spinal cord-brainstem disruption. In this case, there occurred instantaneous death due to entanglement in the loop of the stirrup of the obstetric table which probably resulted due to reflex vagal inhibition and venous congestion thus resulting in sudden death with cardinal signs of asphyxia. Such accidental asphyxia deaths are rare especially in adults moreover. In a circumstance of a crowded place like labour room of a tertiary care centre in presence of medical and paramedical staff.

**References**


**PAPER-13**

**TITLE:** MTP ACT – NEED FOR REVISION?

Dr. P.C. Saini, Dr. Deepali Pathak, 3rd Year PG Residents, SMS Jaipur

This act aims to improve the maternal health scenario. The MTP Act does not allow abortion if the foetus is over 20 weeks old, and exceptions to this rule include grave danger to the mother or the baby. There have been several instances wherein the constitutional validity of the MTP Act and its provisions have been debated. The Supreme Court rejected the plea of a 37-year-old woman who wanted to abort her 26-week foetus that showed signs of Down's Syndrome — the court made a strict and pedantic reading of the MTP Act, emphasising that while they know that the child, when born, might suffer from mental and physical challenges, they were bound by the law. In 2008, the Bombay High Court rejected the petition of a woman to abort her
26-week foetus, who showed signs of a congenital heart defect. In R V, Haryana, the Punjab and Haryana High Court denied the petitioner — a rape survivor — permission to terminate her 25-week foetus as the medical board did not recommend such an action. During the course of the proceedings of the case, the petitioner gave birth to a baby born out of sexual assault.

What is not dealt with is the accommodation of women’s consent and agency, irrespective of the situation of grave danger to the life of the pregnant woman or her foetus. In July 2016, the top court allowed a woman to undergo abortion in her 24th week of pregnancy at Dr RN Cooper hospital in Vile Parle, Mumbai, granting her the benefit under Section 5 of Medical Termination of Pregnancy (MTP) Act, 1971, that allows abortion despite the 20-week ceiling. In January, 2017 the apex court allowed a 24-year-old woman from Dombivali to undergo abortion as the baby suffered from anencephaly, a life threatening condition. The duration of 12-20 weeks is not enough to detect many abnormalities which start showing up only after 18 weeks. Thus, change in the law to accommodate technological advancements & societal growth is the need of the hour.

PAPER-14

TITLE: POCOSO ACT - SALIENT FEATURES & PROBLEM AREAS
Dr. Rajesh Bhukar, Dr. Deepali Pathak, 3rd Year, PG Residents, SMS Jaipur

There was no specific legislation governing child sexual abuse, POCOSO Act remedied the defect by providing for gender neutral provisions vis-à-vis the perpetrator as well as the victim could be either male or female. In keeping with the best International child protection standards, the act also provides for mandatory reporting of sexual offences. This casts a legal duty upon a person who has knowledge that a child has been sexually abused reported the offence, if he fails to do so, he may be punished with six months’ imprisonment and/or a fine. The act, on the other hand, also prescribes punishment for a person, if he provides false information with the intention to defame any person, including the ‘child’. If the child/adolescent refuses to undergo medical examination but the family member or investigating officer is insisting for the medical examination, the POCOSO Act is silent and does not give clear direction. There is an urgent need to clarify the issue of consent in such cases.

Reporting child sexual offence is highly difficult and highly personal decision for many family members and also for survivors. Sexual contact between two adolescents or between an adolescent and an adult are considered illegal under the POCOSO Act 2012, because no exception has been granted in the Act under which an act of sexual encounter with a person under 18 is an offence irrespective of consent or the gender or marriage or age of the victim/the accused. Mandatory reporting creates controversy with victim and attendants in such cases. There are many instances in which doctors are trapped into confusing situations when there is no direct implication of the incidence with the provisions of the act but the onus of mandatory reporting put into situation of dilemma. Moreover, confidentiality of such information in lieu of professional secrecy is again controversial.

PAPER-15

TITLE: Extraction of Human Bones from Cadavers at AIMSR Bathinda
Dr Monika Gupta, Dr. Parmod Goyal

Introduction: The human bones are an integral tool in the study of anatomy. Bones are necessary not only for teaching anatomy but also for provide three dimensional instructions in osteology as well as understanding the sites of soft tissue insertion and the course of neurovascular structures in a region. Knowledge of bones also required for planning of various surgeries and assessing the efficacy of orthopaedic devices.

Materials and Methods: The present study is an ongoing study on the embalmed as well as freshly dissected cadavers in Department of Anatomy, AIMSR Bathinda. The cadavers were buried in the soil for a period of one year at the depth of 2 feet. The bones so extracted were cleaned with a solution of normal water (Step 1), detergent and tooth brush (Step 2), hydrogen peroxide (Step 3), normal water (Step 4), wood primer coating (Step 5) followed by wood paint coating (Step 6). The results were compared with technique employed earlier in the same institute where only above mentioned Step 3 and Step 4 was used.

Result: The bones extracted after this procedure were clean, intact and their quality was better compared with the bones extracted with previous technique. Application of wood primer resulted in consumption of less amount of wood paint so cost involved in cleaning got reduced.

Limitations: Wood Primer was of white colour. Resultant bones seem to be of white colour. Next time we shall try to procure
transparent wood primer.

Conclusion: Although the procedure may appear to be labour requiring but is comfortable, cost effective, ecofriendly and suitable method for obtaining the human bone specimens from cadavers. Bones obtained are good looking, strong and suitable for teaching purpose.

PAPER-16

TITLE: Knowledge and awareness among Interns and Residents doctors regarding Guidelines for Handling Medicolegal Cases

Garima Mal, Intern, Dr Parmod Goyal (Adesh Institute of Medical Sciences & Research, Bathinda)

A Questionnaire was prepared and 100 Interns and resident doctors were asked about guidelines of handling medicolegal cases.

Results: Most of the Interns were not fully aware about What actually is a MLC, What is the difference between MLC and MLR, How actually the consent be taken for preparation of MLC, Procedure for information to police, Differences between hanging and strangulation during autopsy, viscera preservation during autopsy of a poisoning case, difference between incised wound and lacerated wound, difference between incised looking wound and incised wound, interpretation of electric current injuries, Procedure of autopsy in custodial death cases etc.

Future Plan: A revision workshop will be held for intern and doctors of the institute and reassessment with same questionnaire will be done.

PAPER-17

TITLE: Comparative study between Glycerin Versus Formaldehyde in Anatomical preservation of Human Body Organs

Dr Monika Gupta, Dr Parmod Goyal

Introduction: Various methods of Human Organ preservation have been developed over time. Ancient Egyptian used dehydration technique (mummification). Later on formalin was developed for fixation and storage of body organs. Preservation by formalin is cheap, simple, easily applied and reliable and fixed organs can be kept for many years. However organs become hard and rigid with formalin. The smell of formalin is unpleasant and irritating. Some persons are especially sensitive to it. Carcinogenic effects of formalin have been reported. In present study Glycerin was used for preservation of organs. Glycerin is colorless, odorless, viscous liquid, sweet in taste and of low toxicity. Glycerin has quick action and has ability of cellular dehydration and antiseptic action against fungi and bacteria. In present study we have compared between glycerin and formalin as preservative.

Materials and Methods: Since the Inception of Anatomy and Forensic Medicine department at AIMSR (year 2005-2006) Body organs are kept preserved in formalin in museum. However in Jan 2015, one specimen of uterus was kept in glycerin. Later on we kept infant heart, kidneys, lungs and liver in glycerin. Infant body was received as voluntary donation from the family and it was dissected and organs preserved. Similarly the same organs of another body were kept preserved in formalin as per routine.

Results: Formalin needs to be changed atleast after every 6 months and formalin preserved specimens were hard and little flexible. Additionally formalin was irritating to eyes and hands. Comparatively Glycerin preserved organs were soft and there was no need to change the glycerin. No irritation to eyes and hands. However cost of glycerin was more. As there was no need to change it over time so resultant cost amounted to same. We could easily handle glycerin preserved organs and it was easy to keep the glycerin jars during student’s examination.

Conclusion: We conclude that glycerin is a good preservative, maintaining appearance, consistency and viewing structures with no odour; easy handling and exposure of organs in the museum. Because of less irritation, it facilitate work and reduces health hazards

Further Planning: We shall see the histopathological features in different Glycerin preserved organs.

