

Annexure – II

MEDICO-LEGAL POST MORTEM EXAMINATION – GUIDELINES

**(Modified version of guidelines prescribed as per G.O. (MS) 122/84/Home (H)
Dept, Trivandrum, dated 04-09-1984)**

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I) Introduction :

Medical Officers who are authorized to conduct a medico legal autopsy are directed to go through the following guidelines. They are advised to refer a standard textbook to understand the procedure and technique of conducting the autopsy. A meticulous external examination and a detailed internal examination must be carried out in every case with the following objectives in mind.

- (a) To find out the cause of death.
- (b) To find out the approximate time since death.
- (c) To help establish the identity of the deceased, in cases where it is unknown.
- (d) To find out the position of body after death.
- (e) To collect relevant information to assist the investigating Officers to arrive at a conclusion whether death is accidental, suicidal or homicidal.
- (f) In case of infants whether it is live born / still born / dead born and if live born the period of survival and the cause of death.

II). Procedural Formalities:

- 1) The examination can be undertaken only on receipt of a written requisition in the prescribed form (K.P.F. No. 102) from a competent authority (Police Officer / Magistrate).
- 2) An extract of the inquest report, relevant to post-mortem examination, should be insisted upon along with the requisition.
- 3) In cases with a history of treatment of any sort before death, the case sheet should be perused and relevant points regarding findings at admission, results of investigation, treatment given, surgical and other procedures performed etc., should be noted in the detailed notes.
- 4) Clothes and other material objects found on the body are to be asked for, in all cases where examination of such material objects may help in attaining any of the objectives of autopsy.
- 5) A receipt should be issued to the charge police constable, for the dead body received for postmortem examination (For example from See Annexure - I).

- 6) The Police Constable in charge of the dead body should be made to identify the dead body as that of the deceased person involved in the particular crime and for which the requisition is obtained.
- 7) Examination should be undertaken as early as possible.
- 8) No unauthorized person shall be allowed to enter the post-mortem room.
- 9) The autopsy findings are to be recorded then and there in the post-mortem detailed notes.
- 10) Postmortem certificate incorporating the relevant findings is to be prepared in quadruplicate. The original is to be dispatched to the concerned Court and copy to the concerned investigating officer. (For example from See Annexure - I).
- 11) Viscera, blood and urine are to be preserved in suspected cases of poisoning and if the cause of death of uncertain. These material objects are to be dispatched to the Chemical Examiner to the Government (For example form – See Annexure - I).
- 12) Bits of relevant internal organs are to be preserved in Formalin when death is suspected to be due to natural disease. These samples are to be sent to the Pathology Department of the nearest Medical College or General/District hospital, where there is facility for Histo-pathological examination, through police. The medical officer in charge of the Pathology Department of the particular institution to which such request is made, shall not refuse to undertake such request for histo-pathological examination, on any reasons and should undertake such examination free of any sort of fee. The report of histo-pathological examination from the Pathology Department, need not be submitted to the Investigating Police Officer or concerned Court. The doctor who requested such histo-pathological examination should prepare a report incorporating the findings and conclusions of the examination. Issue of this report should be in the same line as that of Postmortem Certificate.
- 13) Sample of blood is to be collected for purposes of grouping in murder cases. A filter paper can be used for this purpose. In institutions with facility for blood grouping, such as blood bank etc, the grouping should be done there itself, with 5ml of blood collected in glass bottle. In the event of the result of such examination being inconclusive, the shade dried, filter paper sample need to be handed over to the investigating officer.

- 14) In cases where the viscera are preserved for chemical or histo-pathological examination, the cause of death can be reserved pending the results of such examinations. Upon receipt of the results of laboratory investigations, the final opinion is to be furnished on the basis of the postmortem examination and laboratory findings (For sample form – See Annexure - I). However, if the Medical Officer finds and identify a particular type of poison in the stomach and if he is convinced that the findings of the postmortem examination are consistent with death due to the particular type of poison and also if he can reasonably rule out other causes of death, possible within the limits of a complete medico-legal postmortem examination, he can furnish the opinion as to cause of death as consistent with poisoning, with the particular type of poison. E.g., Insecticidal Poisoning, Corrosive Acid Poisoning etc.
- 15) As per the provisions of sec.161 of Cr.P.C., the Medical Officer is bound to give a statement regarding the autopsy findings to the Investigating Officer, immediately on completion of the postmortem examination (162 statement). Expert opinion furnished with reference to the case is to be recorded in the detailed post-mortem notes for future reference.
- 16) All documents and material objects connected with post-mortem examination are to be kept under safe custody to avoid loss and to prevent tampering.
- 17) Post-mortem findings are to be kept strictly confidential. The legal heirs of the deceased can however claim the fourth copy of the postmortem certificate provided the Investigating Officer or the Court issues a no-objection certificate to this effect. A fee of Rs.25 has to be remitted to the Government by the legal heirs for obtaining the copy of the certificate.