KEYWORDS: Formalin, Glycerin, Preservation of body organs.
PAPER-18

TITLE: Evaluation of Existing Institutional Mentorship Program
Dr Parmod Goyal (Forensic Medicine), Dr Ruchika Garg (Physiology) Dr Taniya (Intern) Adesh Institute of medical Sciences & Research, Bathinda (Punjab)

Background: Mentorship program (MP) is running since 2009 in our institute for 1st Prof MBBS students only. Never evaluated since inception. So need of program evaluation felt.

Objectives: To assess the perception of students and faculty regarding current MP. To determine strengths and weaknesses of the current MP. To suggest remedial measures to stakeholders for improvement.

Methods: Validated Questionnaire was administered to students and FGD carried out with faculty. Data analysed and Elements of Successful and Failed Mentoring were identified along with functions of Mentors from students' point of view. Frequency of interaction between Mentor-Mentee and Coordinator-Mentee were noted.

Results: Lack of Awareness about MP per se among faculty and students. Poor interaction between Mentor and Mentee as well as between Mentee and Co-ordinator.

Conclusions: Awareness workshops needs to be conducted for Mentor-Mentee and Programme should run longitudinally along with participation of faculty other than first Prof.

PAPER-19

TITLE: Study of the process of mummification and use of such bodies for anatomical dissection purpose-ongoing study
Dr. Monika Gupta, Associate Prof. Department of Anatomy
Dr Parmod Goyal

After approval from Research Committee and Ethics Committee, Two Adult and two infant voluntary donated bodies were embalmed in the traditional method by use of formalin, glycerine, Phenol, Sodicabonate and water. After that instead of keeping the bodies in formalin tank (as per usual practice), bodies were kept open in a room which has free circulation of air; sufficient sunlight and no moisture. Now more than one year has passed but there is no sign of decomposition on the bodies. However slight smell (which is different from decomposition) is there.

Future Plan: The bodies will be dissected as done in anatomy department and it will be seen that dissection can be done on such bodies or not.

PAPER-20

TITLE: Skull Bone flap preserved in Anterior Abdominal Wall-Medicolegal Aspects (A Case Report)
Dr Parmod Goyal, Dr Monika Gupta,

Introduction: Decompressive craniectomy is a common surgical procedure used to relieve intra-cranial hypertension followed by cranioplasty using patient’s own bone flap. This is cost-effective, strong, immunologically compatible and cosmetically pleasing. Freezing, placement in storage solutions, and placement in the subcutaneous tissue of the patient’s abdominal wall (present case) are the common preservation techniques for skull bone flap.

Case Report: Emergency craniotomy done for a head injury case of 45 year old male patient. Removed bone flap preserved in abdominal wall. Autopsy doctor noted abdominal stitches and told relative about some abdominal operation. Relative got furious as Why abdominal operation for head injury case and staged Dharma and started raising slogans against the neurosurgeon for unnecessary surgery. With great difficulty neurosurgeon and his team could explain about approved practice of preservation of skull bone flap in the abdominal wall.

Conclusion: Proper communication, informed consent preferably video consent and documentation is mandatory to prevent from such litigations.

Glimpse of
Some of the
Academic Activities
organized by
Adesh
Group of Institutions
Basic Course Workshop in Medical Education Technology
5-7 May 2014
Adesh Institute of Medical Science & Research, Bathinda
Adesh Medical College students with Justice A. K. Sikri, Judge Supreme Court of India on the occasion of seminar on ‘Quit Drugs Movement’ held on 9th May 2015 at SSD Girls College Bathinda by Asia Pacific Jurist Association (APJA) Punjab and Haryana in association with the District Bar Association, Bathinda

Surgical Skills Training on Donated Cadavers at Anatomy Dissection Hall
Workshop on Curriculum Designing
2nd, April 2016
Adesh Institute of Medical Science & Research, Bathinda

Universal Human Value Education (UHVE)
29-31 August 2016
Adesh Institute of Medical Science & Research, Bathinda
Revised Basic Course Workshop In Medical Education Technology
8-10 August 2017
Adesh Institute of Medical Science & Research, Bathinda

Workshop on Clinical Trial and GCP Guidelines on 24 August 2017
Adesh Medical College and Hospital
N.H.-1, Vill. Mohri, Tehsil Shahabad (M.), Haryana
Module for Interns on Medical Ethics (MIME)
Cadaver Workshop On Knee Arthroplasty And Shoulder Arthroscopy
MBBS 2nd Prof Students visiting Civil Hospital Bathinda
For Post Mortem Observation

Thesis Plan Writing & Thesis Writing Workshop
for PG Students of AIMSR, Bathinda
Glimpse of Past Memories
Mid Year CME Programme
May 14, 2016
Government Medical College, Patiala
Useful Information
For Medical Officers
Tache Noires Brownish Black Discolouration on the Sclera due to cellular debris and dust

Cherry Red Colour Postmortem Staining (Carbon Monoxide Poisoning)

Marbling of Skin

Greenish discoloration over right iliac fossa (First external sign of Putrefaction)

Swollen genitalia with rectal prolapse (Pressure effects of Putrefactive Cases)

Scaphoid abdomen with prominence of bones in a case of secondary starvation
Dribbling of Saliva over right angle of the mouth (Pathognomonic finding of antemortem Hanging) along with Ligature in situ (Dupatta)

Dry, hard & parchment like ligature mark on the front and sides of the neck, obliquely placed above the level of Thyroid Cartilage (Suicidal Hanging)

White, fine, copious, persistent, lather like froth at the nostrils (Case of suicidal drowning)

Wrinkling, Bleaching and Soddening of skin of soles of the feet (Drowning)

Bluish discoloration of Nails (Traditionally accepted signs of Asphyxia. Others are Petechial Haemorrhages & increased capillary Permeability)

Patterned Bruise on neck due to compression of neck by sole of shoe (Homicidal)
Wad in a plastic container removed from abdominal cavity in a firearm injured case during autopsy to be handed over to police for Ballistic Examination.

Cloth sealed in a clothed bag of a firearm case to be handed over to police for Ballistic Examination.

X-Ray film showing multiple radio opaque shadows simulating pellets.

X-Ray film showing radio opaque shadow simulating bullet.

Wads recovered from abdominal cavity during autopsy.

Deformed bullets recovered from abdominal cavity during autopsy.
Diffuse swelling (Reddish Bruise) on outer aspect of right forearm in its upper 1/3rd (X-Ray showed fracture of Ulna)

Incision Test to Differentiate Antemortem Bruise from Postmortem Bruise and also from Hypostasis (Infiltration of blood present in the cut tissues)

Incised looking lacerated wound (Split laceration) on forehead (Part overlying bone without much tissues in between)

Incised wound on right side of face (Tailing Present)

Incised wound on the palm (Possibility of Tendon Cut is there in such injuries)

Linear scar after sharp weapon injuries on middle and index finger extending to palm and dorsum of hand (Tendons were cut)
Stitched wound on abdomen after skull bone kept in

Superficial to deep burns (Healing Stage) due to pouring of hot oil over body (Moist heat)

Self inflicted incised wounds on arm

Multiple linear scars in a case of self inflicted incised wounds

Detached ear pinna by sharp weapon injury (Grievous injury)

Severed right upper limb and left hand along with grazed abrasion on right flank of abdomen (Case of Railway accident)
Through & through incised wound at the base of penis - A case of Castration (Grievous injury as per clause I of section 320 IPC)

Multiple stab wounds on neck, chest and abdomen

Omentum protruding out of stab wound over left side of abdomen

Stab injury of Chest reaching upto the underlying Heart

Depressed fracture of Skull

Depressed fracture of Skull and Putrified Brain matter visible
Multiple lacerated punctured wounds on front of chest and left upper limb (Smooth bored firearm injury)

Multiple radio opaque shadows (Pellets)

Multiple radio opaque shadows (Pellets)

Infiltration of blood in the subcutaneous tissues

Punctured wound on lung with surrounding bruise

Recovered pellets

(All the picture are of same case)
(a.1) Lacerated punctured wound along with tattooing on right arm and right chest

(a.2) Close up view of (a.1)