III). General Guidelines :

- 1) Adequate protective measures in par with the specifications of Universal Precaution should be adopted.
- 2) Make sure that necessary entries are made in the Postmortem Register and the signature of the charge police constable is obtained.
- 3) All postmortem examinations should be serially numbered, in every calendar year and the number/year and date of examination should be entered in the detailed notes and should be recorded at the top end of the postmortem certificate(e.g. 01/08 Dated 01-01-08).

- 4) All the columns in the front page of the detailed notes (For sample form, See Annexure - I) should be properly filled in with a view to recording the same in the pre-amble portion of the postmortem certificate (For sample form, See Annexure - I), under the main heading POSTMORTEM CERTIFICATE.
- 5) Make a complete and thorough external examination, as per the guidelines enlisted hereafter under subheading **A. General** and they should be recorded in the postmortem certificate under subheading A.General.
- 6) If there are ante-mortem injuries on the body, they should be described in detail in the postmortem certificate, under subheading Injuries (Ante-mortem), as per the guidelines enlisted hereafter under subheading **B.Injuries (Ante-mortem)**.
- 7) In cases of death due to neck violence (Hanging, Strangulation etc), neck findings should be recorded in the postmortem certificate under subheading Neck, as per the guidelines enlisted hereafter under subheading **Cases of Neck Violence**. If there are ante-mortem injuries in such cases of death due to neck violence, on areas other than neck, they should be described in the postmortem certificate under separate subheading Injuries (Ante-mortem), as per the guidelines enlisted hereafter under subheading **B.Injuries (Ante-mortem)**.
- 8) If there are postmortem injuries on the body, they should be described in detail and in the same manner prescribed for ante-mortem injuries, under a separate subheading Injuries (Postmortem) and each injury should be serially numbered.
- 9) In cases where the identity of the deceased is unknown, identifying features should be recorded under a separate heading Identifying Features, as per the guidelines enlisted hereafter under subheading **Identifying features in cases of Unknown Identity**.
- 10) In cases where there are no injuries, either external or internal, on any part of the body including the neck region, after recording the findings of external examination under subheading A. General, findings of internal examination should be recorded in detail, under subheading B. Internal. In cases where there are injuries on the body, or neck findings, which are to be recorded under a separate subheading B.Injuries or B. Neck, the findings of internal examination may be recorded under subheading C. Other findings.

- 11) Opinion as to cause of death should be furnished in par with the internationally prescribed norms. Asphyxia should not be given as the cause of death in any case, because it is a mode of death and not a cause of death.
- 12) In death due to injury/injuries, the cause of death should be furnished as due to the particular injury/injuries. The injury/injuries noted by the doctor should be sufficient to cause death in the ordinary course of nature when cause of death is furnished as due to the particular injury/injuries. When death occurred after some period extending to days, weeks or months of sustaining the injury and not due to the direct effect of injury, but due to one or other complications of injury, opinion as to cause of death should be furnished as due to the complications of injury/injuries sustained. The dictum to be followed in such cases is that, whether the person would have led a normal life, but for the injury.
- 13) In cases of unnatural deaths where asphyxiation is the predominant mode of dying, like hanging, poisoning, drowning etc., the cause of death may be furnished in any of the three following manner :-
 - a) When there are all the conclusive or pathognomonic signs or findings of death due to a particular cause of death and the possibility for all other causes of death can be reasonably ruled out within the limits of a complete medico-legal postmortem examination, opinion as to cause of death should be furnished as the deceased died due to the particular cause of death.
 - b) When there are some findings or signs of death due to a particular cause of death and the possibility for all other causes of death can be reasonably ruled out within the limits of a complete medico-legal postmortem examination, opinion as to cause of death should be furnished as postmortem findings are consistent with death due to the particular cause of death.
 - c) When there are no findings or signs of death due to the alleged cause of death and the possibility for all other causes of death can be reasonably ruled out within the limits of a complete medico-legal postmortem examination, opinion as to cause of death should be furnished as postmortem findings are not inconsistent with the history of death due to the alleged cause of death. In such cases, viscera and other material objects as may be necessary to rule out other possibility, should be mandatorily preserved.

- d) Whenever opinion as to cause of death is reserved pending the results of chemical analysis or other such examinations, the causes of death that were ruled out by medico-legal postmortem examination should be incorporated in the opinion part.
- 14) When there are findings of more than one category of cause of death, both or all sufficient to cause death independently in the ordinary course of nature, both or all have played their role in the causation of death and the examiner is unable to decide as to which is the terminal event, he should furnish the opinion as to cause of death as due to combined effects of both or all other causes of death.
- 15) Postmortem certificate should bear, just below the opinion, the signature and name of doctor who has conducted the examination, his/her designation and the name of Institution, recorded in a legible manner, at the right-hand bottom portion. At the left-hand bottom portion, date and place should be recorded. Postmortem certificates are written on the day of postmortem examination itself and hence, date recorded at the bottom should be the same as that of the date of postmortem examination. Office seal of the Police Surgeon / Department / Institution should be mandatorily affixed at the bottom portion of the certificate. When there is more than one page for the postmortem certificate, each page should be serially numbered and each page should bear the signature, name and designation of the doctor and office seal of the institution.

A. General

1. The clothes are examined for evidence of injury, struggle and stains and handed over to the investigating officer after examination.
2. Bloodstains, seminal stains, mud, sand other foreign particles present on the body are described.
3. Features of identify such as age, sex, height, weight, nutrition, complexion, hair, mole, tattoo, marks, dental details, deformities, personal belongings etc. are described in detail in cases where the identity has not been established.
4. Eyes are examined with specific attention to whether closed or open, black eye or injuries, cornea, conjunctivae and pupils.
5. Other orifices (nostrils, ears, mouth, urethra, anus and vagina) are examined for discharge, foreign bodies, injuries and other abnormalities.

6. Colour of nails is noted.
7. Venous puncture marks, semicircular contusions of external cardiac version etc., suggestive of treatment prior to death should be noted.
8. Bite marks should be noted in cases due to alleged snakebite.
9. All external findings that can be expected in death due to different types of cause of death, as described later, should be noted.
10. Evidence of sexual assault is looked for in female dead bodies (a) vulva and vagina examined for presence of injury, semen, foreign body etc. (b) Hymen examined for recent / old tear (c) Vaginal swabs collected to look for semen and also for DNA fingerprinting.
11. State of rigor mortis and its distribution are noted.
12. Post-mortem staining is noted with reference to its extent, position, and the state of fixation.
13. The degree of decomposition, if present, is observed and indicated as shown below :
 - (a) Greenish discolouration of right iliac fossa.
 - (b) Greenish discolouration of entire abdomen and chest.
 - (c) Distension of abdomen
 - (d) Marbling of skin
 - (e) Protrusion of tongue and eyeballs.
 - (f) Blood stained forth at the mouth and nostrils.
 - (g) Blisters and peeling of cuticle
 - (h) Bloating of face, neck, breast/penis, scrotum /vulva
 - (i) Regurgitation of stomach contents.
 - (j) Prolapse of rectum and faecal discharge.
 - (k) Prolapse of uterus and expulsion of foetus.
 - (l) Maggots.
 - (m) "Degloving"
 - (n) Loosening of hair
 - (o) Loosening of nail
 - (p) Collequative putrefaction
14. Surgical intervention and other such therapeutic procedures are identified and described by referring the clinical notes.