(a.3) After entering from arm, bullet travelled through back of chest as shown in X-Ray

(a.4) Bruise on back with underlying bullet palpable

(a.5) Bullet recovered after giving an incision on area shown in (a.4)

Skull bone kept in abdomen after craniotomy
Skull bone protruding from abdomen after release of stitches during autopsy

Sealed Plastic jars containing viscera of the deceased for Chemical Analysis

Sealed vial containing Blood for Chemical Analysis

Entry wound of Electric current

Exit wound of Electric current

Hemopericardium (Cardiac Tamponade) in a case of Electrocution due to ruptured heart
Bulging lungs on removal of sternal plate in a case of drowning

Ossification centre in the calcaneum ( Appears at 5th month of intrauterine life)

Case of Exhumation (Body was smeared with salt with wrong notion that it will help in early decomposition)

Bullet recovered from abdominal cavity during operation

Weapon brought for examination by police

Alleged firearm case without any X-Ray finding (Possibility of Fabrication cannot be ruled out)
Prominent Fronto-nasal Angulation in Male Skull

Absent second and third molar in mandible of 8 years old girl

Fused basi-occiput and basi-sphenoid

Unfused basi-occiput and basi-sphenoid

Adult aged Mandible

Edentulous Mandible
Wide, short & less marked promontory of Female Sacrum
Long, narrow & well marked promontory of Male Sacrum

Articular surface extending to 2½ to 3 vertebra in Male
Articular surface extending to 2-2½ vertebral bodies in Female

Xiphoid process unites with the body at 40 years
Manubrium unites with the body at 60 years.

Unfused Tri-radiate cartilage
(Age less than 13 years)

Non union of lower end of femur
Non appearance of greater trochanter

Incomplete fracture of corachoid process of scapula
(Supplementary report sent for nature of injury)
Useful Information For Medical Officers
A. These guidelines are subject to revision from time to time.

B. **Definition of a Medicolegal Case (MLC):** It is a case of injury/poisoning or ailment where an attending doctor after taking history and clinical examination of the patient thinks that some investigation by law enforcing agencies is essential, so as to fix the responsibility regarding the case in accordance with the law. Write 'MLC' with red ink on cover page of Hospital file in such cases. It is advisable to make a stamp with red ink for this purpose.

C. **The Duties and Responsibilities of an Emergency Medical officer while examining/treating Cases of Accident/Assault/Burns/ Poisoning/ Brought Dead Case/LAMA Case/Death of MLC Admitted case are enumerated in succeeding paras.**

D. **The Duties and Responsibilities of an Emergency Medical officer while examining/treating MLC Cases are:**

1. Note down the preliminary particulars of patient i.e name, age, sex, occupation, residential address, Date & Time of arrival, Date/Time and Place of Incidence, Brought by etc.
2. Name, address and mobile Number of person bringing in the patient should also be carefully noted.
3. **Most important duty:** First and foremost duty is always to treat the patient. Treatment should not be delayed while carrying out medico-legal work.
4. Following are the Medico-legal duties of the doctor in such cases:
   a. **Inform the Police.** As per protocol followed in our set up, Police information is sent in writing under receipt. However during dire emergencies police can be informed telephonically for quick proceedings. Note down the name and designation of police official while informing telephonically.
   b. **Take consent** for preparation of MLR.
   c. If patient consents for MLR, prepare MLR. Faculty of Forensic Medicine can be consulted in case of any assistance. Refusal/postponing for MLR should be recorded properly.
   d. MLR can be prepared without consent, only in cases falling under section 53 CrPC at the request of the Police.
   e. If MLR has already been prepared by the referring doctor, then repeat MLR is not required. Mention this fact in Police Information. However Medicolegal X-rays might be required even in such cases.
   f. Even, when MLR not prepared (due to refusal/absence of consent), attending doctor should note down the details of injuries present on the body of injured on hospital file, along with 2 Identification marks. So that if later on, required, MLR can be prepared from hospital record.
g. Arrange for the Magistrate (through Police) for recording of Dying Declaration in case of serious patients.

h. In case of Death of such cases, Inform Police and Hand over the Dead Body to Police for further proceedings.

i. Body can be shifted to Cooling cabinets for temporary preservation, till the arrival of the Police.

j. Hand over a copy of the summary of the Case to the Police. Summary of the case should be prepared by consultant incharge of the case or the Resident doctor in consultation with consultant incharge of the case.

5. Digital X-ray facility is available in our Institute. So, As far as possible recommend digital X-ray for MLC cases. Advantage being that duplicate films required by Police, can be printed out without repeat X-ray exposure of the patient. And More than one view can be printed on a single film, which aids in easy storage and retrieval.

6. It is preferred that a Medicolegal Case is admitted and kept for Observation for 24-48 Hrs. However strictly speaking MLC can even be prepared on OPD basis.

7. A case that is admitted and on treatment, later on found to be MLC, can even be made MLC on later date, by informing the circumstances to the Police. Delay should be explainable.

8. As a policy always note down the mobile number of the police official who come to hospital for taking statements/Collecting some documents of the MLC case.


E. The Duties and Responsibilities of an Emergency Medical officer while examining/treating a case of Poisoning

1. As per item D1, D2, D3, D4.

2. Following are the Additional medico-legal duties of the doctor in poisoning cases:
   a. In a case of suicidal poisoning, get psychiatric consultation also.
   b. Preserve the samples of gastric lavage, vomitus, blood, urine (as the case may be) in a clean glass bottles. Label and seal it, to be further handed over to Police for chemical Analysis.

F. The Duties and Responsibilities of an Emergency Medical officer while handling a Brought Dead Case:

1. Make sure person is dead. Presence of rigor Mortis is a sure sign of death. Rule out suspended animation. Suspended Animation is a state where vital functions of the body are at such a low pitch, that these cannot be detected by routine clinical methods and person appears to be dead. eg cases of electrocution, drowning, newborn infants etc.

2. The name of such deceased person should be entered in the “Brought Dead Register” along with all the possible details about the dead person obtained from the accompanying relatives whose name, address and mobile number should also be noted.

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3. Where death has occurred due to accident, assault, burns, suicide, poison, rape or any other un-natural causes, Police should be informed as per item D4a, D4h, D4i and D4j.

4. While filling the Death Reporting Form, Positively confirm the identity of the deceased.

**G. The Duties and Responsibilities of an Emergency Medical officer while handling LAMA Cases:**

1. Take Valid LAMA Consent.

2. In Medicolegal cases, inform Police.

3. Even LAMA cases have the right to have the copy of medical records.

**H. The Duties and Responsibilities of an Emergency Medical officer while handling death of an admitted Medico-legal case:**

1. As per Item D4a, D4h, D4i, and D4j.

2. Never release Dead body directly to the relatives.

**I. The Duties and Responsibilities of an Emergency Medical officer while handling a case of Alleged Firearm injury:**

1. As per item D1, D2, D3, D4, D5.

2. Do not get panic of Medico-legal formalities.

3. Preserve the clothes of injured. If wet, spread them under supervision for drying.

4. Preserve any foreign body found/recovered from injured in sterile plastic container and hand over to police after scaling it along with a sample of seal on a piece of cloth.
Guidelines For Preparing MLR

1. See the Sample MLR Report of a Stab injury case.
2. See the guidelines for Handling Medico-legal cases.
3. MLR report can be divided into five parts namely
   (i) Preliminary particulars
   (ii) Consent
   (iii) Identification marks
   (iv) Body of MLR
   (v) Opinion

   Preliminary particulars:
   (i) Note down the preliminary information about the injured like Name, Age, Sex, Occupation, religion, residence, date and Time of Arrival, date and Time of Examination, Date, Time and Place of occurrence of the alleged Incidence, name of the accompanied person and relation with the injured.
   (ii) If admitted- CR No along with date and time of admission, department and consultant under whom admitted.