15. Presence of Adipocere/mummification is looked for and described if present.

B. Injuries (Ante-mortem)

- 1) All injuries (ante-mortem and postmortem) are examined in detail, using magnifying glass whenever necessary.
- 2) All injuries should be serially numbered. External and internal injuries should be recorded under separate subheading and numbered separately.
- 3) The prescribed pattern of recording of injuries in the sequence of type of injury, size, placement (vertical, transverse, oblique etc.), site of injury and distance from anatomical landmarks. Whenever necessary, other details of injuries like direction, edges, ends, surrounding area, foreign bodies etc. are described.
- 4) All injuries should be marked in the diagram, provided in the details notes.
- 5) If injuries are not fresh, color and appearance of scab, stage of scarring etc., should be noted. If infected colour, smell etc of slough should be noted.
- 6) Internally, if there is collection of blood in any of the body cavity, caused by the injury, the quantity of blood should be measured. If there are clots, the weight of such clots should be measured.
- 7) If the injuries are fresh, it should be noted in the postmortem certificate, at the end of detailed description of injuries. If the injuries do not appear fresh, their approximate age by appearance should be noted.

(C) Internal Examination

1. An incision from top of one ear to the top of other ear is made.
2. Scalp is reflected towards front and backwards and examined for injuries, mainly contusions.
3. The vault is examined for fracture. The type of fracture is described in detail. The vault is removed, ideally using an autopsy saw.
4. The dura is examined for tear. Extradural hemorrhage, if present, is measured and described.
5. Incision is made on dura on the front and sides, along the removal of skullcap, and the dura is reflected backwards.
6. Subdural and subarachnoid spaces are examined for collection of blood/fluid/pus.

7. Appearance of the leptomeninges the described.
8. Brain is removed and examined by dissection, for the following :-
 - (a) Signs of increased intracranial tension – Flattening of gyri, obliteration of sulci, herniation of tonsillar part, tentorial grooving.
 - (b) Basal vessels are examined and described.
 - (c) The substance of brain is examined for softening, injury, haematoma, tumour, cyst and infection.
9. Stripping of the dura is done and fractures in the base of skull if any, described in detail.
10. Midline incision from chin to pubis is made, avoiding the umbilicus.
11. Skin is reflected to either side and subcutaneous tissues of neck are examined for any blood infiltration.
12. Skin and soft tissues on front of chest is examined for the presence of contusions, blood infiltrations or any other injuries. Pneumothorax if suspected is tested before opening the chest wall.
13. Peritoneal cavity is opened, holding left index and middle fingers of the examiner inside the peritoneal cavity and cutting the abdominal wall between them so as to avoid injury to abdominal viscera.
14. Blood, fluid, pus or any other such content of the peritoneal cavity is described and measured. Coils of intestines are examined in situ.
15. The proximal end of the free portion of duodenum is cut and the entire coils of small intestine followed by large intestine are removed.
16. Stomach and its contents are removed together, ideally cuts at both ends being made between ligatures.
17. Sterno-clavicular joints are cut followed by the costal cartilages on both sides and sternum is removed. Fluid, blood or any such contents present in the chest cavities are measured and described.
18. Diaphragm is cut along the costal margins up to its attachment to spinal column.
19. The floor of mouth is cut along the inner border of lower jaw and the tongue is caught hold of. The neck structures are released from their attachments, pleural

ligaments on either side cut and the neck structures along with the entire thoracic and remaining abdominal viscera is removed en mass (En mass evisceration). Dissection is done after separating the individual organs in the prescribed scheme.

20. The spinal column, rib cage, abdominal cavity, pelvic cavity and bony pelvis examined for injuries or other abnormalities.
21. Pharynx and larynx are examined for injuries and presence of foreign bodies.
22. Neck structures including hyoid bone, thyroid and cricoid cartilages and tracheal rings are examined to look for evidence of extravasations of blood, fracture and other injuries. The type of fracture of hyoid bone (abduction / adduction) is noted.
23. Oesophagus is opened and examined for presence of varices, corrosion and other abnormalities.
24. Air passage is exposed and examined for presence of soot, sand, mud, weed, forth etc., up to the smallest division.
25. Lungs are examined with reference to weight, volume, and consistency. Congestion, edema, natural disease and injury.
26. Contents of the pericardial sac are measured and described.
27. Heart is examined in details and the following are noted;
 - (a) Weight
 - (b) Condition of walls, chambers and valves.
 - (c) Coronaries are examined by serially dissecting at 5mm. Intervals to locate thrombus, atheroma and hemorrhage Patency / occlusion of lumen is described. The entire heart is preserved in Formalin after dissection for microscopic examination when cardiac pathology is suspected.
 - (d) The presence of air embolism / thrombo embolism is looked for in suspected cases indicative of them.
 - (e) Condition of aorta and its branches is carefully described.
28. Liver, Spleen, kidneys, pancreas and adrenals are dissected out and examined for evidence of natural disease, injuries and poisoning.