   Consent:
   (i) Always take the consent of the injured person on the MLR Form. If the patient is less than 12 years, take the consent of the guardian/accompanying person and get his signature/thumb impression.
   (ii) Consent is not required in case of accused person u/s 53 of Cr. P.C. and even reasonable force can be used for his examination on the request of the police official not below the rank of a Sub Inspector.
   (iii) Wording of the consent should be as follows:
      a. I am willing for my medico-legal examination.
      b. The nature and consequences of the examination has been explained to me in my own language (as Medicolegal examination is a double edged sword and can even go against the person)
      c. I have not been medico- legally examined before for these injuries.
      d. My address and other information given here is correct.
      e. I will show all my injuries to the doctor
      f. At the end of the examination again take in writing that all the injuries on my body has been examined.
   (iv) Take signature in literate and thumb impressions in illiterate persons. As per custom left thumb impression (LTI) taken for males and right thumb impression (RTI) taken for females.
   (v) If an unconscious/ semiconscious patient is brought in emergency along with family/guardian, the consent shall be taken from them. In case of refusal by the family/guardian the medical officer shall mention


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on the MLR that the consent could not be recorded. (Write brief reasons).

**Identification Marks:**

(i) Two identification marks (legal dictum) preferably on the exposed parts of the body be recorded for comparing the same for identification in the court while giving the evidence.

(ii) Scars are preferred over moles as moles can change its shape over time.

(iii) Dimensions (length & breadth), Anatomical location, distance from a bony land mark or Anatomical land mark to be noted.

**Body of MLR:**

(i) Always start the body of MLR with the Words, ALLEGED CASE OF say 'Assault'.

(ii) Allegedly incidence took place on (date) at (place) on (approximate time). (Brief history of the incident)

(iii) Record Level of consciousness & orientation with respect to time, place & person. Mention Glasgow coma Scale in cases of Head injury.

(iv) Record Vitals like Pulse, BP, Respiration rate & Temperature.

(v) Size of pupils, bleeding through natural orifices like ear, nose, mouth, rectum, vagina, etc., paralysis, urinary/faecal retention/incontinence, smell etc. be recorded.

(vi) The condition of the clothes be recorded regarding their disorder, buttons(intact, undone, or torn), rents, tears, cuts whether coinciding with a particular injury, presence of stains like blood, mud/sand, weeds, faecal, seminal etc., foreign matter, stippling, burns etc.

(vii) If patient referred from some other institute then details of it should be recorded. Mention specifically whether referral card attached or not.

(viii) **Particulars of injuries** - The person should be examined in a systematic way from front as well as back aspect from head to toe. Mention the site of the injury and presence of stains and foreign material on it. All the injuries should be recorded in a way as if you are giving a statement in the court. The following particulars of each and every injury must be recorded.

   a. Type of injury like abrasion, bruise, laceration, incised wound, stab wound, deformity due to fracture/dislocation, burns, firearm etc.

   b. Size: Exact dimensions (in centimeters) of each injury should be noted down in respect of its length, breadth and depth wherever possible.

   c. Shape: that is circular, oval, spindle, triangular, elliptical, crescentric, satellite, etc

   d. Margins/edges of wounds: should be examined by hand lenses where ever necessary

      i. Regular or irregular

      ii. Having bruise on its vicinity

      iii. Floor must be examined by just retracting the edges for seeing the tissue in it. Foreign matter like grease, dirt, gravel, straw, coal, paint, glass, weed, metal, pellets, bullets, wads, clothes, hair etc.
should be reported and must be preserved for further analysis.

e. Location of injuries on the pictorial diagram

f. Colour changes and healing process.

g. Direction of the injuries

Opinion:

i. Nature of injuries (simple/grievous/dangerous):

(a) It is always better to keep it pending for Radiologist report and surgeon notes. In the exam students are expected to write hypothetical Radiologist and Surgeon report also and then give final opinion (see sample MLR Report of a Stab injury case).

(b) Think twice or thrice before straightway declaring nature of injury as simple or grievous at the time of examination. However it does not strictly apply while giving opinion in cases of drunkeness or victim/accused of a sexual assault case.

ii. Age of injury

iii. Kind of weapon (Sharp, Blunt, Sharp Pointed, Blunt Pointed, Firearm)

4. Additional point about the MLR:-

a. The medico-legal report (MLR) shall be prepared in prescribed form or through MedLeaPR software

b. Each MLR shall be numbered.

c. The name and designation of the examining doctor will be stated, in capital letters, at the bottom of the report.

d. The medico legal report should be handed over to the police immediately after the examination. If any injury kept under observation, the same may be recorded as such and result there of communicated to the police at the earliest. The medical officer issuing the medicolegal report will be held responsible if any complication arises for not handing over the report to the police immediately after the examination has been conducted.
MEDICOLEGAL REPORT
ADESH INSTITUTE OF MEDICAL SCIENCES & RESEARCH, BARNALA ROAD, BATHINDA


Alleged Date, Time & Site of Occurrence: 25-03-2013 at around 11 PM in front of CHC Bhuchha

A. DATE AND TIME OF: -
   (a) Arrival: 11:30 PM on 25-03-2013
   (b) Examination: 0.15 AM on 26-03-2013
   (c) Admission (with CR No. and Department): On 25-03-2013, CR No. 13/03/1787 under Surgery Department
   (d) Information to Police: Immediately

B. PLACE OF EXAMINATION:- Emergency, AIMS Bathinda

C. CONSENT FOR EXAMINATION:-
   1. M/s ... Medical Officer ...
   2. M/s ... Medical Officer ...
   3. M/s ... Medical Officer ...
   4. M/s ... Medical Officer ...
   5. M/s ... Medical Officer ...

D. IDENTIFICATION MARKS
   1. 0.5 x 0.5 cm scar mark on outer aspect of left arm, 3 cm above the tip of right thumb.
   2. 0.6 x 0.4 cm scar mark on inner aspect of right leg, 1.5 cm above the centre of right medial malleolus.

E. A fee of Rs. 1000/- deposit vide Receipt No. 8394 - 08, 25-03-2013

F. Copy of MLR to Police:

OPINION

1) Nature of Injuries (Simple, grievous or dangerous)

    1. Alleged history of Assault (stab injury)
    2. Initially injured was taken to CHC, Bhuchha. Then brought to AIMS Bathinda. However No referral slip was attached. As per statement of the injured and accompanying persons MLR was not prepared in lieu of serious condition of injured.
    3. Patient was conscious, co-operative but drowsy. Blood stained hospital bandage was present on abdomen.
    4. Vitals: B.P. = 80/50 mm of Hg, Heart rate = 94/minute, Peripheries were cold and clammy.
    5. Following injuries were noted on his body:

       a. 2.5 x 1.0 cm incised stab wound on left side of abdomen. 8 cm below umbilicus and 2 cm away from mid-line (at 5 o'clock position from umbilicus).

   Surgeon Notes: Patient was in shock at the time of arrival. After emergency investigation he was shifted to Operation Theater and Laparotomy was done. Peritoneal cavity contained around one liter of fluid and clotted blood. Mesenteric tears were sutured. Four units cross matched blood were transfused. Patient kept in ICU for 2 days and then in the ward for 4 days and discharged after taken in a stable condition.

   Radiologist Report: No bony injury seen on X-ray.

   Final Opinion: After going through the X-ray report (No: MK/AMS/RR/01/2013 dated 26-3-2013, Surgeon Notes and MLR), I am of the opinion that injury No:1 mentioned in the MLR is dangerous to life.

Signature of Examining Medical Officer
Name of Injured = Lakhan Pal S/o Devan Verma

MLR No. PKG/FM/04/2013

Date: 26/03/2013
OPINION FORM

Name_________________________________________ Age/Sex_________________________

Address________________________________________________________________________

Date & Time of Examination____________________________________________________________________

MLR No: ___________________________________________ Dated : _______________________

Police Station:________________________________________________________________________

Identification Marks:

1. __________________________________________________________________________

2. __________________________________________________________________________

After going through the MLR, X-ray Report and Surgeon notes, I am of the opinion that

Injury No:

1. __________________________________________________________________________

2. __________________________________________________________________________

3. __________________________________________________________________________

Handed over to Police:

1. Carbon copy of MLR

2. X-ray Report No:_________________________________________ Dated:________________________

   Signed by __________________________________________________________ dully initialed by me.

3. X-ray Films No. 1- , dully initialed by me.

4. Surgeon notes pages 1-4 dully initialed by me.

5. Original copy of opinion form

Dr ..................................................

Designation..........................................

Department of FMT, AIMSR Bathinda
1. **Objectives of PME are as under:-**
   A. To know the Cause of death.
   B. Time since death (Postmortem Interval)
   C. Time of injury.
   D. To establish the identity of the deceased.