29. Stomach removed is dissected. The contents are examined and described as to the nature, degree of digestion, smell, foreign particles, colour and quantity, condition of stomach wall is described.
30. Urinary bladder is opened and urine is measured and described.
31. In females, uterus and its appendages are dissected out. Evidence of pregnancy / miscarriage, if any is looked for and described.
32. Testicles are exposed and examined for injury and disease.
33. No internal organ is left undissected and unexamined.
34. Skeletal system is examined for evidence of violence. The stage of repair is noted.
35. Organs, which warrant microscopical examination, are collected and preserved in formalin.
36. Viscera, blood and urine may be preserved in cases of suspected poisoning, alcoholic intoxication and if the body is decomposed.

Poisoning Cases.

1. Any Special smell in the body and viscera is recorded.
2. Colour of postmortem staining is described.
3. Nature of forth is described.
4. Colour of sclera, lips and nails is noted.
5. Mouth and surrounding area are examined for presence of corrosion.
6. Injuries, suggestive of forceful administration of poison, are looked for especially circum-oral region with special reference to nail marks, inner aspects of lips and cheeks, neck region and the limbs to look for evidence of attempt to restrain the victim.
7. Fang marks/ injection marks are noted and tissues from the site are preserved in rectified spirit for analysis.
8. The G.I tract is examined in detail. Description of stomach (Nature of wall, colour, corrosion, ulcers, hemorrhage, perforation) and contents (nature, colour quantity and smell) are entered in the post-mortem notes.
9. The following viscera are collected for purpose of chemical analysis:-

- (a) Stomach in full and 30 cm. of upper part of small intestine with their contents.
 - (b) 500 gm. of liver and half of each kidney.
 - (c) Blood (5-10 ml)
 - (d) Urine (30 ml.)
10. Preservative is added to the bottles [saturated sodium Chloride solution for item (a) and (b) and sodium fluoride (100 mg / 10 ml) for item (c) and (d)]. Labels are pasted on the bottles and sealed.
 11. Sample of preservative and wax seal impression together with a copy of label on the viscera bottles are forwarded to the Chemical Examiner.
 12. The viscera are forwarded to the Chemical Examiner to Government in accordance with the stipulations of Kerala Chemico – legal Examination Rules, 1959 as amended up to 30-6-1983 (For sample form see Appendix III & IV)

Hanging / Ligature Strangulation

1. Salivary dribble marks are looked for and their position, extent and direction are described.
2. Condition of eyes and pupils is described.
3. Colour of lips and nails is mentioned.
4. Position to tongue recorded.
5. Distribution of postmortem staining is described and condition of fixation is assessed. Stasis petechiae on lower limbs if present, should be noted.
6. Injuries present on the body are described and correlated whether or not they can be resulted during the process of suspension.
7. Bloodstains on the body are described and their source is located and recorded.
8. The ligature material is described as regards its nature, position and type of knot, circumference of loop length of short and long free ends, foreign bodies, stains etc. The materials are returned to the investigating officer without disturbing the knot. A recommended pattern is "Ligature made of is seen tightly/loosely around.....part of neck with a(type of knot) onside, the long free portion measuring.....cm, short free portion.....cm and portion around neck.....cm.

9. The ligature mark is described in detail with reference to its pattern, nature, direction, extent (complete or incomplete) and correlated with the material if available. The situation of the mark is measured in relation to chin, ears and occipital protuberance. The recommended pattern is “ A pressure abrasion withbase (dry, parchmented, pale etc.,) and of sizex.....to.....cm (e.g. 25x1 to 2cm) was seen coursing upwards and backwards from at and above / at / at and below thyroid cartilage in midline front of neck,cm below chin (breadth....cm) to its right end atcm behind right ear lobule (breadth.....cm) and to its left end atcm behind left ear lobule (breadthcm0
10. Neck is dissected in detail in “bloodless field”. Here brain is removed as described earlier. Thoracic and abdominal viscera are removed by a midline incision from sternal notch to pubis. This leaves the neck region almost free of blood retained in the vessels. Then the neck structures are removed and examined, as described earlier. Soft tissues are examined for injuries and extravasations of blood. Hyoid bone, thyroid cartilage, cricoid cartilage and tracheal rings are examined for fracture and described. Injury to cervical spine and cord is looked for.
11. Internal organs are examined for the presence of injury, disease and poison.
12. Viscera may be preserved in suspicious cases, cases of suspected poisoning and in advanced decomposition.