2. **The identity** of the dead body must be confirmed by the relatives/police before the start of the PME. Always take signature of at least two relatives & police on the PM report in case of known bodies and police official in cases of unknown bodies.

3. Medical officer should always try to study all available facts of the case prior to PME from **inquest report** and **hospital record** (if any). In hospital deaths, the bed head ticket/summary of the death must be perused to know his clinical condition, treatment and terminal events etc.

4. Don’t allow any **unauthorized person** in the mortuary while PME is going on.

5. Medical Officer should not borrow the version of the relatives or the police while giving opinion which must be based honestly on the scientific evidence.

6. Prepare the PM report **simultaneously** and at the earliest and hand over a copy to the police **immediately**. Now a day's MedLeaPR system is working in most of the Civil hospitals of Punjab but still hand written report is prepared and handed over to police immediately and later on computerized report is issued.

7. **Referral of body for post-mortem**: In case the Medical Officer concerned is of the opinion that the post-mortem examination can be better conducted by forensic Medicine faculty of a Medical College, then he/she shall carry out external examination of the body only and record his findings on plain paper and enclose the same with the referral slip explaining the reasons and grounds for referral. All such references shall be made only with the approval of Civil Surgeon/or any other officer authorized in this regard.

8. **Exemption/Waiving off for Post-mortem**: Postmortem can be exempted only by the Court or by the Police. We have witnessed postmortem being waived off in cases of snake bite death, Road side accident cases, death due to fall of roof during rainy season and even in a case of suicidal poisoning etc.

9. **Board of Doctors for Post-mortem**: Board of Doctors for Post-mortem may be constituted by the officer in charge of institution on the receipt of written request from the Police or after satisfying himself/herself of the necessity thereof. Board is mandatory in cases where magistrate inquest is held. In Civil Hospital Bathinda whenever autopsy of a female has to be done, then a female doctor additionally is appointed.

10. **Video recording of Post-mortem Cases**: Videography of Post Mortem Examination may be done by the Police Department where ever they require. However it is mandatory in custodial death cases.

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**Department of Forensic Medicine, AIMS, Bathinda**
11. **Supplying copy of medico-legal report/PMR** to individuals other than police officer investigating the case: A medico-legal report or post mortem report given by an expert is confidential in nature and not a public document as held in State V/s Gian Singh (1981 CRL. L.J. 538) by the Delhi High Court. However copy can be given to the next of kin of deceased subject to fulfillment of the following three conditions:-

(i) Applicant shall submit a written application addressed to the concerned Medical Officer clearly stating his/her relationship with the patient/deceased person.

(ii) Applicant shall pay the prescribed fee.

(iii) The Applicant shall furnish NOC from concerned Police Station (investigating the matter) clearly stating that the issuance of copies of MLR/PMR will not hinder the investigation.

*Alternatively, The applicant shall produce order of the Court specifically directing the Medical Officer to provide him/her copy of the PMR/MLR.*

*Note:* - Requests for copy of PMR/MLR under the RTI Act are not maintainable

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**12. PROCEDURE FOR POST MORTEM EXAMINATION:**

A. **External Examination**:- It includes the followings:

i. Belongings – Always compare with the inquest papers. The clothes should be examined for any evidence of injuries, struggle marks and stains.

ii. Stains-blood, semen, mud, sand, faecal, foreign bodies, injuries and other abnormalities.

iii. Measure Height & weight of the body and look for conditions of the pupils.

iv. State of natural orifices – for discharge, stains, foreign bodies, injuries and other abnormalities.

v. **Post-mortem changes**:-


2. Rigor mortis – its state and distribution.

3. Features of decomposition like:
   a. Colour Changes-Greenish discoloration of right iliac fossa etc. (First external sign)
   b. Foul Smelling gases
   c. Pressure effects like:
      i. Bloating of facial features, Protrusion of tongue and eyeballs
      ii. Shifting of areas of postmortem lividity
      iii. Pustuflative Blisters and peeling of cuticle (skin slippage)
      iv. Blood tinged froth at mouth and nostrils, Regurgitation of stomach contents
      v. Emptying of Heart
      vi. Swollen penis/Scrotum/vulva, Prolapse of rectum and faecal incontinence

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**Department of Forensic Medicine, AIMS R, Bathinda**
vii. Prolapse of uterus and expulsion of fetus, if any
viii. Degloving of skin, Loosening of hair/nails etc.
d. Maggots
e. Colliquative putrefaction
f. Skeletonisation etc.

vi. External Injuries:
1. Examine from head to toe, first front and then back aspect of the body, in a systemic way so as to see all the parts of the body. Details of the injuries in respect of type, size, situation, direction, edges, ends, colour changes/ healing process, surrounding area, foreign bodies, etc. be described/noted down in the PME. Also depict the seat of the injuries on the diagrams.
2. Photographs of the injuries should be taken with scale/measuring tape kept alongside.

vii. Evidence of sexual assault in a female dead bodies:
1. Vulva and vagina be examined for presence of injury, semen, foreign bodies
2. Hymen to be examined for recent old tears
3. Vaginal swabs & smears be collected for chemical analysis

viii. Examination of the dead body should be thorough and complete. All the three body cavities and the organs contained in them should be carefully examined even though the apparent cause of death has been found in one of them, just to avoid unnecessary and unpleasant cross examination in the court.

B. Internal Examination:

i. Head and neck:
1. The scalp should be reflected by making an incision from mastoid to mastoid on the top of the head and look for any extravasations of blood in it.
2. Skull is examined for fractures. After removal of vault by saw, the Dura matter is examined for tears, the extra Dural hematoma, if present be measured and described in details.
3. After removing the Dura matter, subdural and subarachnoid spaces be examined for the presence of blood/pus/granulations etc.
4. Brain be then removed and its signs of increased intracranial tension like flattening of gyri. Obliteration of sulci, herniation of toasillor parts and tentorial grooving, and then the substance of brain be examined for softening, injury hematoma or any pathological condition like cyst and infection etc.
5. Neck structures including hyoid bone, thyroid cartilage and tracheal rings are dissected and look for evidence of extravasations of blood and fractures. The type of fractures of hyoid bone i.e. inward/outward compression fracture is noted down.
ii. Lips are everted and examined for injuries. Mouth and pharynx are examined for injuries and presence of foreign bodies.

iii. The body should be opened usually by one straight “I” shaped incision from chin to public symphysis along the midline sparing umbilicus on either side. While reflecting the skin and muscles of chest wall and abdomen look for any deep bruise or other injury. The abdominal cavity should be opened first before the chest cavity. Look for any adhesion, congestion, inflammation of peritoneum or any exudation of fluid pus or fluid in the abdomen pelvic cavities or any perforation or damage of any organ. Normally the peritoneal cavity does not contain any fluid.

iv. Thorax:

1. While exposing the chest wall look for any injury under the skin in tissues and fractures of ribs/sternum etc. any fluid/blood present in the cavity be measured and describe its condition.

2. Air passages—examine for the presence of soot, sand, mud, weed, froth and foreign bodies etc.

3. Lungs—weigh, note consistency, congestion, oedema, injuries, natural disease.

4. Heart—pericardium and its contents are examined. Note the condition of the walls, chambers and valves.

5. Coronaries—see patency/occlusion of lumen preferably its % should be described. The entire heart be preserved after dissecting it, in formalin, when cardiac pathology is suspected and see the condition of the aorta and its branches.

6. Oesophagus is opened and examined for presence of varices, corrosion and other abnormalities.

v. Abdomen:

1. Peritoneal cavity and its contents like blood, fluid be measured and noted down. Liver, spleen, kidneys, pancreas, adrenals and intestines may be dissected out and examined for evidence of natural disease, violence or poisoning.

2. Stomach—remove it after tying both ends and dissect in a clean tray. The contents be examined and described as to the nature, degree of digestion, smell, foreign particles, and colour and quantity and condition of stomach wall. Similarly the small intestine and large intestines be examined.

3. Urinary bladder be opened and urine if present, be measured as to its quantity. Colour, smell etc. be also noted down.

4. In females, evidence of pregnancy/recent delivery if any be looked for and described in details,

5. Testicles be dissected and exposed to look for injuries and disease;

vi. All the bones/skeletal system be examined for the presence of any fracture or evidence of violence and note down the stages of its repair.

vii. Spinal cord be dissected and examined for evidence of injury and disease in suspected cases only;
C. **Viscera/blood/urine** be preserved in case of suspected poisoning and if the body was decomposed particularly when the cause of death is not certain.

13. **General Guidelines:**

A. The Post-mortem findings shall be recorded in the prescribed Performa/report preferably then and there. If any rough notes have been prepared, the same may be destroyed immediately.

B. Viscera be sent for chemical analysis in suspected cases of poisoning or when the cause of death is suspected/uncertain.

C. When natural death is suspected to be the cause of death; different organs are to be preserved in formalin for histopathological examination.

14. **Opinion:**

A. Whenever viscera are preserved for chemical analysis or histopathological examination, the cause of death may be reserved and the final opinion regarding cause of death should be furnished on receipt of the chemical analysis report and HPR (Histo-pathological report).

B. Opinion must be based on scientific facts. The Medical Officer shall explain about the injuries whether ante-mortem or postmortem. Cause of injuries and weapon used.

15. In case of unknown dead bodies- Attributes like age, sex, height, weight, complexion, nutrition, status, hair, scars, mole, tattoo marks, deformities, dental details, personal belongings etc. be recorded in detail in the PM reports.

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**Points to remember while conducting Postmortem Examination in following commonly encountered cases**

**FIREARM**

(i) Prior to the examination of the body, it should be x-rayed for ascertaining the exact location of the bullet/pellets

(ii) Clothes should be examined for the presence of holes corresponding to the entry and exit firearm wounds and preserve for ballistic examination.

(iii) Always try to locate the entry and exit wounds, the presence of singeing, burning, blackening, tattooing etc.

(iv) Record Abrasion collar in case of bullet and dispersion in case of pellets.

**DROWNING**

(i) Look for evidence of fine, copious, lathery froth around the nostrils and mouth, which reappears on pressing the chest, even if wiped away.

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Department of Forensic Medicine, AIMS, Bathinda
(ii) Look for Presence of weeds/mud in tightly clenched hands (Cadaveric Spasm)

(iii) If it is a decomposed body then preserve the long bone/sternum etc. for the presence of diatoms in the body and advise the Investigating Officer to collect water from the site of recovery of the body for comparing the diatoms.

(iv) Any ante-mortem injury over the body should be recorded.

**HANGING**

(i) Ligating material if present be examined in respect of its nature, position, type of knot, circumference of loop and should be preserved without disturbing the knot.

(ii) Ligature mark- Describe its level in relation to thyroid cartilage, direction and whether complete or incomplete.

(iii) Look for dried marks of Dribbling of saliva from the angle of mouth opposite to site of Knot (See Color plates)

(iv) Distribution of the post-mortem staining.

(v) Injuries other than ligature mark are to be described in details.

(vi) Features of Antemortem hanging are:

   (a) White glistening band of subcutaneous tissue underneath the ligature mark with ecchymoses in its substance or around it.

   (b) Frictional intimal tears of carotid arteries with subintimal haemorrhage corresponding to Ligature Mark

   (c) Muscle tears of Platysma and Sternocleidomastoid muscles.

   (d) Congestion of Lymph nodes above and below the ligature mark

   (e) Congestion of trachea and epiglottis

   (f) And of course dried marks of Dribbling of saliva

**BURNS**

(i) Differentiate Ante Mortem / Post Mortem burns by seeing the vital changes and presence of scab / separation of scabs and infection etc. This will also indicate its time / age of burns.

(ii) Extent and degree of the burns are to be described with percentage.

(iii) Condition of hair (like singeing, blackening), body parts and clothes be noted down.

(iv) Soot particles in the trachea/air passages would suggest that burns are ante-mortem.

(v) Smell of kerosene-oil or other inflammable agents on the body/cloth be recorded.

(vi) Describe degree and percentage of burns.

**ELECTRIC BURNS**

(i) Kind of electric burn
(ii) Zenker's degeneration

(iii) Current pearls

(iv) Different causes of Death

POISONING

(i) Cause of death in such cases is declared after receipt of the report from Chemical examiner, Govt of Punjab, Kharar

(ii) Following viscera preserved in routine cases:
    
    (a) Stomach along with its contents, pieces of small and large intestine along with its contents
    
    (b) Piece of liver, spleen and half of each kidney
    
    (c) Blood
    
    (d) Supersaturated solution of sodium chloride as preservative
    
    (e) In Bathinda Civil hospital as a routine, they send part of Heart and Lungs also in another Jar.

(iii) Handed over to Police in such cases:
    
    (a) Stitched Dead body along with its belonging.
    
    (b) Sealed envelope bearing 4 seals containing:
        
        • Carbon copy of Postmortem report
        
        • Police Papers 1-24 duly initialed by me.
        
        • Sample of seal on a piece of cloth
        
        • Forwarding letter to Chemical Examiner for analysis of poisonous substance.

(iv) Sealed box bearing 10 seals containing viscera of the deceased, details of which is as per forwarding letter.

INFanticide

Main objective is to find out:

(i) Gestational age.
    
    • Hess rule
    
    • Ossification center for lower end of femur, talus and calcaneum
    
    • Get X-Ray of body (If possible)

(ii) Live born or Dead born
    
    • Hydrostatic test
    
    • Fodere's test
    
    • Breslau's second life test
    
    • Wredin test

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(iii) Sex of infant
(iv) Cause of death

**STARVATION**

(i) Broom stick appearance of limbs
(ii) Scaphoid abdomen
(iii) Tongue is dry & coated with thick fur
(iv) Small intestine – Transparent
(v) Gallbladder – Distended (Only organ which is distended rest all Organs are Atrophied)

**CUSTODIAL DEATH**

As per NHRC guidelines, following different procedures have to be adopted during conduct of autopsy:
(i) Magistrate inquest
(ii) Videography
(iii) Look for signs of torture
(iv) Specific Proforma for postmortem report *(See website: www.nhrc.nic.in)*
(v) Board is constituted to conduct autopsy.
(vi) Postmortem report along with video Cassette/CD sent to the office of Human Rights Commission.
(vii) Viscera sent for chemical analysis and histopathological studies.

**RAILWAY ACCIDENT**

(i) Differentiate Antemortem injuries from postmortem injuries
(ii) Carefully look for signs of struggle and homicidal injuries
(iii) Record wheel marks, dirt & grease contamination
DNA Examination Forms

CENTRAL FORENSIC SCIENCE LABORATORY
Biology Division
Ministry of Home Affairs, Govt. of India
CFSL Complex Dakshin Marg, Sector 36-A, Chandigarh-160036

AUTOPSY SPECIMEN (S) SUBMISSION FORM
(To be completed by the Authorized Medical officer who conducted the Postmortem)

1. Identity of person from whom samples are being collected:
   Name ___________________________ Religion/Caste ___________________________
   Date of Death _____________________ Hospital Patient # (If any) ________________

2. Cause of Death ________________________________

3. Has the individual received a blood transfusion or bone marrow transplant in the last three months?

4. Legal Contact __________________________ Phone __________________________

5. Specimen Collection:
   Collection Centre Name ___________________________
   Collection Centre Address __________________________
   Sample Collected By ___________________________ Sample Collection Date ________________

6. Description of Sample Collected:

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<th>Sample</th>
<th>Storage condition</th>
<th>Other remarks</th>
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Specimen Disposal: (Please check either option 1 or 2 or 3)

Note: If the disposal or return of the sample is not authorized, a Specimen (s) may be destroyed of in 1 year.