Bodies recovered from water

1. Signs of submersion – soddening, washerwoman’s hand and feet cutis anserine, etc., are described.
2. Froth at the mouth and nostrils are described as regards its nature, colour, quantity.
3. Presence of cadaveric spasm is looked for.
4. Injuries on the body are described for reconstruction purposes.
5. Air passage is opened and searched for particles of sand, mud, weed and other foreign material up to the smallest division possible.
6. Lungs are examined in detail as regards the weight, turgor spots, and appearance in general and on cut section.
7. Fluid in the chest cavities is measured and described.
8. Stomach and intestines is examined and its contents are described, especially with reference to the alleged drowning medium.

9. All the internal organs are examined for presence of injury, disease or poison.
10. Viscera are collected for chemical analysis in decomposed bodies and if the cause of death is uncertain. Bone marrow of sternum should be preserved for diatom test. In decomposed dead bodies without any positive evidence of drowning, bone marrow should be mandatorily preserved.

Burns Cases

1. Smell of kerosene/other inflammable agents on the body and clothes is recorded.
2. Pugilistic or partial pugilistic attitude of the body, if present should be noted.
3. Singeing of hairs, soot staining and deposition of carbonaceous particles on teeth, soot staining of discharge from nostrils etc., may be described in detail.
4. Nature of burn (ante-mortem / postmortem) decided by observing vital changes.
5. The extent of burns and its degree are described. Peeling of cuticle, extent of charring, heat ruptures etc., should be noted.
6. Age of the burn is ascertained from the stage of healing.
7. Injuries other than burns are described in detail.
8. Colour of post-mortem staining is described.
9. Air passage is examined for the presence of soot particles using a cotton swab.
10. The colour of blood is described. If necessary, blood may be preserved to look for carboxyhaemoglobin.
11. Evidence indicating poisoning, pregnancy, abortion, sexual assault, natural disease is noted and preserved.
12. Charred remnants of skin, cloth, hair etc., may be preserved to look for inflammable substances and the products of their combustion.

Abortion

1. Evidence of pregnancy (size of uterus, uterine contents, breast changes etc...) is established.
2. Period of gestation is assessed by examining the size of the uterus and development of the products of conception.
3. Evidence of mechanical interference for procuring abortion is noted and preserved.
4. Evidence of toxic substances used for inducing abortion is looked for. The uterus, vagina and their contents may be collected and preserved for chemical analysis.
5. Evidence of sepsis, emboli and other complications of abortion is looked for.

Traffic Accidents

1. Injuries are measured and described.
2. The position of injuries in relation to the heel is noted for reconstruction purposes.

3. Foreign particles found on the body are collected and preserved.
4. Samples of blood and urine should be preserved for analysis, in all cases death within twenty four hours of the accident.
5. Eyes are examined for evidence of defective vision.

Examination of Foetus / New Born Infant

1. Clothes and other wrappings are examined & handed over to investigating Officer.
2. Vernix caseosa if present, should be looked for.
3. Look for findings, which may suggest assisted delivery, hospital delivery or unattended delivery.
4. Postmortem changes are described in detail.
5. Signs of maceration / mummification are looked for and described.
6. Congenital malformation (if any) is noted.
7. Umbilical cord is examined with reference to ligature, signs of inflammation and mummification.
8. The details of placenta (if present) are described.
9. The caput succedaneum is searched for and located.
10. Marks of violence when present are described.
11. Intra uterine age of the foetus is ascertained by observing the following:-
 - (a) Crown heel length is measured and the age is estimated applying Hesse's Rule.
 - (b) Weight of the foetus.
 - (c) The extent of nails in relation to finger tips.
 - (d) The length and texture of scalp hair.
 - (e) Presence / absence of eyebrows and eyelashes.
 - (f) Condition of eyelids – adherent / open.
 - (g) Position of testicles in case of males.
 - (h) Ossification centre in the lower end of femur, upper end of tibia, manubrium, body of sternum, calcaneum, talus and cuboid.
12. Scalp is examined for bruising.
13. Skull bones examined for fracture.
14. Brain and meninges are examined and described.
15. Air passages are examined for foreign bodies.
16. Hydrostatic test is performed and inference recorded.