7. Chain of Custody
   Specimen(s) sealed and released by __________________________
   Specimen(s) released to __________________________
   Mode of release: Hand delivery __________________ Mail __________________
   Date sent to CFSL, Chandigarh __________________

Authorized Medical Officer Signature __________________________ Date ________________
BLOOD SAMPLE AUTHENTICATION FORM
To be completed by the Authorized Medical officer collecting the samples

1. Identity of person from whom blood sample is being collected
   Name of person ___________________________ Caste ___________________________
   Gender ___________________________ Age ___________________________
   Address ___________________________

2. Specimen Collection
   Collection Center Name ___________________________
   Collection Center Address ___________________________
   Sample Collected By ___________________________
   Sample Collection Date ___________________________
   Storage conditions used ___________________________

3. Other remarks

   ___________________________
   Signature of the person Collecting the blood sample with Date & Time

   ___________________________
   Signature of Investigation Officer/Representative With Date & Time

   ___________________________
   Signature of the Withness With Date & Time

4. Chain of Custody
   Blood samples sealed and released by ___________________________
   Blood Samples released to ___________________________
   Mode of release : Hand delivery _______ Mail _______ 
   Date sent to CFSL, Chandigarh ___________________________

   ___________________________
   Signature of Authorized Medical Officer

SUBJECT’S STATEMENT OF VOLUNTARY CONSENT & RELEASE
I hereby certify that the information provided above is true and accurate. I willingly consent to the collection of the blood sample from myself for the purpose of DNA analysis.

______________________________
Signature/Thumb impression of the subject With Date & Time
Points To Be Remember While Filling The Form of Medical Certificate of Cause of Death (MCCD)

1. CARDIORESPIRATORY ARREST: Do not write Cardio-respiratory arrest alone as cause of death. Cardio-respiratory arrest is a terminal event in each and every case so writing alone cardio respiratory arrest does not provide any information.

2. Cause of death is always one amongst followings:
   a. a disease process/pathology
   b. Injuries or its complications
   c. Poisoning

3. In Medicolegal cases where body has been handed over to police for postmortem examination: mention pending investigation in the columns of cause of death in addition to mentioning the facts that body has been handed over to police.

4. What as a doctor we fill is MCCD i.e Medical Certificate of cause of death. It is not Death Certificate.

5. Death Certificate is issued by Panchayat Secretaries in rural areas and by the officers of Municipal Committees/Corporations in urban areas and remember that Cause of death is not mentioned in it.

6. Understand clearly the difference between cause of death, mode Of death and manner of death.
Section 53 CrPC: Examination of accused by doctor at the request of police without consent, but pre requisite are:

(i) Person should be arrested

(ii) Brought by police and request made for examination by police officer not below the rank of sub inspector

Section 53A CrPC: Medical Examination of Accused of Rape

164 A. Medical examination of the victim of rape. — (1) Where, during the stage when an offence of committing rape or attempt to commit rape is under investigation, it is proposed to get the person of the woman with whom rape is alleged or attempted to have been committed or attempted, examined by a medical expert, such examination shall be conducted by a registered medical practitioner employed in a hospital run by the Government or a local authority and in the absence of such a practitioner, by any other registered medical practitioner, with the consent of such woman or of a person competent to give such consent on her behalf and such woman shall be sent to such registered medical practitioner within twenty-four hours from the time of receiving the information relating to the commission of such offence.

(2) The registered medical practitioner, to whom such woman is sent shall, without delay, examine her and prepare a report of her examination giving the following particulars, namely:

(I) the name and address of the woman and of the person by whom she was brought;

(II) the age of the woman;

(III) the description of material taken from the person of the woman for DNA profiling;

(IV) marks of injury, if any, on the person of the woman;

(V) general mental condition of the woman; and

(VI) other material particulars in reasonable detail.

(3) The report shall state precisely the reasons for each conclusion arrived at.

(4) The report shall specifically record that the consent of the woman or of the person competent to give such consent on her behalf to such examination had been obtained.

(5) The exact time of commencement and completion of the examination shall also be noted in the report.

(6) The registered medical practitioner shall, without delay forward the report to the investigation officer who shall forward it to the Magistrate referred to in section 173 as part of the documents referred to in clause (a) of sub-section (5) of that section.

(7) Nothing in this section shall be construed as rendering lawful any examination without the consent of the woman or of any person competent to give such consent on her behalf.

Explanation. — For the purposes of this section, “examination” and “registered medical practitioner” shall have the same meanings as in section 53'
Important Sections of Indian Penal Code
(Wording has been simplified for easy remembrance by the students)

Section 44 IPC: defines injury as any harm what so ever in nature, caused illegally, to the body, mind, reputation or property.

Section 82 IPC: Nothing is an offence which is done by a child under 7 years of age.

Section 83 IPC: Nothing is an offence which is done by a child above 7 years of age and under 12, who has not attained sufficient maturity of the mind to understand the nature and consequences of his act. But if contrary can be proved that the child has attained sufficient maturity of the mind to understand the nature and consequences of his act, then he will be held responsible.

Section 84 IPC: Nothing is an offence which is done by a person who, at the time of doing it, by reason of, unsoundness of mind (mental illness) is incapable of knowing the nature and consequences of his act, or what he is doing is either wrong or contrary to law (Compare it with McNaughten Rule)

Section 90 IPC: Consent is not consent if given by a person under following circumstances:
   i. Under the fear of injury
   ii. Under the effect of intoxication
   iii. Due to misconception of fact
   iv. Mentally ill person
   v. By a child less than 12 years of age

So remember that child above 12 years of age can give consent for examination including medicolegal examination. In this context the word examination is limited to inspection, palpation, percussion and auscultation.

Any procedure which carries the risk of death or grievous injury-then minimum age for giving consent is 18 years.

Section 304A IPC: Death due to rash and negligent act. Punishment = 2 yrs imprisonment

Section 304 B IPC: Definition of Dowry Death:
   i. Death of a married woman with in 7 years of her marriage
   ii. By burns or bodily injuries or poisoning or any other un-natural means
iii. and it can be proved that soon before her death, she was subject to cruelty and harassment by her husband or any relative of her husband family with regards to the demand for dowry,

iv. Then such deaths be labeled as dowry deaths and such husband or relative shall be deemed to have caused her death.

Section 320 IPC: Defines following kinds of hurt only as Grievous hurt:

First- Emasculaton.

Secondly- Permanent Privation of the sight of either eye.

Thirdly- Permanent Privation of the hearing of either ear,

Fourthly- Privation of any member or joint.

Fifthly- Destruction or permanent impairing of the powers of any member or joint.

Sixthly- Permanent disfiguration of the head or face.

Seventhly- Fracture or dislocation of a bone or tooth.

Eighthly- Any hurt which endangers life or which causes the sufferer to be during the space of 20 days in severe bodily pain, or unable to follow his ordinary pursuits.

Section 354 IPC: Assault or criminal force to woman with intent to outrage her modesty.

Section 375 IPC: (Amended as per Criminal Law Amendment Act-2013)

A MAN IS SAID TO COMMIT "RAPE" IF HE:

(a) Penetrates his penis, to any extent, into the vagina, mouth, urethra or anus of a woman or makes her to do so with him or any other person; or

(b) Inserts, to any extent, any object or a part of the body, not being the penis, into the vagina, the urethra or anus of a woman or makes her to do so with him or any other person; or

(c) Manipulates any part of the body of a woman so as to cause penetration into the vagina, urethra, anus or any part of body of such woman or makes her to do so with him or any other person; or

(d) Applies his mouth to the vagina anus, urethra of a woman or makes her to do so with him or any other person,

Under the circumstances falling under any of the following seven descriptions :-

First - Against her will.

Secondly - Without her consent.

Thirdly - With her consent, when her consent has been obtained by putting her or any person in whom she is interested, in fear of death or of hurt.

Fourthly - With her consent, when the man knows that he is not her husband and that her consent is given

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because she believes that he is another man to whom she is or believes herself to be lawfully married.

Fifthly - With her consent when, at the time of giving such consent, by reason of unsoundness of mind or intoxication or the administration by him personally or through another of any stupefying or unwholesome substance, she is unable to understand the nature and consequences of that to which she gives consent.

Sixthly - With or without her consent, when she is under eighteen year of age.

Seventhly - When she is unable to communicate consent.

Explanation 1. - For the purpose of this section, "vagina" shall also include labia majora.

Explanation 2. - Consent means an unequivocal voluntary agreement when the woman by words, gestures or any form of verbal or non-verbal communication communicates willingness to participate in the specific sexual act:

Provided that a woman who does not physically resist to the act of penetration shall not by the reason only of that fact, be regarded as consenting to the sexual activity.

Exception 1. - A medical procedure or intervention shall not constitute rape.

Exception 2. - Sexual intercourse or sexual acts by a man with his own wife, the wife not being under fifteen years of age, is not rape.