17. The lung examined with reference to its weight, colour, consistency, edges crepitation, collapse, consolidation and mottling.
18. Stomach is examined for the presence of milk.
19. Intestine is examined for the presence of meconium.
20. All internal organs are examined to locate evidence of violence, poisoning and natural disease.
21. Bits of lungs are preserved in 10 % formalin for histopathological examination in cases where a definite opinion is not formed from hydrostatic test.
22. Viscera are preserved in suspected cases of poisoning and if the cause of death could not be established in live born babies.

Fire Arm Injury Cases.

1. Clothes of the deceased are examined and described with reference to injuries, burn marks, blackening, tattooing stains due to grease, mud, blood, etc. Examinations is made with due precautions to prevent loss of trace evidences.
2. Clothes are returned to the investigating officer with directions to submit them to Ballistic section of Forensic Science Laboratory.
3. The dead body is subjected to radiological examination, wherever facilities permit, to locate the bullet / pellet.
4. Presence of Cadaveric spasm is looked for.
5. Hands are examined for presence of gunpowder residues, swabs from the hands are collected and preserved for chemical tests before washing the body.
6. Bloodstains on the body are described to the extent of their position, area involved, directions of flow etc.
7. Foreign bodies found on the body are clearly described and preserved.
8. The injuries found on the body are examined in detail with reference to
 1. Number
 2. Size
 3. Shape
 4. Situation
 5. Edges
 6. Surrounding skin for abrasion collar, grease collar, burning, blackening, tattooing and blast effects.
 7. Diameter of dispersion of pellets in case of shotgun / country gun wounds.

8. Direction of wound track.
9. Foreign bodies – Wad, bullet / pellet.
10. Colour of subcutaneous tissues and muscle.
9. Skin around the wound is dissected and preserved in rectified spirit for transmission to ballistic section of Forensic Science Laboratory.
10. The projectiles (bullet, pellet, fragments) found in the body are collected with due care to avoid scratches by picking them with cotton wool.
11. An identification mark is put at the base of the bullet for future reference.
12. No effort is made to clean the bullet / pellet and they are packed and labeled before handing over to the Investigating Officer for transmission of Forensic Science Laboratory.

Identifying features in cases of Unknown Identity :

- 1) Clothes and available personal belongings should be thoroughly examined for any documents or such other things, which may give a clue to the identity of the person.
- 2) Tailor marks, dhobi marks etc., on the cloths should be examined.
- 3) Height, build and nourishment and complexion should be noted.
- 4) Hairs on the scalp and body should be described. Length of hair, appearance (whether curly, straight, etc.), percentage of graying, type of growth (whether thick, thin or sparse etc.), pattern of baldness if present and all such details should be noted with regard to hairs on scalp, face, front of chest and pubic region. Any peculiar feature that might attract the attention of others, if present may be described.(e.g., hairs growing from pinna of ears, thick upward growth of hairs on front of chest, beyond the sternal notch etc.).
- 5) Dentition should be described in detail, in the prescribed manner. Any peculiar feature that may attract the attention of others like, forward protrusion of front teeth, malalignment of any front teeth, broken teeth in front row etc., may be noted. Degree of attrition and periodontosis of teeth may also be noted.
- 6) Ear lobules or nostrils, if punctured, the same should be noted.
- 7) Tattoo marks, scars of injury or surgical procedures, callosities etc., if present, should be noted.
- 8) Any particular feature, which may suggest the occupation of the person, if present, should be noted.
- 9) Condition of nails whether grown, trimmed, irregularly trimmed etc., should be noted.

- 10) Any particular features which may suggest the habits of the person, like tobacco or pan staining of teeth, multiple dot like scars of venous or dermal puncture in drug addicts etc should be noted.
- 11) Whether circumcised or not, should be noted.
- 12) In females, striae gravidarum, scar of PPS etc., should be noted.