Section 497 IPC: Adultery: sexual intercourse with wife of another man, without the consent of that man. Only male is punishable. However in Jammu and Kashmir female also punishable (Ranjbir Penal code). Adultery is a ground for divorce as per Hindu Marriage Act
1. **Samira Kohli vs Dr Manchanda** (16-01-2008) laid down following principles relating to consent:

   a. A doctor has to seek and secure the consent of the patient before commencing a 'treatment' (the term 'treatment' includes surgery also). The consent so obtained should be real and valid, which means that: the patient should have the capacity and competence to consent; his consent should be voluntary; and his consent should be on the basis of adequate information concerning the nature of the treatment procedure, so that he knows what is consenting to.

   b. The 'adequate information' to be furnished by the doctor (or a member of his team) who treats the patient, should enable the patient to make a balanced judgment as to whether he should submit himself to the particular treatment or not. This means that the doctor should disclose:

      i. Nature and procedure of the treatment and its purpose, benefits and effect

      ii. Alternatives if any available

      iii. An outline of the substantial risks and


   c. But there is no need to explain remote or theoretical risks involved, which may frighten or confuse a patient and result in refusal of consent for the necessary treatment. Similarly, there is no need to explain the remote or theoretical risks of refusal to take treatment which may persuade a patient to undergo a fanciful or unnecessary treatment.

   d. A balance should be achieved between the need for disclosing necessary and adequate information and at the same time avoid the possibility of the patient being deterred from agreeing to a necessary treatment or offering to undergo an unnecessary treatment.

   e. Consent given only for a diagnostic procedure, cannot be considered as consent for therapeutic treatment.

   f. Consent given for a specific treatment procedure will not be valid for conducting some other treatment procedure. The fact that the unauthorized additional surgery is beneficial to the patient, or that it would save considerable time and expense to the patient, or would relieve the patient from pain and suffering in future, are not grounds of defence in an action in tort for negligence or assault and battery.

   g. The only exception to this rule is where the additional procedure though unauthorized, is necessary in order to save the life or preserve the health of the patient and it would be unreasonable to delay such unauthorized procedure until patient regains consciousness and takes a decision.

   h. There can be a common consent for diagnostic and operative procedures where they are contemplated. There can also be a common consent for a particular surgical procedure and an
additional or further procedure that may become necessary during the course of surgery.

2. **Jacob Mathew Vs State of Punjab** (5th Aug 2005) laid down followings guidelines with respect to registering a case of negligence on doctors under section 304A IPC:

   a. A private complaint may not be entertained unless the complainant has produced prima facie evidence before the Court in the form of a credible opinion given by another competent doctor to support the charge of rashness or negligence on the part of the accused doctor.

   b. The investigating officer should, before proceeding against the doctor accused of rash or negligent act or omission, obtain an independent and competent medical opinion preferably from a doctor in government service qualified in that branch of medical practice who can normally be expected to give an impartial and unbiased opinion applying Bolam’s test to the facts collected in the investigation.

   c. A doctor accused of rashness or negligence, may not be arrested in a routine manner (simply because a charge has been levelled against him). Unless his arrest is necessary for furthering the investigation or for collecting evidence or unless the investigation officer feels satisfied that the doctor proceeded against would not make himself available to face the prosecution unless arrested.


   A. Mentioned following Precautions which Doctor/Hospitals/Nursing Homes should take:

      i. Current practices, infrastructure, paramedical and other staff, hygiene and sterility should be observed strictly. Autoclave must be in working conditions in Operation theatres as it is absolutely necessary to carry out sterilization of instruments, cotton, pads, linen, etc.

      ii. No prescription should ordinarily be given without actual examination. The tendency to give prescription over the telephone, except in an acute emergency, should be avoided.

      iii. A doctor should not merely go by the version of the patient regarding his symptoms, but should also make his own analysis including tests and investigations where necessary.

      iv. A doctor should not experiment unless necessary and even then he should ordinarily get a written consent from the patient.

      v. An expert should be consulted in case of any doubt. Thus, in Smt. Indrani Bhattacharjee, Original Petition No.233 of 1996 decided by the National Consumer Commission on 9.8.2007, the patient was diagnosed as having 'Mild Lateral Wall Eschemia'. The doctor prescribed medicine for gastro-enteritis, but he expired. It was held that the doctor was negligent as he should have advised consulting a Cardiologist in writing.

      vi. Full record of the diagnosis, treatment, etc. should be maintained.

   B. The courts and Consumer Fora are not experts in medical science, and must not substitute their own views over that of specialists. It is true that the medical profession has to an extent become commercialized and there are many doctors who depart from their Hippocratic Oath for their selfish ends of making money. However, the entire medical fraternity cannot be blamed or branded as lacking in
integrity or competence just because of some bad apples.

C. It must be remembered that sometimes despite their best efforts the treatment of a doctor fails. For instance, sometimes despite the best effort of a surgeon, the patient dies. That does not mean that the doctor or the surgeon must be held to be guilty of medical negligence, unless there is some strong evidence to suggest that he is.

4. **V. Kishan Rao Vs Nikhil Super Speciality Hospital** (8th March 2010): If the facts and circumstances of the case speaks clearly, then expert opinion not required as mentioned in Jacob Mathew and Martin F D'Souza judgements.

5. **Nizam Institute of Medical Sciences Vs Prasanth S. Dhananka** (14-05-2009): Rs One crore compensation was awarded.

6. **Malay Kumar Ganguly Versus Dr. Sukumar Mukherjee and others** (7th August 2009)- Kunal Saha Case:
   a. If any foreign experts are to be examined it shall be done only through video conferencing and at the cost of respondents.
   b. For awarding amount of compensation – case was referred to National commission. National commission on 21-10-2011 decided as follows:
      i. On a consideration of the entirety of the facts and circumstances, evidence and material brought on record, we hold that overall compensation on account of pecuniary and non pecuniary damages works out to Rs.1, 72, 87,500/- in the present case, out of which we must deduct 10% amount on account of the contributory negligence / interference of the complainant in the treatment of Amuradha. That will make the net payable amount of compensation to Rs.1,55,58,750/- (rounded off to Rs.1,55,60,000/-). From this amount, we must further deduct a sum of Rs.25, 93,000/- which was payable by Dr. Abani Roy Chowdhury (deceased) or his Legal Representative as the complainant has forgone the claim against them.

**THE TRIBUNE DATED 25 OCTOBER 2013**

Pay ₹6 cr for negligence, SC tells hospital

Legal Correspondent

NEW DELHI, OCTOBER 24
The Supreme Court today directed a Kolkata-based hospital and three doctors to pay a staggering ₹6.08 crore with six per cent interest for 15 years as compensation to an Indian origin doctor settled in the United States for the death of his wife in May 1998 due to medical negligence.

A Bench comprising Justices CK Prasad and V Gopala Gowda asked AMRI Hospital and the three doctors to pay the amount within eight weeks to Kunal Saha, a civil engineer in Ohio, who was advised to take rest by Dr Sukumar Mukherjee.

After her condition worsened in May, she was prescribed Dexamethasone injection by Dr Mukherjee. But it didn’t help Anuradha, who was admitted to AMRI Hospital on May 11 under Mukherjee’s supervision.

As her condition failed to improve, she was taken to a Mumbai hospital, where she was found to be suffering from toxic epidermal necrolysis, a deadly skin condition. She died on May 28, 1998.

whose wife, Anuradha Saha, had died in the hospital. Of the Rs 5.96 crore, Dr Balram Prasad would have to pay Rs 10 lakh each, while Dr Balram Prasad and Dr Baidyanath Haldar and Dr Sukumar Mukherjee would have to pay Rs 10 lakh each, while Dr Balram Prasad would pick up a liability of Rs 5 lakh.

A child psychologist, Anuradha, had developed skin rash during the visit to Kolkata in March 1998, upon which Dr. Mukherjee advised her to take rest. As her condition worsened in May, Dr. Mukherjee prescribed Dexamethasone injection 80 mg twice daily which did not give any relief and she was admitted to AMRI Hospital in May 11 under his supervision.

As her condition deteriorated, she was taken to Breach Candy Hospital in Mumbai, where she was found to be suffering from Toxic Epidermal Necrolysis, a deadly skin condition. She died on May 28, 1998.